

RAJIV GANDHI PROUDYOGIKI VISHWAVIDYALAYA

(State Technological University of Madhya Pradesh)

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UNIVERSITY ACCREDITATION

SELF STUDY REPORT

SUBMITTED

TO

NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL

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SELF STUDY REPORT

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PREFACE

It is a matter of proud privilege for Rajiv Gandhi Proudlyogiki Vishwavidyalaya, Bhopal Madhya Pradesh to present itself for Assessment & Accreditation by the National Assessment and Accreditation Council (NAAC) – a premier organization for assessment and accreditation of institutions of higher learning in India. Rajiv Gandhi Proudlyogiki Vishwavidyalaya was established in 1998 with a vision to nurture a holistic environment for practical and innovation based learning among technical students. Glorious eighteen years of the RGPV are adorned with many laurels. In the quest for excellence in research, several initiatives to inculcate research culture among students have been taken including signing of MoUs with leading Universities and Industries around the world for sharing mutual expertise and to discuss new potential for innovations for fostering global research. The University has also availed the benefits of Faculty Recharge Program under UGC. To promote excellence and quality in research, the University has created a ‘University Research and Innovation Fund’ of Rs. 100 million and has constituted the ‘Best Publication Award’ for students and faculty.

The University has taken up several initiatives to support meritorious and economically challenged students by constituting scholarships like Chancellors Scholarships, and Research Fellowships. Recently, University has tied-up with Tokyo Institute of Technology, Japan for Joint Research in the area of Cross Linear Concentrated Solar Power Project (a solar thermal initiative) on its campus. Researchers from the School of Pharmaceutical Sciences have also marked an unprecedented discovery followed by patents filing for novel anti-cancer molecules and also for bio-degradable Medicated Chewing Gum (MCG).

To promote entrepreneurship among students, University has setup a Venture Capital Fund of Rs 100 million.

In order to accomplish its mission of proliferating quality technical education to the remotest of areas, RGPV has set up two new technical Institutes in distant locales of Shahdol and Jhabua with a significant tribal presence.

The University envisions producing globally competent, technically tempered and socially responsible technical manpower to meet the ever-growing global challenges. The University is proud to become a leading technical University with affiliating character to implement CBCS for all its undergraduate programmes. Further, RGPV is the only University in the state of Madhya Pradesh to conduct ‘Technical Teachers Eligibility Test’ on national basis for recruitment of teachers in its affiliated colleges. Introduction of ‘Online Practical Examination’ under CBCS is another feather in the cap of the University. Hon’ble President of India, Shri. Pranab Mukherjee showered his

blessings on the University as Chief Guest at the 8th Convocation.

The University considers accreditation by NAAC as an opportunity to assess its modest achievements and to identify the deficiencies. The Coordinating Team for NAAC at RGPV has kept highest priorities on sharing the true and relevant information in its SSR. The University looks forward to the visit of eminent panel of the NAAC Peer Team to showcase the ground reality and physical infrastructure documented in this report.

Date: 27 April 2016

Prof. Piyush Trivedi
Vice Chancellor
RGPV, Bhopal

EXECUTIVE SUMMARY

CRITERION I - CURRICULAR ASPECTS

1.1 Curriculum Design and Development

Rajiv Gandhi Proudhyogiki Vishwavidyalaya (RGPV) was established under the Rajiv Gandhi Proudhyogiki Vishwavidyalaya Adhiniyam, 1998 to promote quality technical education in the state. The University offers many undergraduate, post-graduate and dual degree programmes in diverse fields of engineering, science, and technology. The University is committed towards offering programs with global impact with a vision to broaden access to quality technical education while ensuring social, financial, gender equity and promoting excellence in teaching and research. University's firm commitment towards its vision and mission is reflected in many initiatives like implementation of Choice Based Credit System (CBCS) for all its undergraduate programmes in Engineering, Pharmacy and Architecture; setting-up of new Institutes offering diverse academic programs in distant locales of Shahdol and Jhabua; MoUs with leading Universities and Industries around the world for sharing mutual expertise and to discuss new potential for innovations; on-campus finish Schools and Corporate Schools; establishment of Research Centers across the state; conduction of Teacher's Eligibility Test as a qualifying examination for recruiting as teacher in its affiliated institutes. Besides, University also encourages dynamic curriculum based on the needs of today's ever changing world.

University invites inputs from stakeholders like industry, academia, professional bodies, research organizations, faculty members, alumni and students while framing a new syllabus. Board of Studies and Academic Council meetings are frequently organized for framing, reviewing, and updating syllabi and introducing new courses of study. The guidelines prescribed by UGC/MHRD/AICTE/PCI are given due considerations in the designing of syllabus.

University also follows outcome-based methodologies towards confirming Employability, Innovation and Research through curriculum development. Employability of students through curriculum is ensured through Finish Schools as conceptualized by the University to produce industry-ready students. The University has signed MoU with DAUTO Engineering Pvt. Ltd., Bhopal to acquaint mechanical and automobile engineering students with job-oriented modern design technologies. University has signed number of MoUs with corporate houses such as EMC Corporation and IBM to establish Corporate Schools in its campus. These Schools help in imparting training and offering many job-driven certification courses in emerging areas of Science and Technology such as Big Data and Cloud Computing to students on in-

trend technologies of industries. University in collaboration with IBM, USA has established 20 Centers of Excellence to disseminate industry-specific knowledge and skills among students. University regularly organizes expert lectures, workshops, symposia, seminars, talks from invited experts from industries. Courses are designed to address key-skills i.e. analytical, vocational and entrepreneurial skills for all around development of students.

The University encourages students to become self-reliant through entrepreneurship and has set-up a Venture Capital Fund of Rs. 100 million. The University promotes active learning by encouraging students to indulge in self-learning and make presentations on emerging areas. The University provides financial assistance to boost research and innovation amongst students. The University has thus created a 'Research and Innovation Fund' of Rs. 100 million. Cost of patent filing is borne by the university.

The University offers a flexible learner-driven curriculum aims at achieving outcomes through innovative thinking. Courses are designed to stimulate creativity and critical thinking among students. Every year, University rewards the best project and best research paper in different faculties. As per the UGC Regulations 2009, University has executed a new Ordinance no. 11 with a provision for Ph.D. entrance test followed by coursework. The University adheres to the regulatory frameworks and guidelines laid by the statutory bodies like UGC/MHRD/AICTE/PCI for its Engineering and Pharmaceutical courses. Model syllabus approved by AICTE and PCI are always referred to and adopted with suitable modifications as per the needs.

In past four years, University has organized many industry-academia meets, which culminated into introduction of PG Programs such as Data Science and Cyber Forensics. In order to propel growth and development of affiliated institutions, the University periodically motivates them to exercise academic and administrative leadership through introduction of new courses adhering to the mandates of relevant regulatory bodies. On receiving the application for introduction of new course, the University constitutes a Committee of Experts to visit the institute and physically verify the claims. Based on the recommendations of Committee, the University nods to the applied course and forwards to the representative Board of Studies for framing of the syllabus.

1.2 Academic Flexibility

With a vision to harnessing the demographic dividend, the University offers many skill-centric programmes in its affiliated institutions. The University has identified region-specific programmes such as mining courses at UIT Shahdol and UIT-Jhabua, and Cement Technology at Satna Polytechnic; based on the local needs and opportunities. Besides, the University also conducts workshops, seminars, symposia and entrepreneurship programs to infuse self-

reliance among students. Skill-oriented programmes are also offered to the students as electives under the CBCS scheme. Departments of UIT, UTD's have academic flexibility through complete autonomy in curriculum design and reforms. Presently the University has established UIT and UTDs on campus and offers 24 PG, 8 UG and 4 Diploma Courses in different areas of Engineering, Pharmacy and Science. Besides, UIT and UTD's also offer Ph.D. programme in the respective and allied disciplines. Whereas in affiliated institutions, University offers, 84 PG and 23 UG Courses in different areas of Engineering, Pharmacy, Architecture and Science.

The University has also recognized research centers at affiliated institutions to facilitate the doctoral students to pursue their Ph.D. A number of programs offered by the University are in sync with the global needs and opportunities. The well designed courses offered by the University are likely to attract international student community. University also offers Dual Degree Programmes on the campus and also in affiliated colleges.

1.3 Curriculum Enrichment

The University makes periodic revision of existing programs and curricula based on the current trends in industry and research. For this the University conducts seminars, workshops, symposia and expert talks to gather feedback regarding their relevance and appropriateness in catering to the needs of the society, economy and environment.

The University in consonance with requirements outlined by NSDC has introduced several higher order skill development programmes especially in the field of Information Technology (IT) as well as IT Enabled Services (ITes). In this regard, University jointly with IBM and EMC Corporation offers certification courses on demand-driven job-oriented programs on Cloud Computing, Information Storage Management, Big Data, and Data Analytics.

1.4 Feedback System

Feedback is regularly obtained from students in the form of e-mails, online surveys, alumni-meets, and informal conversations. The feedback thus obtained is considered by the respective BoS while reviewing/revising the syllabi.

The Vice Chancellor also nominates a student representative as a member on each Board of Studies. University from time to time organizes national and international seminars, and workshops inviting many national and international faculty for eliciting feedback on curriculum.

The University welcomes feedback on curriculum enrichment from affiliated

institutions through meetings, online feedbacks, postal correspondence, and time to time visits of University team to affiliated institutions. For quality sustenance and quality enhancement, the University has constituted a vibrant Internal Quality Assurance Cell (IQAC) for reviewing, designing, proposing and implementing suitable quality measures adhering to the norms laid down by the regulatory bodies, the IQAC from time to time conducts academic audits to ensure academic quality, 'RGPV Service Portal' is a significant e-governance initiative to infuse responsible, accountable and transparent system.

CRITERION II – TEACHING-LEARNING AND EVALUATION

2.1 Student Enrolment and Profile

To ensure publicity, availability of seats in every discipline is clearly advertised through print as well as electronic media. Print media includes reputed newspapers of national as well as state level with significant circulation, both in Hindi and English. The University also maintains transparency by uploading advertisements, program details, fee details, eligibility criteria, admission procedures, and reservation and age-relaxation policies for SC/ST/OBC/Women, differently-abled candidates, different schemes, merit-lists and e-notices on the University's web-portal.

The University also releases important instructions for candidates reporting for PG admissions. The University also declares information regarding cancellation of admission and fee refund details clearly with the advertisement.

Admissions to various programs are made as per the guidelines by the government of Madhya Pradesh.

The University also follows inclusive policies by extending the support to backward classes of the society by following the directions of the Government issued from time to time regarding statutory reservation policies, by exempting from application fees, offering scholarships, organizing extra-competence classes, preparatory classes for students from weaker sections of the society etc.

2.2 Catering to Student Diversity

The University organizes orientation program for the newcomer students. This is a one-week program covering wide-ranging issues such as sensitizing students about the university's vision and mission, university's policies about students' welfare, anti-ragging and women safety. Other issues such as financial assistance and centralized facilities are also covered in this program.

In order to analyze their differential requirements, the university from time to time conducts surveys to identify different groups of students on the basis of their learning capabilities and uses this data to plan preparatory classes for these students. University also appoints a student-counselor to discuss, understand and resolve day to day problems faced by the students.

The University offers remedial classes for SC/ST/OBC/Minorities and poorly-performing students. These classes are conducted by the individual departments on non-teaching slots especially in the evenings on weekends or holidays.

2.3 Teaching-Learning Process

The University adopts well-defined teaching learning methodologies which delineate preparation of unit-wise teaching plans before the commencement of new semester. University also plans its curricular, co-curricular activities for the whole year beforehand at the commencement of new academic session. Academic calendar and schedules of curricular and co-curricular activities along-with the semester examination time-tables are uploaded on the University's Web Portal. The University does provide course outline and course schedule both to students and teachers before the commencement of academic session.

The University's curriculum offers several electives covering diverse areas. To make it more student-centric, from the academic session 2015, University has adopted the Choice Based Credit System, which incorporates need-based and outcome-oriented courses facilitating seamless mobility and interdisciplinary learning among students.

The sports and cultural activities organized by the University and the students are the key to inculcate the sense of social corporate responsibility among them. The scholarship programs are designed to provide financial support for the meritorious students and the students from the below poverty class.

The campus recruitment drives organized by the Training and Placement Cell facilitate the employment of the students well before they complete their degree or diploma programs. TCS, Infosys, Wipro, Satyam, HCL, HP etc. are few of the major recruiters.

The University has a culture of student-centric education and learning. Efforts are also made at the University level as well as at the Departmental level to ensure student-centric learning and knowledge management by employing ICT tools in the classrooms, providing library facilities for self-learning, organizing seminars, conferences, workshops, symposia and debates and also by organizing group discussion, presentations, seminars, workshops, quizzes, competitions, joint projects by the students, educational tours etc.

Each Department has an internal procedure too, for research and PG students where the Departments invite experts on specific issues individually and discussions/lectures are held as per the need of the students.

The University's Central Library provides access to various learning e-resources. The University under the UGC/INFLIBNET program and from its own resources is providing access to the various research journals in electronic form. e-Library provides the online access of digital repository of digital Ph.D. theses and digital ME/M.Tech. dissertations. RGPV has also signed a MoU with INFLIBNET to digitize its repository of theses as part of the *Shodhganga* project. The University has recently launched an e-governance portal to help the faculty to implement e-governance for better communication, transparency and efficient working. Through the portal of the university, student could also use the resources like e- Library and contents available in the University. Besides, The University offers a high speed Wi-Fi and LAN connectivity throughout the campus. Some of the faculty members are assigned as counselors, mentors and advisors who take care of the group of the students for their academic personnel and professional growth including psycho-social guidance.

The University also offers counseling facility, Guidance relating to placement opportunities and mentoring for preparation of GATE, CAT, GRE, GPAT and other competitive examinations. The University encourages its faculty members to attend various Faculty Development Programme offered by UGC/MHRD/AICTE/IITs/IIMs etc. The University academic curricula (UG and PG) prescribe project work and report submission as mandatory requirement for the award of degree. There is a provision for a 'Best Project Award' and 'Best Research Award' at UG and PG level separately.

Workshops are conducted to guide faculty members for using ICT tools in teaching-learning. The University has provided laptops to the faculty members, smart boards, LCD and laptops are provided to the PG Departments, internet connectivity is also provided in the classrooms.

The Alumni Association contributes to the overall development of the University.

2.4 Teacher Quality

The University has always given prime importance to quality teaching practice through well trained trainers. Thus University regularly organizes Faculty Development Programs (FDP's), training programs, curriculum development programs, workshops, refresher courses etc. to address the key issues pertaining to up-gradation of the way teaching is practiced within the campus.

For any new recruitment by the University, job listings are advertised in print media through newspapers of national circulation. Advertisements are also shared with other Universities, IITs, NITs and other Institutes of national importance. Advertisements are also published online on the University's Portal to attract the young brigade of applicants. Besides, University has also made provisions for on-campus comfortable stay in the form of well furnished transit hostel for newly appointed faculties. University ensures the qualified and diversified faculty in the emerging areas of studies as per the requirements of the course curriculum. In order to ensure quality, vacancies are advertised and duly publicized through leading newspapers and University website, and appointment procedure is followed strictly as per UGC norms.

To encourage research on campus, university offers Ph.D. scholarships, CSIR fellowship, TEQIP Project – Research Fellow, Study Leave, Quality Improvement Programs (QIP) Sponsorship, and Funds to participate in national/international conferences, in-service training with corporate such as EMC Corporation, Certification, and University Council has also approved industrial training for faculty members. The Academic Staff College conducts several courses to enrich the teaching learning process in the University Faculty. The faculty members and students are encouraged to visit other Universities/Institutes under MoUs and as Visiting Faculty.

The University has already associated itself with prestigious international universities like University of Houston, Texas, USA; Asian Institute of Technology, Bangkok; Osmania University, Hyderabad; National Law University Institute, Bhopal to exchange researchers and teachers of these institutions. The university has also entered into MOUs for Corporate Schools in collaboration with multinational companies like EMC & IBM in order to improve employability of the students.

2.5 Evaluation Process and Reforms

Evaluation process is well defined in the Statutes and Ordinances which are made available online on the University Portal. The entire examination process is absolutely transparent. Examinations papers are sent online 30 minutes prior to examination and with all security features in place, and the centralized evaluations is done in the University and its nodal and regional centers. University even has a policy for revaluation and for showing answer books to students for persuasion, if desired.

The average time for declaration of results of examination is 30 days. Question papers are designed by external question setters incorporating equal number of questions from every unit, supplemented with alternate choice from respective units. The end semester theory examination is conducted by the

University centrally. External observer and independent flying squads are formed to ensure conduct of university examination in the most befitting manner.

The University has adopted the UGC Regulations of 2009 on Ph.D. degrees, consequently the University has amended its rules for evaluation of Ph.D. Thesis such as: Introduction of course-work, pre-submission seminar and publication based on the research. PhD Theses are evaluated by two External Examiners from outside the state. Further, soft copy of the thesis is also sent to the examiners, and the manuscripts, after award of the Degree, are uploaded on the *Shodhganga* website as per the UGC norms.

2.6 Student Performance and Learning Outcomes

The UGC curriculum emphasizes and highlights the importance of knowledge, development of skill, technology application, communication and presentation ability and research culture and ethics. The post-graduate courses are planned and designed to achieve the articulated attributes set by the UGC as well as the University. This is done through teaching, learning and evaluation process by adopting participative learning. Writing ability and presentation-communication are inculcated through seminars using Power Point Presentations followed by interaction session. The assignments and report writing improve the writing ability. Knowledge, research culture and ethics are indoctrinated through a number of special lectures and invited lectures in the study centers and Departments.

The learning outcomes are clearly stated in the curriculum of each course. The staff discusses the expected learning outcomes at the induction of the students at the Departmental levels. Planning of the lessons semester wise and its implementation by the faculty is done keeping in view the learning outcome. The teaching, learning and assessment strategies are structured right from framing the curriculum and preparing the annual plan by the Departments and Board of Studies.

Learners are assessed through the informal interaction at the end of each teaching session and doubts of the learners are cleared. Internal assessment scheme, home-assignments, seminar presentations, small project reports and mid-term exams as well as semester exams are the assessment strategies structured to facilitate the achievement of the intended learning outcomes.

The learning outcomes are collected through the regular informal interaction in the classes, periodical tests, internal assessment scheme, home-assignments, seminar presentations, small project reports and mid-term examination as well as semester examinations.

Slow learners are identified and counseled individually in case of specific difficulties, and the staff members themselves work out the strategies suitable to overcome the barriers. The University has provision of remedial coaching for the backward caste students, where areas of difficulty as per their requirement are addressed. Satisfactory and high level learners are also motivated and provided guidance to keep up and do still better.

CRITERION III: RESEARCH, COUNSULTANCY AND EXTENSION:

3.1 Promotion of research

The University aims to focus on innovative and original research that can stand on par with the best in the world. School of Pharmaceutical Sciences seeks to advance the field of Pharmaceutical Science through state-of-the-art research and discovery in the areas of Anti cancer and Anti HIV drug design and development, bio-pharmaceutics and drug delivery. This multidisciplinary research is aimed at development of targets implicated in Cancer & AIDS. Recently Prof. Piyush Trivedi and his student Dr. C. Karthikeyan reported a breakthrough research in the treatment of various kinds of un-treated cancers. This discovery is a result of indispensable efforts over a period of more than a decade by Prof. Trivedi and his team at RGPV in collaboration with Dr. Hoyun Lee's team at Advanced Medical Research Institute, Canada.

A team of researchers from School of Pharmaceutical Science led by Vice Chancellor, Prof. Piyush Trivedi have claimed the debut discovery of bio-degradable Medicated Chewing Gum (MCG) for the delivery of Diphenhydramine hydrochloride for motion-sickness and also for those suffering from nicotine addiction. The University has recently claimed the design patent for *in-vitro* machine.

Another vibrant area of research that RGPV has taken a lead is renewable energy. In pursuance of a greener tomorrow, RGPV has commissioned a 30 kW Cross Linear-Concentrated Solar Power (CL-CSP) plant under the R&D project sanctioned by MNRE, GoI. RGPV will soon be pioneer in the World to execute CL-CSP innovative and breakthrough technology wherein newly designed Heliostats with Mirror Boards having 95% reflective efficiency and air as a heat transfer medium in the solar air receiver are being used. By this technology the temperature of air can be raised upto 600°C and further this hot air can be utilized to generate steam.

This center also undertakes specialized R&D projects and has already established some of the Renewable Energy devices through World Bank TEQIP project. Some of the systems installed in the Energy Park include: Solar Wind Hybrid System for Power Generation, Biodiesel Reactor, Biomass Gasifier, Solar Pumps & Fountains, CO₂ Sequestration Unit and Solar-

Biodiesel Hybrid Vehicle.

3.2 Resource Mobilization for Research

In order to promote active research in its affiliated colleges a Research Corpus of Rs. 100 million has been allocated for investing in high-quality and innovative research projects. Conferences organized by the affiliated institutions are promoted through financial support by the RGPV to an extent of Rs. 2 lakh. Awards are conferred on selected research projects with commendable ideas and laudable innovative experiments. For encouraging good quality research works, awards are conferred on the authors of selected research papers. Collaboration with the industries/PSUs are encouraged.

The University promotes inter-disciplinary research by encouraging projects dealing with multi-faceted approaches covering different realms of technologies. These projects aim to bring together faculty of various departments for solving problems in efficient and innovative manner. Some of the areas in which School of Nanotechnology, School of Bio-technology and School of Energy Technology are strategically focusing include Nano-electronics, Nano-fluidics, Energy conversion and storage, water and air purification technology, Bio-nanotechnology and therapeutic devices.

University has signed a MoU with UGC for placement of the faculty under 'UGC Faculty Recharge Programme'. UGC has inducted four UGC assistant professor level faculty at RGPV.

Eminent professors, researchers, industry persons are also invited by the university to contribute their expertise to enhance the University curriculum, sharing their knowledge with students and research scholars. This accrues in strengthening the university industry linkages and promote on campus research environment.

Faculty Development Programs are organized in the campus where the researchers of eminence are invited. Experts from industries sometimes fundamentally transform the educational experience for students.

3.3 Research Facilities

The Office of Director Research & Extension promotes the international research facilitating relevant data, research policy and code of conduct in research. It also explores the research funding agencies. As a Best Practice, Corporate Schools are also established in the University to encourage research prone to industries. The University promotes research in affiliated colleges by giving Best Project Award to the selected projects.

For proper utilization of resources and to boost the quality research, university has made suitable allocation for research associate ship in its budget. The University has initiated the process of granting sabbatical leave to their regular faculty members to pursue higher education in India and abroad. The university provides support to UG, PG and PhD students for project implementation, visit to other institutions of national importance and presenting papers in conferences, Tech Fest etc. Lab facilities are offered along with materials required in execution.

The University encourages its faculty members to file patents as well as IPR to various national and international organizations. The University has received substantial grant (Rs. 12.5 crores) under TEQIP Phase-II from World Bank for developing infrastructural facilities for research for the period 2012-2016.

The University earmarks a significant amount of its capital fund for acquiring research equipment. Each year the departments submit their capital requirements to acquire research and teaching equipments. The University attracts large number of applications for its research programs. There is a stringent requirement for evaluation of Ph.D. thesis wherein the student is required to publish at least 2 papers in SCI journals prior to submission. University provides paid leave and encourages faculty for pursuing research on emerging/cutting edge technology. The University allows fee waiver for researchers registered to Ph.D. Programme on campus.

Realizing the importance of e-Library as Information Resource Centre, University has created well equipped IRC as the Online Resource Center in the central library, which contains variety of various research reports, journals, e-books, e-papers, magazines, online assessment of articles etc. This facility is in open access to off campus researchers.

The University Electronic Library offers access to online e-journals, e-books, e-database, e-lecture videos and open sources software with useful links. e-Library provides collaborative search of all type of e-Resources/on-line Resources such as e-journals, e-books, e-database purchased or subscribed by the Central Library or open access available with collaboration, personalization and social features to experience, higher research productivity and gain valuable insights. Online journals are subscribed as per AICTE approval process Hand book of (2013) mandatory online journals. UGC, INFONET/INFLIBNET, INDEST-AICTE Online Journals funded by MHRD are available on URLs, which students can access and download the full text of e-Resources for research work.

The University- EMC Corporate School is a joint venture of RGPV and EMC Inc. to train the students so as to improve their industrial employability. With this concept a Data Science Lab is established under the umbrella of Corporate

School. Students from affiliated colleges are trained on different data science tools, software and conduct research, and generally spread the word about data science.

3.4 Research Publication and Awards

Faculty of RGPV has published more than 300 research papers in peer reviewed National/ International Journals with good number of citations and have guided 75 Ph.D. scholars during the period of assessment.

3.5 Consultancy

The official policy for structured consultancy states “The institute shall open its services and share its knowledge resources for the mutual benefit of university, industry and neighborhood.” The University renders consultancy services to industry, Government and Non Government Organizations and other educational institutions. School of Pharmaceutical Sciences provides commercial testing on sophisticated analytical instruments. Department of Civil Engineering provides commercial testing on civil engineering materials.

3.6 Extension Activities and Institutional Social Responsibilities

The educational philosophy of the University emphasizes on promotion of social concern and good citizenship. The mission statement reiterates civic responsibility among the students and faculty members. In order to ensure active engagement of students in community services and to inculcate the spirit of participation, university has made mandatory for all to qualify this assignment before conferring them degree.

Students visit nearby primary health centers and offer their volunteer services i.e. donating blood, extending personal care to accidental and serious patient etc. They visit rural areas to disseminate the government health care schemes and camps organized by NGOs on various health-related issues. The neighborhood networking is sustained through linkages with various departments of MP government viz. industrial health and safety, electrical safety, fire extinguisher, environmental and pollution control board, road safety etc., for the employee of industries and people.

As an effort to stimulate social consciousness among students, the university encourages student participation in NSS.

The University has started self growth and community work of 2 credits each to promote extension activities among students as a mandatory requirement. The academic linkages established by the institution have enhanced its academic profile and has resulted in increase in the number of companies

visiting the campus for placement.

3.7 Collaborations

The university has already established linkages with a number of international and national institutions and signed MoUs with them in order to make opportunities of higher learning and research accessible to rural youth and to promote fundamental and applied research in the field of Technology. This will ensure regional growth and development. The University has forayed into academic and research collaboration by signing MoU with different agencies.

CRITERION IV - INFRASTRUCTURE AND LEARNING RESOURCES

4.1 Physical Facilities

The University is spread over 241.14 acres. Aesthetically well designed state-of-art buildings equipped with modern labs, RGPV has been developed as knowledge center in central India striving for augmenting the IT infrastructure, on line resources to keep pace with technology to disseminate quality education addressing the mass. The number of students and scholars enrolled in the campus has increased several folds along with the induction of new specialized courses at undergraduate and post graduate level since the inception of the university.

The Building Committee gives a comprehensive thought over planning and estimation of the infrastructure as per present and future requirement. RGPV has constructed a row of buildings to facilitate all departments to have own computer center, faculty cabin, R &D center, classrooms, lecture theatre etc. Conference hall, seminar hall and lecture theatres are generally shared within departments.

In order to improve soft skill of students, University has prescribed due credits in its curriculum. This is accomplished through language labs, which are used to teach soft skill courses. Contents delivery by subject experts through Amrita Software for affiliated institutes has facilitated their faculty to interact on line with the experts. Departments have developed modern class room equipped with LCD projector and audio system. Labs are equipped with state-of-art instruments suitable for their application in field testing. Each faculty member is provided a separate room so that he/she can contribute more and more in teaching and research without disturbance. The University ensures that there are adequate toilet facilities, toilet provision for differently-abled persons, common room for women staff and faculty. Most of the upcoming buildings are equipped with lifts and ramps and are user friendly for the differently-abled. Solar energy projects utilizing the vast roof area of new and old building are in the pipeline. Child care room situated in the close vicinity of

academic block helps the women staff, if required. The campus is also provided with students' amenity centers, Women's Facility Center, playground, cafeteria, student supporting services such as facilities for typing and photocopying etc.

The campus has well-equipped hostels for men and women and they are modernized with hygienic dining facilities, gym, internet, common room, computer browsing centre, Wi-Fi connectivity and other facilities required for the students. Transit hostel for QIP participants and research scholars is nearing completion. Guest House with AC suits and rooms are made available as and when required. Senate Hall equipped with Delegate Conference System and seating capacity of 50 members is located adjacent to Vice Chancellor's Office for organizing Executive Council meeting. Security and House Keeping Personnel are made available through outsourcing and monitored by RGPV officers.

An in-house team is responsible for Campus maintenance. Laboratory instruments are maintained either by the lab personnel or by AMC. Electrical back-up is in place in most of the buildings. Adequate arrangement of drinking water facility is made. External Services such as bus facilities, Ambulance, Bank counters, ATM Counter, Post-office are available. Total built-up area of Admin Office is 10,000 Sq. meters. Separate offices for Vice Chancellor, Registrar, Financial Officer, Controller of Examination, Administrative Office, Committee Room, students' waiting room etc. are available along with separate offices for all the senior officers of the university. The University strictly adheres to State and Central Government norms in the construction of new buildings.

Creation and enhancement of infrastructural facilities in the campus is given one of the top priorities of the University to promote a good teaching-learning environment. The University has facilitated comfortable and disturbance-free work place to teachers, internet connectivity in the classrooms with LCD projector and audio facility. Computer Center of the University provides a good teaching learning experience. Centralized photocopying and scanning facilities are there in library for students. Learning software has been developed for differently-abled people. The University has been augmenting its state-of-the-art facilities during the assessment period through purchase of equipments, accessories and software. The RGPV is providing computer and network/internet access to all students to support academic, instructional and research activities associated with the courses that students are currently enrolled in. RGPV networks are primarily used for college-related research, instruction, learning, distribution of scholarly information, and administrative activities. Round the clock Internet facilities with 1GBPS leased line connectivity are provided to the students.

4.2 Library as a Learning Resources

The library of RGPV is equipped with books, periodicals, national and international journals, CD-ROMS, covering all aspects of academic studies and research material. All departments of the University have their individual libraries. Adequate number of reference books is available in the Departmental Libraries. RGPV Electronic Library offers access to online e-journals, e-books, e-database, e-lecture videos and open sources software with useful links. User can seamlessly access the contents abstracts or full text in a flexible and easy manner to use for their study. E-library provides collaborative search for all types of e-resources/on-line resources such as e-journals, e-books, e-database. UGC, INFONET/INFLIBNET, INDEST-AICTE Online Journals funded by MHRD are available on URLs from which students can download the full text of e-resources for research work.

The Library Advisory Committee monitors and reviews the library functioning and prepares a draft on policy and financial matters. Some significant initiatives have been taken by the committee in the recent past to render the library student/user friendly. Most glaring example is the implementation of RFID system, which facilitates the library to function more user friendly in terms of automated circulation, books search, automated books drop or return etc. RFID Based Automated book issue and automated book drop unit, generate book return slip that avoids the wastage of time of students.

Library provides Online Public Access Catalogue (OPAC) search facilities through the SPLASH and KOHA Software.

Electronic resources keep the students abreast with the latest developments in the field of Engineering, Science and Technology. To improve the basic collection and for the establishment of the E-library, the UGC INFONET Journals/ E-Journals, E- Database and E-resources are subscribed. INDEST-AICTE Online Journals funded by MHRD are available on URL for quick access and downloading the full text of e-resources.

The reference section of RGPV central library holds about 7413 precious reference books including encyclopedias, dictionaries, biographical dictionaries, yearbooks, hand books, almanacs, directories, atlases, gazetteers, indexes, quotation books, bibliographies, accession lists, guides, maps, etc.

Library has a separate Reprography Section equipped with three photocopier machines, seven mono and two color computer printers. The Library also arranges books on loan from other libraries on specific demand. Library also provides the full text resources with the help of DELNET. RGPV Central Library is an institutional member of DELNET (Developing Library Network).

4.3 IT Infrastructure

The University has an elaborate and comprehensive policy to bring about revolutionary changes in knowledge management in the academic and administrative departments. It has established a full-fledged Computer Centre for this purpose. This is an in-house mechanism for servicing the IT infrastructure in the most cost effective manner. A backup system is maintained for the sensitive databases such as finance and examination by using portable hard disks.

RGPV is connected to National Knowledge Network that provides a knowledge network and interconnects the very core of the country's quality institutions with all rest of the academics and research institutions. This enables the sharing of IT facilities and help in development of trained academic professionals through e-learning globally, R&D activities are increasingly multidisciplinary and require substantial computational power. Resource sharing, Data sharing and live consultancies are the key of the successful research.

Most of the departments of RGPV are furnished with the latest IT facilities. RGPV has well established department of Information Technology. Information Technology laboratories are equipped with more than 200 computers in LAN, Project Laboratory and Software Engineering Laboratory. Network Engineering Laboratory is an admirable attribute of the program. Faculty members are dedicated to impart excellence in Information Technology and energetic in research development work to cope up with recent market drift. Information Technology includes the design, implementation, and programming of digital computers, Information Theory and Communication systems.

The University is coming up with advance laboratories in the emerging field of Computer Technology and Application, Cyber Forensic, Data Science and Information Technology. Procurement of latest computer notebook, desktop and server is in pipeline. A-VIEW is now deployed at RGPV along with several IITs, NITs and other leading educational institutions across the nation. RGPV provides NPTEL (National Program) archives in the form of Digital storage, which can be retrieved by both teachers and students for reference and teaching purposes. Computer notebooks are provided to the individual faculty members by the university. Most of the classrooms and laboratories are equipped with 3-D interactive boards and LCD projectors supporting Smart teaching learning process for the aid of students and teachers. Online Mock tests for placements as well as day to day assessment of technical knowledge of students are conducted by the faculty.

4.4 Maintenance of Campus Facilities

The infrastructure like buildings, roads, sewer lines, water supply lines, electric lines, electrification and other important services for the University campus are maintained by the dedicated staff or the Building Department and Electricity Department. Most of the maintenance works are covered by outsourcing. Contractual workers through outsourcing are employed for cleaning and sanitation, house- keeping and security services. The university has a separate wing for civil maintenance and electrical maintenance of physical infrastructure in the campus. Dedicated electricians are deployed to ensure uninterrupted power supply and maintenance of 33 KV High tension sub-station. They are also responsible for maintenance of electrical appliances of the university. Office of civil maintenance is responsible for facilitating running water supply, repairing of any damage to water infrastructure, masonry related work and landscape maintenance work.

CRITERION V: STUDENT SUPPORT AND PROGRESSION

5.1 Student mentoring and Support

The University has well developed system for student support and mentoring. The functional and structural characteristics are defined. The Dean, Student Welfare implements the policies for mentoring and counseling. University supports student empowerment and their holistic development. The University is having Departmental Committees to meet the requirements of different categories of students.

Academic monitoring is done through group discussion/seminar sessions. Students are encouraged to participate in different technical conferences, seminars, industrial visits, training, internships and other co-curricular events. Students are also motivated to participate in various competitions and conferences in India and abroad.

Soft skill workshops and career orientation courses are designed and delivered by external industry experts and trainers. The University Placement cell provides career counseling and guidance for the students for placement and other development related issues on regular basis. RGPV Career Portal caters to the placement needs of University Placement Department, career guidance needs of students and recruitment needs of employers. This Career Portal serves as a communication platform amongst the employer, the University placement cell and students.

The University facilitates students for obtaining educational loans from banks. Separate counters of nationalized banks are provided for financial support to

students for obtaining educational loans.

All the information related to students is available on website. Student login for online access to the University website is available.

Various Scholarships like merit, tuition free-ships, Merit-cum-means and Chancellor Scholarships are available for students based on their merit and financial status.

Support services like vehicles, scribe/writer, ramp, wheel chairs and lift facility for differently-abled students are made available by the University.

University has established a SC/ST section, which facilitates Book Bank facility, scholarships, remedial classes, stationary and drawing equipment facility for the students.

Health Centre available on the campus is manned with one physician, nurse and attendant and is open to faculty members, campus residents, hostellers, students and non-teaching staff. Round The Clock Ambulance facility is available for hostellers and resident employee. The University provides accidental and group insurance facility to students.

Departments provide extra classes to slow learners. On the basis of TG system, faculty identifies this type of students and devotes more time to solve their problems. Remedial classes for students are also organized as and when required.

Summer training/internship is mandatory component of the curriculum of the University. Students undergo training in reputed organizations like BSNL, BHEL, M.P. Madhya Kshetra Vidyut Vitran Co. (MPMKVVCL), NTPC, NHPC, TCS, IBM, HCL, CRISP, MAPIT etc. More than 1000 students from various departments have undergone training.

The University provides guidance and motivation to students on routine basis. Regular counseling has resulted in ten-fold increase in pass percentage of GATE students in last four years.

To enhance students' personality through sports and extra-curricular activities, financial and physical facilities are extended to encourage students' participation and recognize their achievements. For national level participation students are provided with Sports Kit and track suit. TA/DA is also provided to students.

The University has a mechanism for the students' placement, which works under the Central Placement Officer. There are Departmental Placement

coordinators working under the Placement Officer. RGPV has developed Placement Career Portal to automate the placement activities Online including career guidance section for the students of RGPV. To develop entrepreneurship skill, the University provides mock test, group discussion and lectures for students.

RGPV Career Portal is established to provide better placements options prior to graduation, better remuneration packages, improving self-marketing skills, enhance career planning knowledge, online self assessment test, Wider choice of job opportunities, important Career Links, latest News and events etc.

Many companies of national and international repute conducted campus recruitment drive and selected students during last four years.

The University Alumni Association is constituted with the objectives to promote brotherhood and co-operation to encourage enhancement of Academic activities. Alumni work for educational and social development of its members and university.

University has constituted student Grievance Redressal Cell. The students could report their grievances in the Dean, Student welfare office by going there or through phone calls and emails. Their grievances are redressed soon and are provided with all necessary support and guidance.

The university as well as its affiliated colleges strictly follows the Women Empowerment Policy. To solve the exclusive problems of women and female students, a women protection cell is also set-up. A counselor is appointed for the university and institutions affiliated to it.

The University has set-up an anti-ragging committee. The committee looks into any matter related to such issues. Strict actions are taken against the defaulters. In every affiliated institution, free posters regarding anti ragging are distributed.

University solicits the cooperation of all its stakeholders through feedback. Alumni feedback is also used as a benchmark for the assessment of the performance of faculty. Alumni deliver guest lecture on various new technologies to help students understand the modern world. Industry forum is on RGPV portal provides the feedback from industry. The University ensures participation of women students in intra- and inter-institutional sports competitions and cultural activities.

5.2 Student Progression

The program-wise completion rate during the time span stipulated by

University is analyzed wherein the pass percentage of PG Courses is more than 95% while the pass percentage of UG Courses is more than 90%, during last four years.

Total number of students who qualified in GATE, GRE, and NET etc. during 2011 to 2015 is 181.

Number of Ph.D. thesis accepted in the last four years is 140.

5.3 Student Participation and Activities

The University supports various cultural, extracurricular and sports activities of students. Various sports activity for boys and girls like kho-kho, volleyball, Badminton etc. are organized by University regularly.

All the departments conduct nature tours for students as well as for staff to gain historical interest and awareness. Such visits increase the realization of our glorious heritage.

Most of the affiliated colleges publish college magazines and newsletters.

Students participate and represent in various academic and administrative bodies such as Board of studies, Class Committees, Hostel Students welfare Committees, Hostel Students Mess Committees etc.

University has implemented the tutor guardian (TG) scheme wherein about 10-15 students are placed under the care of one teacher. The tutor guardians also keep track of the attendance, do personal counseling and looks into their academic progress.

RGPV receives feedback from all stake holders to bring out improvements in the teaching and learning system to ensure the overall development of the students. Feedback is obtained from alumni on courses offered, courses desired and on modifications of curriculum. Due weightage is given to incorporate these suggestions and participation in academic decision making. Industry Forum constituted on RGPV portal provides useful feedback from industry.

CRITERION VI - GOVERNANCE, LEADERSHIP AND MANAGEMENT

6.1. Institutional Vision and Leadership

University's Vision and Mission statements clearly define its distinctive characteristics, reflected in its actions like establishment of Centers of Excellence; creating capabilities for development of knowledge, skills and competencies as a core academic goal; creating and upgrading infrastructure to global standards; developing patterns of teaching and training at various levels of education accomplishment, so as to set a high standard of education in engineering, pharmacy and liberal studies; function as a leading resource center for knowledge management and entrepreneurship development; providing inter-relationship for national and global participation; establish close linkages with industries to make teaching, training and research relevant to the needs of the society at national and global levels. Distinctive characteristic of the university is reflected through focus on outcomes and impact, academic freedom applying standards of the world's top universities, highest ethical standards in personal and professional behavior, the promotion of pluralism and celebration of diversity, concern for the environment, transparency and accountability to all stakeholders.

Measures to promote and reinforce a culture of excellence: Curriculum innovation, introduction of yearly Chancellor's scholarship for meritorious undergraduate students of Engineering and Pharmacy disciplines, establishment of Academic Staff College, promotion of industry relevant research, implementation of IT enabled services like as Mobile Banking, Cashless Campus, Teaching Excellence and Research Excellence Awards, establishing venture capital, establishing corpus for promotion of research and innovation, vibrant staff development policy, implementation of choice based credit system and conduction of on line practical exams are the salient measures to promote and reinforce a culture of excellence.

There is a proper coordination between the University and the affiliated colleges in solving and managing the administrative and academic problems. There are various other supporting sub-committees to resolve the targeted problems, e.g. Anti-Ragging Committee, Prevention of Sexual Harassments Committee and Grievances Committee etc.

6.2. Strategy Development and Deployment:

The University has developed a “Vision Document 2025” covering teaching-learning, research and extension activities along with the academic and administrative perspective.

The Grievance Redressal Cell at RGPV is an easy and readily accessible forum for prompt disposal of day-to-day grievances.

The Affiliation Section of the University regularly conducts the meetings of Principals in order to train and groom them into office procedures, academics, support services, funding and examination related issues. Regular meetings of the Governing Body are held and minutes of these meetings are sent to the University. All the teaching faculty of the institute are recruited through duly constituted Selection Committees. All laboratories/ workshop are provided and fully established for various courses/ discipline by providing space, furniture, equipment, experimental setups and licensed software as per the AICTE norms. The Board of College and University Development (BCUD) is an important section of the University, which strives for development of affiliated colleges and the University Departments.

6.3. Faculty Empowerment Strategies:

The University ensures that the various affiliated institutes under its patronage abide by the rules and regulations laid by it. For the empowerment of the faculty members as well as assisting faculty development through refresher courses, management development courses and orientation courses along with seminars, conferences, and workshops are conducted from time to time.

Academic Staff College is intact is engaged in conducting activities such as orientation courses and refresher courses. Performance appraisal scheme through APIs is in practice. A Self Assessment Performa is designed for faculty. Practice of awarding the Best Teacher and Best Employee of the University appraisal schemes is inducted.

6.4 Financial Management and Resource Mobilization:

The Finance Committee monitors the annual budget of the university. The University has a mechanism for internal and external audit. The internal audit is done through “Internal Audit Section.” Every bill is passed through this section only after pre audit.

The University from various funding agencies like State Government, AICTE, UGC, MPCOST and TEQIP. There is a provision to create a corpus fund by the University. At the end of each financial year, surplus amount from the University’s budget is transferred to corpus fund. Thus, at the end of year 2014-15, University has a corpus fund of Rs. 25385.85 lakh financial resources are generated through consultancy and testing activities.

6.5 Internal Quality Assurance Cell:

The IQAC of the university conducts the academic audit of its departments. On the basis of recommendations of the academic audit team changes are initiated. The University has setup an Academic Planning and Evaluation Board as per the RGPV Act. In addition to this, IQAC also contributes to institutionalizing quality assurance strategies and processes. Few decisions of the IQAC implemented by the University include: revising the Ordinance for award of Doctoral degree; making pre-submission presentation for M Tech & Ph.D. thesis mandatory, establishment of Director of Research and Development Cell for ensuring quality of research proposals submitted to funding agencies., financial assistance and support to teachers for participation in overseas conferences/seminars; Teaching/Research collaboration with overseas institutions and organizations, use of Plagiarism Software for PhD thesis and M Tech dissertation reports, introduction of CBCS syllabus, and introduction of On-line practical Examinations.

CRITERION VII - INNOVATIONS AND BEST PRACTICES:

7.1 Environment Consciousness:

Frequent plantation drives are taken up to keep the campus green. Keeping in pace with *Swachh Bharat Abhiyan* of the Government of India, a clean line inside the campus is maintained.

Rain water harvesting systems are installed on all the buildings of the campus. Solar street lamps are connected inside the campus. Energy Park inside the campus has all non conventional energy devices for research and demonstration like solar fountains, solar water heater, solar-wind biomass hybrid system, biodiesel generation plant, CO₂ sequestration plant and ultra modern wind mill turbine. Facilities are available for disposal of solid and liquid waste inside the campus. A group namely Green Army is formed by students to spread the environmental issues. Earth day and earth hours are celebrated here with zeal and enthusiasm.

First and Fourth Saturdays of every Month are observed as No Vehicle Day for the campus.

Guidelines of Central Pollution Board are followed for conduction of green audit of its campus. Use of poly-bags is discouraged. E-Mail Communications and Telephonic Communications are preferred over paper communication. Important features of green audits include Energy Audit, Water Audit, Solid Waste Management; Hazardous Waste Management initiatives to make campus eco friendly; Energy conservation.

University also promotes procurement and installation of efficient electrical systems to save electricity. The UPS Batteries are maintained in good condition, which reduces charging current of batteries. Affordable renewable technology, State-of-art clean coal technology, Zero emission technology, Climate change study, Bio-fuel and bio diesel, Bio Science in waste management, Green House Gas reduction and CO₂ Capture Technology., Carbon Capture technology specifically for Thermal Power Plant., Wind and solar energy applications with wind-solar-biomass hybridization;, Energy Audit., Coal handling process, turbine study etc. Solar PV cells are used for street lights inside the campus of the university, Wind mills on Hill top energy generation and lighting and Solar-wind-Biomass hybrid system for street lighting inside the campus of the university. Cross linear Concentrated Solar Power Plant has been installed and tested and will make the university self-sufficient in power generation. Solar water heaters in hostels and Water harvesting systems are installed on all the buildings of university. Proper measures have been taken to reduce carbon emission to keep the campus pollution-free and uncontaminated. Plantation drives are taken up by the university to keep the campus green. The recyclable garbage waste and non recyclable wastes are dumped in specified containers/dustbins.

All the e-Waste such as CDs, Batteries, fluorescent bulbs, PCBs and electronic items are collected from all the departments and delivered for safe disposals. The carbon sequestration project aims at development of a unique plant for CO₂ capture and production of useful multipurpose fuel like hydrogen, methane and algae growth for Bio diesel production in the Energy park of RGPV.

The RGPV Biodiesel park is conceived from the view point of accelerating the energy farming and cultivating the knowledge and know-how for producing World class Quality Biodiesel. The RGPV Biodiesel Park is a joint venture of School of Biotechnology, School of Energy & Environment and generously supported by Centre of Green Technologies at RGPV, a marvel of interdisciplinary cooperation.

7.2 Innovations:

Innovations made in academic and related activities speak of the progress of the university in leaps and bounds. Some of the innovations include: Introduction of Choice Based Credit System, office automation, and paperless office. Examination system is fully computerized, Wind-solar-biomass hybrid system is developed by the energy department., Solar-biodiesel hybrid is developed by energy department., RGPV web portal is developed, Personality Development Programs, Faculty Development Programs, MoU Signed with industries and academia, Model Solutions, Incubation centre, Soft Skills and

Aptitude classes etc.

7.3 Best Practices:

Corporate School, Earn while Learn scheme, MoU's with foreign universities, Industry Institute Interaction, showing evaluated examination copies to the students, Dual Degree Courses, Compulsory industrial training and six month apprenticeship in dual degree course, Best Research Paper award and Best Engineering project award, Finish School activities, creation of Research Fund, creation of Venture Fund , introduction of Choice Based Credit System, Library Automation and introduction of modern RFID system in library, conduction of on-line practical examination are the modest Best Practices.

The University is proud of the two Best Practices i) Corporate School, and ii) Mentoring System.

PROFILE OF THE UNIVERSITY

1. Name and Address of the University:

Name:	RAJIV GANDHI PROUDYOGIKI VISHWAVIDYALAYA	
Address:	Airport Road, Gandhi Nagar, Bhopal	
City: Bhopal	Pin: 462033	State: Madhya Pradesh
Website: www.rgpv.ac.in		

2. For Communication:

Designation	Name	Telephone with STD Code	Mobile	Fax	Email
Vice Chancellor	Prof. Piyush Trivedi	O: 0755-2742001 R: 0755-2575701	9425017913	0755-2742002	vcoffice@rgtu.net
Registrar	Prof. S.K. Jain	O: 0755-2734913 R: 0755- 2678805	9525379097	0755-2742006	registrarrgpv@gmail.com
Steering Committee / IQAC Co-coordinator	Prof. S. C. Choube	O: 0755 2678820 R: 0755-2970704	9425125401		scchoube@rgtu.net

3. Status of the University:	
State University	√
State Private University	
Central University	
University under Section 3 of UGC (Deemed)	
University) Institution of National Importance	
Any other (please specify)	

4. Type of the University

Unitary	
Affiliating	√

5. Source of funding

Central Government	
State Government	
Self-financing	√
Any other (UGC Grant towards General Development Assistance Scheme)	√

6. a. Date of establishment of the University: **23/08/1998**

b. Prior to the establishment of the university, was it a/an

i.	PG Centre	Yes		No	
ii.	Affiliated College	Yes	√	No	
iii.	Constituent College	Yes		No	
iv.	Autonomous College	Yes		No	
v.	Any other (please specify)				
If yes, give the date of establishment 21/12/1987					

7. Date of recognition as a university by UGC or any other national agency:

Under Section	DD	MM	YYYY	Remarks
i. 2f of UGC*	27	10	2000	F-9-3/2000 (CPP-I) 27-10-2000
ii. 12B of UGC *	07	11	2008	F-9-2/2008 (CPP-I) 7- 11-2008
iii. 3 of UGC #	-	-	-	-
iv. Any other ^ (specify)	-	-	-	-

* Enclose certificate of recognition.

Enclose notification of MHRD and UGC for all courses /programmes / campus/ campuses.

^ Enclose certificate of recognition by any other national agency/agencies,

if any.

8. Has the University been recognized?

a.	By UGC as a University with Potential for Excellence?			
	Yes		No	√
	If yes, date of recognition: (dd/mm/yyyy)			
b.	For its performance by any other governmental agency?			
	Yes		No	√
	If yes, Name of the agency and date of recognition: (dd/mm/yyyy)			

9. Does the university have off-shore centres?

	Yes		No	√
If yes, date of establishment: (dd/mm/yyyy)				
date of recognition: (dd/mm/yyyy)				

10. Does the university have off-shore campuses?

	Yes		No	√
If yes, date of establishment: (dd/mm/yyyy)				
date of recognition: (dd/mm/yyyy)				

11. Location of the campus and area:

	Location *	Campus area in acres	Built up area in sq. mts
Main campus area	Urban	241.4	38888
Other campuses in the Country	-	-	-
Campuses abroad	-	-	-

(* Urban, Semi-Urban, Rural, Tribal, Hilly Area, Any other (please specify)

If the university has more than one campus, it may submit a consolidated self-study report reflecting the activities of all the campuses.

12. Provide information on the following: In case of multi-campus University, please provide campus-wise information.

	Auditorium/seminar complex with infrastructural facilities	Available	01+04
	Sports facilities		
	* playground	Available	01

	* swimming pool	No	-
	* gymnasium	Available	01
	* Any other (please specify)	-	-
	Hostel		
	* Boys' hostel	Available	
	i. Number of hostels		02
	ii. Number of inmates		96
	iii. Facilities: Mess, Gymnasium, 24x7 Electricity, 24x7 Water with purifier, bed with mattresses, common rooms, TV with set-top box, internet connectivity, security, electrical backup etc.		
	* Girls' hostel	Available	
	i. Number of hostels		02
	ii. Number of inmates		153
	iii. Facilities: Mess, Gymnasium, 24x7 Electricity, 24x7 Water with purifier, bed with mattresses, common rooms, TV with set-top box, internet connectivity, security, electrical backup etc.		
	* Working women's hostel	-	NIL
	iii. Number of hostels:	-	NIL
	iv. Number of inmates :	-	NIL
	v. Facilities :	-	NIL
	Residential facilities for faculty and non-teaching	Available	62
	Cafeteria	Available	01
	Health centre – Nature of facilities available – inpatient, outpatient, ambulance, emergency care facility, etc	Available	01
	Facilities like banking, post office, book shops, etc	Yes, multipurpose shop, post office, ATM is available on campus.	
	Facilities for persons with disabilities:	Available	
	Animal house	No	
	Incinerator for laboratories	No	
	Power house	Available	DG Sets 125 kVA x 3 50 kVA x 5
	Waste management facility	No	

13. Number of institutions affiliated to the university

Type of colleges	Total	Permanent	Temporary
Engineering	199		199
Architecture	05		05
Pharmacy	72		72
MCA	25		25
MAM	04		04
MCA Dual Degree	02		02
Research Centers	18		18

14. Does the University Act provide for conferment of autonomy (as recognized by the UGC) to its affiliated institutions? If yes, give the number of autonomous colleges under the jurisdiction of the University.

Yes	√	No	Number	5
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15. Furnish the following information:

Particulars	Number	Number of Students
a. University Departments		
Under Graduate	08	2267
Post Graduate	17	536
Integrated PG	06	380
Dual Degree - MAM	01	20
Research Centers on the Campus	13	106
b. Constituent colleges	02	200
c. Affiliated colleges	301	54216
d. Colleges under 2(f)	03	9000
e. Colleges under 2(f) and 12B	01	5300
f. NAAC accredited colleges	01	1900
g. Colleges with Potential for Excellence (UGC)	-	-
h. Autonomous colleges	05	15000
i. Colleges with Postgraduate Departments	214	7500
j. Colleges with Research Departments	08	106
k. University recognized Research Institutes/Centers	13	184

16. Does the University conform to the specification of Degrees as enlisted by the UGC?

Yes	√	No	
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If the university uses any other nomenclatures, please specify.

17. Academic programmes offered by the university departments at present, under the following categories: (Enclose the list of academic programmes offered)

Programmes	Number
UG	01
PG	04
Integrated Masters	01
Ph.D.	08
Diploma	01
Dual Degree MAM	01
Total	16

PROGRAMMES	
UNIVERSITY INSTITUTE OF TECHNOLOGY	
UNDERGRADUATE	
S.NO.	B.E. (4 years)
1	Automobile Engineering
2	Civil Engineering
3	Computer Science & Engineering
4	Electrical & Electronics Engineering
5	Electronics & Communication Engineering
6	Information Technology
7	Mechanical Engineering
8	Petrochemical Technology
POSTGRADUATE	
S.NO.	M.E. (2 years)
1	Computer Science & Engineering
2	Digital Communication
3	Heat Power Engineering
4	Power System
5	Structural Engineering
MCA (3 years)	
1	Master of Computer Application

	M.Sc. (2 years)
1	M.Sc. (Maths)
UNIVERSITY TEACHING DEPARTMENTS	
	M.Tech. (2 years)
1	Energy Technology
2	Nanotechnology
3	Cyber Forensic
4	Data Sciences
5	Computer Tech. & Application
6	Information Technology
7	Biotechnology
	M.Pharm. (2 years)
1	Pharmaceutical Chemistry
2	Pharmaceutics
3	Quality Assurance
	Integrated PG Programmes (5 years) BE +M.Tech/MBA
1	Civil Engineering
2	Computer Science Engineering
3	Electrical Engineering
4	Electronics & Comm. Engineering
5	Information Technology
6	Mechanical Engineering
	Dual Degree (5 years)
1	Master of Applied Management

University Departments also offer Ph.D. programme in the following faculty:

DOCTORAL PROGRAMME	
1	Faculty of Electrical and Electronics
2	Faculty of Computer and Information Technology
3	Faculty of Industrial Technology
4	Faculty of Construction Technology
5	Faculty of Humanities and Management
6	Faculty of Applied Sciences
7	Faculty of Pharmacy
8	Faculty of Energy Technology

DIPLOMA PROGRAMME	
S.NO.	Diploma (3 years)
1	Electrical Engineering
2	Civil Engineering
3	Electronics & Telecommunication Engineering
4	Mechanical Engineering

18. Number of working days during the last academic: 235 days

19. Number of teaching days during the past four academic years.

202	185	193	189
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(‘Teaching days’ means days on which classes were engaged. Examination days are not to be included)

20. Does the university have a department of Teacher Education?

Yes		No	√
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21. Does the university have a teaching department of Physical Education?

Yes		No	√
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If yes,

a. Year of establishment (dd/mm/yyyy)

b. NCTE recognition details (if applicable) Notification

No.:

Date: (dd/mm/yyyy)

c. Is the department opting for assessment and accreditation separately?

Not Applicable

22. In the case of Private and Deemed Universities, please indicate whether professional programmes are being offered?

Yes

No √

If yes, please enclose approval / recognition details issued by the statutory body governing the programme.

23. Has the university been reviewed by any regulatory authority? If so, furnish a copy of the report and action taken there upon. No

24. Number of positions in the university

Positions	Teaching faculty			Non-teaching staff (Including Technical Staff)
	Professor	Associate Professor	Assistant Professor	
Sanctioned by the UGC /University/State Government	25	55	97	433
Recruited	10	17	41	200
Yet to recruit	15	38	56	233
Number of persons working on contract basis:	109 (Teaching Staff) and 185 (Non-Teaching Staff)			

25. Qualifications of the teaching staff

Highest Qualification	Professor		Associate Professor		Assistant Professor		Total
	Male	Female	Male	Female	Male	Female	Total
Permanent Teachers	8	2	5	12	21	20	68
i) Ph.D.	8	2	3	9	14	8	44
ii) M.Tech.	-	-	2	-	7	9	18
iii) PG (Science)	-	-	-	3		3	6
Temporary Teachers	-	-	-	-	72	39	111
i) Ph. D.	-	-	-	-	4	5	9
ii) M.Tech	-	-	-	-	56	23	79
iii)PG (Science)	-	-	-	-	12	11	23

26. Emeritus, Adjunct and Visiting Professors.

	Emeritus	Adjunct	Visiting
Number	01	06	03

27. Chairs instituted by the university:

	Chairs
School/ Department	Professor Academic Excellence

28. Students enrolled in the university departments during the current academic year, with the following details:

Students	UG		PG		PhD
	M	F	M	F	
From the State where the university is located	1472	720	163	193	101
From other states of India	55	20	5	3	5
NRI students	-	-	-	-	-
Foreign students	-	-	-	-	-
Total	1527	740	168	196	106

*M - Male *F – Female

29. 'Unit cost' of education

(Unit cost = total annual recurring expenditure (actual) divided by total number of students enrolled)

(a) Including the salary component = Rs 133285/-

(b) Excluding the salary component = Rs 68154/-

30. Academic Staff College

- Year of establishment: 2010

- Number of programmes conducted (with duration) *
UGC Orientation : NIL

* UGC Refresher: NIL

* University's Own Programmes: 19

31. Does the university offer Distance Education Programmes (DEP)?

Yes		No	√
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If yes, indicate the number of programmes offered.

Are they recognized by the Distance Education Council?

32. Does the university have a provision for external registration of students?

Yes		No	√
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If yes, how many students avail of this provision annually?

33. Is the university applying for Accreditation or Re-Assessment? If Accreditation, name the cycle.

	Cycle	√	Cycle		Cycle		Cycle		
Accreditation :	1		2		3		4		
Re-assessment :									

34. Date of accreditation* (applicable for Cycle 2, Cycle 3, Cycle 4 and re-assessment only)

Cycle 1: (dd/mm/yyyy), Accreditation outcome/Result

Cycle 2: (dd/mm/yyyy), Accreditation outcome/Result

Cycle 3: (dd/mm/yyyy), Accreditation outcome/Result

Cycle 4: (dd/mm/yyyy), Accreditation outcome/Result

* kindly enclose copy of accreditation certificate(s) and peer team report(s)

35. Does the university provide the list of accredited institutions under its jurisdiction on its website? Provide details of the number of accredited affiliated / constituent / autonomous colleges under the university.

Yes

36. Date of establishment of Internal Quality Assurance Cell (IQAC) and dates of submission of Annual Quality Assurance Reports (AQAR).

IQAC 06-01-2016

AQAR NIL

(ii) (dd/mm/yyyy)

(iii) (dd/mm/yyyy)

(iv) (dd/mm/yyyy)

37. Any other relevant data, the university would like to include (not

exceeding one page).

CRITERIA-WISE ANALYTICAL REPORT

CRITERION-I

CURRICULAR ASPECTS

1.1.1 How is the institutional vision and mission reflected in the academic programmes of the University?

Rajiv Gandhi Proudhyogiki Vishwavidyalaya (RGPV) was established under the RGPV Adhiniyam, 1998 to promote quality technical education in the state. Presently, University offers many undergraduate, post-graduate and dual degree programmes in diverse fields of engineering, science, and technology. University is committed towards offering programs with global impact with a vision to broaden access to quality technical education while ensuring social, financial, gender equity and promoting excellence in teaching and research.

Vision: To disseminate affordable quality technical education for producing globally competent, technically tempered and socially responsible technical manpower to meet global challenges.

Mission: To establish Rajiv Gandhi Proudhyogiki Vishwavidyalaya as a centre of excellence for imparting technical education through technological interventions for the economic development of the country.

University's firm commitment towards its vision and mission is reflected in following initiatives:

- University offers diverse courses that cover wide range of skills from elementary skills such as communication skills to higher order skills such as cognitive skills, teamwork, and IT skills.
- University, through its curriculum, encourages sensitization of students about the socio-cultural aspects of rural areas nearby to their colleges. Course like Rural Outreach as introduced in the Choice Based Credit System of the University offer students an opportunity to learn about Demographics, Literacy, Geographical parameters of the Village, Schemes of Government of India and State of Madhya Pradesh in operation in the villages and also the social/ cultural aspects ranging from popular dance forms, music and customs of the concerned village.
- Madhya Pradesh hosts a large cluster of population from diverse backgrounds including communities with significant tribal presence. RGPV is committed towards its mission of proliferating quality technical education to the remotest of areas. This is reflected in University's

initiative of setting-up two new Institutes offering diverse academic programs in distant locales of Shahdol and Jhabua, the areas largely inhabited by tribal population.

- University has signed number of MoUs with leading Universities and Industries around the world for sharing mutual expertise and to discuss new potential for innovations.
- In the quest for excellence in research in diverse fields of science and technology, University has associated itself with many prestigious global and national institutions, universities, agencies and corporations like National Institute of Health (NIH), Maryland, USA; Northeastern Ontario Regional Cancer Program at the Sudbury Regional Hospital, Ontario, Canada; Centre National de la Recherche Scientifique, France; International Center for Genetic Engineering and Biotechnology, New Delhi; and Indian research organizations like Central Drug Research Institute, Lucknow; Centre for Excellence in Genomic Sciences, Madurai Kamaraj University; Ministry of New and Renewable Energy (MNRE), Govt. of India; Solarflame Corporation, Japan; IBM; EMC Corporation etc.
- University takes all possible measures to assure the quality of institutions and programmes.
- To produce industry-ready students, on-campus finish Schools and Corporate Schools are conceptualized by the University.
- University promotes excellence through curriculum innovations.
- University envisions state-of-the-art research in diverse areas of science and technology by identifying number of Research Centres across the state.
- University conducts Teacher's Eligibility Test as a qualifying examination for recruitment as teacher in its affiliated institutes.

1.1.2 Does the University follow a systematic process in the design and development of the curriculum? If yes, give details.

University encourages dynamic curriculum based on the needs of today's ever changing world. University invites inputs from stakeholders like industry, academia, professional bodies, research organizations, faculty members, alumni and students while framing a new syllabus. Board of Studies and Academic Council meetings are frequently organized for framing, reviewing

and updating syllabi and introducing new courses of study. The guidelines prescribed by UGC/AICTE/ PCI/COA are given serious considerations in the designing of syllabus.

1.1.3 How are the following aspects ensured through curriculum design and development?

***Employability**

***Innovation**

***Research**

University follows outcome-based methodologies towards confirming employability, innovation and research through curriculum development. Major Initiatives taken under these headings are as follows:

Employability

University ensures employability of students through curriculum in following ways:

- Finish Schools are conceptualized by the University to produce industry-ready students.
- The University has signed MoU with DAUTO Engineering Pvt. Ltd., Bhopal to acquaint mechanical and automobile engineering students with job-oriented modern design technologies.
- The University has signed number of MoUs with Corporate Houses such as EMC Corporation and IBM to establish corporate schools on campus. These schools help in imparting training and offering many job-driven certification courses in emerging areas of Science and Technology such as Big Data and Cloud computing to students on in-trend technologies of industries.
- University in collaboration with IBM, USA has established 15 Centres of Excellence to disseminate industry-specific knowledge and skills among students.
- Industrial-visits and study-tours are organized as a part of the curricula.
- University regularly organizes expert lectures, workshops, symposiums, seminars, talks from invited experts from industries.
- University has inculcated six months (one semester) internship as a mandatory component of its Dual Degree Programs.

- EMC supported Corporate School to let students understand state-of-the-art technologies in the area of data sciences which shall enable them to get quality employment.
- University promotes training programs, field visits, and industry-oriented major/minor projects in order to imbibe hands-on experience in students.
- Courses are designed to address key-skills i.e. analytical, vocational and entrepreneurial skills essential for all around development of students.
- University encourages students to become self-reliant through entrepreneurship and has set-up a Venture Capital Corpus of Rs. 100 million.
- University conducts pre-placement interview trainings for students.
- University has initiated start-up culture on the campus.

Innovation

- Students are free to fulfill their creative aspirations through Major/minor projects.
- University promotes active learning by encouraging students to indulge in self-learning and make presentations on emerging areas.
- University provides financial assistance to boost research and innovation among students. University has thus created a 'Research and Innovation Fund' of Rs. 100 million.
- Cost of patent filing is borne by the university. University offers a flexible learner-driven curriculum aims at achieving outcomes through innovative thinking.
- Courses are designed so as to stimulate creativity and critical thinking among students.
- University has introduced the Choice Based Credit System in its academic curriculum.

Research

- Every year, University rewards the Best Project and Best Research paper awards in different faculties for motivating research among students and faculty.
- As per the UGC Regulations of 2009, the University has enacted a new Ordinance No. 11 with a mandatory provision for Ph.D. entrance test followed by coursework.
- Research projects are an integral part of ME/M.Tech./M.Pharm. Curriculum.
- At PG level two semesters are dedicated for research projects.
- University encourages collaborative research.

1.1.4 To what extent does the University use the guidelines of the regulatory bodies for developing / restructuring the curricula? Has the University been Instrumental in leading any curricula reform which has created a national impact?

University adheres to the frameworks and guidelines laid by the statutory bodies like UGC/ MHRD/AICTE/ PCI regulatory for its Engineering and Pharmaceutical courses. Model syllabus approved by AICTE and PCI is always referred to and adopted with suitable modifications as per the regional needs. From current academic session, the University has also implemented Choice Based Credit System for all its undergraduate courses in engineering, pharmacy and architecture.

1.1.5 Does the University interact with industry, research bodies and civil society in curriculum revision? If so how has the University benefited through interactions with the stakeholders?

University assigns power to Board of Studies to consult specialists for regular review of the syllabus and course scheme which recommend the modifications necessary to keep pace with changing knowledge base and requirement of the industries. Each Board comprises of two external members, which may represent global and local industries, nominated by the Academic Council.

Besides, University promotes active dialogue with stakeholders like industries, research bodies and civil society by organizing workshops, seminars, expert-talks, meetings, webinars, tele-conferencing etc. to meet the challenges of curriculum reforms through synergic partnership.

In past four years, University has organized many industry-academia meets which culminated into introduction of PG Programs such as Data Science and

Cyber Forensics.

1.1.6 Give details of how the University facilitates introduction of new courses of studies in its affiliated colleges.

In order to propel growth and development of affiliated colleges, The University motivates them to exercise academic and administrative leadership through introduction of new courses adhering to the mandates of regulatory bodies like UGC/MHRD/AICTE/PCI. On receiving the application for the introduction of the new course to the University, University constitutes a Committee of Experts to visit the institute and physically verify the claims. Based on the recommendations of the Committee, the University nods to the applied course and forwards the matter to the representative Board of Studies for framing of the syllabus for the proposed course.

1.1.7 Does the University encourage its colleges to provide additional skill oriented programs relevant to regional needs? Cite instances.

Yes. With a vision for harnessing the demographic dividend, the University offers many skill-centric programmes in its affiliated institutions. The University has identified region-specific programmes such as mining courses at UIT, Shahdol and Jhabua, and Cement Technology at Satna Polytechnic, based on the local needs and opportunities. Besides, University also conducts workshops, seminars, symposiums and entrepreneurship programs to infuse self-reliance among students. Skill-oriented programmes are also offered to the students as electives under the CBCS.

1.2 Academic Flexibility:

1.2.1 Furnish the inventory for the following:

a) Programmes taught on campus

University Teaching Departments have academic flexibility through complete autonomy in curriculum design and reforms. Presently, University offers following undergraduate, postgraduate and doctoral courses on campus:

PROGRAMMES	
UNIVERSITY INSTITUTE OF TECHNOLOGY	
UNDERGRADUATE	
S.NO.	B.E. (4 years)
1	Automobile Engineering
2	Civil Engineering
3	Computer Science & Engineering
4	Electrical & Electronics Engineering
5	Electronics & Communication Engineering

6	Information Technology
7	Mechanical Engineering
8	Petrochemical Technology
POSTGRADUATE	
S.NO.	M.E. (2 years)
1	Computer Science & Engineering
2	Digital Communication
3	Heat Power Engineering
4	Power System
5	Structural Engineering
	MCA (3 years)
1	Master of Computer Application
	M.Sc. (2 years)
1	M.Sc. (Maths)
UNIVERSITY TEACHING DEPARTMENTS	
	M.Tech. (2 years)
1	Energy Technology
2	Nanotechnology
3	Cyber Forensic
4	Data Sciences
5	Computer Tech. & Application
6	Information Technology
7	Biotechnology
	M.Pharm. (2 years)
1	Pharmaceutical Chemistry
2	Pharmaceutics
3	Quality Assurance
	Integrated PG Programmes (5 years) BE +M.Tech/MBA
1	Civil Engineering
2	Computer Science Engineering
3	Electrical Engineering
4	Electronics & Comm. Engineering
5	Information Technology
6	Mechanical Engineering
	Dual Degree (5 years)
1	Master of Applied Management

University Teaching Departments also offer Ph.D. programme in the

respective and allied disciplines.

DIPLOMA PROGRAMME	
S.NO.	Diploma (3 years)
1	Electrical Engineering
2	Civil Engineering
3	Electronics & Telecommunication Engineering
4	Mechanical Engineering

Overseas Programs offered on Campus: Presently, University does not offer any overseas programs.

Programs available for colleges to choose from: University offers below listed programs for students and faculties of affiliated colleges:

Programs offered by the University (in affiliating institutes):

POSTGRADUATE PROGRAMMES (M.E. / M.Tech.)	
S.NO	Engineering & Technology
.	
1	Production Engineering
2	Advanced Production Systems
3	Artificial Intelligence
4	Automobile Engineering
5	Building Construction Technology
6	CAD/CAM Engineering
7	Chemical Engineering
8	Communication Systems
9	Communication Tech. & Mgmt.
10	Computer Aided Structural Analysis and Design
11	Computer Engineering & Application
12	Computer Science & Engineering
13	Computer Technology & Applications
14	Construction Planning and Management
15	Construction Technology and Management
16	Control System Engineering
17	Cyber Forensics
18	Cyber Security
19	Data Sciences
20	Design of Mechanical Systems

21	Digital Communication
22	Digital Electronics
23	Digital Instrumentation
24	Electrical Power Systems
25	Electronics & Communication Engineering-Communication Control & Net.
26	Electronics & Instrumentation Engineering
27	Embedded System and VLSI Design
28	Embedded Systems
29	Energy & Environment Mgmt.
30	Energy Technology
31	Environmental Engineering
32	Heat Power
33	Heat Power and Thermal Engineering
34	Heat Power Engineering
35	High Voltage and Power Systems Engineering
36	Industrial Design
37	Industrial and Production Engineering
38	Industrial Engg.
39	Industrial Engineering & Management
40	Industrial Safety Engg.
41	Information Technology
42	Instrumentation & Control Engineering
43	Machine Design
44	Machine Design & Robotics
45	Micro Electronics & VLSI Design
46	Microwave & Millimeter Engg.
47	Nanotechnology
48	Power Electronics
49	Power Systems
50	Power Systems and Automation - Part Time
51	Production & Machine Design
52	Production and Industrial System
53	Production Engineering & Engineering Design
54	Software Engineering
55	Structural Engg.
56	System Software
57	Thermal Engineering
58	Thermal Power Engineering
59	Thermal Science Engineering
60	Thermal Systems and Design

61	Transportation Engineering
62	VLSI
63	VLSI and Embedded Systems
64	VLSI and Micro Electronics
65	VLSI Design
	M.Arch. (2 years)
66	Urban Planning
	M.Pharm. (2 years)
67	Drug Regulatory Affairs
68	Industrial Pharmacy
69	Pharmaceutical & Medical Chemistry
70	Pharmaceutical Analysis
71	Pharmaceutical Biotechnology
72	Pharmaceutical Chemistry
73	Pharmaceutical Management and Regulatory Affair
74	Pharmaceutical Marketing
75	Pharmaceutical Technology
76	Pharmaceutics
77	Pharmaceutics (Drug Regulatory Affairs)
78	Pharmacognosy
79	Pharmacology
80	Quality Assurance
81	MCA (2 years) <i>for lateral entry</i>
82	MCA (3 years)
	Dual Degree
83	Master of Applied Management (MAM)
84	MCA Dual degree

The University has also recognized research centers at affiliated institutions to facilitate the doctoral students to pursue their Ph.D.

	UNDERGRADUATE PROGRAMMES
S.NO.	B.E. (4 years)
1	Aeronautical Engineering
2	Applied Electronics & Instrumentation
3	Automobiles Engineering
4	Bio-Medical Engineering
5	Bio-Technology
6	Chemical Engineering
7	Civil Engineering

8	Computer Science & Engineering
9	Computer Engineering
10	Electrical & Electronics Engineering
11	Electrical Engineering
12	Electronics & Communication Engineering
13	Electronics & Instrumentation Engineering
14	Fire Technology/Fire & Safety Engineering
15	Industrial Engineering & Management
16	Industrial Production
17	Information Technology
18	Mechanical Engineering
19	Mining Engineering
20	Petro-Chemical Technology
21	Textile Technology
	B.Arch. (4 Years)
22	B.Arch.
	B.Pharm. (4 Years)
23	B.Pharm.

1.2.2 Give details of the following with reference to academic flexibility

a. Core/Elective Options:

The structure of UG programme under CBCS Scheme consists of the following: Foundation Courses (Basic Sciences, Engineering Arts & Sciences, Humanities, and Social Science & Management), Departmental Core, Departmental Electives and Open Category Electives distributed over eight semesters, with two semesters per academic year. Credits assigned to these categories are such as to cover 1/3rd of total credits assigned for electives and 2/3rd of total credits for the core.

b. Enrichment Courses:

First year scheme under CBCS offers courses like English, Introduction to Department, and Rural Outreach with intent to enrich students with skills necessary for their personal growth.

c. Courses offered in Modular Form

Syllabus of each course under CBCS scheme is well framed in the form of a module with clear mentioning of course objective and its learning outcomes.

d. Credit Accumulation and Transfer Facility

For the award of degree in any branch of four years degree programme, a student has to earn a minimum of 180 credits in engineering and 216 credits in Pharmacy. Facility for credit transfer to and from other institutions is in proposal.

- e. Lateral and Vertical Mobility within and across programmes, courses and disciplines

University does offer lateral mobility by providing significant weightage to open category credits, which allow students of one programme to take courses offered by the other programmes. Currently the University does not allow students to earn credits from other Universities or Institutes but in near future University is planning to make MOOC courses an integral part of the scheme, thus allowing students to take courses offered by other institutes for credits.

In order to transform current teaching-learning framework from teacher-centric to student-centric, University has implemented Choice Based Credit System (CBCS). This new students' choice-oriented system ensures seamless mobility among students while promoting learning based on their choices.

1.2.3 Does the University have an explicit policy and strategy for attracting International students?

University has signed 13 MoUs with organizations and foreign universities with provisions for students' and faculty exchange programs.

1.2.4. Have any courses been developed targeting international students? If so, how successful have they been? If 'no', explain the impediments.

A number of programs offered by the University are in sync with the global needs and opportunities. The well designed courses offered by the University are likely to attract international student community.

1.2.5 Does the University facilitate Dual Degree and Twinning Programmes? If yes, give details.

Yes, the University facilitates Dual Degree Programmes on the campus and also in affiliated colleges as enlisted below:

University's Integrated PG Program (on campus)

IPG IPG-Civil Engineering

IPG IPG-Computer Science & Engineering
IPG IPG-Electrical Engineering
IPG IPG-Electronics & Communication Engineering
IPG IPG-Information Technology
IPG IPG-Mechanical Engineering

Dual Degree Courses

MAM Master of Applied Management (on campus and in affiliated colleges)

1.2.6 Does the University offer self-financing programmes? If yes, list and indicate policies regarding admission, fee structure teacher qualification and salary are at par with the aided programme.

Yes, all programmes offered by the University on campus are self-financing programs and all policies regarding admissions, fee structure, qualifications, and salary are as per declared policy of the University.

1.2.7 Does the university provide the flexibility of bringing together the conventional face to face mode and the distance mode of education and allow students to choose and combine the courses they are interested in? If 'yes', give operational details.

The University does not offer any distance learning programme.

1.2.8. Has the university adopted the Choice Based Credit System (CBCS)? If yes, for how many programmes? What efforts have been made by the university to encourage the introduction of CBCS in its affiliated colleges?

In consonance with the directives of MHRD, RGPV has implemented Choice Based Credit System (CBCS) for all its undergraduate programmes in engineering, pharmacy and architecture from the academic session 2015-16. In order to introduce CBCS in its affiliated colleges, University has conducted several meetings, and workshops in the University as well as its nodal centres to apprise all the stakeholders about the system.

1.2.9. What percentage of programmes offered by the University follow:

- * Annual System**
- * Semester System**
- * Trimester System**

All programmes (100%) offered by the University follow semester system of education.

1.2.10. How does the university promote inter-disciplinary programmes? Name a few programmes and comment on their outcome.

In order to foster interdisciplinary learning, university offers several programmes in diverse fields of engineering and science. Following are the inter-disciplinary programmes offered by the University:

S.No.	Offering Department	Interdisciplinary Programme
1.	School of IT	M.Tech.(Cyber Forensic)
2.	School of IT	M.Tech. (CTA)
3.	School of IT	M.Tech. (Data Sciences)
4.	School of Energy & Environment Management	M.Tech. (Energy Technology)

Interdisciplinary nature of these programme enhance research and job opportunities for students in emerging areas.

1.3 Curriculum Enrichment

1.3.1 How often is the curriculum of the university reviewed and upgraded for making it socially relevant and/ or job oriented/ knowledge intensive and meeting the emerging needs of students and other stakeholders?

University periodically reviews and revises its curriculum through BoS Meetings of concerned departments. University also from time to time conducts seminars, workshops and meetings with the industry representatives on exploring new and emerging areas of knowledge that can be considered as a part of curriculum.

1.3.2 During last four years, how many new programmes at UG/PG level are introduced? Give details.

The following new programmes have been introduced in the last four years:

PG courses

- Digital Communication
- Cyber Security
- Energy Technology

UG Courses

- Mining
- Aeronautical Engineering
- Petrochemical Technology
- Automobile Engineering

Dual Degree Programmes

- Dual Degree Program in Applied Management (on Campus)

1.3.3 What are the strategies adopted for the revision of the existing programmes? What percentage of courses underwent syllabus revision?

University makes periodic revision of existing programs and curricula based on the current trends in industry and research. For this University conducts seminars, workshops, symposiums and expert talks to gather feedback regarding its relevance and appropriateness in catering to the needs of the society, economy and environment. On an average one or two Board of Studies meetings are conducted in an academic year. 100% of courses have undergone syllabus revision in last four years.

1.3.4 What are the value added courses offered by the University and how does the university ensure that all students have access to them?

Courses such as environmental sciences and rural outreach are the integral part of the CBCS Scheme. These courses imbibe environmental and social awareness among learners. University has included these courses in the pool of core courses; hence every student has to compulsorily take these courses.

1.3.5 Has the University introduced any higher order skill development programme in consonance with national requirements as outlined by the national skill development corporation and other agencies? Look into the programs

Yes. The university in consonance with requirements outlined by NSDC has introduced several higher order skill development programmes especially in the field of Information Technology (IT), and IT Enabled Services (ITes). In this regard, University jointly with IBM and EMC Corporation offers certification courses on demand-driven job-oriented programs on Cloud Computing, Information Storage Management, Big Data, and Data Analytics.

1.4 Feedback System:

1.4.1 Does the university have a formal mechanism to obtain feedback from students regarding the curriculum and how is it made use of?

Feedbacks are regularly taken from students in the form e-mails, online surveys, alumni-meets, and informal conversations. The feedback thus obtained is considered by the respective BoS while reviewing/revising the syllabi. University also nominates a student representative as a member of Board of Studies.

1.4.2 Does the university elicit feedback on curriculum from national and international faculty? If yes, specify methods such as conduct of webinars, workshops online discussions and its impact.

The University from time to time organizes national and international seminars, and workshops inviting many national and international faculties for eliciting feedback on curriculum.

1.4.3 Specify the mechanism through which affiliated institutions give feedback on curriculum enrichment and the extent to which it is made use of.

The University welcomes feedbacks on curriculum enrichment from affiliated institutions through meetings, online feedbacks, postal correspondence, and time to time visits of University team to affiliated institutes. The feedback thus received is considered by the respective BOS while reviewing/revising the syllabi.

1.4.4 What are the quality sustenance and quality enhancement measures undertaken by university to ensure effective development of the curriculum?

The University undertakes following measures for quality sustenance and quality enhancement:

- The University has constituted Internal Quality Assurance Cell (IQAC) for reviewing, designing, proposing and implementing suitable quality measures adhering to the norms laid down by the regulatory bodies.
- The University from time to time conducts Academic Audits to ensure academic quality.
- 'RGPV Service Portal' is a significant user friendly e-governance initiative to infuse responsible, accountable and transparent system.

CRITERION-II

TEACHING LEARNING AND EVALUATION

2.1 Student Enrolment and Profile

2.1.1. How does the university ensure publicity and transparency in the admission process?

Publicity: Availability of seats in every discipline is clearly advertised through print as well as electronic media. Print media includes reputed newspapers of national as well as state level with significant circulation, both in Hindi and English.

Transparency: University also maintains transparency by uploading advertisements, program details, fee details, eligibility criteria, admission procedures, reservation and age-relaxation policies for SC/ST/OBC/ Women, differently-abled candidates, schemes, merit-lists and e-notices with significant deadlines on the University's web-portal. University also releases important instructions for candidates reporting for PG admissions. University also declares information regarding cancellation of admission and fee refund details clearly with the advertisement.

2.1.2. Explain in detail the process of admission put in place by the university. List the criteria for admission: (e.g.: (i) merit, (ii) merit with entrance test, (iii) merit, entrance test and interview, (iv) common entrance test conducted by state agencies and national agencies (v) other criteria followed by the university (please specify).

Admission to UG Programmes: Admissions to UG courses are made on the basis of JEE rankings by the state level engineering counseling committee constituted by the Government of Madhya Pradesh. The publicity and transparency in admissions is ensured by this committee.

Admission to PG Programmes: Students are admitted in the PG courses on the basis of their merit on valid GATE/GPAT score. The admissions in the PG Courses are made through centralized counseling organized jointly by the University and Department of Technical Education (DTE), Government of Madhya Pradesh.

Admission to Ph.D. Programmes: Admissions to Ph.D. programmes are made twice a year through a Ph.D. entrance test followed by an interview UGC Regulations, 2009 for Ph.D. admissions.

Admission to Integrated Post Graduate Programmes: The students of IPG programme are offered BE + M.Tech. Degree or BE + MBA degree on successful completion of the course. Admissions are made purely on the merit-basis of candidate's performance in JEE Mains examination conducted by the CBSE.

Admission to Diploma Programme: University offers Diploma courses in Civil Engineering, Mechanical Engineering, Electronics & Telecommunication Engineering, and Electrical Engineering. Admissions to these courses are made on the basis of PPT marks merit. The admissions are done through centralized counseling organized by the Department of Technical Education, Government of Madhya Pradesh.

2.1.3. Provide details of admission process in the affiliated colleges and the university's role in monitoring the same.

Admissions in UG programmes are made through Directorate Technical Education, M.P. as per admission rules of Govt. of M.P.

2.1.4. Does the university have a mechanism to review its admission process and student profile annually? If yes, what is the outcome of such an analysis and how has it contributed to the improvement of the process?

Admission to undergraduate programme is made through centralized counseling.

2.1.5. What are the strategies adopted to increase/improve access for students belonging to the following categories:

***SC/ST**

***OBC**

***Women**

***Persons with varied disabilities**

***Economically weaker sections**

***Outstanding achievers in sports and other extracurricular activities**

The University has been following inclusive policies by extending the support to backward classes of the society. Some of the strategies adopted to increase / improve access for students belonging to above mentioned categories are as follows:

***SC/ST/OBC**

- The University follows the directions of the Government issued from time to time regarding statutory reservation policies.

- Madhya Pradesh hosts a large cluster of population from diverse backgrounds including communities with significant tribal presence.
- The University is committed towards its mission of proliferating quality technical education to the remotest of areas. This is reflected in University's initiative of setting-up two new Institutes offering diverse academic programs in distant locales of Shahdol and Jhabua, largely inhabited by tribal population.
- University provides reservation in admissions to SC/ST/OBC/ Women/ Differently-abled candidates as per the norms of the State of Madhya Pradesh. The SC/ST candidates of Madhya Pradesh are also exempted from paying the application fee. SC/ST/OBC candidates of Madhya Pradesh are also granted with the travel allowances as per the University/Govt. of Madhya Pradesh norms.
- The University has also constituted 50 scholarships of Rs 40000/- per student for meritorious SC/ST students.
- Suitable age and eligibility qualification relaxations are made applicable to reserved category students as per the State Government norms.

***Women**

- University envisions social, financial as well as gender equities as an integral part of its mission. University thus offers multi-fold financial assistance programs to support socially-disadvantaged/deprived groups to be a part of mainstream learning.
- University has framed a dedicated women policy with vision to stress upon fairer gender, promoting programs on gender sensitization as recommended by UGC and ensuring awareness towards women's safety. The policy promises a safe and secure campus for students, faculty, staff and visitors. Moreover, this policy covers the preventive measures as well as the prohibition and redressal issues, related to women-centric crimes, as suggested by AICTE Regulations 2012.
- The University offers 56 scholarships amounting Rs 25000/- per year for 'girl students' with an objective to support and empower meritorious girl students.

***Persons with varied disabilities**

- Provisions of ramps and lifts has been made mandatory in various buildings of the University

- For differently-abled students there is a provision of amanuensis and extra-time in all the examinations.

***Economically weaker sections**

- The State and Central Government Scholarships are given to the Backward Class/Community students, which are paid through the University fund till the payment is received from the respective Government Departments.
- The University conducts extra-competence classes, preparatory classes for students from weaker sections of the society.
- University also provides book-bank facility to students belonging to backward communities.
- The University provides stationary items to students from backward communities.

***Outstanding achievers in sports and other extracurricular activities**

- University facilitates provisions for special examinations and extra-credits for State or National level athlete students.

2.1.6. Number of students admitted in university departments in the last four academic years.

Year	BE	ME/M.Tech.	M. Pharm.	MCA	Ph.D.
2011-12	2021	155	30	60	29
2012-13	2275	172	27	60	12
2013-14	2284	206	28	54	7
2014-15	2068	185	21	23	8

2.1.7. Has the university conducted any analysis of demand ratio for the various programmes of the University Departments and affiliated colleges?

Yes, the University has conducted demand ratio study for its PG programmes.

Table No. 2.2 (a) Demand Ratio (PG Courses) 2011-12

Departments	Number of applications	Number of students admitted	Demand Ratio
Biotechnology	77	17	4.52
Civil	290	18	16.11
ECE	203	18	11.16
CSE	180	18	10.00
EEE	50	18	2.77
Energy	340	17	20
Mathematics	4	4	1
MCA	60	60	1
Mechanical	200	18	11.11
Nanotechnology	230	18	12.77
Pharmacy	400	30	13.33
SOIT	856	31	27.61

Table No. 2.2 (b) Demand Ratio (PG Courses) 2012-13

Departments	Number of applications	Number of students admitted	Demand Ratio
Biotechnology	61	14	4.35
Civil	98	18	5.44
ECE	273	18	15.16
CSE	181	18	10.00
EEE	58	18	3.22
Energy	364	17	21.41
Mathematics	7	0	0
MCA	60	60	1
Mechanical	189	18	10.5
Nanotechnology	298	18	16.55
Pharmacy	190	27	7.03
SOIT	374	33	11.33
CSE	174	18	9.66

Table No. 2.2 (c) Demand Ratio (PG Courses) 2013-14

Departments	Number of applications	Number of students admitted	Demand Ratio
Biotechnology	48	14	3.42
Civil	207	18	11.5
ECE	876	18	48.66
CSE	169	17	8.91
EEE	65	18	3.61
Energy	225	18	12.5
Mathematics	10	4	2.5
MCA	54	54	1
Mechanical	289	18	16
Nanotechnology	198	18	11
Pharmacy	92	28	3.28
SOIT	1008	67	15

Table No. 2.2(d) Demand Ratio (PG Courses) 2014-15

Departments	Number of applications	Number of students admitted	Demand Ratio
Biotechnology	21	10	2.1
Civil	686	18	38.11
ECE	339	18	18.83
CSE	118	17	6.6
EEE	78	18	4.33
Energy	160	18	8.88
Mathematics	4	1	4
MCA	23	23	1
Mechanical	220	18	12.22
Nanotechnology	164	18	9.11
Pharmacy	118	21	5.61
SOIT	711	50	14.22

2.1.8. Were any programmes discontinued/ staggered by the university in the last four years? If yes, please specify the reasons.

No, University has not discontinued or staggered any of its programmes in last

four years.

2.2 Catering to Student Diversity

2.2.1 Does the university organize orientation/induction programme for freshers? If yes, give details such as the duration, issues covered, experts involved and mechanism for using the feedback in subsequent years.

Every new academic session begins with an orientation programme for the newcomer students. This is a one-week programme covering wide-ranging issues such as sensitizing students about the university's vision and mission, university's policies about students' welfare, anti-ragging and women safety. Other issues such as financial assistance and centralized facilities are also covered in this programme.

2.2.2 Does the university have a mechanism through which the "differential requirements of the student population" are analyzed after admission and before the commencement of classes? If so, how are the key issues identified and addressed?

The University hosts a diverse group of students from different backgrounds. In order to analyze their differential requirements, university from time to time conducts surveys to identify different groups of students on the basis of their learning capabilities. One such survey is identifying students on their language proficiency in higher secondary; another group is of students who have secured a certain range of percentage in higher secondary. University uses this data to plan preparatory classes for these students. University also appoints a student-counselor; separately for girl-students, to discuss, understand and resolve day to day problems faced by the students. University has also implemented the Choice Based Credit System for all its undergraduate programmes. Accordingly, depending on their pace of learning the students may decide the time and duration to obtain their degree. Slow learners may take a minimum of 16 credits per semester while the fast learners may take maximum of 26 credits per semester thus providing flexibility to meet minimum credit requirements for the degree as per their own learning capacities.

2.2.3 Does the university offer bridge / remedial / add-on courses? If yes, how are they structured into the time table? Give details of the courses offered, department-wise/faculty-wise?

The University offers remedial classes for SC/ST/OBC/Minorities and poorly-performing students. These classes are conducted by the individual departments on non-teaching slots especially in the evenings, weekends or holidays. Students after completion of Diploma courses are admitted in the second year of the

undergraduate Courses have to enroll into few first years courses as bridge courses such as Engineering Mathematics, English, Engineering Mechanics etc.

2.2.4 Has the university conducted any study on the academic growth of students from disadvantaged sections of society, economically disadvantaged, physically handicapped, slow learners, etc.? If yes, what are the main findings?

As such the university has not conducted any specific study on the academic growth of the students from the disadvantaged sections of society. But, in order to promote such students, University offers a fee-waiver scheme of AICTE to economically disadvantaged learners. University also adheres to the statutory reservation policies mend for the differently-abled and socially backward learners.

2.2.5 How does the university identify and respond to the learning needs of advanced learners?

Under the CBCS scheme, the University offers a room for earning a minor specialization to advance learners who have completed a certain range of credits by the 5th semester.

2.3 Teaching-Learning Process

2.3.1 How does the university plan and organize the teaching, learning and evaluation schedules (academic calendar, teaching plan, evaluation blue print, etc.)

The University adopts well defined teaching learning methodologies which delineate preparation of unit-wise teaching plans before the commencement of new semester. The University also plans its curricular, co-curricular activities for the whole year before hand at the commencement of new academic session. Academic calendar and schedules of curricular and co-curricular activities along-with the semester examination time-tables are uploaded on the University Web Portal. University presently employs a fully transparent and continuous assessment system in compliance with its Ordinance. Regular quizzes, assignments, seminars are integral part of internal assessment. Evaluation of End Semester examination is also a well-managed process, which is managed centrally at the University campus.

The University plans the teaching, learning and evaluation schedules in the following manner:

- Before the start of the academic session, decisions regarding Academic Calendar, Teaching Plan and evaluation schedule, etc., are taken by the Dean, Academics in consultation with the Director and Heads of the

concerned Department and recommended to the Academic Council for approval.

- Before the end of each academic session, the Department holds a meeting of all the faculty members at the Board of Studies level discusses the various courses to be offered to the students in the forthcoming session, modification needed in the syllabi and allots the course to be taught in the next academic session by a faculty.

2.3.2 Does the university provide course outlines and course schedules prior to the commencement of the academic session? If yes, how is the effectiveness of the process ensured?

The University does provide course outline and course schedule both to students and teachers before the commencement of academic session. The effectiveness of the process is ensured through:

- Monitoring by the concerned Head of the Department.
- Periodic assessments of the prescribed deadlines are done through class test, mid semester examinations, etc.

2.3.3 Does the university face any challenges in completing the curriculum within the stipulated time frame and calendar? If yes, elaborate on the challenges encountered and the institutional measures to overcome these.

No, generally University does not face any challenges in completing curriculum within the stipulated time frame and calendar but at times due to unforeseen circumstances or holidays, lack of permanent teachers and their involvement in other university administrative responsibilities, problems related to completing curriculum are faced sometimes.

2.3.4 How learning is made student-centric? Give a list of participatory learning activities adopted by the faculty that contributes to holistic development and improved student learning, besides facilitating life-long learning and knowledge management.

The current curriculum offers several electives covering diverse areas. To make it more student-centric, from the academic session 2015, University has adopted the Choice Based Credit System, which incorporates need-based and outcome oriented courses facilitating seamless mobility and interdisciplinary learning among students – a truly student-centric approach.

The sport and cultural activities organized by the university and the students

are the key to inculcate the feeling of social corporate responsibility among them. The scholarship programs are designed to provide the financial support for the merit holder students and the students below poverty class.

The campus recruitment drives organized by the Training and Placement Cell is the event that facilitates the employment to the students well before they complete their degree or diploma programs. TCS, Infosys, Wipro, Satyam, HCL, HP etc. are few of the major recruiters.

The industrial exposure under the Industrial Training Program of each course provide the access and chance to work within the industry before completing the courses which builds the confidence of students before entering to the industry environment.

The University has a culture of student-centric education and learning. Efforts are also made at the University level as well as at the Departmental level to ensure student centric learning and knowledge management by:

- Using ICT tools in the classrooms.
- Providing library facilities for self –learning.
- Organizing seminars, conferences, workshops, symposia, and debates.
- Organizing group discussion, presentations, seminars, workshops, quizzes, competitions, joint projects by the students, educational tours etc.

2.3.5 What is the university's policy on inviting experts/people of eminence to deliver lectures and/or organize seminars for students?

- Invited lectures, guest lectures, industry lectures seminars are being organized and such lectures are also recorded and uploaded on the portal and online delivery of lectures is also being ensures through A-View. In pursuit of knowledge and delivery of subject knowledge, RGPV has taken initiatives to telecast (webcast) lectures/expert lectures through A-view software of Amrita University to its various affiliating institute. RGPV and Amrita University have joined hands to fulfill the mission on Education through ICT (NMEICT).
- The Academic Staff College, facilitates the lectures of experts from different disciplines.
- Each Department has an internal procedure too, for research and PG students wherein the Departments invite experts on specific issues individually and discussions/lectures are held as per the need of the students.

2.3.6 Does the university formally encourage blended learning by using e-learning resources?

- The Central Library of the University is providing the access to purchased e-books, which are available at the websites. The University under the UGC/INFLIBNET programme and from its own resources is providing access to the various research journals in electronic form.
- Blending of latest technological tools in teaching like Computer Assisted Language Learning, language lab, phonetics software, latest e-learning platforms, etc.
- Students are encouraged to adopt the e-resources of learning in their presentations, dissertations and researches and are facilitated with infrastructure to access in the Departments of studies besides the Central Library.

2.3.7 What are the technologies and facilities such as virtual laboratories, e-learning, open educational resources and mobile education used by the faculty for effective teaching?

E-library provides the online access to digital repository of digital Ph.D. theses and digital ME/M.Tech. Dissertations. User can access via one mouse click through internet. RGPV has signed a MoU with INFLIBNET to digitize its repository of theses as part of the *Shodhganga* project.

2.3.8 Is there any designated group among the faculty to monitor the trends and issues regarding developments in Open Source Community and integrate its benefits in the university's educational processes?

Yes. There is an e-governance monitoring cell. To make the various University services more efficient and provide the speedy services to the students and affiliated institutions, the University has recently launched an e-governance portal to help the faculty to implement e-governance for better communication, transparency and efficient working. Through the portal of the university, student could also use the resources like e- Library and contents available in the university.

2.3.9 What steps has the university taken to orient traditional classrooms into 24x7 learning places?

University offers a high speed Wi-Fi and LAN connectivity throughout the

campus. Besides, resources on the University's e-Library are accessible round the clock through the university portal.

2.3.10 Are there any provision for the services of counselors / mentors/ advisors for each class or group of students for academic, personal and psycho-social guidance? If yes, give details of the process and the number of students who have benefitted.

Adequate number of faculty members is assigned as counselors, mentors and advisors for groups of students for their academic personnel and professional growth including psycho-social guidance. Counseling is provided for students belonging to different categories including economically weaker sections of the society and girl students. Women Policy is a declared document and committees are constituted for making recommendation to the management for issues related to the women. Every constituent institute will also have a counselor as well as women counselors.

There is an elaborate mechanism of adoption of all students in groups by teachers for academic, personal and psycho-social guidance, which is provided through the following:

- Counseling facility offered at the time of admission enlightening the student on selection of courses, progression and placements.
- Guidance relating to placement opportunities offered by Training and Placement Department of the university.
- Mentoring the students for preparation for GATE, CAT, GRE, GPAT and other competitive examinations.

2.3.11 Were any innovative teaching approaches/methods/practices adopted/put to use by the faculty during the last four years? If yes, did they improve learning? What were the methods used to evaluate the impact of such practices? What are the efforts made by the institution in giving the faculty due recognition for innovation in teaching?

The University encourages its faculty members for attending various faculty development courses offered by IITs/IIMs/MHRD/AICTE/UGC, which help the teachers in improving their teaching skills that ultimately percolates down to students of the university. In the last few years that there has been a vast change in traditional teaching pattern. Now the faculty delivers their lectures with the help of virtual e-pad with e-notes and hyper links to the online virtual models. This enables students to enhance their imaginations so that they can realize the physical appearances of the object to be studied. University also sends its faculty members to attend various technical workshops conducted by

the premier institutes/ organization of the nation so that they can develop their own models and programs according to students needs, which also helps the students in their theoretical as well as practical growth.

2.3.12 How does the university create a culture of instilling and nurturing creativity and scientific temper among the learners?

Creativity and scientific temper are instilled and nurtured through some programmes as mentioned in the table 2.3 and 2.4 below.

Table No. 2.3 Programmes for Creativity Development during 2011-12 to 2014-15.

S.No.	Name of the Activity	Nature of Students Participation	Duration
1	Awareness campaign-TGCC	B.E. UIT Students	8/9/2012
2	The slogan writing competition	B.E. UIT Students	15/09/2012
3	TECHFEST Green College Challenge	B.E. UIT Students	26/09/2012
4	Poster Making Competition	B.E. UIT Students	28/09/2012
5	Cycle Rally	B.E. UIT Students	6/10/2012
6	Environment Quiz and Group Discussion	Team of Students Participants	18/10/2012
7	Poster Making Competition	B.E. UIT Students	23/10/2012
8	Planting Trees On Urja Diwas	B.E. UIT Students	7/8/2013
9	Eco-Trivia	Team Of Students Participants	Round 1 (10/08/2013) round 2 (5/09/ 2013) round 3 (07/10/2013)

10	Collage Making	Team of students Participants	5/11/2014
11	Explorer-Scavenger Hunt	Team of students Participants	3/11/2014
12	Eco-Trivia 2.0	B.E. UIT Students	5/11/2014
13	Project Green Challenge (PGC)	Team of students Participants	6/11/2014
14	Oath Taking Program	Program for nations unity and oath ceremony for maintaining unity of nation	31/10/2014
15	Quill-O-Logy	30 students participate in essay writing competition.	28/02/2015
16	Caption Writing Competition	39 student, an online caption writing content	14/03/2015 to 18/03/2015
17	Eco- Trivia 3.0	A 3-round competition	19/10/2015
18	Essay Writing Competition	Role of iron man (Shri Sardar Vallabh Bhai Patel) in free India	30/10/2015
19	Oath Taking Program	Program For Nations Unity And Oath Ceremony For Maintaining Unity Of Nation	31/10/2015
20	Guess Me	B.E. UIT Students	17/4/2015

21	Poster Making	B.E. UIT Students	17/4/2015
22	Curtain Call	B.E. UIT Students	16/4/2015
23	Nukkad Natak	B.E. UIT Students	16/4/2015
24	Dance	B.E. UIT Students	16/4/2015
25	Music Vocal	B.E. UIT Students	16/4/2015
26	Debate	B.E. UIT Students	16/4/2015
27	Face Painting	B.E. UIT Students	16/4/2015
28	Slogan Writing	B.E. UIT Students	17/4/2015
29	Product Marketing	B.E. UIT Students	16/4/2015
30	Symposia	B.E. UIT Students	16/4/2015
31	My Solution	B.E. UIT Students	17/4/2015
32	Extempore	B.E. UIT Students	17/4/2015
33	Pahal 2012	Institute level	16 - 20/09/2012
34	Pahal 2013	Institute level	11- 12/08/2013
35	Pahal 2014	Institute level	7 - 9/11/2014
36	Pahal 2015	Institute level	16 - 18/4/2015
37	Swach Bharat, 2015	Institute level	01 days

38	Srijan (Festival Of Technical Papers & Innovative Models) Continuously In The Years 2013, 2014, 2015	Working Model Preparations And Exhibition Of Technological Models At Departmental Stall At The Main Event For 3 Days.	19/02/2013-08/03/2013, 10 – 14/03/2014, 21- 23/03/2015
39	Participation Of Students Innovative Models In Saviskar- 2015 Organized By MPCOST & ABVP During February 2015 (National)	Working Model Preparations And Exhibition Of Technological Models At Departmental Stall At The Main Event For 3 Days.	26 - 28/02/2015
40	Participated In Bhopal Vigyan Mela -2015 Organized By MPCOST AND Vigyan Bharti 2015. (State Level)	Exhibition Of Technological Models At Departmental Stall At The Main Event For 3 Days.	20 - 23/02/2015
41	Workshop On MATLAB With Image Processing & Robotics	UG Students	2 nd March 2013
42	IBM DB2 Academic Excellence Program	UG Students	3 rd To 5 th May 2011
43	IBM DB2 Academic Excellence Program (Departmental Training to CSE Dept.)	UG Students	12 th -14 th October 2011

**Table No. 2.4 Programmes for Developing Scientific Temper
(2011-12 to 2014-15)**

S.No.	Name of the Activity	Nature of Students Participation	Date of Event
1	Science Exhibition	B.E. UIT Students	16/4/2015 to 17/4/2015
2	Term Formation Game	B.E. UIT Students	16/4/2015
3	Short Film Making	B.E. UIT Students	17/4/2015
4	Tech Rangoli	B.E. UIT Students	17/4/2015
5	T-Shirt Painting	B.E. UIT Students	17/4/2015
6	Picture Perception	B.E. UIT Students	16/4/2015
7	Showcase	B.E. UIT Students	17/4/2015
8	Refresher course on Soft computing Techniques	Faculty/ Students	18-22/02/2014
9	Workshop on MATLAB with Image Processing and Robotics	Faculty/ Students	2/03/2013
10	Refresher Course on Computer Networks	Faculty/ Students	31/01 – 04/02/2012

S.No.	Name of the Activity	Nature of Students Participation	Date of Event
11	Refresher Course on Data Base Management System	Faculty/Students	07-12/02/2011
12	Component Based Software Engineering & Testing Seminar Sponsored by AICTE	Faculty/Students	14-15/07/2011
13	IBM DB2 Academic Excellence Program (For Students and Faculty)	Faculty/Students	3 - 5/05/2011
14	IBM DB2 Academic Excellence Program (Departmental training to CSE Dept.)	Faculty/Students	12 – 14/10/2011

2.3.13 Does the university consider student projects mandatory in the learning programme? If yes, for how many programmes have they been (percentage of total) made mandatory?

The University academic curriculum (UG and PG) prescribes project work and report submission as a mandatory requirement for the award of degree. Facilities and guidance offered by the university encourage students to do good quality of research work and there is a provision for a ‘best project’ and ‘best research award’ at UG and PG level, separately. The Fourth semester in the case of full time candidates and VI semester in the case of part time candidates is the major project semester.

2.3.14 Does the university have a well qualified pool of human resource to meet the requirements of the curriculum? If there is a shortfall, how is it supplemented?

Yes, the University has a well qualified and competent pool of human resources. In case of shortage, university appoints contract faculty for a fixed period to meet the requirements of the curriculum.

2.3.15 How are the faculty enabled to prepare computer-aided teaching/ learning materials? What are the facilities available in the university for such efforts?

Workshops are conducted to guide faculty members for using ICT tools in teaching –learning, the university has provided laptops to the faculty members and smart boards, LCD and laptops are provided to the PG Departments. Internet connectivity is also provided in the classrooms.

2.3.16 Does the university have a mechanism for the evaluation of teachers by the students/ alumni? If yes, how is the evaluation feedback used to improve the quality of the teaching-learning process.

Students' feedback is regularly taken by the respective departments. Besides, there is a provision for an annual alumni meet. During such meets, alumni views and feedbacks on different academic issues are taken.

2.4 Teacher Quality

2.4.1 How does the university plan and manage its human resources to meet the changing requirements of the curriculum?

RGPV has always given prime importance to quality teaching practice through well trained trainers. Thus the University regularly organizes Faculty Development Programs (FDP's), training programs, curriculum development programs, workshops, refresher courses and so on to address the key issues pertaining to the up-gradation of the way teaching is practiced within the campus. Also University has a well-mechanized policy of sponsoring faculty members to participate in orientation programs with similar intent organized by other institutions of higher learning across India.

2.4.2. Furnish details of the faculty

Highest Qualification	Professor		Associate Professor		Assistant Professor		Total
	Male	Female	Male	Female	Male	Female	Total
Permanent Teachers	8	2	5	12	21	20	68
i) Ph.D.	8	2	3	9	14	8	44
ii) M.Tech.	-	-	2	-	7	9	18
iii) PG (Science)	-	-	-	3		3	6
Temporary Teachers	-	-	-	-	72	39	111
i) Ph. D.	-	-	-	-	4	5	9
ii) M.Tech	-	-	-	-	56	23	79
iii)PG (Science)	-	-	-	-	12	11	23

2.4.3. Does the university encourage diversity in its faculty recruitment? Provide the following details (department /school-wise).

Yes. Diversity in faculty recruitment is maintained by advertisements in national newspapers, and on the university portal.

S.No.	Department /School	% of faculty from the same university	% of faculty from other universities within the State	% of faculty from universities outside the State	% of faculty from other countries
1	Civil Engineering	53	35	12	NIL
2	Mechanical Engineering	NIL	66	33	NIL
3	Electrical & Electronics Engineering	80	20	NIL	NIL
4	Electronics & Communication Engineering	25	60	15	NIL
5	Computer Science & Engineering	34	67	NIL	NIL
6	Information Technology	50	50	NIL	NIL

S.No.	Department /School	% of faculty from the same university	% of faculty from other universities within the State	% of faculty from universities outside the State	% of faculty from other countries
7	School of Pharmaceutical Sciences	50	50	NIL	NIL
8	School of Energy & Environment Management	NIL	100	NIL	NIL
9	School of Information Technology	50	50	NIL	NIL
10	School of Biotechnology	NIL	100	NIL	NIL

2.4.4. How does the university ensure that qualified faculties are appointed for new programmes / emerging areas of study (Biotechnology, Bioinformatics, Material Science, Nanotechnology, Comparative Media Studies, Diaspora Studies, Forensic Computing, Educational Leadership, etc.)? How many faculty members were appointed to teach new programmes during the last four years?

For any new recruitment by the University, job listings are advertised in print media through newspapers having national circulation. Advertisements are also shared with other Universities, IIT's, NIT's and other Institutes of national importance. Advertisements are also published online on the University's Portal to attract the young brigade of applicants. Besides, University has also made provisions for on-campus comfortable stay in the form of well furnished transit hostel for newly appointed faculty both through regular or contractual appointment.

University ensures the qualified and diversified faculty in the emerging areas of studies as per the requirements of the course curriculum. In order to ensure quality, vacancies are advertised and wide publicity is given through leading newspapers and University website, and appointment procedure is strictly followed as per UGC norms. Colloquium system adopted in the University helps us ensure the quality and competency of teaching and research of applicants.

2.4.5. How many Emeritus/Adjunct Faculty/Visiting Professors are on the

rolls of the university?

The following Faculty are on the rolls of the University

EMERITUS FACULTY

1. Prof. N.K. Jain, Emeritus Fellow (UGC)

ADJUNCT FACULTY

Sl. No.	Name of the Faculty Member	Designation
Department of Civil Engineering		
1.	Dr. R.K Shrivasthava	Professor, SGSITS, Indore
2.	Dr. J.S Chauhan	Professor, SATI, Vidisha
School of Energy, Environment and Management		
1	Mr. K. Satake	Toyo Engineering, Japan
2	Prof. Y. Kato	Toyo Engineering, Japan
School of Pharmaceutical Sciences		
1	Dr. Deepak Kasbi	Vice President, Lupin Ltd., Mumbai
2	Dr. Sanjay Tiwari	Senior Manager, Sun Pharma Ltd., Dewas (M.P.)
3	Dr. Shilu Philip	Training and Placement HR Head, Sun Pharma Ltd., Dewas (M.P.)
Department of Mechanical Engineering		
1.	Prof Sanjeev Jain	Professor Mechanical Engineering IIT Delhi.
2.	Prof S C Jain	Retd. Professor Mechanical Engineering SATI Vidisha.
3.	Prof M L Jain	Professor Mechanical Engineering SGSITS Indore.
4.	Prof Smita Mane Patil	Professor Mechanical Engineering SGSITS Indore.

Department of Petro-chemical Technology		
1.	Mr. P. R. Kapse	BPPCL, Assam
2.	Mr. Wajid Ali Khan	Ex-Head, IPSHEM, ONGC, Goa.
School of Information Technology		
1.	Mr. Navjot Singh,	EMC Corporation
2.	Dr. A.K. Singh,	Professor MNNIT Bhopal.
3.	Dr. S. N. Sharma	Professor SATI Vidisha
Department of MCA		
1.	Dr. Sanjay Agarwal	NITTTR Bhopal
2.	Dr. Shailendra Singh	NITTTR, Bhopal
Department of Electrical and Electronics Engineering		
1.	Prof L D Arya	Retd. Professor, SGSITS, Indore

VISITING FACULTY

1. Prof. Yukata Tamaura, Tokyo Institute of Technology, Japan
2. Dr. N.S.H.N. Moorthy, Post Doc Fellow, University of Porto, Portugal
3. Prof. Amit Tiwari, College of Pharmacy and Pharmaceutical Sciences, University of Toledo, USA

2.4.6. What policies/systems are in place to academically recharge and rejuvenate teachers (e.g. providing research grants, study leave, nomination to national/international conferences/seminars, in- service training, organizing national/international conferences etc.)?

Some of the policies in place to academically recharge teachers are as follows: Ph.D. scholarships, CSIR fellowship, TEQIP Project – Research Fellow, Study Leave, Quality Improvement Programs (QIP) Sponsorship, funds to participate in national/international conferences, in-service training with corporate such

as EMC Corporation, Certification, industrial training etc.

2.4.7. How many faculty received awards / recognitions for excellence in teaching at the state, national and international level during the last four years?

S.No.	Year	Name of the Faculty	Awards
1	2011 – 12	-	-
2	2012 – 13	Dr. Sanjeev Sharma	Best Teacher Award in Information Technology
3	2013 – 14	Dr. Bhoopendra Singh Dr. K. T. Chaturvedi Dr. Jitendra Agrawal	Best Teacher Award (SRIJAN-2013) Best Teacher Award in Information Technology
4	2014 – 15	Dr. S. C. Choube	Pandit Madan Mohan Malviya Memorial Price Medal by Institution of Engineers (India)

2.4.8. How many faculty underwent staff development programmes during the last four years (add any other programme if necessary)?

Academic Staff Development Programmes	Number of faculty			
	2011-12	2012-13	2013-14	2014-15
Refresher courses	11	8	10	13
HRD programmes	-	5	6	-
Orientation programmes	4	2	1	-
Staff training conducted by the university	27	29	25	19
Staff training conducted by other institutions	18	20	17	17
Summer / Winter schools, workshops, etc.	17	29	20	21
Others	-	-	-	-

2.4.9. What percentage of the faculty have been invited as resource persons in Workshops/Seminars/Conferences organized by external professional agencies?

Year	No. of Faculty Invited	Total No. of Faculty	Percentage
2011-12	12	74	16
2012-13	11	77	14
2013-14	12	77	16
2014-15	15	77	19

Participated in external Workshops / Seminars / Conferences recognized by national/ international professional bodies?

Year	No. of Faculty Participated	Total No. of Faculty	Percentage
2011-12	31	71	44
2012-13	32	74	43
2013-14	31	74	42
2014-15	37	74	50

Presented papers in Workshops / Seminars / Conferences conducted or recognized by professional agencies?

Year	No. of Faculty who presented paper	Total No. of Faculty	Percentage
2011-12	19	71	27
2012-13	21	74	28
2013-14	23	74	31
2014-15	27	74	36

Teaching experience in other universities/national institutions and other institutions?

Year	No. of Faculty having experience in other universities/ Institutes	Total No. of Faculty	Percentage
2011-12	6	71	8
2012-13	5	74	7
2013-14	4	74	5
2014-15	4	74	5

Industrial engagement? Consultancy services for local industries

Year	No. of Faculty have industrial engagement	Total No. of Faculty	Percentage
2011-12	3	71	4
2012-13	3	74	4
2013-14	3	74	4
2014-15	5	74	7

International experience in teaching?

NIL

2.4.10. How often does the university organize academic development programmes (e.g.: curriculum development, teaching-learning methods, examination reforms, content / knowledge management, etc.) for its faculty aimed at enriching the teaching-learning process?

The Academic Staff College conducts courses round the year to enrich the teaching learning process in the University faculty. Courses of different nature are aimed at imparting the teacher participants the specific subject knowledge, orientation with the goals of nation building such as establishing linkages between the society and higher education and the overall development of teachers by keeping abreast with the latest techniques in pedagogy and research methodology.

Academic Staff college RGPV

Schedule of Courses Orientation Programme & Refresher Course Conducted					
S.No	Course	Department	Date	Status	No.of Registration
1	Refresher Courses	Electrical	22-27 -November, 2010	Completed	9
2	Orientation Programme	ASC	20-22 - December, 2010	Completed	19
3	Refresher Courses	Mathematics	27-December -01 January,2011	Completed	29
4	Refresher Courses	Mechanical	07-12 February, 2011	Completed	24
5	Refresher Courses	IT	07-12 February, 2012	Completed	20
6	Refresher Courses	Physics	29 March - 02April -2011	Completed	12
7	Orientation Programme	ASC	30 March - 01 April - 2011	Completed	22
8	Refresher Courses	Electronics	02-07 May, 2011	Completed	29
9	Refresher Courses	Civil	28 June-02 July, 2011	Completed	24
10	Orientation Programme	ASC	05-07 July, 2011	Completed	19
11	Refresher Courses	Electrical	26-30 July.2011	Completed	31
12	Orientation Programme	ASC	21-23 September, 2011	Completed	20
13	Refresher Courses	Computer Network	31 January -04 February 2012	Completed	19
14	Refresher Courses	Mathematics	31 January -04 February 2012	Completed	32
15	Orientation Programme	ASC	01-03 February, 2012	Completed	16
16	Refresher Courses	Electronics	17-22 December 2012	Completed	15
17	Refresher Courses	IT	10-14 February 2014	Completed	24
18	Refresher courses	Chemistry	21-26 April 2014	Completed	23
19	Refresher Courses	Mathematics	02-06 Feb 2015	Completed	14

2.4.11. Does the university have a mechanism to encourage – Mobility of faculty between universities for teaching?

The faculty members and students are encouraged to visit other Universities/Institutes under MoUs. With the help of the scheme of Visiting Professor, the university invites senior professors from other universities to deliver lectures to students. The scheme of Guest Lectures is also implemented to have interactions of our students with the outside university experts.

2.4.12. Faculty exchange programmes with national and international bodies? If yes, how have these schemes helped in enriching the quality of the faculty?

The University has already associated itself with prestigious international universities like University of Houston, Texas, USA, Asian Institute of

Technology, Bangkok and Osmania University Hyderabad, National Law University Institute, Bhopal to exchange researchers and teachers of these universities. The university has also entered into MOUs for Corporate Schools in collaboration with multinational companies like EMC & IBM in order to improve employability of the students. These companies are benchmark in providing regular training to the faculty and students on cutting edge technologies to strengthen our quest for quality human resource development. The Faculty Exchange Programme initiated at national and international level under MoUs helps in at least two ways:

- a. The junior faculty and students in the Departments are able to learn innovative teaching/learning practices and identify new research areas.
- b. The teachers who visit other universities under this scheme also become aware of teaching-learning process, research areas and the curriculum in the other universities, which, in turn, helps them to update our curriculum and research areas.

2.5 Evaluation Process and Reforms

2.5.1. How does the university ensure that all the stakeholders are aware of the evaluation processes that are in place?

Evaluation process is well defined in the Statutes and Ordinances, which are made available online on the University Portal. The entire examination process is absolutely transparent. Initial first year examinations papers are sent online 30 minutes prior to examination with all security features in place, and the evaluation is done centralized in the University and its nodal and regional centers. University even has a policy for revaluation and for showing answer books to students for persuasion, if desired

2.5.2. What are the important examination reforms initiated by the university and to what extent have they been implemented in the university departments and affiliated colleges? Cite a few examples which have positively impacted the examination management system.

The major examination reforms initiated by the University are as follows:

- Examination Section of the University has implemented Online Paper Delivery System (OPDS), which directly mails question paper online to examination centers.
- Every dissertation should contain a proof of check for plagiarism.
- University has adopted Choice Based Credit System, which supports continuous assessment of learners' ability through mid-terms, quiz, assignments, tutorial sheets and the final examination.

- From 2015-16 academic sessions, University is conducting Online Practical Examination.
- All the examination centers of the affiliated institutions are equipped with CCTV surveillance facility.

2.5.3. What is the average time taken by the University for Declaration of examination results? In case of delay, what measures have been taken to address them? Indicate the mode / media adopted by the University for the Publication of examination results (e.g. website, SMS, email, etc.).

The average time taken for declaration of semester examination results of the affiliated colleges of the University is 30 days. Average time taken for the result declaration by the University's teaching departments is less than 30 days. Examinations are conducted as per the academic calendar as declared by the University before the commencement of new session. Results thus declared by the University are accessible to the students through individual login on the University Portal.

Semester	Examination held in	Results Announcement in
July- Dec	December	December– January
Jan – Jun	June	June – July

2.5.4. How does the university ensure transparency in the evaluation process? What are the rigorous features introduced by the university to ensure confidentiality?

Policies in Paper Setting: Question papers are designed by external question setters. The end semester theory examination is conducted by the University centrally. Question papers are set by external experts drawn from a panel as per the approval of the Vice Chancellor. The answer booklets are coded and then evaluated inside the University. The entire process of pre-exam and post exam work is confidential. External observers and independent flying squad are formed to ensure conduct of university examination in the flaw-less manner.

Use of ICT in Examination System: Information and communication Technology (ICT) is effectively used for management of examinations system in the University with greater efficiency, transparency and reliability. University ensures that every Examination Cell/Division should have a dedicated IT team comprising of Project Manager, System Analysts, Programmers, Data entry operators etc. with clear mandate of using technology to drive greater efficiency, transparency and smoothness in examinations process. This technical team supports Controller of Examinations and / or Director of Evaluations in implementation of different

IT initiatives for reforming of examinations process in Universities.

Bar-coded Answer sheets: University has adopted scanning of Answer Books providing security and confidentiality.

Physical Security Measures: The examination cell of RGPV to meet out the challenges of preventing its evaluation process from Security Challenges like:

- Leakage of Papers during Setting of Papers
- Security Threat at Printers
- Distribution of Papers
- Malpractice in Examinations
- Impersonation / Tampering with hall ticket:
- Tampering with Answer books
- Tampering with Certificates / Mark sheets etc
- Generation of Fake Certificate/Degrees.

University employs necessary physical security measures for protecting confidential data from unscrupulous individuals. The University has implemented security measures like bio-metric access control, close-circuit television systems (CCTV), fire resistant; file compactors, etc. in examination strong room, Assessment centers and data centers. Senior Officials including Vice Chancellor and Controller of Examinations and/or Registrar monitor from their room the CCTV footage and bio-metric access records. The University has dedicated examination block whereas others are converted to examination strong rooms and cells/divisions.

2.5.5. Does the university have an integrated examination platform for the following processes?

The University has an Automated Integrated RGPV Examination System implemented through online web portal of the university. University administrative staff and college administrative staff involved in examination process have been provided training periodically. Collaborative mode of working is encouraged. The university has recently implemented a debut online practical examination at the end of the semester where student has to answer multiple-choice based questions.

Pre-examination processes: Time table generation, Optical Mark Reader (OMR), student list generation, invigilators, squads, attendance sheet, online payment gateway, etc.

Examination process: Examination material management and logistics arrangements.

Post-examination process: Attendance capture, OMR-based exam result,

auto processing, generic result processing, certification, etc.

2.5.6. Has the university introduced any reforms in its Ph.D. evaluation process?

The University has adopted the UGC Regulations of 2009 on Ph.D. degrees, which expects the research scholars to go for pre-submission seminars, publication of research papers and other requirements before the final submission of the thesis. The University has already adopted the UGC guidelines in respect of admission and evaluation of Ph.D. Programme. Consequently the University has amended its rules for evaluation of Ph.D. Thesis such as introduction of course-work, pre-submission seminar and publication based on the research. Ph.D. Theses are evaluated by two External Examiners from outside the state. Further, soft copy of the thesis is also sent to the examiners, and the manuscripts, after award of the Degree, are uploaded on the *Shodhganga* website as per the UGC norms.

2.5.7 Has the university created any provision for including the name of the college in the degree certificate?

Yes, degree certificate carries the name of the college.

2.5.8 What is the mechanism for redressal of grievances with reference to examinations?

Under Ordinance of the University, there is a provision for verification of marks. Under Ordinance, photocopy of the answer-books can be provided at the request of the student, and then as per the recommendation of the Redressal Committee, the answer-book is sent for revaluation. Other complaints and queries are addressed by the separate sections for separate examinations as per the prescribed mechanisms.

2.5.9 What efforts have been made by the university to streamline the operations at the Office of the Controller of Examinations? Mention any significant efforts which have improved the process and functioning of the examination division/section.

Office of the Controller of Examination is fully automated and full-proof.

Various kinds of documents such as transfer certificate, migration certificate, transcripts are made available as and when needed by the students. University has also digitized all its examination records.

2.6 Student Performance and Learning Outcomes

2.6.1. Has the University articulated its Graduate Attributes? If so, how does it facilitate and monitor its implementation and outcome?

The UGC curriculum emphasizes and highlights the importance of knowledge, development of skill, technology application, communication and presentation ability and research culture and ethics. The post graduate courses are planned and designed to achieve the articulated attributes set by the UGC as well as the University. This is done through teaching, learning and evaluation process by adopting participative learning.

Writing ability and presentation-communication are inculcated through seminars using PPT followed by interaction session. Home assignments and report writing improves the writing ability. Knowledge, research culture and ethics are indoctrinated through a number of special lectures and invited lectures in the study centers and Departments. The University facilitates their implementation by providing adequate support services and infrastructure.

2.6.2. Does the university have clearly stated learning outcomes for its academic programmes? If yes, give details on how the students and staff are made aware of these?

The learning outcomes are clearly stated in the curriculum of each course. The staff discusses the expected learning outcomes at the induction of the students at the Departmental levels. Planning of the lessons semester wise and its implementation by the faculty is done keeping in accordance with the pre-decided learning outcomes. The learner is acquainted with the learning outcomes at the induction program by the Departmental faculty.

2.6.3. How are the University's teaching, learning and assessment strategies structured to facilitate the achievement of the intended learning outcomes?

The teaching, learning and assessment strategies are structured right from framing the curriculum and preparing the annual plan by the Departments and Boards of Studies. The students soon after the induction programme are updated with the information relating to time table and the academic programme.

Learners are assessed through the informal interaction at the end of each teaching session and doubts of the learners are cleared. Internal assessment scheme, home-assignments, group discussions, seminar presentations, small project reports and mid-term exams as well as semester exams are the

assessment strategies structured to facilitate the achievement of the intended learning outcomes.

2.6.4. How does the University collect and analyze data on student learning outcomes and use it to overcome the barriers to learning?

The learning outcomes are collected through regular informal interaction in the classes, periodical tests, internal assessment scheme, home- assignments, seminar presentations, small project reports and mid-term examination as well as semester examinations. The respective teachers discuss at the staff meeting the common areas and difficulties such as language and communication skills, technology awareness faced by the students. These are discussed and addressed in the classrooms for the benefit of all students in general.

Slow learners are identified and counseled individually in case of specific difficulties, and the staff members themselves work out the strategies suitable to overcome the barriers. The University has provision of remedial coaching for the backward caste students, where areas of difficulty as per their requirement are addressed. Satisfactory and high level learners are also motivated and provided guidance to keep up and do still better.

2.6.5. What are the new technologies deployed by the university in enhancing student learning and evaluation and how does it seek to meet fresh/ future challenges?

The new technologies deployed by the University in enhancing student learning and evaluation are as follows:

- ICT enabled teaching learning facilities
- University offers a high speed WiFi and LAN connectivity throughout the campus.
- Examination Section of the University has implemented Online Paper Delivery System (OPDS) which directly mails paper online to examination centers
- OMR-based exam result

CRITERION III

RESEARCH, CONSULTANCY AND EXTENSION

3.1.1 Does the university have a Research Committee to monitor and address issues related to research? If yes, what is its composition? Mention a few recommendations which have been implemented and their impact.

Yes, the Research Degree Committee of the university monitors and addresses all issues related to research.

- Composition of Research Degree Committee
 - i). Vice Chancellor (Chairman)
 - ii). Dean Faculty of the concerned department/ departments in case of inter-disciplinary projects.
 - iii). Chairman, Board of Studies
 - iv). Professor/ Associate Professor of the concerned department nominated by the vice-chancellor.
 - v). Experts having special knowledge and experience in the concerned field of work, nominated by the vice chancellor.
- Few Recommendations of the research degree committee (RDC):
 - Recognition of Supervisors: Professors/Asso. Professors/Astt. Professors of RGPV, appointed as regular faculty, holding a Ph.D. degree with at least five year of teaching/postdoctoral research experience with seven publications published after award of their Ph.D. in peer reviewed SCI indexed journals can apply for recognition.
 - Prior to submission of PhD thesis the candidate must have published minimum two papers in SCI, SCI extended or I.E. (India) journals to prove the acceptability of their work.
 - Thesis be accepted only after Plagiarism check.
 - QIP candidate may be allowed to take up the course work. For such candidates RDC will be held only after qualifying the written exam and interview.
 - To adopt UGC Regulation, 2009 in all respects.

Impact:

- Teachers are motivated to publish their work in SCI journals to become eligible as supervisor.
- Candidates have to prove themselves for quality content in their thesis by publishing thesis work in good journals. This has resulted in

significant improvement in research quality.

- Permitting QIP students to appear in the course work enables them to contribute more time for research.
- Plagiarism check will ensure originality in the content of the thesis.
- Supervisors' eligibility based on their expertise, qualification and publication in standard journals and research attitude help the candidates to converge the problems with amicable solution.

3.1.2. Policy of university for promoting research in affiliated/ constituent colleges:

- A Research Corpus of Rs. 100 millions has been allocated for investing in high-quality and innovative research projects.
- Conferences organized by the affiliated institutions are promoted through financial support by the RGPV upto 2 lakhs.
- Awards are conferred on selected research projects with commendable ideas and laudable innovative experiments.
- For encouraging good quality research works, awards are conferred on the authors of selected research papers.
- Collaborating with the industries/PSUs are involved in R & D.
- Offering e-Library facility to registered students of affiliated colleges.
- Arranging talk by experts awarded at national/international level for their contribution in research and innovations.
- The registration fee, travel grants, lodging and boarding of the faculty of the university are borne by the RGPV, if their research papers are accepted in the reputed national/ international conferences or in the referred journals.

3.1.3 What are the proactive mechanisms adopted by the university to facilitate the smooth implementation of research schemes/projects.

- The University encourages MoUs/ Collaborations with Universities / Organizations.
- University invites budget proposal from each department for the purchase of research equipments. Sanctioned amount is utilized by the concerned departments.
- For smooth utilization of funds Stores and Purchase Rules of the State Government are followed.
- In case of funding from external agency, the Principal Investigator operates a separate bank account and all the purchase procedures are followed.
- Payment to vendors is made through RTGS.

3.1.4 Promotion of Inter-disciplinary Research

University promotes inter-disciplinary research by encouraging projects encompassing multi-faceted approaches covering different realms of technologies. These projects aim to bring together faculty of various departments for solving problems in efficient and innovative manner. Some of the areas in which School of Nanotechnology, School of bio-technology and School of energy technology are strategically focusing their future research are Nano-electronics, Nano-fluidics, Energy conversion and storage, water and air purification technology, Bio-nanotechnology and therapeutic devices.

3.1.5 Give details of workshops/training programmes/sensitization programmes conducted by the university to promote a research culture on campus.

The list of workshops/ training programmes/ sensitization programmes conducted by the university to promote a research culture on campus is as follows:

S. No.	Courses	Department	Date	Status (ongoing/ completed)
1	Refresher Course-I on “Applications of Mathematics in Engineering and Sciences”	Applied Mathematics	27/12/2010-01/01/2011	Completed
2	DST sponsored National seminar on “Current trends in drug regulatory Affairs”	School of Pharmaceutical Sciences	3-5 th March 2011	completed
3	Refresher Course (Academic Staff College RGPV Bhopal)	Civil Engineering	28 June – 2 July, 2011	Completed
4	Refresher Course on “Power Electronics”	EE	26-30 July 2011	Completed
5	Refresher Course-II on “Applications of Mathematics in Engineering and Sciences”	Applied Mathematics	31/01/2012-04/01/2012	Completed

6	Refresher Course on “Physical Pharmacy”	School of Pharmaceutical Sciences	23 – 29 th Jan 2012.	completed
7	International seminar on Computational Drug Discovery in Pharma Research and Development	School of Pharmaceutical Sciences	10 th May 2012	completed
8	Staff Development Programme on “Applications of Numerical Methods and Softwares in Science and Engineering”	Applied Mathematics	10/12/2012-22/12/2012	Completed
9	Workshop on “Matlab with Image Processing & Robotics”	IT	1 st – 2 nd March 2013	Completed
10	Seminar on “Role of Mathematics in Science and Engineering”	Applied Mathematics	26/03/2013	Completed
11	Refresher Course: Engineering Graphics	Mechanical	4 th to 8 th April 2013	Completed
12	Short Term Course	Civil Engineering	24-26 April, 2013	Completed
13	Seminar on “Alternate Automotive Fuels”	Mechanical	25-26 Oct 2013	Completed
14	Workshop on Mobility supported by IBM	IT	30 th Nov 2013	Completed
15	National mission on education through ICT (MHRD, Govt. Of India)	Civil Engineering	26 Nov-06 Dec 2013	Completed
16	Training Program on CAD	Mechanical	15 th Feb 2014	Completed
17	Refresher Course on “Soft Computing”	IT	18-02-2014 to 22-02-2014	Completed
18	Training Program on CAD	Mechanical	10 th March 2014	Completed
19	Staff Development	Civil	28 April – 3	Completed

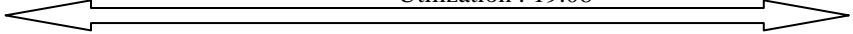
	Programme (TEQIP-II)	Engineering	May,2014	
20	Refresher Workshop (TEQIP-II)	Civil Engineering	19 May – 23 May 2015	Completed
21	Refresher Course-III	Applied Mathematics	02/02/2015-06/02/2015	Completed

3.1.6 How does the university facilitate researchers of eminence to visit the campus as adjunct professors? What is the impact of such efforts on the research activities of the university?

The UGC, under its scheme of 'Strengthening of Basic Science Research', has launched the 'UGC Faculty Recharge Programme' as an innovative means for providing high-quality faculty with proven flair for research and teaching. The scheme is designed to induct fresh talent and augment faculty resources in Indian universities basically in sciences, namely physics, chemistry, mathematics, biology and earth science. RGPV has signed an MoU with UGC for placement of the faculty under this scheme. UGC has inducted four assistant professor level faculty at RGPV. This has enabled the university to rejuvenate its resources. Eminent professors, researchers, industry persons are also invited by the university as adjunct professors to contribute their expertise to enhance the University curriculum, sharing their knowledge with students and research scholars. This accrues in strengthening the university industry linkages and promote on campus research environment. Faculty Development Programs are organized in the campus where the researchers of eminence are invited to visit the campus. Visit of such renowned researchers and professors create research environment, develops attitude/aptitude of innovation among the students and faculty. They also contribute in updating the syllabi and curriculum. Adjunct faculty from industries sometimes fundamentally transforms the educational experience for students.

3.1.7 What percentage of the total budget is earmarked for research? Give details of heads of expenditure, financial allocation and actual utilization.

The office of Director Research & Extension offers research opportunity to the students at institutional, domestic or international level. It promotes the international research facilitating relevant data, research policy and code of conduct in research. It also explores the research funding agencies. University has created a pool of 10 cr for affiliated colleges to promote the fundamental and innovative research. Funds are also allocated under different heads supporting the research as depicted in the tables.

S. No.	Budget	2011-12		2012-13		2013-14		2014-15	
		Allocation in Lakhs	Utilization in Lakhs	Allocation in Lakhs	Utilization in Lakhs	Allocation in Lakhs	Utilization in Lakhs	Allocation in Lakhs	Utilization in Lakhs
•	Research Assistantship (TEQIP-II)	Allocation : 40 Utilization : 19.08 							
•	Books & Journals/e-Library Automation	400	25.7	250	96.05	150	88.97	120	48.57
•	Academic Expenditure (Resources Required, Library, Visits to higher academic institutions, Research lab)	125	64.52	91	90.49	378	47.4	84.2	83.7
•	Conference/ Workshop	10.55	5.68	23	14.54	17.5	8.91	7	4.33

3.1.8 In its budget, does the university earmark fund for promoting research in its affiliated colleges? If yes, provide details.

To promote high-quality and innovative research projects, Corporate Schools are also established in the university to encourage research prone to industries.

A corpus of Rs. 100 million is allocated for all the affiliated and constituent institutions. University promotes research in affiliated colleges by giving best project awards to the selected projects. Students from different affiliated institutions are motivated to submit UG/PG level projects that can subsequently scrutinized by a high level committee comprising academia, industry for ranking the projects in order of their innovations in industrial applications feasibility, sustainability, on the recommendations of the committee Best Project Award/ Best Paper Awards are given to the winners.

3.1.9 Does the university encourage research by awarding Post Doctoral Fellowships/Research Associate ships? If yes, provide details like number of students registered, funding by the university and other sources.

The university does not award post doctoral fellowship. The research assistantship grant is being paid to Ph.D. Research Scholars by the university under TEQIP II.

For proper utilization of lab resources and to boost the quality Research the University has made suitable allocation for research associate ship in its budget.

3.1.10 What percentage of faculty have utilized the sabbatical leave for pursuit of higher research in premier institutions within the country and abroad? How does the university monitor the output of these scholars?

RGPV has initiated the process of granting sabbatical leave to their regular faculty members to pursuit higher education in the institution of national importance like IITs and renowned foreign universities.

3.1.11 Provide details of national and international conferences organized by the university highlighting the names of eminent scientists / scholars who participated in these events.

The University has organized number of national and international conferences /seminars/ symposia. The details are as follows:

(a) National Conferences Organized during 2011-12 to 2014-2015.

S. No.	National Conference	Duration	Dept.	Expert Name	Coordinator
1.	Application of Evolutionary Computing Techniques in Electrical Engineering	16 -17 Feb 2012	Electrical & Electronics Engg Dept	Dr B.K. Panigrahi IIT Delhi	Dr. S. C. Choube, Dr K T Chaturvedi, Dr Bhoopendra Singh
2.	Concentrated Solar Power(CSP)-Challenges & Opportunities"	1 Day	School of Energy & Environment Management	Prof P.B. Sharma VC, DTU, New Delhi	Dr. V. K. Sethi Co Coordinator Dr Mukesh Pandey Er. Savita Vyas Er. Pankaj Jain
3.	Recent Trends in Refrigeration & Air conditioning	27 th -28 th January 2014	Mechanical	Dr Sanjeev Jain IIT Delhi Dr Bala Subramanyam IIT Madras	Dr Alka Agarwal Dr A C Tiwari

(b) Inter-national Conferences Organized during 2011-12 to 2014-2015.

S. No.	International Conference	Duration	Dept.	Expert Name	Coordinator
1	International Round Table Conference on "Low Carbon Technologies & Carbon Capture & Sequestration LCT: CCS-2011 , Dec. 20"	20 Dec 2011 (1 Day)	School of Energy & Environment Management	Prof P.B. Sharma VC, DTU, New Delhi	Dr. V. K. Sethi Co Coordinator Dr Mukesh Pandey Er. Savita Vyas Er. Pankaj Jain
2.	International	22-12-2013	Applied	G.S. Pandey,	Dr. Vijay Gupta

	Conference on “Recent Advances in Mathematical Sciences and Applications”	to 24-12- 2013 (03 Days)	Mathematics	M.N.Mehta, Kailash C. Patidar, Dr. R. K. Chhajlani, J. Prakash, Madhu Jain, G. C. Sharma, H.P. dixit, Aprajita Ojha, Sanjeev Kumar, Joydeep Dhar	
3.	International Conference on Cloud Big Data & Trust (ICCBDT 2013)	13-15 Nov. 2013 (03 Days)	School of Information Technology	1. Shri M. N. Buch 2. Prof. Kuncheria P. Isaac 3. Dr. Galina Chernyshova 4. Dr. Brian Cameron 5. Karen Mancini 6. Mr. Steve Illingworth	Dr. Sanjeev Sharma

3.2 Resource Mobilization for Research

3.2.1 What are the financial provisions made in the university budget for supporting students’ research projects?

The University provides support to UG, PG and PhD students for project implementation, visit to other institutions of national importance and presenting papers in conferences, Tech Fest etc. Laboratory facilities are offered along with materials required in execution.

3.2.2 Has the university taken any special efforts to encourage its faculty to file for patents? If so, how many have been registered and accepted?

Yes, the University promotes their faculty members to file patents as well as IPR to various national and international organizations. Following is the list of patents registered by the faculty members.

S.No.	Name of Person	Patents Registered	Date	Authorization
1.	Prof. P. Trivedi and Farhad Mehta, SOPS	For Design of In vitro Chewing machine, Application No. 260364	15.04.15	Indian Patent
2.	Sachin Kumar Deshmukh, Himani Kaushik, Neeraj Sharma, Archana Tiwari, Piyush Trivedi, Lalit Chander Garg.	Development of membrane bound expression based DNA vaccine against ϵ -Toxin of <i>Clostridium Perfringens</i>	Application No. 1462/DEL/2012.	Indian Patent
3.	Sachin Kumar Deshmukh, Himani Kaushik, Neeraj Sharma, Archana Tiwari, Piyush Trivedi, Lalit Chander Garg	Development of cytosolic expression and heterologous booster based DNA vaccine against ϵ -toxin of <i>Clostridium perfringens</i> .	Application No. 1463/DEL/2012.	Indian Patent
4.	Sachin Kumar Deshmukh, Himani Kaushik, Neeraj Sharma,	Development of cytosolic expression based DNA vaccine against ϵ -toxin of <i>Clostridium perfringens</i>	Application No. 1464/DEL/2012.	Indian Patent

	Archana Tiwari, Piyush Trivedi, Lalit Chander Garg.			
5.	Sachin Kumar Deshmukh, Himani Kaushik, Neeraj Sharma, Archana Tiwari, Piyush Trivedi, Lalit Chander Garg.	Development of membrane bound expression and heterologous booster based DNA vaccine against ϵ -toxin of <i>Clostridium perfringens</i>	Application No. 1465/DEL/2012.	Indian Patent
6.	Himani Kaushik, Sachin Kumar Deshmukh, Deepika Dayal Mathur, Prithy Rupa, Archana Tiwari, Piyush Trivedi, Lalit Chander Garg.	Development of vaccine against epsilon toxin of <i>Clostridium perfringens</i> employing LTB- epsilon toxin epitopes in translational fusion with LTB	Application No. 1466/DEL/2012.	Indian Patent

3.2.3 Provide the following details of ongoing research projects of faculty:

Table No. 3.8: List of research projects

Sr. No.	Name of the Investigators and Department	Year wise	Name of the project	Name of the funding agency	Total grant sanctioned (in lakhs)
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1.	Dr A C Tiwari	2011-till date	Research Promotion Scheme Biofuels as alternate automotive fuels with prolonged service	AICTE	8
2.	Dr. Mukesh Pandey	Feb 2014-Feb 2016	30kW Concentrated Solar Power Plant	Ministry of New & Renewable Energy	223
3.	Dr. K.T. Chaturvedi	2012	Application of soft computing in power system optimization	UGC	10.416
4.	Dr. Bhoopendra Singh	2012	High Performance torque control induction motor drive	AICTE	7.70

3.2.4 Does the university have any projects sponsored by the industry / corporate houses? If yes, give details such as the name of the project, funding agency and grants received.

The list of the industry based project of university is as follows:

Sr. No.	Name of the Investigators and Department	Year wise	Name of the project	Name of the funding agency	Total grant sanctioned (in lakhs)
1	Dr. Mukesh Pandey	Feb 2014-Feb 2016	30kW Concentrated Solar Power Plant	MNRE	223

3.2.5 How many departments of the university have been recognized for their research activities by national / international agencies (UGC-SAP, CAS; Department with Potential for Excellence; DST-FIST; DBT, ICSSR, ICHR, ICPR, etc.) and what is the quantum of assistance received? Mention any two significant outcomes or breakthroughs achieved by this recognition.

World Bank Funding: RGPV has received substantial grant under TEQIP Phase-II for developing infrastructural facilities for research from World Bank for the period 2012-2016. (Sanctioned grant Rs. 12.5 crores)

3.2.6 List details of

- Research projects completed in last four years

Sr. No.	Name of the Investigators and Department	Year wise	No.	Name of the project	Name of the funding agency	Total grant sanctioned (in lakhs)
1	Dr Sanjay Silakari & Dr Shikha Agrawal, Computer Science & Engineering	2010	-	Analysis and Design of Distributed Intrusion Detection System using Soft Computing Mobile Agents	MPCST	2.85
2	Prof. Piyush Trivedi, School of Pharmaceutical Sciences	2014	A/RD/RP-2/2014-15/05	R & D project (Bioscience) : Structure Based Design of Novel Non- Carboxylic inhibitors of PTB 1 B enzyme as anti diabetic agents	MPCST	9.22
3	Dr. Deepti Jain, School of Pharmaceutical Sciences	2013	8-87/RIFD/RP-S/ POICY-3/2013-14 dated 17/12/2013	Quantitative Determination of Active Pharmaceutical Ingredients in Pharmaceutical Formulations by FTIR/Near IR Spectroscopy	AICTE	17.55
4	Dr. Suman Ramteke, School of Pharmaceutical Sciences	2013	8-143/RIFD/RP/PS/ Policy 3/2013-14	Research Promotion Scheme : Development and Pharmacokinetic evaluation of multidrug gastroretentive system for the treatment of H. Pylori	AICTE	14.6
5	Dr. Suman Ramteke, School of Pharmaceutical Sciences	2013	42-687/2013(SR)	Major Research Project : Targetted Nano carriers for the treatment of Cerebral Malaria	UGC	12.20

6	Dr. Sanjeev Sharma	2015		Evaluation of Routing Protocols in Manet	MPCST	4.92
7	Dr. Mukesh Pandey	2010-1012	Completed	Optimization and Sensitivity Analysis of Solar, wind and biomass Hybrid System	MPCoST	4.52
8	Dr. Mukesh Pandey	2011-15	Completed	Enhance Power Performance of HAWT using optimum turbine design and dual rotor.	AICTE	18
9	Er. Pankaj Jain	31 st March 2010-2015	Completed	An investigation in Operating Parameters of Wind Power Generation for optimum performance of unit	MPCST	7.11
10	Dr. V. K. Sethi & Dr. A.K.S. Bhadoria	April 2012-December 2013	Completed	Extension Project of s. no. 1- Process Stabilization, Evaluation and Analysis of CO ₂ capture and its conversion into fuel	DST	15
11	Dr Archana Tiwari	2015	01	Exploration of epigenetic signatures of hematological malignancies genes: A Prognostic, Diagnostic & Therapeutic Approach	MPCST	7.50

- Inter institutional collaborative projects and grants received

NIL

3.3 Research Facilities

3.3.1 What efforts have been made by the university to improve its infrastructure requirements to facilitate research? What strategies have been evolved to meet the needs of researchers in emerging disciplines?

The University earmarks a significant amount of its capital funds for acquiring research equipment. Each year the departments submit their capital requirements to acquire research and teaching equipments. The University attracts large number of applications for its research programs. There is a stringent requirement for evaluation of PhD thesis wherein the student is required to publish at least 2 SCI papers before submission. University provides paid leave and encourages faculty for pursuing research on emerging / cutting edge technology. Faculty involved in PhD research is waived of university tuition fees.

➤ Computing Facilities

The various departments of University are equipped with the state-of-the-art computer centers with the following configurations:

- 11 Blade Servers with Xeon processors with each server containing 2 GB RAM and a total Hard disk Capacity of 360 GB.
- 150 Compaq P IV machines are interconnected through Network Fully air conditioned, state of art Computer laboratories.
- Digital Class Rooms with personalized desk containing P IV computer on LAN with Internet facilities and Audio visual teaching aids.
- 04 Compaq ML 350 Servers with RAID and RAS facilities
- 24 Hr Internet facilities with 2Mbps leased line connectivity.
- Wide area network based on dedicated leased line of 2 Mbps connecting five major cities of the state of M.P. Digital Library with connectivity to world renowned Technical libraries.

➤ Allied Services

- **Internet Facility:** 24 Hr Internet facilities with 2Mbps leased line connectivity is provided to the students.
- **Central Library:** The Library of university is equipped with books, periodicals, national and international journals, CD-ROMS, covering all aspects of academic studies and research material.
- **E-Library:** RGPV Electronic Library offers access to online e-journals, e-books, e-database, e-lecture videos and open sources software with useful links. User can seamlessly access the contents abstracts or full text in a flexible and easy manner to use for their study.
- Wi-Fi Enabled Campus.

- Power backup solution
- **Software:** Microsoft Window, MS Office, MATLAB.

3.3.2 Does the university have an Information Resource Centre to cater to the needs of researchers? If yes, provide details of the facility.

E-library plays a role as Information resource Centre. The University has a well equipped IRC as the Online Resource Center in the central library, which contains variety of various research reports, journals, e-books, e-papers, magazines, online assessment of articles etc. This facility is in open access to off campus researchers.

E-library: RGPV Electronic Library offers access to online e-journals, e-books, e-database, e-lecture videos and open sources software with useful links. User can seamlessly access the contents/abstracts or full text in a flexible and easy manner to use for their study. E-library provides collaborative search of all type of e-resources/on-line resources such as e-journals, e-books, e-database purchase or subscribed by the Central Library or open access available with collaboration, personalization and social features to experience, higher research productivity and gain valuable insights. Online journals are subscribed as per AICTE approval process Hand book of (2013) Mandatory Online Journals. UGC, INFONET/INFLIBNET, INDEST-AICTE Online Journals funded by MHRD are available on URL'S which the students can access and download the full text of e-resources for research work.

3.3.3 Does the university have a University Science Instrumentation Centre (USIC)? If yes, have the facilities been made available to research scholars? What is the funding allotted to USIC?

The USIC is in the process of establishment as the proposal is already approved by the Executive Council.

3.3.4. Does the university provide residential facilities (with computer and internet facilities) for research scholars, post-doctoral fellows, research associates, summer fellows of various academies and visiting scientists (national/international)?

Yes, there are separate premises which provide facilities for lodging and boarding for student, experts and scholars. Few of them are equipped with computer, internet and telephone. They are as follows:

- Separate boys/girls hostels for UG/PG students.
- Transit hostels for research scholars.
- Residential blocks for faculty.

- Guest House for visiting faculties and experts with air conditioned rooms.

3.3.5. Does the university have a specialized research centre/work station on-campus and off- campus to address the special challenges of research programmes?

Yes, the University has well established research centers for taking care of special challenging research problems. Details of specialized research centers are given below.

• Energy Center

In pursuance of a greener tomorrow, RGPV has installed a 30 kW Cross Linear-Concentrated Solar Power (CL-CSP) plant under the R&D project sanctioned by MNRE, GoI in joint collaboration with RGPV, Indian Industry Bergen Group and Solar Flame Corporation, Japan. This is a India and Japan International Collaborative Project to facilitate the solar energy development in India that also include academic education, training and skill development to grow the experts and train the faculty, students and research scholars. RGPV will soon be pioneer in the World to execute CL-CSP innovative and breakthrough technology in which newly designed Heliostats with Mirror Boards having 95% reflective efficiency and air as a heat transfer medium in the solar air receiver are being used. By this technology the temperature of air can be raised upto 600° C and further this hot air can be utilized to generate steam. Affordable Renewable Energy Technologies, Clean Coal Technologies, Zero Emission Technologies, Climate Change, Bio Fuels & Bio Diesel, Bio Science in Waste Management, Green House Gas emission reduction and CO₂ Capture Technologies are the areas where department is working. This center also undertakes specialized R&D projects and established some of the Renewable Energy devices through World Bank TEQIP project. Later, various impact projects were sponsored by AICTE, MNRE, DST and the nodal office of MNRE, the MP Urja Vikas Nigam, Bhopal. Some of the systems installed in the Energy Park include: Solar Wind Hybrid System for Power Generation, Biodiesel Reactor, Biomass Gasifier, Solar Pumps & Fountains, CO₂ Sequestration Unit and Solar-Biodiesel Hybrid Vehicle.

• Pharmaceutical Sciences Research Center

Pharmaceutical Department seeks to advance the field of Pharmaceutical Science through state-of-the-art research and discovery in the areas of Anti

cancer and Anti HIV drug design and development, bio-pharmaceutics and drug delivery. This multidisciplinary research develops new methodologies for drug discovery that identifies and develops new pharmacotherapeutic agents against validated targets implicated in Cancer & AIDS and develop and optimize new drug delivery systems. Recently Prof. Piyush Trivedi and student Dr. C. Karthikeyan marked a breakthrough research in the treatment of various kinds of un-treated cancers. This discovery is a result of indispensable efforts over a period of more than a decade by Prof. Trivedi, his team at RGPV and also in collaboration with Dr. Hoyun Lee's team at Advanced Medical Research Institute, Canada.

A team of researchers from School of Pharmaceutical Science led by Vice Chancellor Prof. Piyush Trivedi along with PhD students and Mr. Farhad F Mehta have claimed the discovery of very first bio-degradable Medicated Chewing Gum (MCG) for the delivery of Diphenhydramine hydrochloride for motion-sickness and also for those suffering from nicotine addiction. University has recently claimed the design patent for in vitro-machine from patent attorney.

- **Nanotechnology Research Center**

Researchers from the School of Nanotechnology have started the process of producing patents for breakthroughs in Carbon Nano-electronics (Graphene synthesis), Sensor Nanotechnology (Nano-wire gas sensors), Surface functionalization Nanotechnology (Hydrophobic metallic surfaces), and solar energy (Polymer nano-particle hybrid solar cells).

3.3.6 Does the university have centers of national and international recognition/repute? Give a brief description of how these facilities are made use of by researchers from other laboratories.

The RGPV-EMC Corporate School is a joint venture of RGPV and EMC Inc. to train the students according to the need of industry, research institute and shall certainly improve employability and be more acceptable to the industry. With this concept a Data Science Laboratory is established under the umbrella of Corporate School. Students from affiliated collages are trained on different data science tools, software and conduct research, and generally spread the word about data science.

3.4. Research Publication and Awards

3.4.1 Does the university publish any research journal(s)? If yes, indicate the composition of the editorial board, editorial policies and state whether it/they is/are listed in any international database.

Proposal for publication of University Journal is in pipeline.

Give details of publications by the faculty:

A summary of the total no of papers and books published by the faculty of various departments is shown below.

Table: Research Papers published

CONTENT	CSE	EEE	CE	EC	HU	IT	Math	MCA	ME	Physics	SOIT	Pharmacy	Biotech.	EEM	SONT
Number of papers published in peer reviewed journals (national / international)	145	43	175	42	8	56	67	49	83	20	93	157	19	132	12
Chapters in Books	01											10			
Books edited	13						01	02							

Table 3.5 Book Chapter written/ edited during 2011-12 to 2014-2015.

Sr. no.	Name of Faculty	Details
1	Aruna Rawat	V. A. Matsagar, A. K. Nagpal, Coupled acoustic-structure interaction in cylindrical liquid storage tank subjected to bi-directional excitation, Chapter no. 90, ISBN 978-81-322-2192-0, Book ID- 327745_1_En, Springer India, 2015
2	Dr Sanjay Silakari	Shikha Agrawal, Uzma Khan and Sanjay Silakari “A Detailed Survey on Misbehavior Node Detection Techniques in Vehicular Ad Hoc Networks”, Handbook of Advances in Intelligent Systems and Computing Series, Information Systems Design and Intelligent Applications, Springer-Verlag, Berlin Heidelberg, Vol-339, pp.11-19, 2015. ISBN: 978-81-322-2250-7_2 Malti Baghel, Shikha Agrawal and Sanjay Silakari, “Recent Trends and Developments in Graph Coloring“, Handbook of Advances in Intelligent Systems and

		<p>Computing Series, Springer-Verlag, Berlin Heidelberg, Vol-199, pp.441-452, 2012.</p> <p>ISBN: 978-3-642-35314-7 (online)</p> <p>ISBN: 978-3-642-35313-(Print)</p>
3	Dr Shikha Agrawal	<p>Anand Verma, Shikha Agrawal, Jitendra Agrawal and Sanjeev Sharma, “Advance Teaching–Learning Based Optimization for Global Function Optimization”, Handbook of Smart Innovation, Systems and Technologies, Springer-Verlag, Berlin Heidelberg, Vol-43, pp., 2015.</p> <p>ISSN: 2190-3018,</p> <p>Shikha Agrawal, Uzma Khan and Sanjay Silakari “A Detailed Survey on Misbehavior Node Detection Techniques in Vehicular Ad Hoc Networks”, Handbook of Advances in Intelligent Systems and Computing Series, Information Systems Design and Intelligent Applications, Springer-Verlag, Berlin Heidelberg, Vol-339, pp.11-19, 2015.</p> <p>ISBN: 978-81-322-2250-7_2,</p> <p>Shikha Agrawal and Jitendra Agrawal, “Acceleration based Particle Swarm Optimization (APSO) for RNA Secondary Structure Prediction”, Progress in Systems Engineering, Handbook of Advances in Intelligent Systems and Computing Series, Springer-Verlag, Berlin Heidelberg, Vol-330,</p> <p>ISBN: 978-3-319-08422-0 (online), pp.741-746, 2014.</p> <p>ISBN: 978-3-319-08421-3 (Print),</p> <p>Shikha Agrawal, Shraddha Sharma and Sanjay Silakari “Teaching Learning Based Optimization (TLBO) based Improved Iris Recognition System”, Handbook of Advances in Intelligent Systems and Computing Series, Springer-Verlag, Berlin Heidelberg, Vol-330, pp.735-740, 2014</p> <p>ISBN: 978-3-319-08422-0 (online)</p> <p>ISBN: 978-3-319-08421-3 (Print),</p> <p>Arpit Jain, Shikha Agrawal, Jitendra Agrawal and Sanjeev Sharma, “F-FDRPSO: A Novel Approach Based on Hybridization of Fuzzy C-means and FDRPSO for Gene Clustering”, Handbook of Advances in Intelligent Systems and Computing Series, Springer-Verlag, Berlin</p>

		<p>Heidelberg, Vol-258, pp.709-720, 2014.</p> <p>ISBN: 978-3-642-35314-7 (online)</p> <p>ISBN: 978-81-322-1770-1 (Print)</p> <p>Jitendra Agrawal, Shikha Agrawal, Shilpi Kaur and Sanjeev Sharma, “An Investigation of Fuzzy PSO and Fuzzy SVD Based RBF Neural Network for Multi-label Classification”, Handbook of Advances in Intelligent Systems and Computing Series, Springer-Verlag, Berlin Heidelberg, Vol-258, pp.677-688, 2014.</p> <p>ISBN: 978-3-642-35314-7 (online)</p> <p>ISBN: 978-81-322-1770-1 (Print),</p> <p>Ankita Singhai, Shikha Agrawal, Jitendra Agrawal and Sanjeev Sharma, “A Review on Application of Particle Swarm Optimization in Association Rule Mining”, Handbook of Advances in Intelligent Systems and Computing Series, Springer-Verlag, Berlin Heidelberg, Vol-199, pp.405-414, 2012.</p> <p>ISBN: 978-3-642-35314-7 (online)</p> <p>ISBN: 978-3-642-35313-0(Print)</p> <p>Khushboo Satpute, Shikha Agrawal, Jitendra Agrawal and Sanjeev Sharma, “A Survey on Anomaly Detection in Network Intrusion Detection System Using Particle Swarm Optimization Based Machine Learning Techniques”, Handbook of Advances in Intelligent Systems and Computing Series, Springer-Verlag, Berlin Heidelberg, Vol-199, pp.441-452, 2012.</p> <p>ISBN: 978-3-642-35314-7 (online)</p> <p>ISBN: 978-3-642-35313-0(Print)</p> <p>Malti Baghel, Shikha Agrawal and Sanjay Silakari, “Recent Trends and Developments in Graph Coloring“, Handbook of Advances in Intelligent Systems and Computing Series, Springer-Verlag, Berlin Heidelberg, Vol-199, pp.441-452, 2012.</p> <p>ISBN: 978-3-642-35314-7 (online)</p> <p>ISBN: 978-3-642-35313-0(Print),</p>
4	Dr Piyush Kumar	<p>Piyush Kumar Shukla, Sanjay Silakari, Bhavana Butani, “An Outline of Threats and Sensor Cloud Infrastructure in Wireless Sensor Network” under publication In Handbook</p>

	Shukla	of Research on Securing Cloud-Based Databases with Biometric Applications, IGI-GLOBAL. Jan- Feb. 2014.
5	Dr. Vijay Gupta	03 Books Edited, Engineering Mathematics I, II and III Pearson Education India
6	Dr. Ravindra Patel	To Study the Architectural Designs of a Proposed Comprehensive Software Extractor for Reengineering Tool: A Literature Survey, Authors: RashmiYadav , Abhay Kothari, Ravindra Patel, Published in: Intelligent Computing, Networking, and Informatics, Publisher Springer India, Volume 243 of the series Advances in Intelligent Systems and Computing pp 91-99, 2013
7	Dr. Ravindra Patel	Link Score: A Novel Method for Time Aware Link Prediction in Social Network Authors: Pankaj Chaudhary, Nishchol Mishra, Sanjeev Sharma, Ravindra Patel, Published in: Data Mining and Warehousing, Author K. R. Venugopal, L.M. Patnaik, DeepaShenoy, pp. 111-118, Elsevier Publication 2013
8	Dr. Sanjeev Sharma	Rajshree, Ravi Prakash Pandey, Sanjeev Sharma, Vivek Shukla, SRIP: A Secure Hybrid Routing Information Protocol for WSN, Strategic Pervasive Computing Applications –Emerging Trends (Information Science References), IGI Global.

3.4.2 Publication details.

No. of Publications details by the university departments are as follows:

Year/ Dept.	CSE	EEE	ME	CE	EC	HU	IT	Math	MCA	Physics	SOIT	Pharmacy	Biotech.	EEM	SONT	PCT
2011-12	18	18	14	19	10	01	19	13	14	12	39	25	4	22	03	-
2012-13	18	12	26	21	13	-	08	18	12	05	27	31	5	32	02	01
2013-14	40	03	27	35	08	03	12	16	11	-	21	43	6	57	03	05
2014-15	69	10	16	100	11	04	17	20	12	03	06	50	4	24	04	05
TOTAL	145	43	83	175	42	08	56	67	49	20	93	157	19	132	12	11

3.4.3 Give details of

- Faculty serving on the editorial boards of national and international journals

S.No	Name of Faculty	Position	Name of Journal	Status of Journal (National/International)
1.	Dr Shikha Agrawal	Member	Member of reviewer committee of International Journal of Computer Science and Information Security, USA	International
2.	Dr Piyush Shukla	Member	Editorial board member of International Journal of Network Security, Bioinfo Publication Editorial board member of IJSCE	International
3.	Dr. Bhoopendra Singh	Advisory Board Member	Journal of Electronic and Electrical Engineering Bioinfo Publications, ISSN : 0976-8106 (Print) E-ISSN : 0976-8114	International
4.	Dr. Sachin Goyal	Member	Journal of applied soft computing IEEE	International
5.	Dr A C Tiwari	Member Editorial board	RGI international Journal Journal with ISSN Number	International
6.	Dr Jyotsna Chauhan	Member Editorial board	Science alert(research journal of physics) Journal of Atoms and Molecules	International

- Faculty serving as members of steering committees of international conferences recognized by reputed organizations /societies

S.No.	Name of Faculty	Position	Name of Conference, city, Duration	Status of Conference (National/ International)
1.	Dr Shikha Agrawal	Assistant Professor	IEEE International Conference on Computational Intelligence and Communication Networks (CICN-2015), 04-06 April 2015 organized by Machine Intelligence research Labs, Gwalior and Sponsored by Shri Ram Group of Institutes, Gwalior	International
2.	Dr. Vijay Gupta	Associate professor	ICRAMSA-2013	International
3.	Prof. P. Trivedi	Vice Chancellor	DIA, 2011	International
4.	Dr. Jyotsna Chauhan	Programming Committee	ICRTP 2012) IN DAVV INDORE M.P. India on 3-4 Feb 2012	International

3.4.4 Provide details of Research awards received by the faculty and students

Sr. No	Department	Faculty				Students (Best Paper Presentation Award)		
		Inter-national	National	State	other	Inter-national	National	State
1.	Computer Science & Engineering	NIL	NIL	1	2	Nil	Nil	Nil

2.	Electrical & Electronics		07	01				
3.	SOPS	01	01	--	--		01	

- **National and international recognition received by faculty from reputed professional bodies and agencies**

S.No.	Name of Faculty	Type of Recognition	Name of recognizing professional bodies and agencies	Status of Recognition (National/ International)
1.	Dr Shikha Agrawal	Senior Member	IEEE	International
2.	Dr. S. C. Choube	Member	I.E. India	National

3.4.5 Indicate the average number of successful MPhil. and PhD. scholars guided per faculty during the last four years. Does the university participate in Shodhganga by depositing the Ph.D. theses with INFLIBNET for electronic dissemination through open access?

Average no. of PhD guided per faculty of the university: 05

3.4.6 What is the official policy of the university to check malpractices and plagiarism in research? Mention the number of plagiarism cases reported and action taken.

RGPV has launched Online Thesis/Dissertation Submission System (M.E. /M. Tech./M.Pharm.) on its web portal and a provision has been made to check plagiarism of the thesis/ dissertation report submitted by PG students. Plagiarism report duly certified by the supervisor is also to be submitted by the candidate. Ph.D. thesis is also routed through the similar process but university examines each thesis through its own mechanism. So far no plagiarism case has been reported.

3.4.7 Does the university promote interdisciplinary research? If yes, how many interdepartmental / interdisciplinary research projects have been undertaken and mention the number of departments involved in such endeavors?

Yes, University promotes the inter-disciplinary research.

3.4.8 Has the university instituted any research awards? If yes, list the

awards.

Yes, following is the list of Instituted Research Awards:

- Best Project Award
- Best Paper Award

3.4.9 What are the incentives given to the faculty for receiving state, national and international recognition for research contributions?

Faculties conferred with the awards are reported to Executive Council and the highest body of the university applauds the contribution and puts it into record.

3.5 Consultancy

3.5.1 What is the official policy of the University for Structured Consultancy? List a few important consultancies undertaken by the university during the last four years.

The official policy for structured consultancy states “The institute shall open its services and share its knowledge resources for the mutual benefit of university, industry and neighborhood.” The University renders consultancy services to industry, Government and Non Government Organizations and other educational institutions.

S.No.	Consultancy Work	Department and coordinator
1	Quality Check of furniture's	Dr A.C. Tiwari
2	Quality check of furniture's & Sign boards	Dr A.C. Tiwari
3	SAIL (Analytical Work)	SOPS, Prof. P. Trivedi

School of Pharmaceutical Sciences (SOPS) offers testing facility on sophisticated analytical instruments on commercial basis

3.5.2 Does the University have a University-industry cell? If yes, what is its scope and range of activities?

University has well established Training and Placement Cell which is actively involved in the industry institute interaction activities. University has strong relations with several reputed national and international organizations. The following is the list of companies which have signed MOUs with the RGPV.

EMC Corporation, Bangalore	Texas Instruments, Bangalore	TCS, Mumbai
IBM, Bangalore	NIIT, Hyderabad	DAUTO, Bhopal

3.5.3 What is the mode of publicizing the expertise of the University for Consultancy Services? Which are the departments from whom consultancy has been sought?

Website is the main means through which information is disseminated. Consultancy is publicized by word of mouth, college brochure and handbook.

- Training and Placements Cell conducts training programmes on soft skills and offers placement services to affiliated institutions.
- Department of Computer Science (PG) offers computer skill courses for personnel, Bhopal City.
- Department of Mechanical Engineering offer testing facilities.
- Department of Civil Engineering offers soil testing facilities.
- Testing of transformer oil, Protective relays, measuring instruments are carried out in Dept. Of Electrical & Electronics Engineering.
- School of Pharmaceutical Science offers testing at sophisticated, analytical laboratory (SAIL).

3.5.4 How does the University encourage the faculty to utilize the expertise for consultancy services?

The faculty members of the university are encouraged to offer their expert consultancy services to industry, Government and Non-Government Organizations, affiliated institutions and for community development. Faculty members are provided with infrastructural and financial support, laboratory facilities and on-duty leave.

3.5.5 List the broad areas of consultancy services provided by the university and the revenue generated during the last four years.

Sr. No.	Department	Type of Consultancy	Revenue Generated (in Rs.)	Type of Testing	Revenue Generated (in Rs.)
1.	Civil Engineering	2011-2012	225000	2011-2012	949600
		2012-2013	650000	2012-2013	752500
		2013-2014	2217500	2013-2014	618500
		2014-2015	2285000	2014-2015	1062000
2.	Name of Department : Mechanical Engg. Dept.				
	2014-15	Quality Check of furniture's	50000=00	Quality check by dimensions verification	Mechanical Engg dept.
3.	Name of Department : School of Pharmaceutical Work				
	SOPS	SAIL	5 Lakhs	Analytical Test	5 Lakhs

3.6 EXTENSION ACTIVITIES AND INSTITUTIONAL SOCIAL RESPONSIBILITY (ISR)

3.6.1 How does the university sensitize the faculty and students on Institutional Social Responsibilities? List the social outreach programmes which have created an impact on students' campus experience during the last four years.

The educational philosophy of the institution emphasizes on promotion of social concern and good citizenship. The mission statement reiterates civic responsibility among the students and faculty members. The need-based extension programmes organized by the institution are depicted in the following table.

ISRI	Outcome
Centre for Social Activities (CSA)	Students involvement in community Engagement
Social Outreach Programme (SOP)	Awareness about vulnerable/disadvantaged sections of the society
Rural Exposure Programme (REP)	Sensitization of students about socio-economic issues of the rural areas

These initiatives instill the spirit of selfless service, team work, discipline, leadership and contribute towards societal and national development.

3.6.2 How does the University promote University-neighborhood network and student engagement, contributing to holistic development of students and sustained community development?

The university-neighborhood network and student engagement are promoted through following approaches:

- In order to ensure active engagement of students in community services and to inculcate the spirit of participation, university has made mandatory for all to qualify this assignment before conferring them degree. A mentor is there to keep track and provide guidelines through contacting the appropriate agency.
- Students visit to nearby primary health centers to provide their volunteer services i.e. donating blood, extending personal care to accidental and serious patient etc. They visit rural areas to disseminate the government health care schemes and camps organized by NGOs on various health related issues.
- The neighborhood networking is sustained through linkages with various departments of MP government viz. industrial health and safety, electrical safety, fire extinguisher, environmental and pollution control board, road safety etc for the employee of industries and people.
- Students engagement in teaching the primary school students during holidays.
- Counseling of 12th standard village students to choose their career.
- Students engagement to promote mobile applications in rural areas to educate the farmers to access weather related information, online e-trading of agricultural products etc.

3.6.3 How does the University promote the participation of students and faculty in extension activities including participation in NSS, NCC, YRC and other National/ International agencies?

Mostly, such participation is encouraged through the mandatory community work requirement which is an academic requirement under new CBCS Scheme. As an effort to stimulate social consciousness among students, the university encourages student participation in NSS.

3.6.4 Give details on social surveys, research or extension work (if any) undertaken by the University to ensure social justice and empower the underprivileged and most vulnerable sections of society?

Concerted effort to uplift the underprivileged and marginalized sections of the

society is one of the primary focus of the university as a higher education institution. The social survey and extension activities undertaken for the social transformation are presented below.

Table 3.6 Social Survey and Extension

Department / Association	Survey / Extension
Civil Engineering.	1. Eco- sanitation Toilet at Rural areas in 2014
	2. Heath monitoring of Structures of “Taj-ul-Masajid” at Bhopal in 2013

3.6.5 Does the College have a mechanism to track the students’ involvement in various social movements / activities which promote citizenship roles?

Yes, social work/ activities are part of curriculum under new CBCS. All such activities rendered by the students are monitored through mentor.

3.6.6 Bearing in mind the objectives and expected outcomes of the extension activities organized by the university, how did they complement students’ academic learning experience? Specify the values inculcated and skills learnt.

University from time to time organizes campus cleaning activities, literacy drives, plantation, blood donations camps etc. These activities inculcate various social skills and values amongst students. Communication skills, as well team work is boosted by these activities. Also, students are sensitized about the ground reality of the nearby places thus encouraging social awareness among them.

3.6.7 How does the University ensure the involvement of the community in its outreach activities and contribute to the community development? Detail the initiatives of the University which have encouraged community participation in its activities.

Extension activities are organized catering to the needs of the community.

Association with Institutions for Outreach and Extension

Category	Institutions	Outreach/Extension
Adult literacy	RGPV Bhopal	Nearby villages to RGPV

		campus, bishen khedi etc by Mechanical Engg. Deptt.
Computer Literacy	RGPV Bhopal	Old computers are circulated in rural areas.

3.6.8 Give details of awards received by the institution for extension activities and/contributions to the social/community development during the last four years.

The institution has consistently provided extension services to the society.

3.7 COLLABORATION

3.7.1 How has the University's collaboration with other agencies impacted the visibility, identity and diversity of activities on the campus? To what extent has the University benefitted academically and financially because of collaborations?

Association with Institutions/NGOs are vital for the dynamic growth and development of RGPV. Such collaborations have resulted in mutual benefits. The lists of major collaborative ventures of the college are listed below:

Table No. 3.22: International Collaborative publications

Sr. No	Institutions	International Research Publications
1	Northeastern Ontario Regional Cancer Centre & AMRIC, Canada	K. Patel, C. Karthikeyan, N. S. H. N. Moorthy, P. Trivedi, Synthesis and Cytotoxicity Evaluation of Some Coumarinyl Chalcones, Lett. Drug Des. Dis., 8(4), 308-311, (2011).
2	Northeastern Ontario Regional Cancer Centre & AMRIC, Canada	C. Karthikeyan, V. R. Solomon, H. Lee, P. Trivedi, Design, synthesis and biological evaluation of some isatin-linked chalcones as novel anti-breast cancer agents: A molecular hybridization approach, Biomed. Prev. Nutr., 3(4), 325-330 (2013).

3	Northeastern Ontario Regional Cancer Centre & AMRIC, Canada	C. Karthikeyan, V. Raja Solomon, Hoyun Lee, Piyush Trivedi, Synthesis and biological evaluation of 2-(phenyl)-3H-benzo[d]imidazole-5-carboxylic acids and its methyl esters as potent anti-breast cancer agents, Arabian J. Chem., 2013.
4	Centre National de la Recherche Scientifique, France	D. K. Waiker, C. Karthikeyan, V. Poongavanam, J. Kongsted, O. Lozach, L. Meijer, P. Trivedi, Synthesis, biological evaluation and molecular modelling studies of 4-anilinoquinazoline derivatives as protein kinase inhibitors, Bioorg. Med. Chem., 2014, 22, 1909-15.
5	Tuskegee University, Tuskegee, USA, University of Alabama. USA, Auburn University	S. R. Pondugula, G. Ferniany, F. Ashraf, K. L. Abbott, B. F. Smith, E. S. Coleman, M. Mansour, R. C. Bird, A. N. Smith, C. Karthikeyan, P. Trivedi, A. K. Tiwari, Stearidonic acid, a plant-based dietary fatty acid, enhances the chemosensitivity of canine lymphoid tumor cells, Biochem Biophys Res Commun. 2015
6	Tuskegee University, Tuskegee, USA, University of Alabama. USA, Auburn University	C. Karthikeyan, C. Lee, J. Moore, R. Mittal, E. A. Suswam, K. L. Abbott, S. R. Pondugula, U. Manne, N. K. Narayanan, P. Trivedi, A. K. Tiwari, IND-2, a pyrimido[1",2":1,5]pyrazolo[3,4-b]quinoline derivative, circumvents multi-drug resistance and causes apoptosis in colon cancer cells, Bioorg. Med. Chem. 2015, 23, 602-11.

Table No. 3.2.3: National collaborative publications

Sr. No	Institutions	National Research Publications
1.	CDRI, Lucknow	M. Rakse, C. Karthikeyan, G. S. Deora, N. S. H. N. Moorthy, V. Rathore, A. K. Rawat, A. K. Srivastava, P. Trivedi, Design, synthesis and molecular modelling studies of novel 3-acetamido-4-methyl benzoic acid derivatives as inhibitors of protein tyrosine phosphatase 1B. Eur. J. Med. Chem., 70, 469-476 (2013).

Sr. No	Institutions	National Research Publications
2.	CDRI, Lucknow	G. S. Deora, C. Karthikeyan, N. S. H. N. Moorthy, A. K. Rawat, A. K. Srivastava, P Trivedi, Design, synthesis and biological evaluation of novel arylidene-malononitrile derivatives as non carboxylic inhibitors of protein tyrosine phosphatase -1B enzyme. Med. Chem. Res., 22(11), 5344-5348 (2013).
3.	CDRI, Lucknow	P. Joshi, G. S. Deora, V. Rathore, O. Tanwar, A. K. Rawat, A. K. Srivastava, D. Jain, Identification of ZINC02765569: a potent inhibitor of PTP1B by vHTS, Med. Chem. Res., 22 (1), 28-34(2013).
4.	CDRI, Lucknow	P. Joshi, G. S. Deora, V. Rathore, O. Tanwar, A. K. Rawat, A. K. Srivastava, D. Jain, Molecular modeling and synthesis of ZINC02765569 derivatives as protein tyrosine phosphatase 1B inhibitors: lead optimization study, Med. Chem. Res., 22 (4), 1618-1623 (2013).
5.	INMAS, New Delhi	V. Gupta, K. Chuttani, A. K. Mishra, P. Trivedi, Topical delivery of fluorescence (6-Cf) labeled and radiolabeled (99m-Tc) cisplatin and imiquimod by a dual drug delivery system, J. Labelled Comp. Radiopharm. 2014, 57, 425-33.
6.	INMAS, New Delhi	B. J. Mishra, A. Kaul, P. Trivedi, l-Cysteine conjugated poly l-lactide nanoparticles containing 5-fluorouracil: formulation, characterization, release and uptake by tissues in vivo, Drug delivery, 2015, 22, 214-222
7.	INMAS, New Delhi	N. Dubey, R. Varshney, J. Shukla, A. Ganeshpurkar, P. P. Hazari, G. P. Bandopadhyaya, A. K. Mishra, P. Trivedi, Synthesis and evaluation of biodegradable PCL/PEG nanoparticles for neuroendocrine tumor targeted delivery of Somatostatin analog, Drug delivery, 19(3):132-42 (2012).

Sr. No	Institutions	National Research Publications
8.	INMAS, New Delhi	N. Dubey, R. Varshney, J. Shukla, A. Ganeshpurkar, P. P. Hazari, G. P. Bandopadhaya, A. K. Mishra, P. Trivedi, Preparation and biological evaluation of paclitaxel loaded biodegradable PCL/PEG nanoparticles for the treatment of human neuroendocrine pancreatic tumor in mice, Hell. J. Nucl. Med. 15(1):9-15 (2012).
9.	IIT, Chennai	C. Karthikeyan, N.S.H.N. Moorthy, S. Ramasamy, U. Vanam, E. Manivannan, D. Karunakaran, P. Trivedi, Advances in Chalcones with Anticancer Activities, Recent Pat. Anticancer Drug Discov. 2015, 10, 97-115.
10.	MKU, Madurai	J. Periasamy, M. Muthuswami, V Ramesh, T. Muthusamy, A. Jain, C. Karthikeyan, P. Trivedi, R. S. Kumar P. Gunasekaran, S.Y. Rha, P. Tan. G. Kumaresan, Nimesulide and Celecoxib Inhibits Multiple Oncogenic Pathways in Gastric Cancer Cells, J. Cancer Sci. Ther., 5: 126-136 (2013).
11.	University of Lucknow, Lucknow	D. Chowrasia, C. Karthikeyan, L. Choure, Sahabjada, M. Gupta, Md. Arshad, P. Trivedi, Synthesis, characterization and anti-cancer activity of some fluorinated 3,6-diaryl-[1,2,4]triazolo[3,4-b][1,3,4]thiadiazoles, Arabian J. Chem., 2013.
12.	SGSITS Indore	L.D. Arya, S.C. Choube, Rajesh Arya, 'Differential evolution applied for reliability optimization of radial distribution systems', International Journal of Electrical Power & Energy Systems, 12(2), 271-277, 2011
13.	SGSITS Indore	L.D. Arya, S.C. Choube, Rajesh Arya, ' Probabilistic reliability indices evaluation of electrical distribution system accounting outage due to overloading and repair time omission' International Journal of Electrical Power & Energy Systems, 33(2), 296-302 2011

Sr. No	Institutions	National Research Publications
14.	IIT, Delhi	Rajesh Arya, S.C. Choube, L.D. Arya, D.P. Kothari, 'Reliability enhancement of a radial distribution system using coordinated aggregation based particle swarm optimization considering customer and energy based indices', Applied Soft Computing, 12(11), 3325-3331, 2012
15.	SGSITS, Indore	L.D. Arya, S.C. Choube, Rajesh Arya, Aditya Tiwary, 'Evaluation of reliability indices accounting omission of random repair time for distribution systems using Monte Carlo Simulation', International Journal of Electrical Power & Energy Systems, 42(1), 533-541, 2012
16.	SGSITS Indore	L.D. Arya, Atul Koshti, S.C. Choube, 'Distributed generation planning using differential evolution accounting voltage stability consideration', International Journal of Electrical Power & Energy Systems 42(1), 196-207, 2012
17.	SGSITS Indore	Rajesh Arya, S.C. Choube, L.D. Arya, 'Reliability evaluation and enhancement of distribution systems in the presence of distributed generation based on standby mode', International Journal of Electrical Power & Energy Systems, 43(1), 607-616, 2012
18.	SGSITS Indore	L.D. Arya, Atul Koshti, S.C. Choube, 'Frequency-duration analysis of composite distribution system using a non-sequential Monte Carlo simulation', International Journal of Electrical Power & Energy Systems, 46(1), 17-25, 2013
19.	SGSITS Indore	Rajesh Arya, S.C. Choube, 'Differential evolution based technique for reliability design of meshed electrical distribution systems', International Journal of Electrical Power & Energy Systems, 48(1), 10-20, 2013
20.	SGSITS Indore	Rajesh Arya, Aditya Tiwary, S.C. Choube, L.D. Arya, 'A smooth bootstrapping based technique for evaluating distribution system reliability indices neglecting random interruption duration' International Journal of Electrical Power & Energy Systems, 51, 307-310, 2013

Sr. No	Institutions	National Research Publications
21.	JEC Jabalpur	L.S. Titare, Pushpendra Singh, L.D. Arya, S.C. Choube, "Optimal reactive power rescheduling based on EPSDE algorithm to enhance static voltage stability" International Journal of Electrical Power & Energy Systems, 63, 588-599, 2014
22.	SGSITS Indore	A Tiwary, R Arya, SC Choube, LD Arya, 'Determination of optimum period between inspections for distribution system based on availability accounting uncertainties in inspection time and repair time', Journal of The Institution of Engineers (India): Series B, 67-72. 93, 67-72, 2012
23.	SGSITS Indore	Koshti, A., L. D. Arya, and S. C. Choube. "Voltage Stability Constrained Distributed Generation Planning using Modified Bare Bones Particle Swarm Optimization." Journal of The Institution of Engineers (India): Series B, 94(2), 123-133, 2013
24.	SGSITS Indore	Koshti, A., L. D. Arya, and S. C. Choube. "Static Load Model Determination Using Functional Approximation Based on Gaussian Pulses and its Comparison with ZIP Load Model." Journal of The Institution of Engineers (India): Series B: (Awarded Pd. Madan Mohan Malviya Memorial Prize) 95(2), 129-133, 2014

3.7.2 Mention specific examples of, how these linkages promote.

- Curriculum development: Academic linkages have helped the institution in designing and updating curriculum that are of global standard and benchmark.
- Internship, On-the-job training: Many students of Civil, Mechanical Electrical, CS, PCT etc. have benefitted from collaborations and undergo internships.
- Faculty exchange and development: Annual faculty development programmes are organized in collaboration with partnering institutions. These collaborations effect faculty exchange and enrichment programmes.
- Research, Publication: Academic linkages have enhanced interdisciplinary research activities that have resulted in publication of research findings.
- Consultancy: There is a marked increase in the number of

consultancies and revenue generated.

- Extension: The University has started self growth and community work of 2 credits each to promote extension activities.
- Student placement: The academic linkages established by the institution have enhanced its academic profile and has resulted in increase in the number of companies visiting the campus for placement.

3.7.3 Does the University have MoUs nationally / internationally and with institutions of national importance/other universities/ industries/corporate houses etc.? If yes, explain how the MoUs have contributed in enhancing the quality and output of teaching-learning, research and development activities of the University?

The university has already established linkages with a number of international and national institutions and signed MoUs with them in order to make opportunities of higher learning and research accessible to rural youth and to promote fundamental and applied research in the field of Sciences. This will ensure regional growth and development. The University has forayed into academic and research collaboration with the following institutions by signing MoU:

- RGPV signed MoU with National Institute of Technical Teachers Training and Research (NITTTR) to promote the National Mission for education through ICT which is an initiative of Ministry of Human Resource and Development (MHRD) Govt. of India. The aim is interconnecting all the engineering degree and diploma colleges with high speed internet on single virtual private network.
- RGPV signed MoU with US-based EMC Corporation and launched EMC Academic Associate Recognition programme. RGPV is the first technical university in the country to start certificate course in cloud computing. The certificate course is in information storage management and cloud computing. EMC offers data storage, information security, virtualization, analytics, cloud computing and other products and services that enable businesses to store, manage, protect, and analyze data. To get recognition of EMC Academic Associate, the US-based company, students of 7th semester and final year who have read storage management will have to take a technical online test for no charge. India is likely to face a skills shortage of one lakh cloud computing professionals by 2016. Focus was on bridging skills gap through the EAA programme and the EMC academic associate recognition is another step in that direction. The courses are to equip students with a set of skills, which will be in a great demand in foreseeable future. The EMC Academic Associate

exam will be open to students of the state. The EMC Academic Associate recognition will enable students to join a large and diverse EMC technical community, where they can network, seek advice and learn more through online forums such as the EMC professionals.

- RGPV has signed a memorandum of understanding (MoU) with Sapience Consulting. It is a university program partner of Texas Instruments Inc (TI), USA to start a centre of excellence on the university campus that will impart students with practical knowledge and also help create job opportunities. TI is an American electronics company that is third largest manufacturer of semiconductors worldwide and second largest supplier of chips for cellular handsets. It is also the largest producer of digital signal processors (DSPs) and analog semiconductors, among a wide range of other semiconductor products including calculators, microcontrollers and multi-core processors. The objective is to encourage and promote an ecosystem in the design of embedded products. Students and teachers will be benefitted by this centre. It has already been in operation for an year now. TI is providing training in the field of embedded processors, analog and digital design, microcontrollers and microprocessor based designs. Students and faculty members will get exposure to new technologies in designing and hardware developments. Centre will promote design of embedded products based on TI's semiconductors. It will also promote design of educational solutions for teaching subjects on embedded systems and conduct educational activities such as seminars and train-the-trainer workshops that will be open to teachers from other engineering colleges as well. TI has donated the equipment, semiconductor tools and solutions to get the center started. Students who will work on product design activities at the centre will be offered internships.

List of International/ National Level MoUs during 2011-12 to 2014-15.

No.	Country	Name of the University/Institution	Month and Year of Signing
1	Canada	North eastern Ontario Regional Cancer Centre / Sudbury Regional Hospital, Ontario, Canada.	June 2009
2	Kazakhstan	TURAN University	November 2013
3	Russia	Rural State University of Economics	November 2013
4	Russia	Moscow Vitte University, Russia	November 2013
5	Russia	Saratov State Socio Economics University, Russia	November 2013
6	Thailand	Mahasarakham University	November 2013

National Level MoUs

S. No.	Name of the University/Institution	MoU Co-coordinator from RGPV	Month and Year of Signing	Expected Outcome/Benefits of collaborations
1.	International centre for Genetic engineering and Biotechnology, New Delhi, India.	Prof. Piyush Trivedi	June 2009	Collaborative research in the area of new drug discovery for AIDS.
2.	D Auto Engineering Pvt. Ltd.	Prof. Aseem Tiwari	29 June 2013	Product Design knowledge set
3.	EMC Information System International	Dr. Nishchol Mishra	28 February 2012	Education and Training in the field of Information Storage and
4.	Tata Consultancy Services Ltd.	Dr. Anil Kothari	22/04/2012	Training and Placement of Students
5.	Foundation for Excellence	Registrar	6.08.2012	Educating Community
6.	NITTTR Bhopal	Registrar	NOV 2012	National Mission on Education through ICT
7.	NBA	Registrar	NOV 2012	Accreditation

3.7.4 Have the University industry interactions resulted in the establishment / creation of highly specialized laboratories / facilities?

Collaborations with Texas Instruments for undertaking research have resulted in equipping the laboratory with instruments used in research. Industry interactions have strengthened networks and updated professional skills through internships facilities and on-the-job training. In collaboration with Texas Instruments, a center of excellence is established in the university campus. An innovative project of “Cross Linear Concentrated Solar Power System” is implemented in the university campus in collaboration with Japan and Ministry of New and Renewable Energy (MNRE).

CRITERION IV

INFRASTRUCTURE AND LEARNING RESOURCES

4.1. Physical Facilities

The campus of RGPV is spread over 241.14 acres area close to Raja Bhoj International Airport. Aesthetically well designed state of art building equipped with modern labs, RGPV has been developed as knowledge center in central India striving for augmenting the IT infrastructure, on line resources to keep pace with technology to disseminate quality education.

4.1.1 How does the University plan and ensure adequate availability of physical infrastructure and ensure its optimal utilization?

The number of students and scholars enrolled in the campus has increased multiple times along with the induction of new specialized courses at undergraduate and post graduate level since the inception of the university. Building Committee gives a comprehensive thought over the planning and estimate of the infrastructure as per present and future requirement. While designing the building the focus is always on optimum utilization of university campus area with proper ventilation and natural illumination. The size of Classrooms, Labs, offices and other amenities are designed to meet the requirement of regulatory agencies and Govt. of MP.

Buildings and Facilities in the Campus:-

RGPV has constructed a row of buildings to facilitate all departments to have own computer center, faculty cabin, R &D center, classrooms, lecture theatre etc. Conference hall, seminar hall and lecture theatres are generally shared by other departments also.

- In order to improve soft skill of students, University has given due credits in its curriculum. This is accomplished through language labs which are used to teach soft skill courses.
- Contents delivery by subject experts through Amrita Software for affiliated institutes has facilitated their faculty to interact on line with the experts. The campus is to develop e-learning platform.
- Some of the departments have developed modern class room equipped with LCD projector and audio system. Labs are equipped with state-of-art instruments suitable for their application in field testing.
- Each faculty member is provided a separate room so that he/she can contribute more and more in teaching and research without disturbance. Every department has an office room with sufficient staff (clerical, technical and support) to assist the teaching-learning and research activities of the department.

- The University ensures that there are adequate toilet facilities, toilet provision for differently-abled persons, common room for women staff and faculty.
- Medical Officer with his team is deputed to on campus health centre to cater the medical needs of students and staff. Adequate budget is allocated for this health center.
- Most of the upcoming buildings are equipped with lifts and ramps and are user friendly for the differently-abled.
- Solar energy projects utilizing the vast roof area of new and old building are in the pipeline.
- Child care room situated in the close vicinity of academic block helps the women staff, if required. The campus is also provided with student's amenity centers, Women's Facility Center, playground, cafeteria, student supporting services such as facilities for typing and photocopying etc.
- The campus has well-equipped hostels for men and women and they are modernized with hygienic dining facilities, gym, internet, common room, computer browsing centre, Wi-Fi connectivity and other facilities required for the students. Transit hostel for QIP and research scholars is under construction.
- Guest House with AC suits and rooms are made available as and when required.
- Senate Hall equipped with Delegate Conference System and seating capacity of 50 members is located adjacent to Vice Chancellor Office for organizing Executive Council meeting.
- Security and House Keeping Personnel are made available through outsourcing and monitoring is done by RGPV officers.
- An In-house team is responsible for Campus maintenance. Maintenance of lab instruments are executed by either lab personnel or AMC.
- Electrical back-up is in place in most of the building.
- Adequate arrangement of drinking water facility is made.

External Services: External Services such as bus facilities, Ambulance, Bank counters, ATM Counter, Post-office are available.

Administrative Office: Total Built up area of Administrative Office is 90,0000 Sq. Mtr. Separate offices for Vice Chancellor, Registrar, Financial Officer, Controller of Examination, Administrative Officers, Committee Room, students waiting room etc. are available along with separate offices for all the senior officers of the university.

The University strictly adheres to state and central government norms in the construction of new buildings. Table 4.1 provides the list of

building construction works undertaken during the period of assessment

Table 4.1 Construction Activities, April 2011- March 2015

S. No	Name of the Work	Estimate Cost (in Lacs)	Funding agency	Utility	Date of Commencement	Current status
1	Administration Block	3863	RGPV & UGC	For Administration, Examination, Library and other academic activities.	1/9/2009	Completed
2	Library					
3	Academic block VII					
4	Academic block VIII					
5	Lecture Theater	264	RGPV	Lecture theaters of diff. Capacities.	09/11/2009	Completed
6	E type Residential Block	74	RGPV	Residential facility for faculties	25/06/2009	
7	Boys Hostel	4150	RGPV	For students	5/12/2011	Ongoing
8	Guest House		RGPV	For university guests		Completed
9	Academic block IX		RGPV	Academic department		Ongoing
10	Academic block X		RGPV	Academic department		
11	Auditorium		RGPV	Activity centre		
12	Hostel Mess		RGPV	For hostlers		
13	Girls Hostel I	1150	RGPV & UGC	For students	1/3/2013	Ongoing
14	University Polytechnic	300	RGPV	For Administration, Examination, Library and academic activities	1/5/2013	
15	Shopping Complex Cum Community Hall	60.54	RGPV	For program of residential and market	3/7/2012	Completed

16	Women's Facility Centre	59.40	RGPV & UGC	For female students/faculty	3/7/2012	
17	Knowledge Resource Centre	1000	RGPV	For T & P, Corporate Schools, IT Skill Development Centre	30/08/2014	Ongoing
18	Transit Hostel	300	RGPV	For Research scholars	30/08/2014	
19	Girls Hostel II	1350	RGPV	For Students	30/08/2014	
20	Acad. Block XI & XII	1900	RGPV	Academic department	23/02/2015	
21	Cafeteria	68	RGPV	Cafeteria	3/7/2012	Completed
22	Sub Station Building	16	RGPV	Substation	3/7/2012	
23	F Type Block Remaining work	24.4	RGPV	Residential facility	18/05/2009	
24	Additional Floor Block-3	170	RGPV	Academic department	2/3/2009	

4.1.2. Does the university have a policy for the creation and enhancement of infrastructure in order to promote a good teaching-learning environment? If yes, mention a few recent initiatives.

Creation and enhancement of infrastructural facilities in the campus is one of the top priorities of the University to promote a good teaching-learning environment. University has facilitated comfortable and non-disturbance work place to teachers, internet connectivity in the classrooms with LCD projector and audio facility. Print Journals, magazines, e-resources facility can be used by teachers and students both that help them to deepen their knowledge and keep pace with modern technology. Computer Center of the University provides a good teaching learning environment. These centers are well equipped and some of the labs courses are conducted here. Centralized photocopying and scanning facilities are available in the library. Learning software has been developed for differently-abled people to make the learning environment inclusive one.

4.1.3. How does the University create a conducive physical ambience for the faculty in terms of adequate research laboratories, computing facilities and allied services?

Research Laboratories

The University has been augmenting its state-of-art facilities during the assessment period through purchase of equipments, accessories and software. The list of major sophisticated equipments purchased during the

assessment period is given in Table 4.2.

Table 4.2 List of Major Sophisticated Equipment Purchased

S. No.	Name of Equipment
Department of Civil Engineering	
3.	Universal Testing Machine
4.	Flexural Testing Machine
5.	Torsion Testing Machine
6.	Brinell's Hardness Testing Machine
7.	Rockwell Hardness Testing Machine
8.	BOD Incubator
9.	Karl -Fisehet-Titranion (Digital)
10.	Universal Sheker (Test Shakercly Cromix)
11.	Weather Monitoring Station Model
12.	Box Shear Test apparatus
13.	Triaxial test apparatus
14.	Unconfined shear strength test apparatus
15.	CBR test apparatus
16.	Permeability test apparatus
17.	Relative density test apparatus
18.	Liquid limit test apparatus
19.	Compaction test apparatus
20.	Consolidation test apparatus
21.	Torsion balance for MC determination
Department of Computer Science & Engineering	
22.	Fiber Optics Kit
23.	Wireless Network Trainer Kit
Department of Electrical and Electronics Engineering	
24.	High-Voltage Insulation Tester
25.	Primary Current Injection Test System
26.	Digital Power Analyzer
27.	Transformer-Oil Testing Kit With Automatic Sphere-Gap Adjustment.
28.	Igbt Based 4 Quadrant Chopper Driver Along With Protection And Othere Cicuitry
29.	Tms 3201 & 2407a Based Dsp Traineer Kit (Micro 2407a)
30.	Tms 320f2812 Dsp Traineer Kit (Micro 2812)

31.	3- ph Igbt Based Pwm Inverter And V/F Control Traineer
32.	Thyristorised Dc Motor Chopper Drive
33.	Igbt Based Power Module For Sr Motor (Pechv16hsrm)
34.	Cycloconverter (Hv)
35.	Vector Controlled Software
36.	Power Electronics Traineer Kits
37.	D-Space Kit
38.	(Ace) 1103 Clp/Dspace Ace Kit1103 Ace Consisting Of Hardware. i. Ds1103 Power Pc 4x1 1ghz, Controller Board 32 Mb Application, Sd-Ram, 96 Mb Communication 3d-Ram, Dx-4 Expansion Board (Box) With High Speed Host Interface Consisting Of Ds814, Pc Side , Pc Bus Ds8178 Optocable: Ds1103sop: 375154 ii. Clp1103 Connector/Led Panel Sm: 379477 Software iii. Cdp Control Demelfent Package iv. Microtech C Cross Compiler Your Dongle #44694
39.	Ace1104 Clp/(Dspace Ace Kit1104) Advance Control Education Kit 1104 Consisting Of Hardware. a. Ds1104 Ppc For Je/250 Mhz Controller Board With 32 Mb Ram: 3n: 6m4429. b. Clp1104 Connector/Led:Sn:380799 Software c. Cdp Control Development Package d. Microtec C Compiler Your Dongle #44615
40.	Microprocessor Trainer Kit 8086, Make: United Electro Technologies
41.	3-Ø Converter Firing Unit
42.	Electrical Power Distribution Panel.
43.	Generator Protection-Simulation Study.
44.	Electrical Power Transmission Line Training System With Var-Compensator Unit.
45.	Feeder Protection Simulation Study Unit.
46.	Transformer Protection Simulation Study Unit.
47.	Motor Protection Simulation Study Unit.
48.	Mi-Power
Department of Mechanical Engineering	
49.	CAD Software
50.	4 complete working set ups of Engines with all measuring equipments
51.	10 set ups of various heat transfer lab set ups
52.	6 set ups of lab equipments

53.	Robotic arm set up , CNC milling machine
School of Biotechnology	
54.	HPLC
55.	GC
56.	RTPCR
57.	Micro Plate Washer Elisa
58.	Micro Scope
59.	Cyclo Mixer / Vortex Mixer
60.	Biodiesel Reactor
61.	Water Purification System
62.	Cooling Gradient Palm Cycler Pcr Machine -Pcr
63.	U.V. Transilluminater
64.	Uv Visible Spectrophotometer
65.	Colony Counter
66.	Biosafety Cabinet
67.	Trinocular Inverted Tissue Culture Microscope
68.	Gel Documentation System
69.	Plant Tissue Culture Racks
70.	Co ₂ Incubator
71.	Vertical Deep Freezer (-20 ⁰ c)
72.	Fermenter (Lark)
73.	Probe Sonicator (Lark)
74.	Uv-Cross Linker
75.	Trinocular Phase Contrast Microscope With Digital Camera
76.	Elisa Reader
77.	Speedvac (Savant Dna 120)
78.	Kingfisher Mi Thermo (Nucleic Acid Detector)
School of Energy & Environment Management	
79.	Wind Mill For Water Pumping
80.	BIOMASS GASIFIER WITH DG SET 10 Kw
81.	HYBRID CAR (Solar & Bio-Diesel)
82.	Carbon Mono Oxide Convertor
83.	Wind Farmer Software
84.	Global Positioning System (Gps)
85.	Hydrogen Producer
86.	Solar Experimental Kit
87.	Oil Expellor Unit
88.	Solar Pump For Thin Film Plant

89.	Solar Power Conditioning Unit
90.	Pelton Wheel Turbine- Test Rig
91.	Kaplan Wheel Turbine- Test Rig
92.	Francies Wheel Turbine- Test Rig
93.	Combustion Gas Analyser (Data Acquisition System)
94.	Solar Educational Kit
95.	Ss Mono Block Pump With 10hp Motor
96.	Power Lifting Machine
97.	Thermometer –Mercury
98.	Dual Rotor Wind Turbine
99.	Distillation App.(Wall Pattern)
100.	Weather Monitoring Station (Watchdog)
101.	Combustion Gase Analyser
School Of Pharmaceutical Sciences	
102.	Differential Scanning Calorimeter
103.	Electrophoresis
104.	Elemental Analyzer CHN
105.	Elisa Reader
106.	Friability Tester
107.	FT-IR Spectrophotometer
108.	Flash Chromatography
109.	Gas Chromatography
110.	HPLC
111.	LC-MASS
112.	Lyophilizer
113.	Nitrogen Evaporator Turbo Vap LV
114.	Partical Size Analyzer
115.	Refrigerated Centrifuge
116.	Schrodinger Software
117.	Spectrofluorimeter
118.	Tablet Section
119.	Tablet Dissolution Test Apparatus TDL -08L
120.	Texture Analyzer
121.	UPLC
122.	Ultracentrifuge
Electronics and Communication Engineering	
123.	Microwave Bench
124.	C. Band Trainer

125.	Antenna System Trainer
126.	Antenna Training Lab
127.	Doppler Radar Trainer
128.	Transmission Line Analyzer

Allied Services

- **Internet Facility:** The University provides computer and network/ internet access to all students to support academic, instructional and research activities associated with the courses that students are currently enrolled in. RGPV networks are primarily used for college-related research, instruction, learning, distribution of scholarly information, and administrative activities. 24 hrs Internet facilities with 1GBPS leased line connectivity is provided to the students.
- **Central Library:** The library of RGPV is equipped with books, periodicals, national and international journals, CD-ROMS, covering all aspects of academic studies and research material.
- **Departmental Library:** All departments of the university have their individual libraries. Adequate number of reference books in all subjects of the department are available in the library.
- **e-Library:** RGPV e-library offers access to online e-journals, e-books, e-database, e-lecture videos and open sources software with useful links. User can seamlessly access the contents abstracts or full text in a flexible and easy manner to use for their study. E-library provides collaborative search for all types of e-resources/on-line resources such as e-journals, e-books, e-database. UGC, INFONET/INFLIBNET, INDEST-AICTE Online Journals funded by MHRD are available on URL's where from students can download the full text of e-resources for research work.

4.1.4 Has the University provided all departments with facilities like office room, common room and separate rest rooms for women students and staff?

Yes. The university has provided common rooms for students and office rooms as well as common staff rooms for the faculty of every department on

the university campus. Separate common rooms are provided for girls and female faculties. Women Facility Center is also provided. Child Care Room is available in the campus.

4.1.5 How does the University ensure that the infrastructure facilities are Differently abled friendly?

Ramps are provided in most of the departments, hostels, examination building, administrative building and the library. Provisions for elevator arrangements have been made in most of the upcoming buildings. Currently elevators are installed in the administrative and examination buildings.

4.1.6. How does the University cater to the requirements of residential students? Give details.

The University is committed towards providing on-campus residence with facilities satiating elementary as well as tertiary requirements of the residential students such as hygienic surrounding, healthy and nutritious food, learning-conducive ambience, high-speed network connectivity, gymnasium, indoor-outdoor sports facilities, motorable roads, counselors and on-campus medical and ambulance facility etc. Hostels, Guest House, Health Center, Post Office, Play ground, Shopping Complex, Cafeteria, Bank, ATM, Photo-copier are some of the important facilities which are available to the residential students. Construction of Indoor and outdoor stadium is in progress.

- **Capacity of the hostels and occupancy (to be given separately for men and women)**

Table No. 4.3: Hostel Occupancy

Hostel Type	Number of Hostels	Intake Capacity	Occupancy
Men	1 (PG Hostel)	96	100%
	1 (UG Hostel)	378	-
Women	1 (UG/PG Hostel)	96	100%
	1 (UG/PG Hostel)	399	-

- **Recreational facilities in hostel/s like gymnasium, yoga centre,etc.**

Recreational facilities available at the Hostel are:

- Television set with set-top box
- Gymnasium equipped with leg press, lat pull down, leg curl, declined as well as front bench press, standard weight dumb-bells.
- Recreational hall with indoor gaming Facilities such as Table Tennis,

- Carrom, Chess, and dart games etc.
- Outdoor sports: Badminton Court, Volleyball Court etc.
- Reading Room with newspapers and magazines relevant to students
- Individual rooms are furnished with cots, computer table, chairs and shelves.
- Wi-Fi enabled campus.

4.1.7. Does the University offer medical facilities for its students and teaching and non-teaching staff living on campus?

Yes. University has a Health Center for students, staff and campus residents. Health Center has a Medical Officer with one compounder. Along with this, sufficient budget is allocated for purchasing basic medicines for the Health Center. The facilities available in the Health Center are:

- Oxygen Cylinder
- Essential medicines/drugs
- Blood Pressure Monitoring Instrument
- Medical Examination Bed
- Round the clock ambulance facility
- Periodic health check-ups

4.1.8. What special facilities are available on campus to promote students' interest in sports and cultural events/activities?

The University has necessary infrastructure to promote students' interest in sports and games. The facilities available are as follows:

- Badminton Court, Volley Ball, Football, Cricket Ground.
- Dedicated room for Indoor games such as Carom, Chess and Table Tennis.
- SPIC MACAY student chapter
- Construction of outdoor/ indoor sport complex is in pipeline.

4.2 Library as a Learning Resource

4.2.1 Does the library have an advisory Committee? Specify the composition of the committee. What Significant initiatives have been taken by the committee to render the library student/user friendly?

Yes, library has an advisory committee:-

The composition of the committee is given below.

Members : Prof. Dr A.C. Tiwari (HOD Mechanical Dept.)
 Dr. Ravindra Patel (Associate Prof. HOD MCA, UIT)
 Dr. Rakesh Singhai (Associate Prof. HOD Electronic Dept.)
 Dr. Archana Tiwari (Associate Prof. HOD Biotech.)
 Dr. Roopum Gupta (Associate Prof. HOD IT, UIT)
 Dr. Suman Ramteke (Asst. Prof. Pharmacy)
 Mr. Nischol Mishra (Asst. Prof. IT)
 Student member
 Student member

The Library Advisory Committee has been formed to look after the library functioning and prepare a draft on policy and financial matters. Some significant initiatives have been taken by the committee in the recent past to render the library student/User friendly.

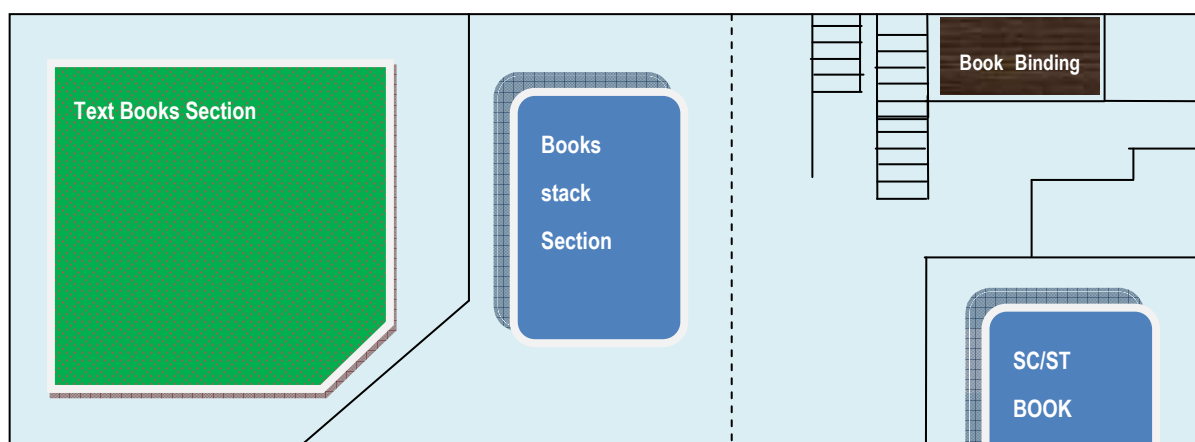
- Procurement of books for central library and departmental libraries, Procurement of e-books, e-journals, Print journals, library equipments, Furniture and computer.
- Implementation of RFID system which facilitates the library to function more user friendly in terms of automated circulation, books search, automated books drop or return etc. RFID Based Automated book issue and automated book drop unit generate book return slip that avoids the wastage of time of students.
- Issue of Identity Card to each student in the campus.
- Drafting the library rules for proper management of library services and housekeeping job.
- Procurement of books through E-tender as per norms of Govt of M.P.

4.2.2 Provide details of the following:

- Total area of the library (in Sq.Mts.) - 6000 Sq.mtr
- Total seating capacity – 3000 students
- Working hours (on working days, on holidays, before examination, during examination, during vacation) – 8:00 am to 8:00 pm
- Layout of the library (individual reading carrels, lounge area for browsing and relaxed reading, IT zone for accessing e-resources)

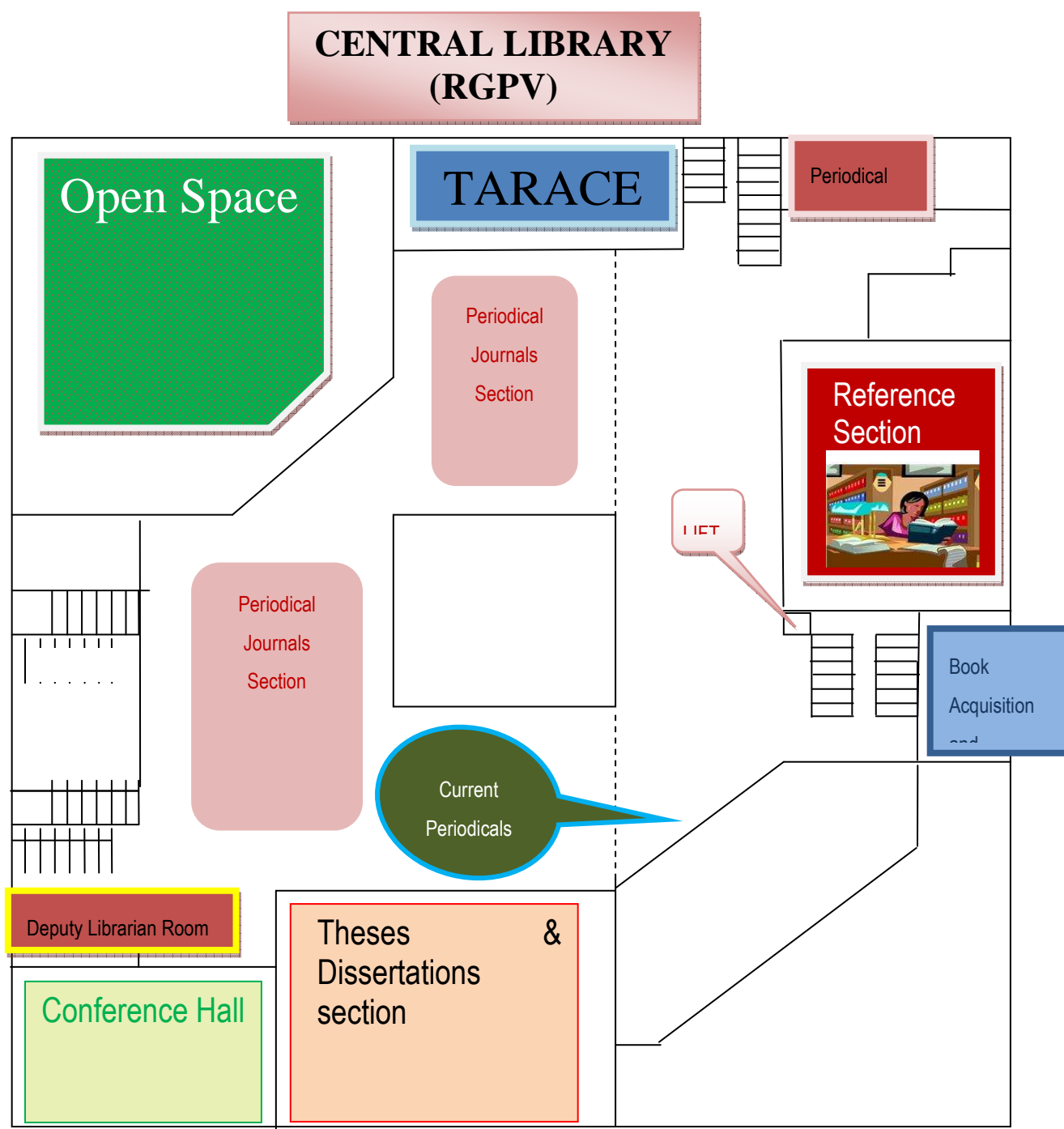
Layout of the library:

CENTRAL LIBRARY



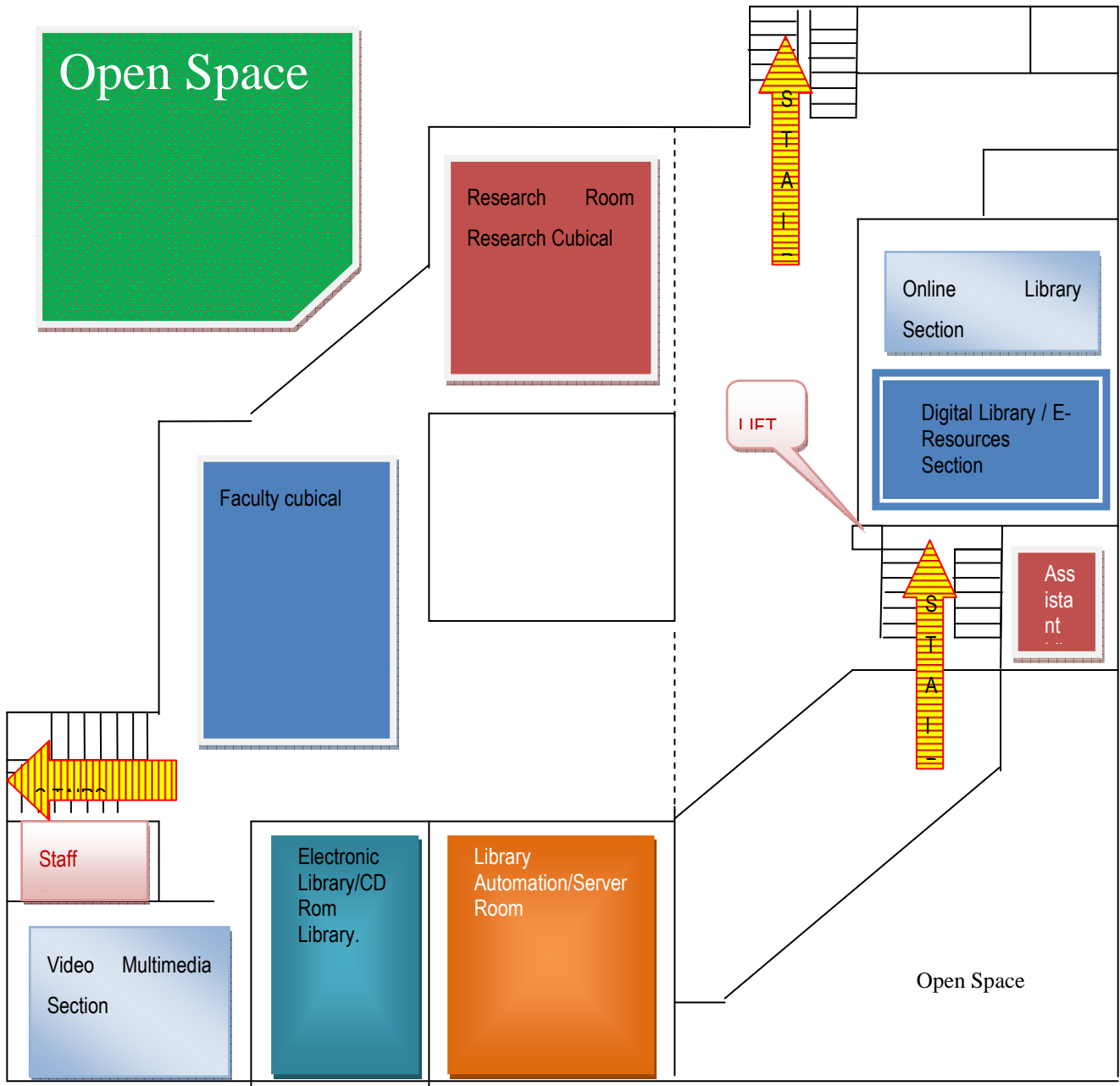
GFA	Property Counter,
GFB	Library Catalogue (OPAC/ Web OPAC)
GFQ	Gate
GFC	Display Board
GFD	New Arrival
GFE	Circulation Section (Book issue, Return and Renewal Counter)
GFF	Magzines and Newspaper Section, Reading Room (Reading Hall)
GFG	Librarian Room
GFH	Special Section for RGPV

GROUND FLOOR



- SFA** Digital Library / E-Resources Section
- SFB** Electronic Library/CD Rom Library.
- SFC** Video Multimedia Section
- SFD** Assistant Librarian Room
- SFE** Staff Room
- SFF** Research Room Research Cubical
- SFG** Faculty cubical
- SFH** Library Automation/Server Room
- SFI** Online Journals

SECOND FLOOR



7.2.3 Give details of the library holdings:

a) Print (books, back volumes and thesis) –	
Books:	71931
Back Volume of Journals:	370
Thesis	834
b) Average number of books added during the last three years	7535
c) Non Print (Microfiche, AV)	NIL
d) Electronics (e-books, e-journals)	24313, 6302
e) Special Collection	49296
Reference Books	7756
f) Book Banks	14879
g) Question Banks	Available for most of the subjects

4.2.4 What tools does the library deploy to provide access to the collection?

Library provides Online Public Access Catalogue (OPAC) search facilities through the SPLASH and KOHA Software. The Library Catalogue and Computers equipped with OPAC search facility is setup on ground floor. OPAC implies the holdings of RGPV Central Library and other departmental libraries.

Electronic Resource Management package for e-journals –

Electronic resources keep the students abreast with the latest developments in the field of Engineering, Science and Technology. To improve the basic collection and for the establishment of the E-library, the UGC INFONET Journals/ E-Journals, E- Database and E-resources are subscribed. INDEST-AICTE Online Journals funded by MHRD are available on URL for quick access and downloading the full text of e-resources. Some of the important features related to electronic resources are listed below.

- **E-Books:** It contains different types of e-books i.e. online e-books and CDs accompanying the books; both digital purchased books and digitized books through scanning.
- Facility to search articles in multiple databases using Kinmbus Federated searching tools.
- Library Website – Library has developed a web page that indicates the

library recourse such as books, e-books, e-journals, useful links, open source software, study materials and subject videos etc on the www.rgtu.net URL.

- In-house/remote access to e-publications.

4.2.5 To what extent is ICT deployed in the library? Give details with regard to.

- **Library automation-** Library is fully automated with the In-house developed library management software developed and managed by the student under Earn by Learn scheme of University. The details of In-house developed library software are given below:

“SPLASH LIBRARY MANAGEMENT SOFTWARE”

Networking	: Networking by switch & Cable
Operating System	: Windows 2003 (Net framework3.5)
Server	: SQL Server based
Year	: Starting Year 2008
Developed by	: Student of UIT- RGPV, Bhopal
Modules	: Circulation-Issue, Return & Reissue Report-Daily Issue, Return & Reissue, Due book, Category
Database Search	: Library Books, Members, Fine calculation,
Other Facilities	: Search, Barcode generation & Stock Verification, Print Reports, Print Slip, Print fine paid slip
Language	: DOT NET Platform

This section is located on the first floor of the Library and houses the main server, SAN server, CD server, Multimedia system, scanners and printers. It manages the working of the entire Computer System of the Library. Library is also working on KOHA, which is compatible with RFID and Information

Management System.

- Total number of computers for general access: 120
- Total numbers of printers for general access: 7 mono & 2 color
- Internet band width speed: 1 GBPS
- Institutional Repository : Yes
- Content management system for e- learning : Yes
- Participation in resource sharing networks/consortia (like INFLIBNET/ Shodh-sindhu) – Library has the membership of Shodhshindu, UGC Infonet, INDEST-AICTE consortium and DELNET and using the facilities.

4.2.6 Provide details (per Month) with regard to

- Average number of walk-ins: 15000
- Average number of books issued/ returned: 21000
- Ratio of library books to students enrolled: 14:1
- Average number of books added during the last four years: 5841
- Average number of login to OPAC: 15000
- Average number of login to e-resources: 3000
- Average number of e-resources downloading/printed: 2000
- Number of IT (Information Technology) literacy trainings organized

Table 4.4 List of IT Literacy Training Organized

S No	Title	Sponsored / Organized by	Date
1	On-line access of data and metadata via Proquest database Engineering, Science and Technology.	M/S Proquest New Delhi & Central Library Rajiv Gandhi Proud yogiki Vishwavidyalaya, Bhopal	29-07-2009
2	Online Journals On-line access of Taylor & Francis e-journals database of Engineering, Science and Technology.	M/S Taylor & Francis Pvt. Ltd, New Delhi & Central Library Rajiv Gandhi Proud yogiki Vishwavidyalaya, Bhopal	11-08-2009

S No	Title	Sponsored / Organized by	Date
3	Science Direct On-line access of Elseviers e-journals & e-books and database of Engineering, Science and Technology.	M/S Elseviers Pvt. Ltd, New Delhi & Central Library Rajiv Gandhi Proud yogiki Vishwavidyalaya, Bhopal	20-08-2009
4	On-line access and Content Search of INSPEC Database of Engineering, Science and Technology.	M/S EBSCO Publisher Services, New Delhi & Central Library Rajiv Gandhi Proud yogiki Vishwavidyalaya, Bhopal	27-08-2009
5	Digital Library E-learning : Online e-resources	M/S Soft tech Engineers Pvt. Ltd, Pune & Central Library Rajiv Gandhi Proud yogiki Vishwavidyalaya, Bhopal	23-09-2009
6	One day workshop on RFID Enabled Library Management automation Systems organized for Librarian/ Faculties and students for automated library services	Net lard Solutions, New Delhi. & Central Library Rajiv Gandhi Proud yogiki Vishwavidyalaya, Bhopal	28-10-2009
7	ADIS, Medicine Complete contents of electronic resources Training Organized for Pharmacy and Biotechnology professionals	SWETS, New Delhi ADISXRPS Pvt.(IIPL) & Central Library Rajiv Gandhi Proud yogiki Vishwavidyalaya, Bhopal	27-10-2009

S No	Title	Sponsored / Organized by	Date
8	Workshop on Intellectual Property right (IPR), Copyright act © & patenting one day awareness program organize for faculty and Students to aware the Intellectual Property right (IPR), Copyright act © & patent on the Engineering and Science Subjects.	MPCST Bhopal & Central Library Rajiv Gandhi Proud yogiki Vishwavidyalaya, Bhopal	29-01-2010
9	Awareness program on E-journals/e-books	M/S Balani InfoTech India Pvt. Ltd, New Delhi & Central Library Rajiv Gandhi Proud yogiki Vishwavidyalaya, Bhopal	09-02-2010
10	Tanning program on electronic resources such as e-books, e-journals and e-database	M/S Global Information Systems Technology 1. e-books database Pvt. Ltd. & Central Library Rajiv Gandhi Proud yogiki Vishwavidyalaya, Bhopal	18-02-2010
11	Digital Library : e-journals/e-books / e- database	M/S Springer/online, New Delhi & Central Library Rajiv Gandhi Proud yogiki Vishwavidyalaya, Bhopal	27-04-2010

S No	Title	Sponsored / Organized by	Date
12	Electronic Library	M/S Cambridge University press, New Delhi & Central Library Rajiv Gandhi Proud yogiki Vishwavidyalaya, Bhopal	15-06-2010
13	e-journals/e-books / e-database	M/S Proquest Dissertation & Theses, New Delhi & Central Library Rajiv Gandhi Proud yogiki Vishwavidyalaya, Bhopal	15-06-2010
14	Workshop on IEEE Electronic Library/On-line e-resources Library/On-line e-resources	IEEE New Delhi & Central Library Rajiv Gandhi Proud yogiki Vishwavidyalaya, Bhopal	10-12-2010
15	Workshop on Electronic & Digital Resources on Engineering, Science and Technology Electronic & Digital Resources on Engineering	Central Library Rajiv Gandhi Proud yogiki Vishwavidyalaya, Bhopal	12-11-2010
16	Radio frequency Identification Device & (Library Software)	M/S Rapid Radio Solutions, Ahmadabad & Central Library Rajiv Gandhi Proud yogiki Vishwavidyalaya, Bhopal	04-08-2011
17	e-Journals & Online Resources	M/S IEEE (INDEST), New Delhi & Central Library Rajiv Gandhi Proud yogiki Vishwavidyalaya, Bhopal	27-09-2011

S No	Title	Sponsored / Organized by	Date
18	Awareness program on Engineering online journals / e-books	M/S Springer Pvt. Ltd. New Delhi & on-line Journals/ e-books Central Library Rajiv Gandhi Proudlyogiki Vishwavidyalaya, Bhopal	16-11-2011
20	Library Automation Software	M/S Soft link Asia Pvt. Ltd. Faridabad- LIBERTY, M/S Algorithms Pvt. Ltd. Pune-SLIM, ILMS M/SOSSLABS Bangalore-KOHA,NIC- Granthalaya & Central Library Rajiv Gandhi Proudlyogiki Vishwavidyalaya, Bhopal	13-12-2011
21	AICTE Mandatory Online Journals	M/S Globe Publication Pvt. Ltd., New Delhi & Central Library Rajiv Gandhi Proudlyogiki Vishwavidyalaya, Bhopal	07-01-2012
22	On Line training for e-journals access and content search : JCCC	Informatics India Pvt. Ltd. Bangalore & Central Library Rajiv Gandhi Proudlyogiki Vishwavidyalaya, Bhopal	2008
23	Engineering on-line Journals/ e-books	M/S Springer Pvt. Ltd. New Delhi & Central Library Rajiv Gandhi Proudlyogiki Vishwavidyalaya, Bhopal	16-11-2011

4.2.7 Give details of specialized services provided by the library with

regard to

- **Manuscripts - No**
- **Reference –**

RGPV Central Library provides two types of reference services i.e. CAS (Current Awareness Service) and SDI (Selective dissemination of Information). SDI (Selective dissemination of Information) reference service is personal assistance service which is provided directly to the user. It may take the form of library instruction and information service. CAS (Current Awareness Service) is indirect reference service consists of information provided through development of catalogues, bibliography, and other reference aids. The reference section of RGPV central library holds about 7413 precious reference books including encyclopedias, dictionaries, biographical dictionaries, yearbooks, hand books, almanacs, directories, atlases, gazetteers, indexes, quotation books, bibliographies, accession lists, guides, maps, etc.

- **Reprography/ Scanning –**

Library has a separate Reprography Section equipped with three photocopier machine, seven mono and two color computer printers.

- **Inter-library Loan Service –**

The Library arranges books on loan from other libraries on specific demand. Library also provides the full text resources with the help of DELNET: RGPV Central Library is an institutional member of DELNET (Developing Library Network).

- **Information Deployment and Notification –**

OPACS: online public Access Catalogue (OPAC) shows the holdings of RGPV Central Library as well as departmental libraries of RGPV. OPAC computers provide the searching of library resources.

- **Internet access**

Internet Lab, Electronic library and Digital library are established in the library building with 120 PC's.

- **Downloads**

Users can access and download the full text of e-resources.

- **Printouts**

Yes

- **Reading list/ Bibliography compilation**

- Library provides the subject wise search facilities with the help of SPLASH Library Management Software. User can access the subject wise bibliography and CAS (Current Awareness Service).
- Bibliographic Services (Bibliographic Record)
- Bibliography of current Books, current Periodicals, current Audio Visuals, Bibliography of Project Report
- Special Bibliography (On Demand) such as Engineering, IT & Computer Science, Pharmacy, Biotechnology, Nano-technology
- New entrants are made aware of the library facility during the library orientation programme. Library orientation is held for UG & PG Students at the start of every academic year in the RGPV Central Library.

- **Assistance in searching Databases**

Yes.

INFLIBNET/IUC facilities:

Yes.

4.2.8 Provide details of the annual library budget and the amount spent for purchasing new books and journals.

Annual library budget During the Financial year 2011-2012

Particular's	Allotted Amount in lakhs	Expenditure Amount in lakhs
Print Journals	5	4.04
e-Books	50	--
Book	100	1.64
e-journals	46	19.39
RFID System/Equipments/Furniture	199	--
Total	400	25.08

Annual library budget During the Financial year 2012-2013

Particular's	Allotted Amount in lakhs	Expenditure Amount in lakhs
Print Journals	5	1.37
e-Books	200	71.43
Book	100	28.13
e-journals	80	10.11
Equipments/Furniture/Library Automation	15	--
Total	400	111.04

Annual library budget During the Financial year 2013-2014

Particular's	Allotted Amount in lakhs	Expenditure Amount in lakhs
Print Journals	5	0.7
e-Books	150	97.45
Book	100	75.99
Book	12.9	117.53
e-journals	45	--
Equipments/Furniture	100	--
Total	412.9	185.26

Annual library budget During the Financial year 2014-2015

Particular's	Allotted Amount in lakhs	Expenditure Amount in lakhs
Print Journals	5	--
e-Books	75	--
Book	100	47.81
e-journals	50	.115
Equipments/Furniture	20	--
Total	250	47.92

Annual library budget During the Financial year 2015-2016

Particular's	Allotted Amount in lakhs	Expenditure Amount in lakhs
Print Journals	5	--
e-Books	50	--
Book	100	.11
e-journals	50	.23
Equipments/Furniture	45	35.65
Total	250	35.99

4.2.9 What initiatives has the university taken to make the library a 'happening place' on campus?

In order to make library a happening place on campus, following initiatives are taken:

- The building of Central Library is designed with concept of solar passive architecture with facility of natural ventilation and illumination without artificial cooling/lighting in day time.
- Established the e-library with 120 computer system with internet access for e-books and e-journals.
- For security of student's bags library has token system on property counter.
- University library organizes the orientation training, workshop and conference for members up gradation
- Library has implemented the RFID system for issue and return of book by self check-in/check-out via book drop unit and shelf check-in / check-out RFID unit.
- All the furniture has been ergonomically designed for comfortable and prolonged seating and reading.
- Library provides the reprographic, CD writing and free internet access.
- Library has air-conditioned SC/ST book bank section, general book bank section, reprographic section, general stack room, E-library, Digital library, and Reference section.
- Library has RO water cooler for drinking water.
- Library provides the RFID and Barcode base ID for students, Faculty and staff.

4.2.10 What are the strategies used by the library to collect feedback from its users? How is the feedback analyzed and used for the improvement of the library services?

Faculty and students are the key stakeholders of the library. Library appreciates the suggestion & comments received from them. User can use mail ids librarian@rgtu.net to send his/ her suggestions for addition of new books, increasing the no. of titles etc. Students are encouraged to make their suggestion for up gradation of library. A comment box kept at the entry of the building to enable them provide their opinion/ feedback about the availability of text books, reference books, conduct of personnel, conducive environment for study, ease in searching the books etc. Library committee in its meeting reviews the suggestions and inputs available from different sources.

4.2.11 List the efforts made towards the infrastructural development of the library in the last four years.

- Procurement of books, e-books and e-journals
- New building with furniture and power back-up

- Automation of library by RFID
- E library facility with 120 PCs.
- E books and Online Journals
- Digitization of research work

4.3 IT Infrastructure

There is a phenomenal shift in the process of teaching learning with the significant role of ICT in academics. Most of the information is now available in digital form shared by faculty, students and staff. Security is another vital issue to ensure safe access of information protecting the technology resources that support in producing the information. IT policy of RGPV emphasizes on security issues related to server and network access. Priority is given for serving key data elements and educating the users with certain guidelines for smooth functioning of IT hardware and software.

4.3.1 Does the university have a comprehensive IT policy with regard to:

- **IT Service Management**

The University has an elaborate and comprehensive policy to bring about revolutionary changes in knowledge management in the University and administrative departments. It has established a full-fledged Computer Centre for this purpose. This is an In-house mechanism for servicing the IT infrastructure in the most cost effective manner.

- **Information Security**

A backup system is maintained for the sensitive databases such as finance and examination by using portable hard disks.

- **Network Security**

The Virtual Local Area Networks (VLANs) have been created to enhance the security of the entire network. CCTV surveillance for both analog and digital systems have been deployed at various points of the University campus.

- **Risk Management**

The virtualization implemented in the blade server setup helps in mitigating the risk due to failure.

- **Software Asset Management**

The University has implemented a unique policy of sending the software hosted on various servers spread over the campus to the blade servers placed in the Data Centre.

- **Open Source Resources**

The DNS and Oracle servers have Linux- the Free Open Source Operating System.

- **Green Computing**

The migration of the servers scattered around the campus to the Data Centre has resulted in significant saving in terms of power, air conditioning and has enhanced the initiatives towards the green computing.

4.3.2. Give details of the university's computing facilities i.e., hardware and software.

RGPV is connected to National Knowledge Network.

The computing facility includes:

- 11 Blade Servers with Xeon processors with each server containing 2 GB RAM and a total Hard disk Capacity of 360 GB.
- 150 Compaq PIV machines are interconnected through Network Fully air conditioned Computer laboratories.
- Digital Class Rooms with personalized desk containing P IV computer on LAN with Internet facilities and Audio visual teaching aids.
- 04 Compaq ML 350 Servers with RAID and RAS facilities
- 24 Hr Internet facilities with 2Mbps leased line connectivity.
- Cloud Computing based High-end Software and Computing Facility.

The following IT Labs augment the University computing facilities.

- **Project Lab-01:** Project lab was established in 2008. It is equipped with 110 modern systems.
 - Equipment: HP systems with Intel Pentium D inside 512 MB RAM 160 GB HARD DRIVE LCD PROJECTOR and Interactive White Board.
- **Software engineering lab 02:** Software engineering lab was established in 2006. It has 50 computers of the configuration given below.

- Equipments: Computer configuration: HP-2280 Intel Pentium Dual core 2.8 GHz, 512 Mb, 160 GB , HDD, DVD.
- **Computer network Lab 03:** Computer network lab was established in 2004. This lab presently has a number of equipments necessary for understanding networking.
 - Equipments: 1. HP-MP7120, Intel Dual Core (multi C.P.U) 3.2 GHz (Server) 2. 16 computers with Compaq EVO-380 P-IV processor.
- **Mobile computing and Ad-hoc Networking Lab:** The lab is investigating wireless and mobility problems such as routing protocols and algorithms, resource and service location protocols, performance evaluations of NFS and TCP, and mechanisms to improve throughput over wireless links.
 - Equipment: Software available in mobile computing Ad-hoc Networking Lab: QualNet 5.0 Simulator, Network Simulator 3, Omnet 4.1, Opnet 10.0
- **Data Mining Lab:** Current research activities focus on the following areas:
 - Multimedia data mining, in particular images and videos.
 - Meta-learning for model selection and combination.
 - Data mining for Biomedical Informatics.
 - Computer Forensics.
 - Equipment: Rapid Miner, Weka, SPSS, SAS, IBM Intelligent Miner and many other leading open source softwares are used for data mining and knowledge discovery.
- **Image Processing and Multimedia Lab:** Image Processing Lab at School of IT is dedicated to both fundamental and applied research in the areas of computer vision, image video processing, multimedia, biomedical imaging and remote sensing data analysis. Current research areas include face recognition, fingerprint identification, hand writing identification, document image analysis, 3D object recognition, and visualization exploration of 3D volumetric data, object-based video compression, medical image segmentation, biometric authentication, hyper-spectral image fusion, multi-spectral image registration, and content-based image retrieval.
 - Equipment: JAVA

4.3.3 What are the institutional plans and strategies for deploying and upgrading the IT infrastructure and associated facilities?

University is coming up with advance laboratories in the emerging field of Computer Technology and Application, Cyber Forensic, Data Science and Information Technology. Procurement of latest computer notebook, desktop and server is in pipeline. University plan to upgrade firewall to high availability mode and to equip with more switches, indoor access points and outdoor access points.

4.3.4 Give details on access to on-line teaching and learning resources and other knowledge and information database/packages provided to the staff and students for quality teaching, learning and research.

Digital Library: Digital Library is equipped with SAN Server and High speed 180 computers, the members can access the Digital Library of several library digitalized document such as electronics Journals, e-Books, e-Database Digitalized books, Digitalized Pamphlets, Digitalized reports etc through the INTERNET (Wi-Fi System within the campus).

Internet Service: 24 Hr Internet facilities with 1GBPS leased line connectivity.

Distance Learning – EDUSAT: Adequate infrastructure is available with the university to telecast the curriculum content for it's affiliated institutions. This was developed in collaboration with ISRO.

Amrita Virtual Interactive E-learning World (A-VIEW): A-VIEW is now deployed at RGPV along with several IITs, NITs and other leading educational institutions across the nation.

NPTEL: RGPV provides NPTEL (National Program) archives in the form of Digital storage which can be retrieved by both teachers and students for reference and teaching purposes.

Computer Notebook: Computer notebooks are provided to the individual faculty members of the university.

4.3.5 What are the new technologies deployed by the university in enhancing student learning and evaluation during the last four years and how do they meet new / future challenges?

Most of the classrooms and laboratories are equipped with 3-D interactive boards and LCD projectors supporting Smart teaching learning process for the aid of students and teachers. Online Mock tests for placements as well as day to day assessment of technical knowledge of students are conducted by the faculty. The answer books of students are attached with OMR sheets which

are to be filled by the student for Personal Information and the evaluator for marks awarded, respectively and Unique bar codes on OMR enables more transparency and faster evaluation and processing of examination conduction as well as result declaration.

Password protected encrypted question papers are delivered by the university to the affiliated institutions via internet and the authorizes office of the institute may open the question paper only when they are provided with the password which is provide on the same day the examination is conducted 30 minutes before its commencement. This prevents any possibility of violation of confidentiality or delay of receipt.

University has started conducting Online Practical Examinations of engineering, pharmacy and architect courses for its affiliated colleges.

4.3.6 What are the IT facilities available to individual teachers for effective teaching and quality research?

A large number of teachers are equipped with a laptop/desktop, LaserJet, scanner and Internet connection via Campus LAN. NPTEL archives in the form of Digital storage can be retrieved by teachers for reference and teaching purposes.

4.3.7 Give details of ICT-enabled classrooms/learning spaces available within the university? How are they utilized for enhancing the quality of teaching and learning?

The University is in the process of transforming traditional black-board based teaching methodology to ICT enabled smart class-rooms. Amrita Virtual Interactive E-learning World (A-VIEW) courses are conducted where teachers can attend courses of their interest and will be certified by recognized institutions after successful completion of the course.

All the faculty members are sharing information with students and experts through SKYPE and interacting with students using 3-D interactive boards.

4.3.8 How are the faculty assisted in preparing computer- aided teaching-learning materials? What are the facilities available in the university for such initiatives?

Laptops/Computer Notebooks are given to the every faculty of the university to make animated or ICT based modules for effective teaching and learning materials. Faculty members are using NPTEL video lectures for instructing students and upgrading themselves. In order to facilitate proper teaching aid, some of the classrooms are equipped with projectors and audio systems.

4.3.9 How are the computers and their accessories maintained?

The computers and their accessories are maintained through AMC. An In-house computer service team also supports to maintain the system in operation.

4.3.10 Does the university avail of the National Knowledge Network connectivity? If so, what are the services availed of?

Yes, The University has 1 GBPS connectivity from National Knowledge Network (NKN). The services availed of are: e-Journals Facility and Academic resources on the Internet.

4.3.11 Does the university avail of web resources such as Wikipedia, dictionary and other education enhancing resources? What are its policies in this regard?

Yes, university provides internet connectivity to access these resources. Faculty members are encouraged to use online resources in their courses as needed.

4.3.12 Provide details on the provision made in the annual budget for the update, deployment and maintenance of computers in the university.

Year	Allotted Amount in Rs. In Lakhs
2011-12	15.00
2012-13	4.00
2013-14	19.00
2014-15	31.00

4.3.13 What plans have been envisioned for the gradual transfer of teaching and learning from closed university information network to open environment?

Through extensive use of ICT, University has created a repository of e-learning resources on the University Portal as well as University's Career Portal which are available to learners round the clock using internet.

The faculty is using the Research Gate facility to enhance their research visibility. **(A-VIEW)** courses are conducted where teachers of various affiliated institutions can attend courses of their interest and will be certified by the university after successful completion of the course.

4.4 Maintenance of Campus Facilities

4.4.1 Does the university have an estate office/designated officer for overseeing the maintenance of buildings, class-rooms and laboratories? If yes, mention a few campus specific initiatives undertaken to improve the physical ambience.

The University has got a full-fledged Building Department to look after the construction and maintenance of the University buildings, roads, water supply lines, sewer lines etc. The infrastructure like buildings, roads, sewer lines, water supply lines, electric lines, electrification and other important services for the University campus are maintained by the dedicated staff of the Building Department and Electricity Department.

4.4.2 How are the infrastructure facilities, services and equipments maintained? Give details.

Most of the maintenance works are covered by outsourcing. Contractual workers through outsourcing are employed for cleaning and sanitation, house-keeping and security services. The university has a separate wing for civil maintenance and electrical maintenance of physical infrastructure in the campus. Dedicated electricians are deployed to ensure uninterrupted power supply and maintenance of 33 KV High tension sub-station. They are also responsible for maintenance of electrical appliances of the university. Office of civil maintenance is responsible for facilitating running water supply, repairing of any damage to water infrastructure, masonry related work and landscape maintenance work.

Year	Allotted Amount in Rs. In Lakhs
2011-12	18.00
2012-13	30.00
2013-14	30.25
2014-15	26.00

CRITERION-V

STUDENT SUPPORT AND PROGRESSION

5.1 Student Mentoring and Support

5.1.1 Does the university have a system for student support and mentoring? If yes, what are its structural and functional characteristics?

Yes, university has well developed system for student support and mentoring.

Structural characteristics:

The university provides all necessary assistance to students. The Dean, Students Welfare has designed policies for mentoring and counseling. The University supports student empowerment and their holistic development. The University is having Departmental Committees to meet the requirements of different categories of students.

Functional characteristics:

The university has implemented suitable supporting steps and facilities for the benefit of students.

- Orientation and awareness programs are conducted regularly.
- All the information regarding colleges, syllabus, schemes and notices are made available on in the University Portal.
- The University publishes “RGPV Newsletter” for University departments and all affiliated institutes.
- The University provides the Mentor-Mentee Scheme in which about 10-15 students are placed under the care of one Mentor.
- Individual faculty members regularly spend time with students during and after classes, discussing any issues related to the course, and advice them on all matters related to academic, placement, industrial training and career goals.
- Academic support by conducting remedial classes for weaker students and slow learners.
- SC/ST Cell to cater to the needs of SC/ST students.
- The University support to organize regular co-curricular, sport and cultural activities like tech-fest, debate, games.
- Online Videos are made available to students for better understanding of subjects.
- e-Learning resources are also available in university library.
- Students are also encouraged to participate in workshops organized by

companies and organization.

5.1.2 Apart from classroom interaction, what are the provisions available for academic mentoring?

- Departments conduct group discussion/seminar sessions where students present their views on any topic related to recent technologies.
- Apart from classroom interaction the students are encouraged to participate in different technical conferences, seminars and other co-curricular events held on campus/outside campus.
- Departments arrange industrial visits, training programs, internships and field experience to students. Students also organize special days in departmental or campus like 'World Environment Day', *Swachata Abhiyan* and 'Engineers day'. The students form teams and work on projects, which create excellent academic environment outside the class rooms.

5.1.3 Does the university have any personal enhancement and development schemes such as career counseling, soft skill development, career-path-identification, and orientation to well-being for its students? Give details of such schemes.

Yes, The University has some enhancement/development schemes in the fields such as:

- **Soft skill development of students:**
- Soft skill workshops and career orientation courses are designed and delivered by experts and trainers from industry.
- Public lectures, seminars and workshops by visiting lecturers from around the practitioners and industry experts to provide motivation and inspiration to students in specific areas of study.
- Arrangement of training in soft skills using tools like Virtual Lab., Simulation Tools of different specialization and industry focused training programs on Six Sigma Quality concepts are organized.

Table 5.1: List of Pre-placement talks during 2011 – 2012:

S.No.	Theme of Lecture	Name of Convener	No. of Students Participated	Duration with date
01	TCS Orientations Program	Dr. Anil Kothari	250	1 Day, 20 th July 2012
02	Workshop on Pre Campus training	Dr. Anil Kothari	320	4 Days 8 th to 11 th Aug. 2012

During 2012 – 2013

S.No.	Theme of Lecture	Name of Convener	No. of Students Participated	Duration with date
01	TCS Orientations Program	Dr. Anil Kothari	300	1 Day, 18 th Feb. 2013
02	Workshop on Pre Campus training	Dr. Anil Kothari	350	3 Days 16 th to 18 th Sep. 2013.
03	Special Session by U.S. Consulate	Dr. Anil Kothari	200	1 Day 21 st Nov. 2013

During 2013 – 2014

S.No.	Theme of Lecture	Name of Convener	No. of Students Participated	Duration with date
01	Special Session by German delegates	Dr. Anil Kothari	180	01 Day 7 th Aug. 2014
02	Workshop on Pre Campus training	Dr. Anil Kothari	370	03 Days 26 th to 28 th Aug. 2014

During 2014 – 2015

S.No.	Theme of Lecture	Name of Convener	No. of Students Participated	Duration with date
01	Workshop on Pre Campus training	Dr. Anil Kothari	425	03 Days 25 th to 27 th Aug. 2015
02	Special Session by U.S. Consulate, Mumbai	Dr. Anil Kothari	230	01 Day 26 th Aug. 2015

- **Career development and placement of students:**

University has appointed the T&P officer of Professor Cadre.

Students are encouraged to engage with scheme from the fifth semester so that they would have received adequate exposure and opportunities when they are in the final semester. Following companies provided career development and placement related training during last four years:

Table 5.2: Career development and placement related training

2011 - 2012		
S.No.	Name of the program & Beneficiaries	Duration
1.	Pre-campus Training Programme	9 th to 11 th Aug. 2012
2012 – 2013		
1.	Manthan – 2012 (Redefining Academia – Industry Relationship)	10 th & 11 th Apr 2012
2.	Campus Training Program for all final year students	16 th to 18 th Sep. 2013.
3.	AMCAT Employability Computer Adaptive (Test for Students)	29 th Aug. 2012
2013 – 2014		
1.	Workshop for Students by TCS	18 th Feb. 2013
2	Persistent Programming Contest for students	18 th March 2013
3	Workshop and Best Students, Best Project award under MoU by TCS	31 th March 2013

4	Bloomberg Aptitude Test (B.A.T.) for Students by Bloomberg	29 th April 2013
5	Campus Training Program for all final year students	16 th to 17 th Sep. 2013
6	Special Session by U.S. Consulate, Mumbai for students	21 st Nov. 2013
2014 – 2015		
1.	Students Development Programme by TCS	25 th Jun. 2014
2	Campus Training Program for all final year students	25 th to 27 th Aug. 2015

- **Career counseling and guidance for students:**

University Training & Placement Cell provides career counseling and guidance for the students for placement and other development related issues on regular basis and also conducts various lectures, workshop and seminars.

- **University Career Portal:**

The main objective of the career portal is to automate the Placement Activities online including career guidance for the students of RGPV. The university career portal will fulfill the placement needs of University Placement Department, career guidance needs of students and recruitment needs of employers. This career portal serves as a communication platform between the employer, the University placement cell and students. This career portal helps RGPV and an employer connect easily and also helps students enhance their skills in career planning and self-marketing to get better remunerations and jobs.

University Placement Cell can register employers, post job vacancies from employers on the online notice board, publish news and schedule campus interviews using this portal. Real time reports of applications made by students, placement performance and employer recruitment performance from the University can be viewed.

Students can use this portal for making applications to employers hiring through portal, communicating with the University Training and Placement Cell, participating in on-campus/ off-campus recruitment drives of employers. This portal truly serves as knowledge centre that includes a career guidance section, resume and interview preparation sections provided by the University Training and Placement Cell for benefit of students, An exclusive library containing videos on education, daily updates on educational/university news and articles on career and placements are provided. In addition students have

access to career counselors, online quizzes, tests and a National level industrial training vacancy of reputed companies.

5.1.4 Does the university provide assistance to students for obtaining educational loans from banks and other financial institutions?

Yes, the University facilitates students for obtaining educational loans from banks. Bank loans are provisionally sanctioned during admission. Separate counters of nationalized banks are provided for financial support to students for obtaining educational loans.

5.1.5 Does the university publish its updated prospectus and handbook annually? If yes, what are the main issues/ activities/ information included/ provided to students through these documents? Is there a provision for online access?

Yes, all the information is available on website and is updated frequently.

- Information of activities and developments in RGPV and affiliated institutes through e-publication of “RGPV News Letter”, monthly.
- Updated schemes and syllabus.
- Academic calendar in every semester, which includes exam information, time table, etc.
- Admission Procedure for all programs offered by the University.
- Ordinances, Scholarships, Medal and Financial assistance.
- Campus details.
- Information about important events and activities organized by institutes etc.
- Student login for online access is available on the University website.

5.1.6 Specify the type and number of university scholarships / freeships given to the students during the last four years. Was financial aid given to them on time? Give details (in a tabular form) for the following categories: UG/PG/M.Phil/Ph.D./Diploma/others.

The following table 5.3 indicates the types and number of University scholarships /freeships during last four years.

S.No	Year	Type of Scholarships	No of Student benefitted UG	Amount Rs. (Lakhs)
1	2011-12	Merit Scholarship (State Government Scholarship)	46	Credited directly to the account of students.
	2012-13		42	
	2013-14		39	
	2014-15		65	

S.No	Year	Type of Scholarships	No of Student benefitted UG	Amount Rs. (Lakhs)
2	2011-12	Tuition Freeships (ST)	226	47.58
	2012-13		202	66.63
	2013-14		216	60.77
	2014-15		150	59.61
3	2011-12	Tuition Freeships (SC)	403	77.54
	2012-13		286	24.65
	2013-14		274	99.32
	2014-15		246	98.21
4	2011-12	Tuition Freeships (OBC)	276	105.63
	2012-13		314	112.76
	2013-14		385	75.44
	2014-15		373	47.87
5	2011-12	Merit cum means Scholarship	15	Credited directly to the account of students.
	2012-13		07	
	2013-14		23	
	2014-15		41	
6	2011-12	Chancellor Scholarship	195	38.6
	2012-13		213	42.4
	2013-14		291	58.2
	2014-15		318	63.6

5.1.7 What percentage of students receive financial assistance from state government, central government and other national agencies (Kishore Vaigyanik Protsahan Yojana (KVPY), SN Bose Fellow, etc.)?

The following are the details of the Government assistance for the students:

1. The financial Assistance from State Government : 40%
2. Central Government: 3.1 %
3. Funding Agencies: 14%

5.1.8 Does the university have an International Student Cell to attract foreign students and cater to their needs?

Yes, The University has taken various measures for the welfare of overseas students. University has set up International Student Facilitation Centre to cater to the needs of higher education of foreign students.

Composition of International Student Facilitation Centre

Vice chancellor	Chair person
Pro-Vice-Chancellor	Member
Registrar	Member
Dean Students Welfare Coordinator/ Counsellor	

5.1.9 Does the university provide assistance to students for obtaining educational loans from banks and other financial institutions?

Yes, the university provides assistance to students for obtaining educational loans from banks and other financial institutions. Separate counters of nationalized banks are provided for financial support to students for obtaining educational loans.

5.1.10 What types of support services are available for

Overseas students

The following support services are available in RGPV for Overseas students

- Hostel with healthy menu and dining facilities
- Transport facilities for official visits to local area etc.
- Special medical care.
- Visa registration at the time of arrival.
- Visa extension for academic purpose, if required.
- No Objection Certificate at the time of leaving India after completion of course.

Physically challenged / differently-abled students

- The University provides vehicles in case of travel to far away departments.
- Students with writing disability are provided with scribe/writer.
- The university provides facilities viz. ramp, wheel chairs and lift facility for differently-abled students.

SC/ST, OBC and economically weaker sections

University has established SC/ST section for these categories of students. The following facilities are provided:

- SC/ ST Book Bank.
- SC / ST and OBC scholarships and other schemes sanctioned by Central and State Governments.
- Academic support by way of conducting remedial classes for weaker students.
- Stationary and drawing equipment facility for SC/ST students.

Students participating in various competitions/conferences in India and abroad

Students are regularly participating in the following International, National and technical events or competitions.

Table 5.4

S.N.	Years	Events	Organized by	Duration
1	2014	Recent Trends in Refrigeration & Air Conditioning	Mechanical Department, RGPV Bhopal	27 th -28 th January 2014
2	2013	International Conference on Cloud, Big data and Trust (ICCBT)	School of Information Technology, RGPV Bhopal	13 th -15 th Nov. 2013

Health centre, health insurance etc.

A Health Centre is operating at university campus. One physician, nurse and attendant are available full time in the university. Faculty, students and non teaching staff can visit the clinic. Round the clock ambulance facility is available for hostel and resident employees.

The University provides accidental and group insurance facility to students.

Skill development:

Table 5.5

During 2011 – 2012

S.No.	Programme	Duration
1.	Soft Skills Training Programme	8 th Aug. 2012
2.	IBM DB2 Academic Excellence Program	3rd to 5th May 2011

3.	IBM DB2 Academic Excellence Program (Departmental training to CSE Deptt.)	12th -14th October 2011
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During 2012 – 2013

S.No.	Programme	Duration
1.	Soft skills Training Programme	16 th to 17 th Sep. 2013
2.	Workshop on MATLAB with Image Processing & Robotics	2 March 2013

During 2013 – 2014

S.No.	Programme	Duration
1.	Soft skills Training Programme	26 th Aug. 2014

During 2014 – 2015

S.No.	Programme	Duration
1.	Soft skills Training Programme	8 th Aug. 2015

Performance enhancement for slow learners

- Departments provide extra classes for slow learners.
- On the basis of mentoring system, faculty identify this type of students and devote more time to solve their problems.
- The University has organized remedial classes for students.

Exposure of students to other institutions of higher learning/ corporate /business houses, etc.

Summer trainings/internships is mandatory component of the curriculum of the university. Students undergo training in various reputed organizations like BSNL, BHEL, M.P.Madhya Kshetra Vidyut Vitran Co. (MPSEB), NTPC, NHPC, TCS, IBM, HCL, CRISP, MAPIT etc. More than 1000 UG students have under gone training from various departments.

Publication of student magazines

Most of the colleges affiliated to RGPV are publishing college magazines/ newsletters.

5.1.11 Does the university provide guidance and/or conduct coaching classes for students appearing for Civil Services, Defence Services, NET/SET and any other competitive examinations? If yes, what is the outcome?

Yes, the university provides guidance and motivation to students on routine basis. Regular counseling is provided by faculty for competitive examinations. This has resulted in tenfold increase in pass percentage of GATE students in four years.

5.1.12 Mention the policies of the university for enhancing student participation in sports and extracurricular activities through strategies / schemes such as:

- **Additional academic support and academic flexibility in examinations**
- **Special dietary requirements, sports uniform and materials**
- **any other (please specify)**

To enhance students' personality through sports and extra-curricular activities, financial and physical facilities are extended to encourage students participation and recognize their achievements. For national level participation students are provided with Sports Kit and track suits. TA/DA is also provided to students.

5.1.13 Does the university have an institutionalized mechanism for students' placement? What are the services provided to help students identify job opportunities, prepare themselves for interview, and develop entrepreneurship skills?

Yes, the University has a mechanism for students placement under the Training & Placement Cell. There are Departmental Placement coordinators working under the Placement Officer. RGPV has developed Placement Career Portal to automate the Placement Activities online including career guidance section for the students of RGPV. To develop entrepreneurship skill, the institute provides mock test, group discussion and lectures for students.

About RGPV Career Portal–

Benefits for Students –

- Quicker placements while studying.
- Better remuneration packages.
- Improve self-marketing skills.

- Enhance career planning knowledge.
- Online self assessment test.
- Large choice of job opportunities.
- Build career in area of prominent skills, interests.
- Equal opportunity for all the students.
- Training opportunities in different areas.
- Important Career Links.
- Latest News and Events.

Table 5.6: Details of entrepreneurship skill development program

S. No	Entrepreneurship skill development program	Name of Convener	No. of Participants	Duration with date
1.	Mukhya Mantri Yuva Engineer Contractor Yojna	Dr. Anil Kothari	250	12 th Feb. to 11 th April 2014
2.	Mukhya Mantri Yuva Engineer Contractor Yojna	Dr. Anil Kothari	250	7 th April to 6 th June 2014
3.	Mukhya Mantri Yuva Engineer Contractor Yojna	Dr. Anil Kothari	230	10 th June to 9 th July 2015
4.	Mukhya Mantri Yuva Engineer Contractor Yojna	Dr. Anil Kothari	180	20 th July to 19 th Aug. 2015

5.1.14 Give the number of students selected during campus interviews by different employers (list the employers and the number of companies who visited the campus during the last four years).

Details of the companies conducted campus recruitment drive and students selected during last four year is as follows –

Table 5.7: Students Selected during 2011 – 2012

S. No	Company Name	No. of students selected
1	Tata Consultancy Services	86
2	Indian Army (Pool Campus Drive)	132
3	Capegemini	26
4	Mu-Sigma	05
5	Wipro InfoTech	04
6	Ashiana Housing	04
7	Syntel	04
8	Fluor Daniel India Pvt. Ltd. (Pool Campus Drive)	28

9	Board of Apprenticeship Training (Total 17 companies visited in pool campus drive)	193
	Total	482

Students Selected during 2012 – 2013

S. No.	Company name	No. of students selected
1	Mu-Sigma	03
2	Indian Navy	12
3	Tata Consultancy Services	112
4	Capgemini	14
5	Fluor Daniel India Pvt. Ltd.	08
6	Persistent System	01
7	Indian Army	43
8	Era Group	02
9	Jaro Education	04
10	Yodlee Infotech	03
11	I-Tech Software Solution Pvt. Ltd.	04
12	GradMener	03
13	Birla Corporation Ltd. (Unit–Satna)	08
14	Tata Communication	01
15	Reliance Industries Ltd.	02
16	Triveni Turbine Ltd.	01
	Total	221

Students Selected during 2013 – 2014

S. No	Company name	No. of students selected
1	Persistent	04
2	Tata Consultancy Services	102
3	Capgemini	22
4	Indian Navy	40 – For SSB
5	Era Group	05
6	Impetus InfoTech	01
7	Fluor Daniel India Pvt. Ltd.	13
8	Trident Group	02
9	Cognizant	23
10	Bajaj Group	02
11	I-Tech S/W Solution Pvt. Ltd.	04
12	IBM	03
13	Yodlee InfoTech	01

14	Tega Industries	01
15	Infosys	24
16	AMDOCS	01
17	Globussoft	13
18	Precision Automation and Robotics India Ltd	01
19	KNORR - BREMSE System	01
20	TATA COMMUNICATIONS Ltd.	03
21	Mahindra Comviva	05
22	Syntel	05
23	Convergence IT Services Pvt. Ltd.	01
	Total	277

Students Selected during 2014 -2015

S. No	Company name	No. of students selected
1	Tata Consultancy Services	179
2	Persistent System	03
3	Capgemini	13
4	Mu-Sigma	04
5	Sarvaha System	01
6	L&T Infotech	10
7	Fluor Daniel India Pvt. Ltd.	08
8	Zensar Technology	06
9	Era Group	02
10	Triveni Turbine	02
11	Wipro Technology	03
12	IBM	18
13	Tata Communication	05
	Total	254

5.1.15 Does the university have a registered Alumni Association? If yes, what are its activities and contributions to the development of the university?

Yes, the university has a registered Alumni Association.

Objectives of Alumni Association: The Alumni Association will have following objectives:

- To promote brotherhood and co-operation amongst ex-students of RGPV.
- To encourage enhancement of academic activities of its members.

- To work for educational and social development of its members.

Membership: The Association has following categories of Members:

Patron member: The Vice-Chancellor RGPV, Bhopal is the Patron member. He has no voting rights.

Donor member: Any person who donates Rs. 5000 or more lump sum or in 12 equal installments in a year can be considered for awarding Donor Membership, subject to his agreeing to follow the rules of the association and subject to his candidature being found to be eligible by the Membership Committee. Donor Members will not have voting rights.

Ordinary Member: Any person, who donates a lump sum amount of Rs. 500 or more, can be considered for Ordinary Membership, subject to his agreeing to follow the rules of the Institution and subject to his candidature being found to be eligible by the Membership Committee. This membership will be Life Membership. Ordinary Members will have voting rights.

Student Member: Any person, who donates a lump sum amount of Rs. 150 or more, can be considered for Student Membership, subject to his agreeing to follow the rules of the association and subject to his candidature being found to be eligible by the Membership Committee. The student member will automatically become Ordinary Member after passing out from college.

Honorary Member: The Membership Committee can award membership to any prominent citizen for a duration fixed by the Committee, subject to his agreeing to follow the rules of the association and subject to his candidature being found to be eligible by the Membership Committee. Honorary Member will not have voting rights.

Procedure for obtaining Membership: Any person who desires to become Member of the Association will have to submit an application on prescribed form. This application form will be considered by Membership Committee, who will have the power to accept or reject the application.

Eligibility for Membership for Ordinary Members: To become a Member of the Association, the applicant should fulfill the following criteria:

- Applicant should be not less than 18 years of age.
- Applicant should be citizen of India.
- Applicant should be a student or ex-student of RGPV
- Applicant should be ready to follow the rules of the Association.

- Applicant should be of good moral character.

Termination of Membership: Membership will be terminated on following grounds:

- On the death of the Member
- On the Member becoming mentally unsound.
- On the Member violating the rules of the Association.
- On the Member committing any serious misdeed punishable by law.
- On the Member submitting his resignation and acceptance of same by the Committee.

Executive Committee: The Executive Committee will consist of the following 11 members. Ordinary Members, whose names appear in Membership Register will elect based on majority noting of members present during meeting:

Table 5.8 Composition of Alumni Association

Particulars	No.
President	1
Vice President	1
Honorary Secretary	1
Joint Secretary	1
Treasurer	1
Members	5
Immediate Past President	1
TOTAL	11

In addition to the above 11 members, the Executive Committee can have five Co-opted Members.

5.1.16 Does the university have a student grievance redressal cell? Give details of the nature of grievances reported. How were they redressed?

The University has constituted Students Grievance Redressal Cell consisting of Professors, women members and Dean Student welfare.

The students could report their grievances in the Dean Student Welfare Office by going there or through phone calls and emails. They are redressed soon and are provided with all necessary support and guidance.

The students can also address their grievances through Chief Minister's help

line.

5.1.17 Does the university promote a gender-sensitive environment by (i) conducting gender related programmes (ii) establishing a cell and mechanism to deal with issues related to sexual harassment? Give details.

The university as well as its affiliated institutes strictly follow the Women Empowerment Policy. For the problem of women and female students, a Women Protection Cell is also setup. A counselor is also appointed in the university and its affiliated institutions.

5.1.18 Is there an anti-ragging committee? How many instances, if any, have been reported during the last four years and what action has been taken in these cases?

The University has setup an anti-ragging committee. Such committee is also setup in every affiliated institution every year. The committee looks into any matter related to ragging. Strict actions are taken against the defaulters. In every affiliated institution, free posters regarding anti-ragging are displayed. There were approximately 150 complaints by the students during the last four years through UGC helpline which were soon acted upon by Committee.

5.1.19 How does the university elicit the cooperation of all its stakeholders to ensure the overall development of its students?

The University elicits the cooperation of all its stakeholders through feedback. Alumni feedbacks are also used as a yardstick for the assessment of the performance of faculty. Alumni deliver guest lecture on various new technologies to help students understand the modern world. Industry forum is constituted on RGPV portal for providing the feedback from industry.

5.1.20 How does the university ensure the participation of women students in intra- and inter-institutional sports competitions and cultural activities? Provide details of sports and cultural activities where such efforts were made.

The University encourages girls participation in all the events.

Women Sports Activities/ Programme conducted during 2011-12 to 2014-15.

Table 5.9: Sports activity organized by RGPV

Session 2011-2012		Session 2012-2013		Session 2013-2014		Session 2014-2015	
Activity	Date	Activity	Date	Activity	Date	Activity	Date
Softball (M&W)	05/01/12	Kho-Kho(W)	17/10/12	Kho- Kho-(W)	09/10/13	Kho-Kho- (W)	15/09/14
Baseball (M&W)	13/11/11	Cross-Country (M&W)	21/09/12	Cross-Country (M&W)	09/08/13	Cross-Country (M&W)	13/09/14
Quaking /knowing	29/10/11	Tennis(W)	28/10/12	Tennis (W)	15/9/13	Tennis (W)	12/09/14
Gymnastics (M&W)	20/12/11	Swimming (M&W)	19/09/12	Swimming (M&W)	09/11/13	Swimming (M&W)	19/09/14
Judo (M&W)	05/11/11	Chess (M&W)	15/09/12	Chess (M&W)	25/09/13	Chess (M&W)	09/11/14
Table-Tennis (M&W)	14/12/11	Volleyball (W)	20/10/12	Volleyball (W)	20/09/13	Volleyball (W)	29/09/14
Cross-Country (M&W)	26/11/11	Cricket (W)	18/09/12	Cricket (W)	19/09/13	Cricket (W)	09/09/14
Loan tennis (M&W)	11/10/11	Basketball (W)	13/09/12	Basketball (W)	09/07/13	Basketball (W)	30/09/14
Athletics (M&W)	08/12/11	Gymnastics (M&W)	25/09/12	Gymnastics (M&W)	10/11/13	Gymnastics (M&W)	14/09/14
Chess (M&W)	22/11/11	Mallkhamb (M&W)	25/09/12	Mallkhamb (M&W)	10/11/13	Mallkhamb (M&W)	14/09/14
Badminton (M&W)	15/11/11	Badminton (M&W)	17/09/12	Badminton (M&W)	09/07/13	Badminton (M&W)	10/09/14
Kabaddi (M&W)	03/11/11	Softball (W)	27/11/12	Softball (W)	12/01/13	Softball (W)	16/11/14
Kho-Kho-(M&W)	18/11/11	Kabaddi (W)	12/09/12	Kabaddi (W)	19/10/13	Kabaddi (W)	26/09/14
Handball (M&W)	22/10/11	Handball (W)	10/03/12	Handball (W)	30/10/13	Handball (W)	16/09/14
Basketball (M&W)	14/10/11	Athletics (M&W)	19/11/12	Athletics (M&W)	20/11/13	Athletics (M&W)	23/11/14
Volleyball (M&W)	21/10/11	Taekwondo (M&W)	18/09/12	Taekwondo (M&W)	16/11/13	Taekwondo (M&W)	12/05/14
Air pistol shooting (M&W)	13/10/11	Fencing (M&W)	18/09/12	Fencing (M&W)	08/07/13	Fencing (M&W)	26/08/14
Hockey (M&W)	03/12/11	Football (W)	08/07/12	Football (W)	09/11/13	Football (W)	26/08/14
Swimming (M&W)	13/10/11	Hockey (W)	08/07/12	Hockey (W)	09/11/13	Hockey (W)	26/08/14

	Baseball (M&W)	09/07/12	Wrestling (M&W*)	16/09/13	Wrestling (M&W*)	23/11/14
	Table-Tennis (M&W)	11/07/12	Table-Tennis (M&W)	10/09/13	Table-Tennis (M&W)	28/08/14
	Shooting (M&W)	11/05/12	Shooting (M&W)	12/10/13	Shooting (M&W)	12/07/14
	Judo (M&W)	11/05/12	Judo (M&W)	15/12/13	Judo (M&W)	01/06/15
	Archery (M&W)	16/09/12	Archery (M&W)	01/05/14	Archery (M&W)	17/10/14
	Yoga (M&W)	17/09/12	Yoga (M&W)	11/10/13	Yoga (M&W)	12/07/14
	Boxing (M&W)	18/10/12	Boxing (M&W)	11/10/13	Boxing (M&W)	12/06/14

Table 5.10: List of sport activity organized in UIT

S.No.	Sport Activity	2014 (01/04 to 06/04)	2015 (01/04 to 05/04)
		Girls	Girls
1	Race 100 Mtrs.	16	14
2	Relay Race	7 teams X 4	4 teams X 4
3	Kho-Kho	4 teams X 11	6 teams X 9
4	Volley Ball	5 teams	Nil
5	Chess	70	90
6	Cricket	6 teams	Nil
7	TT	6	Nil
8	Badminton	76	80

5.2 Student Progression

5.2.1 What is the student strength of the university for the current academic year? Analyze the Programme-wise data and provide the trends for the last four years.

Table 5.11: Student strength of RGPV during 2011-12 to 2014-15

Year	Total Students
2011-12	203960
2012-13	223654
2013-14	241059
2014-15	240633
2015-16	216389

Table 5.13: Student strength of University Teaching Departments in current academic year

Level of Courses	Intake	Year	Total Students
Undergraduate Course (UG)	2400	I st	597
		II nd	585
		III rd	533
		IV th	552
		Total	2267
Post-Graduate Courses (MCA)	MCA	I st	15
		II nd	59
		III rd	56
		Total	130

Table 5.14: Student Strength of UIT during 2011-12 to 2014-15

Level of course	Year	Total strength
Undergraduate Course (UG)	2011-2012	493
	2012-2013	614
	2013-2014	595
	2014-2015	566
Post-Graduate Courses (MCA)	2011-2012	60
	2012-2013	60
	2013-2014	54
	2014-2015	23

5.2.2 What is the programme-wise completion rate during the time span stipulated by the university?

Table 5.15: Programme-wise Completion Rate

Year	Course	Students appeared	No. of students graduated	Pass %
2011-12	UG	370	344	92.2
	PG	51	51	100
2012-13	UG	525	490	93.33
	PG	51	51	100
2013-14	UG	541	498	92.05
	PG	49	49	100
2014-15	UG	473	448	94.7
	PG	52	52	100

5.2.3 What is the number and percentage of students who appeared/qualified in examinations like UGC-CSIR-NET, UGC- NET, SLET, ATE / CAT / GRE / TOFEL / GMAT / Central / State services, Defense, Civil Services, etc.?

Table 5.16:

Year	NET	GATE	GRE
2011-12	02	32	01
2012-13	-	65	01
2013-14	-	123	01
2014-15	-	145	05
Total	02	365	08

5.2.4 Provide category-wise details regarding the number of Ph.D./D.Litt./D.Sc. thesis submitted/ accepted/ resubmitted/ rejected in the last four years.

Ph. D. Thesis: Table 5.17

Category	Thesis	Academic Year			
		2011-12	2012-13	2013-14	2014-15
GEN	Submitted	55	49	27	12
	Accepted	39	39	27	24
	Resubmitted	-	-	-	-
	Rejected	-	-	-	-
SC	Submitted	-	02	01	01
	Accepted	-	-	-	-
	Resubmitted	-	-	-	-
	Rejected	-	-	-	-
ST	Submitted	-	-	-	-
	Accepted	-	-	-	-
	Resubmitted	-	-	-	-
	Rejected	-	-	-	-
OBC	Submitted	-	01	02	01
	Accepted	-	-	01	02
	Resubmitted	-	-	-	-
	Rejected	-	-	-	-

5.3 STUDENT PARTICIPATION AND ACTIVITIES

5.3.1 List the range of sports, cultural and extracurricular activities available to students. Furnish the programme calendar and provide details of students' participation.

Table 5.18: Calendar of Cultural and Co-curricular Activities during 2011-12 to 2014-15

S.No.	Event / Activities	Month
	A) Co-curricular	November to March
01	Conferences/ Seminars/ Workshops/	
02	Research Competition/ Tech Fest	
	B) Extracurricular	August to April
01	HIV/AIDS Rallies/ Blood Donation camp/	
02	Environmental/ Awareness Rally	
03	NSS Camp	
04	Adventure camps	
05	Disaster Management Camps	
	C) Cultural	October to April
01	Youth Festivals	
02	Debate	
03	Drama	
04	Music	

Table 5.19: Co-curricular, extracurricular, cultural activities and sports activity conducted by RGPV

Session 2011-2012

Activities	Details	Date
A) Co-curricular		
Seminars & Expert Lectures	1 Expert Lecture on "Industrial Management" under IETE Student Chapter TRUBA	7 th Feb 2012
	2.Expert Lecture on "Communication Systems" under IETE Student Chapter TRUBA.	17 th Feb 2012

Workshops	1. Workshop on “Transportation and Structural Engineering”. The Speaker of this workshop was Er. Ajay Singh (Manager) (Nagarjuna Construction Company Ltd.) ,Er. Ashutosh Singh (Highway Design Engineer),Er. K.P.S. Rajput (BSNL) 2. Workshop on “Hands on workshop on ROBOTICS” in association with AIESCE IIT Kharagpur, under CSI Student chapter of Truba, Bhopal. 3. Industrial training on “Secured Application Development in ASP DOT NET” in collaboration with AIESCE IIT, Kharagpur & Kyrion Digital Securities. The participants were students of final year Computer Science & Eng.	23 rd -24 th Feb 2012 10 th -11 th April 2012 2 nd to 14 th June 2012
Research Competition	National level competition "HACK-TRICKS" on Ethical Hacking with iSecLABz. This organized for all Computer Science and IT students.	27 th -28 th March 2012
B) Extra curricular		
Awareness Rally	Candle March Against Girls Crime	24 April, 2012
NSS Camp	NSS 2 Days	25-26 Nov, 2011
C) Cultural		
Youth Festivals	Utsava	10April-05May 2012
Debate	Indian Politics Human and Society	04 March 2012 10 April 2012
Drama	Human awareness Drama	20 June 2012
Music	Singing and Instruments	27 Feb 2012

Session 2012-2013

Activities	Details	Date
A) Co-curricular		
Conferences	1. An international Conference on “Recent Trends on applied sciences with engineering Applications”	26 th to 28 th April 2013

Seminars & Expert Lectures	<ol style="list-style-type: none"> 1. On “Importance of Professional Bodies for Students & Research Scholar” by Prof. Basant Tiwari, Coordinator IEEE M.P. Chapter organized by department of IT. 2. An expert lecture organized by the department of Electrical & Electronics Engineering on “Wind energy and its future prospects” by Dr. Earnest Joshua, HOD electrical engineering, NITTTR Bhopal. 3. An expert lecture on “Signal Processing & its application” under IETE Student Chapter TRUBA organized by Electronics department. 4. An expert lecture on Digital Signal processing 5. An expert lecture on Web Application 6. An expert lecture on Portfolio Management & Quantum Computing 	<p>9 February 2013</p> <p>26 February 2013</p> <p>16 February 2013.</p> <p>13 February 2013</p> <p>09 Sep, 2012</p> <p>19 Oct, 2012</p>
Workshops	<ol style="list-style-type: none"> 1. Department of Computer Science and Engineering of Truba Bhopal has organized an Industrial training on “Secured Application Development in ASP DOT NET” in collaboration with AIESCE IIT, Kharagpur & Kyrion Digital Securities. The participants were students of final year Computer Science & Eng. 2. Department of Civil Engineering, has organized a National level workshop on “Applications and Advances of Geo-Informatics in Civil Engineering” Sponsored by M.P. Council of Science & Technology Bhopal. 3. An industrial training on “ORACLE database 10g SQL fundamentals” & “ORACLE admin” in association with ORACLE WDP organized by department of computer science & engineering. 4. Two Weeks Training on “Computer Aided engineering using ANSYS tool” organized by department mechanical engineering. 	<p>2nd to 14th June 2012</p> <p>18th-19th Jan 2013</p> <p>17- 30 June 2013</p> <p>14 -28 June 2013</p>
Industrial Visit	Department of Electronics and	20 October 2012

	Communication organized a one day industrial visit to AI Automation, Govindpura, Bhopal for final year students.	
B) Extra curricular		
	Poster Making Competition Essay Competition Speech on Human Rights	12 Aug, 2012 05 Sep, 2012 12 Dec, 2012
Awareness Rally	Jal Bacho Abhiyan rally International Women's Day Environmental awareness rally	July 2012 08 March 2013 05 June 2013
Adventure Camp	Adventures Camp	25-26 March, 2013
C) Cultural		
Youth Festivals	Maitree2k12: Freshers Party for I st year students. Youth Fest 2K13	6 th November 2012 5 Th to 9 th March 2013
Debate	Floor Crossing	6 March 2013
Drama	Rangmanch Raagalaya, Singing Competition	6 March 2013 14 March 2013
Music	1. Adrenalin (Rock Band Competition) 2. The Verse.(Poetry Competition) 3. SPIC MACAY student chapter organized the Basulri Vadan by "Pt. Ronu Majumdar" and his team.	7 March 2013 7 Aug. 2012

Session 2013-2014

Activities	Details	Date
A) Co-curricular		
Seminars	1. During month of august we have organized a HLP talk on “Heal your past, Live your present and plan your future” by Mr. Santosh Joshi, a motivational speaker and a PLR therapist from Mumbai.	August 2013
	2. An expert lecture on “Application of Wireless Digital Communication” under IETE Student Chapter TRUBA was organized by electronics department. The speaker of this lecture was Group Captain K.P. Gowd, Director (Ground Segment), Satellite Control Centre, Ayodhya Nagar, Bhopal.	27 August 2013
	3. Department of Information & Technology has organized an Expert lecture on "PHP" by Mr. Nishant Shukla, a PHP Developer.	13 th Feb 2014
	4. Department of Information & Technology has organized an Expert lecture on "Android Application Development" by Mr. Vikas Dishoria, an Android Application developer.	19 th Feb 2014
Workshops	1. Department of Electronic & communication Engineering organized a two day workshop on “Embedded and VLSI system design” .on, under the IETE student chapter.	20 th -21 st Feb 2014
	2. Department of Electronic & Communication Engineering has organized a workshop on “Identification and testing of electronic components with their applications”	15 Feb 2014
	3. Department Mechanical Engineering has organized a two week vocational training on “CAE Using ANSYS” .	14 th -28 th Jun 2014
	4. A Bentley certified workshop on “STADD PRO software”, was organized by department of civil engineering.	16-31October 2013
	5. Department of Computer Science &	20 th - 30 th Jun 2014

	<p>Engineering has organized a ten day's training program on "Java Programming Language, Java SE 6" for students in Collaboration with ORACLE, under the Workforce Development Program of Oracle India Pvt. Ltd.</p> <p>6. Department of Computer Science & Engineering has organized a faculty development program on "C and C++" in collaboration with IIT Bombay under Spoken Tutorial project.</p> <p>7. Department of Computer Science & Engineering has organized an Industrial Training Program for final year students in Collaboration with ORACLE under the Workforce Development Program of Oracle India Pvt. Ltd. The training module was "Oracle Database 10g: Introduction to SQL 3.0" and "Oracle Database 10g: PL/SQL Fundamentals".</p> <p>8. Department of Civil Engineering has organized a 15 days workshop on "Auto Desk Certified Authorized Training".</p> <p>9. Computer Society Of India (CSI), Student Chapter Truba Bhopal has Organized A Techunt 2014, Mobipreneur Workshop And Competition On 6 & 7 March 2014, In Association With Nurture Talent Academy.</p> <p>10. Computer Society of India (CSI), student chapter TRUBA Bhopal has organized a technical quiz on 24 February 2014. The event was hosted by CSI members of computer science department.</p>	<p>4th Jun 2014</p> <p>6 June 2014</p> <p>01st-15th Jul 2014</p> <p>6th to 7th March 2014.</p> <p>24 February 2014</p>
Industrial Visit	Department of Electronics and Communication has organized a one day industrial visit to AI Automation	24 February 2014
B) Extra curricular		
Awareness Rally	"National Education Day" on the occasion of 125th birth anniversary of Maulana Dr. Abul Kalam Azad.	11 November 2013
HIV/AIDS	To commemorate the birth anniversary of	02 December 13

Rallies	this eminent and great personality, Institutes had organized a rally from Governor House to Ravindra Bhawan, to spread the message of importance of education among the society. Honourable Governor Shri Ram Naresh Yadav inaugurated the rally at Minto Hall (old Vidhan Sabha Bhawan) premise and graced our event.	
NSS Camp	Blood Donation Camp under NSS student chapter	9 August 2013
C) Cultural		
Youth Festivals	Skylark: Fresher Party for I st year students	21 st Sept 13
Debate	Floor crossing	27 February 14
Drama	Rangmanch	28 February 14
	Spic Macay student chapter, Bhopal inaugurated Virasat 2013 series on 1st August 2013 with “Hindustani Classical Vocal (Khayal) Recital” by Sushri. Kalapini Komkali Ji .In this event kalapiniji recited des raga and nirguni bhajan.	1 August 2013
D) Sports Adventure		
	Adventure camp at Himachal Pradesh	25 Aug – 3 Sep 2014

Table 5.20: Number of Extracurricular and Cultural activities activity conducted by UIT during 2011-12 to 2014-15.

S.No.	Name of the activity	Nature of students participation	Duration
1	Awareness campaign-TGCC	B.E. UIT Students	08/09/2012
2	The Slogan Writing Competition	B.E. UIT Students	15/09/2012
3	Techfest Green College Challenge	B.E. UIT Students	26/09/2012
4	Poster Making Competition	B.E. UIT Students	28/09/2012
5	Cycle Rally	B.E. UIT Students	06/10/2012
6	Environment Quiz and Group Discussion	Team of students Participants	18/10/2012
7	Poster Making Competition	B.E. UIT Students	23/10/2012
8	Planting Trees on URJA Diwas	B.E. UIT Students	07/08/2013
9	ECO-Trivia	Team of students Participants	Round 1 (10/08/2013) Round 2 (5/09/ 2013) Round 3 (07/10/2013)
10	Collage Making Competition	Team of students Participants	05 /11/2014
11	Explorer - Scavenger Hunt	Team of students Participants	3/11/2014
12	ECO- Trivia 2.0	B.E. UIT Students	5/11/2014
13	Project Green Challenge (PGC)	Team of students Participants	6/11/2014
14	Oath taking program	Program for nations unity and oath ceremony for maintaining unity of nation	31/10/2014
15	Quill-o-Logy	30 students participate in essay writing competition.	28/02/2015 One day
16	Caption Writing Competition	39 student, an online caption writing content	14/03/2015 -to-18/03/2015
17	ECO-Trivia 3.0	A 3-round competition	19/10/2015
18	Essay Writing Competition	Role of iron man (shri sardar vallabh bhai patel) in free india	30/10/2015
19	Oath Taking Program	Program for nations unity and oath ceremony for maintaining unity of nation	31/10/2015
20	Guess Me	B.E. UIT Students	17/4/2015
21	Poster Making	B.E. UIT Students	17/4/2015

	Competition		
22	Curtain Call	B.E. UIT Students	16/4/2015
23	Nukkad Natak	B.E. UIT Students	16/4/2015
24	Dance	B.E. UIT Students	16/4/2015
25	Music Vocal	B.E. UIT Students	16/4/2015
26	Debate	B.E. UIT Students	16/4/2015
27	Face Painting	B.E. UIT Students	16/4/2015
28	Slogan Writing	B.E. UIT Students	17/4/2015
29	Product Marketing	B.E. UIT Students	16/4/2015
30	Symposia	B.E. UIT Students	16/4/2015
31	My Solution	B.E. UIT Students	17/4/2015
32	Extempore	B.E. UIT Students	17/4/2015
33	Science Exhibition	B.E. UIT Students	16/4/2015-to-17/4/2015
34	Term Formation Game	B.E. UIT Students	16/4/2015
35	Short Film Making	B.E. UIT Students	17/4/2015
36	Tech Rangoli	B.E. UIT Students	17/4/2015
37	T-Shirt Painting	B.E. UIT Students	17/4/2015
38	Picture Perception	B.E. UIT Students	16/4/2015
39	Showcase	B.E. UIT Students	17/4/2015

5.3.2 Give details of the achievements of students in co-curricular, extracurricular and cultural activities at different levels: University/ State /Zonal/National/International, etc. during the last four years. Achievements of students at university/state/zonal/national /international level during the last 4 years.

Table 5.21: Awards received by the Students of RGPV in Extra-curricular Activities during 2011-12 to 2014-15.

S.no.	Name of Student	Achievements
1.	Prachi Sharma	1. Represented National and selected in National Camp held by SAI (All India Women's National Level Competition) and stood fourth in 400m in January 2014. 2. Won Gold Medals in 100m and long jump respectively in sports events held by Corporate College in February 2014. 3. Won Gold Medal and Cash Prize in 100m run in Sports events held by Oriental Group of Institutions, Bhopal, March 2014.
2.	Khushboo Vishwakarma	1. Won a silver and a Gold Medal in the events Discus Throw and Shotput respectively in sports events held by Corporate Group of Institutions, Bhopal, February 2014

3.	Archana Markam	<ol style="list-style-type: none"> 1. Won 2 Silver medals in 100m and long jump in sports events held by Corporate Group of Institution, Bhopal, February 2014 2. Stood second in 100 m run in sports events held by Oriental Group of Institutions, Bhopal, March 2014.
4.	Animesh Mishra	<ol style="list-style-type: none"> 1. First prize in Collapsible structure at tech fest organized at Trinity college Bhopal
5.	Aarti Prajapati	<ol style="list-style-type: none"> 1. First prize in relay 2014 Mahasangram 2. Second in 200 meter run 2014 Mahasangram and Nodal 3. Third in 100 meter run 2014 Mahasangram and Nodal
6.	Madhuri Paikra	<ol style="list-style-type: none"> 1. First in relay in 2014 Mahasangram 2. First in Kho-kho in 2014 Mahasangram

5.3.3 Does the university conduct special drives / campaigns for students to promote heritage consciousness?

All the departments conduct nature tours for students as well as for staff to gain historical interest and awareness. These visits increase the realization of our glorious heritage.

5.3.4 How does the university involve and encourage its students to publish materials like catalogues, wall magazines, college magazine, and other material? List the major publications/ materials brought out by the students during the last four academic sessions.

Most of the affiliated colleges are publishing college magazines and newsletters.

5.3.5 Does the university have a Student Council or any other similar body? Give details on its constitution, activities and funding.

No, University does not have a Student Council.

5.3.6 Give details of various academic and administrative bodies that have student representatives on them. Also provide details of their activities.

Various academic and administrative bodies such as Board of Studies, Class Committees, Hostel Students welfare Committee, Hostel Students Mess Committee. Students provide suggestions for improvement in curriculum as per the industry requirement and suggestions for welfare of student residing in the hostel.

5.3.7 Any other information regarding Student Support and Progression, which the university would like to include.

University provides the Mentoring Scheme in which about 10-15 students are placed under the care of one teacher. Under this scheme, the mentor interacts regularly with students and solves problems faced by them in their studies. The mentor also keeps track of the attendance, does personal counseling and looks into their academic progress.

5.3.8 Does the university have a mechanism to gather data and feedback from its graduates and employers and use them for the growth and development of the institution?

RGPV receives feedback from industries, employers and alumni to make improvements in the teaching and learning system to ensure the overall development of the students.

- Feedback is obtained from alumni on courses offered, courses desired and on modifications of curriculum. Due weightage is given to incorporate them and to participate in academic decision making.
- Alumni feedbacks are also used as a yardstick for the assessment of the performance of faculty.
- Industry forum is constituted for providing the feedback from industry.

CRITERION-VI

GOVERNANCE, LEADERSHIP AND MANAGEMENT

6.1 Institutional Vision and Leadership

6.1.1. State the vision and the mission of the University.

Vision: To disseminate affordable quality technical education for producing globally competent, technically tempered and socially responsible technical manpower to meet global challenges.

Mission: To establish RGPV as a centre of excellence for imparting technical education through technological interventions for the economic development of the country.

6.1.2. Does the mission statement define the institution's distinctive characteristics in terms of addressing the needs of the society, the students it seeks to serve, the institution's tradition and value orientations, its vision for the future, etc.?

Yes. The institution's mission reflects the distinctive characteristics of the University such as catering to the educational, social, cultural and economic needs of the society and the region. It is reflected in its actions like Establishment of Centers of Excellence, creating capabilities for development of knowledge, skills and competencies as a core academic goal, creating and upgrading infrastructure to global standards, developing patterns of teaching and training at various levels of education accomplishment, so as to set a high standard of education in engineering, pharmacy and liberal studies, function as a leading resource center for knowledge management and entrepreneurship development, providing inter-relationship for national and global participation, establish close linkages with industries to make teaching, training and research relevant to the needs of the society at national and global levels. Thus, without any discrimination to any demographic variable, inculcating the leadership quality and over all personality development. All these characteristics are reflected in its policies. High quality educational programmers and healthy practices are being implemented.

Distinctive characteristics of the university are reflected by following core values:

This is a technical University, its emphasis is on developments of tribal and backward region by imparting affordable technical education to them. It is Focusing on outcomes and impact, Academic freedom applying standards of the world's top universities, highest ethical standards in personal and professional behavior, the promotion of pluralism and celebration of diversity,

Collegiality and team work, Concern for the environment, Transparency and accountability to all stakeholders.

The university has prepared “Vision Document 2025” to transform university in tune with the latest global technical advancements of future, like making the University self sustained in its own energy needs.

6.1.3. How is the leadership involved?

- **In ensuring the organization’s management system development, implementation and continuous improvement?**

The Rajiv Gandhi Proudhyogiki Vishwavidyalaya Adhiniyam, of 1998 envisages that the Vice-Chancellor is the principal administrative and Academic Officer of the University. He is an ex-officio member and Chairman of the Executive Council and of the Academic Council, and Chairman of such other authorities, committees and bodies of the University of which he is a member. He is entitled to be present and to speak at any meeting of any authority, committee or other body of the University. The Vice-Chancellor exercises general control over the affairs of the University and gives effect to the decisions of the authorities of the University. The Vice-Chancellor exercises such other powers as may be prescribed by the Statutes, Ordinances and Regulations. It is the duty of the Vice-Chancellor to ensure that university Act, Statutes, Ordinances and the Regulations are faithfully observed and he is having all powers necessary for this purpose.

- **In interacting with its stakeholders?**

The Vice-Chancellor has envisioned and implemented a transparent, accountable and responsible system, the RGPV Service Portal. Vice Chancellor has taken keen initiative to provide all the RGPV services to all its stake holders i.e. student community, institutions etc., through University portal approximately 3 Lakh enrolled students of the University have been provided with a unique identification. The Vice- Chancellor looks after the protection of rights and supervises the welfare activities of the students of various departments of the university and each college or institution of the university and each affiliated college. Vice Chancellor promotes and co-ordinates the different students activities for better corporate life. Vice Chancellor tries to nurture student’s mental, physical, cultural growth with various activities to improve their overall personality development and to make them civilized Indian citizens to compete in the globalized world.

- **In reinforcing a culture of excellence?**

University has implemented number of measures to promote and reinforce a

culture of excellence. Some examples are noted below.

Curriculum innovation, introduction of yearly Chancellor's scholarship for meritorious undergraduate students of Engineering and Pharmacy disciplines, establishment of Academic Staff College, promotion of industry relevant research, implementation of IT enabled services like Mobile Banking, Cashless Campus, Teaching Excellence and Research Excellence Award, establishing venture capital, establishing corpus for promotion of research and innovation, vibrant staff development policy, implementation of Choice Based Credit System, and conduction of on line practical exams .

- **In identifying organizational needs and striving to fulfill them?**

The Vice-Chancellor heads Executive Council, Academic Council or such other Authority, he exercises the powers and performs the duties conferred or imposed on such authorities by or under RGPV Act.

In view of the above, the faculty and the administrative authorities identify the needs of the University through various meetings and deliberations. The authorities strive to fulfill the needs of the University. The short-term and long-term plans are designed and complied with the physical and financial supports.

6.1.4. Were any of the top leadership positions of the University vacant for more than a year? If so, state the reasons.

Yes, Rector position is vacant since 2014, after superannuation of earlier Rector.

6.1.5. Does the University ensure that all positions in its various statutory bodies are filled and meetings conducted regularly?

Yes, it is ensured that all positions in various statutory bodies are filled in and are functioning regularly as per the schedules prepared by the University. In case of vacant positions the Standing Committee takes necessary steps to fill the same.

6.1.6. Does the University promote a culture of participative management? If yes, indicate the levels of participative management.

Yes, the University bodies like Executive Council, Academic Council, Faculties, Boards of Studies and other bodies follow the participative management system as per the RGPV Act.

6.1.7. Give details of the academic and administrative leadership provided by the University to its affiliated colleges and the support and encouragement given to them to become autonomous.

There is a proper coordination between the University and the affiliated colleges in solving and managing the administrative and academic problems. Training and orientation programmes based on the thematic and targeted problems of non-teaching staff of the affiliated colleges are organized by the University for resolving the problems of administration at the college level. There are various other supporting sub-committees to resolve the targeted problems, e.g. Anti-Ragging Committee, Prevention of Sexual Harassments Committee and Grievances Redressal Committee. The University has set-up a number of schemes for the development of the affiliated colleges. Following are the unique examples:

1. Confer Degrees, Titles and Diplomas:

The University has power to confer degrees, titles, diplomas and other academic distinctions on persons who have pursued an approved course of study in an autonomous college and to designate any college as an autonomous college with the concurrence of the State Government in the manner and under conditions prescribed and to cancel such designation.

2. Flexibility by Autonomy

As per the Statute-37, autonomous colleges have autonomy in the matters of:

- i. Framing syllabi course contents strictly adopting the general pattern of the University. The course contents and pattern should be framed in such a manner so as to utilize the services of existing staff and avoid as surplus for redeployment.
- ii. Arranging for instructions to students.
- iii. Devising methods of evaluation, examination and tests without compromising the secrecy pertaining to award of the degree or diploma by the University; and
- iv. Admission of students, in respect of courses of studies for which autonomy is conferred.

3. Examination

The University has introduced partial decentralization of the examination system. The question papers are sent to the respective centers online during the examination as per the schedule.

4. Duties to Autonomous Colleges

Promoting academic freedom in autonomous colleges by encouraging introduction of innovative academic programmes, facilitating new courses of study, subject to the required minimum number of hours of instruction, content and standards, permitting them to issue their own provisional, migration and other certificates ensuring that degrees/diplomas/certificates issued indicate the name of the college and nomination of RGPV representatives to various committees.

6.1.8. Have any provisions been incorporated/introduced in the University Act and Statutes to provide for conferment of degrees by autonomous colleges?

Yes, there is a provision for conferment of degree in autonomous colleges as per the Statute-37.

6.1.9. How does the University groom leadership at various levels? Give details.

The leadership qualities are groomed by decentralization of financial, administrative and managerial powers in the hierarchy through Rector, Registrar, Controller Finance, Director, HoDs.

Staff of the University is extensively encouraged by the University to participate in building the quality of the University.

6.1.10 Has the University evolved a knowledge management strategy? If yes, give details.

Yes, the University has evolved a knowledge management strategy through various programmes like Organization of National/ International theme-based Seminars/Conferences/Workshops/Symposia, theme based panel discussions, targeted minor/ major research projects, financial assistance for publications, knowledge partnership with various government organizations and institutions, multi faculty and interdisciplinary research. With these measures the University tries to utilize the available knowledge for further development of the stakeholders.

6.1.10. How are the following values reflected in the functioning of the University?

The University follows various modes and methods for reflecting its values in day to day activities.

- **Contributing to national development**

RGPV plays three main functions in modern society.

- Firstly, responsibility of education and training of professionals and other high level human resources for the wide range of employment needs of the public and private sectors of the economy.
- The second function is to produce new knowledge and find new applications for existing knowledge.
- Thirdly, providing opportunities for social mobility and simultaneously strengthening equity, social justice and democracy.

- **Inculcating a sound value system among students**

Inculcating the social and ethical values through social activities and programme. Strict observance of Code of Ethics prescribed for teachers and students.

- **Promoting use of technology**

The students while pursuing their courses are encouraged to use technology through sophisticated equipments, internet facility and Webinars. The RGPV campus has many i5, i3 and core 2 duo desktop and servers with 60 Mbps leased lines. The Campus LAN is fully structured. The Network backbone is on fiber optics. The Network is fully secure and optimized through firewall. Power backup is maintained through online UPS. All the faculty, staff and officers have been provided with computers together with internet facilities and connected with LAN for sharing of data and file system to gradually progress towards a hi-tech IT driven paperless office. Several workshops have been conducted under National Mission of Education through ICT, MHRD, Govt. of India.

- **Quest for excellence**

RGPV has become one of the technical universities to implement Choice Based Credit System and conduction of on line practical examination. Course Content of many national level competitive exams like NET, SET, UPSC, MPSC, and GATE, GPAT are used for developing the syllabi, encouragement for publication of research in refereed journals with high impact factor, international collaborations for MoUs, laboratories with sophisticated instruments, development of laboratories for characterization and analysis. Continuing Education Centre for dealing with extension activities. Encouragement of the transfer of technology to the stakeholders.

- **Finish School Activities**

DAuto Engineering Private Limited and Rajiv Gandhi Proudtyogiki Vishwavidyalaya, signed a Memorandum of Understanding on June 29, 2013, to provide a new height in students' career graph towards research, design and development opportunities.

IBM and Rajiv Gandhi Technical University, signed a Memorandum of Understanding on June 24, 2009 to help students to enhance their skills in cutting-edge software technologies and better placement them in today's fast changing IT world.

6.2. Strategy Development and Deployment

6.2.1. Does the University have a perspective plan for development? If yes, what aspects are considered in the development of policies and strategies?

Yes, the University has prepared "Vision Document 2025" covering teaching-learning, research and extension activities along with the academic and administrative perspective.

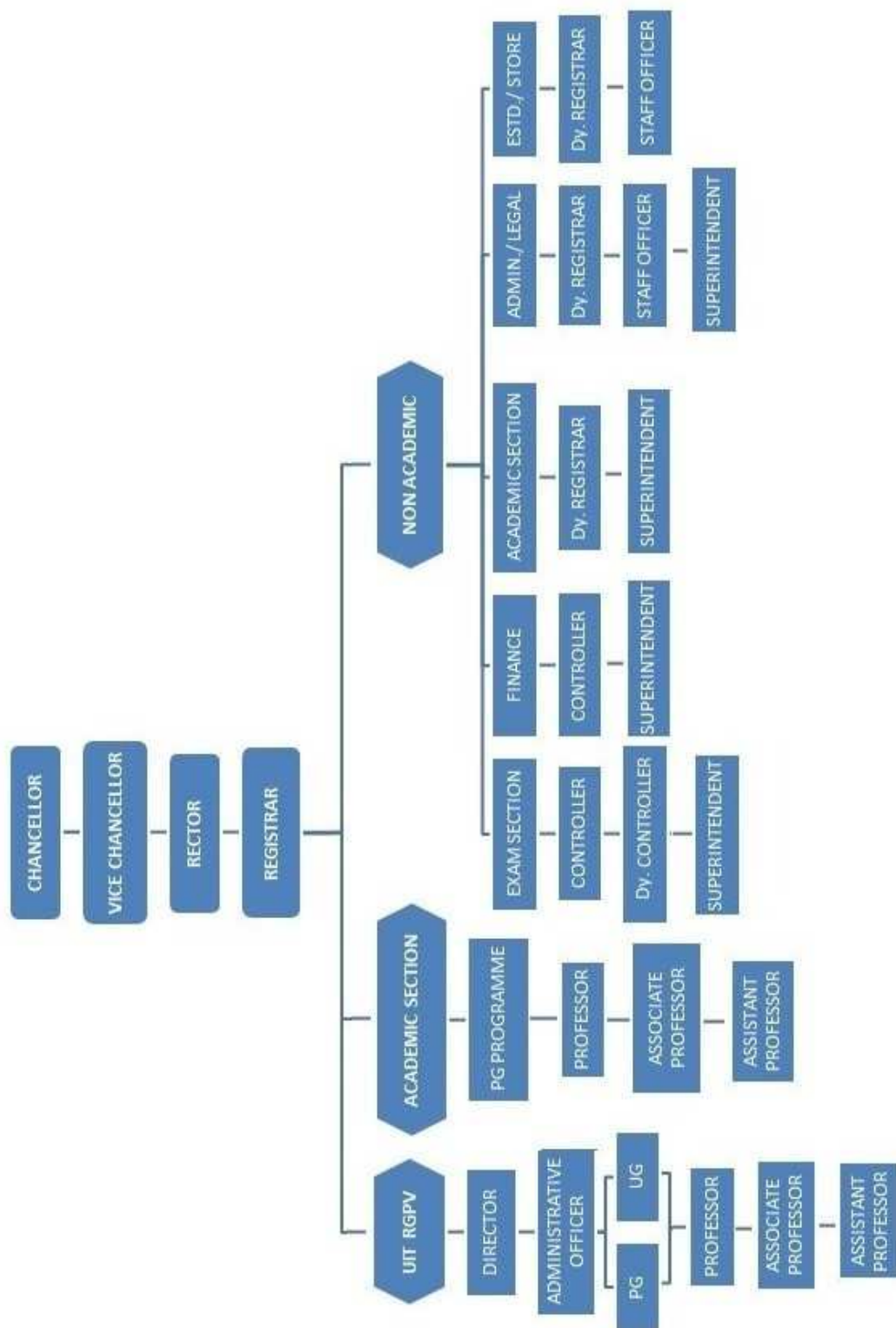
This Vision document considered the following policies and strategies:

1. Infrastructure
2. Academic activities
3. Budget and Finance
4. Research Competence
5. Human Resource
6. Environment and Community engagement
7. Other activities

6.2.2. Describe the University's internal organizational structure and decision making processes and their effectiveness.

The major decision making bodies are Executive council, Academic Council, Standing Council & BOS.

The University's organizational structure consists of four main executive authorities such as Registrar, Director, Controller of Examination, and Controller of Finance.



6.2.3. Does the University have a formal policy to ensure quality? How is it designed, driven, deployed and reviewed?

Yes, the University has established Internal Quality Assurance Cell.

Composition of IQAC

- a) Chairperson – Vice Chancellor
- b) Registrar
- c) Three to eight teachers
- d) One or Two University management officers
- e) One or Two Nominee from local society
- f) One of the teachers as Coordinator of IQAC

Quality assurance measures implemented from early days consist of the following:

Teaching, Learning and Assessment

- Transparent admissions criteria and processes,
- Hiring high quality faculty members from around the world,
- Implementation of Outcome Based Teaching and Learning,
- Use of a variety of teaching methodologies including experiential learning,
- Collecting student feedback, (Teaching and Learning Feedback Questionnaire), for continuous improvement of courses and programmes,
- Mentoring systems to help and support students,
- Use of external Advisory Boards consisting of eminent academics and professional experts from leading universities and other organizations,
- Clear procedures for programme planning, development, implementation and review,
- Teaching Excellence Award to promote reflective and good quality teaching.
- Development of common goals in the form of Graduate Attributes.

Research and Community engagement

Promoting research via research grants and organizing international conferences to engage with partner universities with or without formal MoU for joint research and publications, Research Excellence Awards to stimulate research, the creation of research clusters in the form of research centers.

General

- Clarity of roles and responsibility.
- Clarity of Vision and Mission.
- Performance appraisals systems faculty for teaching and nonteaching staff,
- Feedback system for facilities and services

The University recognizes that Quality Assurance is a shared responsibility of the entire University community. The three important principles which the University strives to promote relate to (a) setting up of goals in the context of the University's Vision and Mission for all departments, (b) ensuring a decision making process which is consultative, evidenced-based, and transparent, and (c) focusing on the outcomes and impact following (a) and (b) and considering further action as required.

The above information demonstrates the University's efforts from early days to implement proper quality assurance mechanisms. With the setting up of the Quality Assurance and Accreditation Cell and the Internal Quality Assurance Cell, the University expects to move forward more vigorously in reviewing its policies, regulations, systems and procedures to ensure the implementation and institutionalization of good practices, promote greater transparency and accountability and to make a mark as leading university of the world.

6.2.4 Does the University encourage its academic departments to function independently and autonomously and how does it ensure accountability?

The University encourages its academic departments to function independently and autonomously by giving them academic flexibility to formulate/revise the syllabus with recent developments in tune with changing time. The Departments themselves conduct examinations and assess answer sheets.

The globally acclaimed Choice Based Credit System has been introduced. To ensure the accountability, the departmental performance is assessed by Academic and Administrative Audit (AAA) Committee and Vice-Chancellor's visits to various departments.

6.2.5 During the last four years, have there been any instances of court cases filed by and against the institute? What were the critical issues and verdicts of the courts on these issues?

During the last four years 75 cases have been filed in the High Court and 10 in District Court, Bhopal. Most of the cases are related to exam and have been

generally decided in favour of the University.

6.2.6 How does the University ensure that grievances / complaints are promptly attended to and resolved effectively? Is there a mechanism to analyze the nature of grievances for promoting better stakeholder-relationship?

The Grievance Redressal Cell at RGPV is an easy and readily accessible forum for prompt disposal of day-to-day grievances, through a fair, impartial and consistent mechanism to promote a responsive and accountable attitude and cordial relationships among all stakeholders, thereby maintaining a harmonious atmosphere in the University Campus.

Any aggrieved student/employee of the University with a grievance complaint may approach the Grievance Redressal Cell to lodge/file their grievance in writing or send on-line through e-mail to dsw@rgtu.net. They are provided with proper advocacy to express their grievances freely and frankly, without any fear of being victimized.

The grievances/ complaints are promptly attended to and resolved effectively through various committees formed by the University authorities for promoting better stakeholder-relationship. There are committees established by the University for this purpose.

- 1) Grievance Committee (Constituted as per the Madhya Pradesh Universities Act 13 Of 1988.)
- 2) Anti-Ragging Committee and Squads for (Boys and Ladies Hostel) (As per the Directive of Supreme Court of India in SLP No. (5) 24295 of 2006, Dated 16th May (as per prescribed in 5:18 of Raghwan Committee Report.)
- 3) Prevention of Sexual Harassment Committee is classified into University Level, P.G. Department Level and Non-Teaching Level. (Currently it is renamed as Internal Grievances Redressal Committee) as per prevention of Sexual harassment of Women at Workplace (Prevention, Prohibition, Redressal) Act. 2013

Table No 6.2 Year Wise Information Regarding Total Number of Students involved in Unfair Means

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1	2011-12	451	554	1005
2	2012-13	618	651	1269
3	2013-14	884	666	1550
4	2014-15	1042	758	1800
Total		2995	2629	5624

6.2.7 Does the University have a mechanism for analyzing student feedback on institutional performance? If yes, what was the institutional response?

There is a committee who continuously receive, feedback from students, parents, faculty members, supporting staff, industries, employers, alumni, external academic experts and members of local community and make improvements in the teaching and learning system to ensure the overall development of its students.

- Feedback is obtained from students on teacher's performance, courses offered, courses desired and on modifications of curriculum.
- Student's feedbacks are also used as a yardstick for the assessment of the performance of faculty.
- Students share decision-making powers by being members and conveners of several organizing committees. They give suggestions to decision-making bodies regarding academic and administrative needs.

6.2.8 Does the University conduct performance audit of the various departments?

Yes. The Internal Quality Assurance Cell (IQAC) regularly conducts Academic and Administrative Audit of the departments every year through the peer team of external and internal experts.

6.2.9 What mechanisms have been evolved by the University to identify the developmental needs of its affiliated institutions?

The Perspective Plan for the development of technical education is prepared and submitted to the state government for its approval. The affiliating

institutions also communicate their academic demands to the RGPV.

The University administration invites principals/Directors of affiliated colleges to discuss their developmental needs; they are also advised to inform the same through e-mails etc.

The university also deposes expert teams for regular and surprising visits for monitoring the development of the affiliated colleges and to ensure the compliance as required in the statute No. 25, 29 and 30.

6.2.10 Does the University have a vibrant College Development Council (CDC)/Board of College and University Development (BCUD)? If yes, detail its structure, functions and achievements?

Yes, the Board of College and University Development (BCUD) is one of the very important sections of the University, which takes steps for development of affiliated colleges and the University Departments.

It consists of following representatives as per the RGPV Act.

- a) The Vice-Chancellor; Chairman
- b) The Pro-Vice-Chancellor
- c) One Dean of faculty, nominated by the Academic Council;
- d) One Head or Director from among the Heads or Directors of the University institutions of departments, not below the rank of Professor and who is not a Dean nominated by the Academic Council;
- e) One teacher, imparting post-graduate (instruction) or guiding research, but who is not a Dean, Head of the University institutions of departments nominated by the Vice-Chancellor;
- f) One teacher, imparting under graduate instruction having not less than sixteen years of teaching experience, nominated by the Management Council;
- g) One Principal of an affiliated college of Arts, Science or Commerce, nominated by the Management Council from amongst the Principals who are members of the Academic Council;
- h) One Principal of an affiliated professional college, nominated by the Vice-Chancellor;
- i) Two experts, co-opted by the Board, from amongst the Heads of National and State level research institutions;
- j) Two persons to represent industry, banks, commerce or professional bodies to be nominated by the Vice-Chancellor;
- k) Two members nominated by the Senate, one of them being the representatives of the Managements;
- l) The Director of the Board of College and University Development:

MemberSecretary.

➤ **Achievements:**

In view of above functions and the structure of the RGPV, the achievements are classified into seven sub sections namely Affiliation, Statistics, Academic Staff College, Special Cell, Board of Studies (BOS) and Board of University Teaching and Research (BUTR).

• **Affiliation:**

The Affiliation Section looks into the issues and proposals as following: Perspective plan, new affiliation, Continuation of affiliation, Permanent affiliation, De-affiliation, Extension of divisions, Approval for the faculties /subjects, Change in staff of the colleges and implementation of the resolutions of the HRD Ministry/UGC/Concerned Apex Bodies and the State Government etc.

A systematic monitoring and assessment of all types of affiliations help the stake holders to minimize the problems and grievances related to their admissions and course curriculum.

• **Statistics Section:**

This section regulates all types of grants received from various funding agencies as mentioned earlier.

Year	Number of Projects	Sanctioned Amount (in Rs)
2010-2011	03	29.63 Lakhs
2012-2013	01	15 Lakhs
2013-2014	NIL	NIL
2014-2015	01	2.23 Crore
Total		2.67 Crore

The finance Committee controls the Finances of the University.

• **Academic Staff College:**

RGPV has taken a step forward to upgrade quality in the teaching faculties in its affiliated institutions. The main focus of Academic Staff College is to enhance faculty skills and knowledge through systematic orientation in specific subjects, techniques and methodologies, thereby, enhancing the standards of technical education in the state of MP.

Objectives:

- Enhance the skill and knowledge base of the faculties on continuous basis.
- Empower faculty members with latest teaching methodologies, tools and techniques.
- Bring renowned experts of the subjects under one roof, so that students in general and faculty in particular can be benefited, by their rich expertise.
- Provide opportunities for personality development of faculties.
- Develop culture of research, innovations and creativity amongst faculty members.
- Develop content for various subjects.
- Develop and provide learning material for various courses.

- **Special Cell**

The University Standing Committee is associated with Special Cell. This cell regulates the reservation policy (students' admissions and recruitment of teachers) in the affiliated colleges/recognized institutes. A compendium of government resolutions and guidelines is published by the Cell. All advertisements for Principals/Directors/Teachers' recruitments in the colleges and University are approved by the Special Cell.

- **Board of Studies (BOS)**

To encourage the multi faculty interdisciplinary programme/courses, the BOS in multi faculty subjects is established. The Board of Studies is responsible for the framing of syllabi for the implementation of CBCS. All syllabi and rules and regulations are displayed on University website. There is a Board of Studies for every subject or group of subjects for degree courses as prescribed by the Statutes no. 14. Each Board consists of such persons as may be prescribed by the Statutes. The Board of Studies has such powers and performs such functions as may be the Functions or prescribed by the Statutes no. 14. It is the duty of the Board of Studies to consider and report on any matter referred to it in accordance with the Act, Statutes, Ordinances or Regulations by the Executive Council or by the Academic Council or by the Faculty concerned or by the Vice-Chancellor.

Each Board have the following powers:

- To make scheme/syllabus for all the courses of the University.
- To communicate with experts regularly each year to review the syllabus and course scheme and recommend the modifications necessary to keep pace with changing knowledge base and requirement of the industries,
- To recommend schemes for preparation and translation of books in the

subject or subjects with which it deals.

- **University Teaching Department (UTD):**

University has well established University Teaching Departments (UTD) which are as follows:

- 1) School of Information Technology
- 2) School of Energy Technology
- 3) School of Bio-technology
- 4) School of Nano-technology
- 5) School of Pharmaceutical Science
- 6) University Institute of Technology

6.3. Faculty Empowerment Strategies

6.3.1. What efforts have been made to enhance the professional development of teaching and non-teaching staff?

In order to create a conducive environment for improving quality education, the university ensures that the various Schools and affiliated institutes under its patronage abide by the rules and regulations laid by it for the empowerment of the faculty members as well as assisting faculty development through refresher courses, management development courses and orientation courses along with seminars conferences, workshops time to time. Academic Staff College is charged with the responsibility to carry out activities such as orientation courses and refresher courses as per the calendar of activities displayed on website.

For non-teaching staff

University provides a supportive work environment and a wide array of career development opportunities, including:

- Access to development resources like library/e-library
- In house and External Training Programmes
- Time Bound Promotion Scheme

6.3.2. What is the outcome of the review of various appraisal methods used by the University? List the important decisions.

- Performance appraisal scheme through APIs in practice. Every year API score sheet is prepared from faculty of the university.
- Improvement in quality of research publications, citations and *h*-index of individual teacher and the ranking of the University.

- Increased registration to the Research Gate and Google scholar.
- Increased number of research projects.
- Collection of confidential report of the non-teaching staff.
- Practice of awarding the Best Teacher and Best Employee of the University.
- Self appraisal schemes inducted. A self assessment performance is designed for faculty for performance appraisal.

6.3.3. What are the welfare schemes available for teaching and non-teaching staff? What percentage of staff have benefitted from these schemes in the last four years? Give details.

The following facilities are available for teaching and non-teaching staff in the University.

1. Teacher's/Administrative Staff Personal Library
2. Group insurance facility
3. Subsidized medical facilities through Health Centre
4. Medical reimbursement,
5. Accommodation facilities on campus for both teaching and non-teaching staff
6. Higher education for teaching and non-teaching staff through distance education mode/external registration.

Most of the teaching and non-teaching staff members are benefited from these schemes.

6.3.4. What are the measures taken by the University for attracting and retaining eminent faculty?

The University makes all efforts to attract and retain eminent faculty by providing better service conditions and opportunities for improvement of their academic career.

The advertisements are published at the national level to attract eminent faculty. The scheme of Adjunct Professor is implemented. Accommodation facility provided inside the campus on priority basis. Career Advancement Scheme is implemented to retain the eminent faculty.

6.3.5. Has the University conducted a gender audit during the last four years? If yes, mention a few salient findings.

Yes, the Gender Audit is an attempt to study whether RGPV has good gender balance. The Gender Audit tries to assess the impact of its current and

proposed policies on gender equality. The university always concentrates on students' qualitative performance along with their overall personality development. Observing the gender equality, the girls are provided with various facilities and special attentions. The Girls Hostel in this university campus always takes safety measurements. Adequate facilities are provided to the girls. Girl's hostel is built near to the main administration block and also near to the faculty and staff quarter so that safety measures towards the girls students can be maintained. Special study room, stair-case, two-wheeler parking are provided for the girls. They are also given self-defense trainings. The lectures of eminent personalities are held on various topics to develop their personalities. Workshops are held on "Women and Human Rights" and "Women and Laws" to make the girls aware of their rights and responsibilities. The Gender Audit of RGPV has the following Objectives:

- To identify the areas where gender balance exists and the factors behind the gender balance.
- Take active steps to establish good gender balance in decision-making processes in all areas of the university activities.
- To examine the policies of the college rules / actions toward the needs and interests of both males and females.
- Suggest measures for bridging the gender gap.
- Foster gender equality in all aspects of college life and throughout the college community.
- To see the work and capacity for prevention of sexual harassment at the college.

The salient findings of the gender audit in RGPV are as follows:

Table 6-4 Year wise Student Gender Classification

Year	Male (M)	Female (F)	Total	% M	% F
2011-12	50803	11826	62629	81.10	18.88
2012-13	59529	12496	72025	82.65	17.35
2013-14	48002	10186	58188	82.49	17.51
2014-15	38604	8450	47054	82.04	17.96

Table 6-5 Year wise Employee Gender Classification

Year	Male (M)	Female (F)	Total	% M	% F
2011-12	4575	2413	6988	65.47	34.53
2012-13	5944	3039	8983	66.17	33.83
2013-14	6302	3397	9699	64.97	35.03
2014-15	5453	2909	8362	65.21	34.79

6.3.6. Does the University conduct any gender sensitization programs for its faculty?

Yes. Gender sensitive features are carefully observed in every corner of the RGPV Campus. By forming various committees like Anti-ragging, Prevention of Sexual Harassment committee etc. Providing adequate facilities to female students / employees, gender equality is kept upright. The Special Facilities to the girl students / female employee, given by the RGPV are as follows:

- i) Girls' Hostel
- ii) 'Earn while Learn' Scheme
- iii) Parking Facilities: A well observed parking of two-wheelers for girls is one of the disciplines in this college.
- iv) Study Room: Independent study room in the library always leads to the excellent performance of girls.
- v) Separate Book-issue counter in library: The separate book-issue counter marks a discipline inside the central library.
- vi) Girls Common Room (GCR): Provision is made for girls resting mode in GCR, cozy and comfortable place and silence kept for girls to study. A notice board is also placed in GCR.
- vii) Girls Washroom: At different places girls washrooms are situated in the college with continuous supply of water and regular cleaning.
- viii) Canteen: In canteen, a separate corner is kept for girl's convenience.
- ix) Health camp for ladies.

6.3.7. What is the impact of the University's Academic Staff College Programs in enhancing the competencies of the University faculty?

The impact of Academic Staff College is being described below:

- Enhance the skill and knowledge base of the faculties on continuous basis.
- Empower faculty members with latest teaching methodologies, tools and techniques.
- Bring renowned experts of the subjects under one roof, so that students in general and faculty in particular can be benefited, by their rich expertise.
- Provide opportunities for personality development of faculties.
- Develop culture of research, innovations and creativity amongst faculty members.
- Develop content for various subjects.
- Develop and provide learning material for various courses.

Main Courses offered under ASC are:

- Refresher Course: Refresher courses are organized regularly in various disciplines offered by the university.
- Orientation Programme: This program seeks to introduce faculty and staff to the challenges of technical teaching in today's ever changing scenario of education and information. During this program, young entrants into teaching profession are informed about various academics and administrative aspects of a technical education system.

6.4. Financial Management and Resource Mobilization

6.4.1. What is the institutional mechanism available to monitor the effective and efficient use of financial resources?

Suitable institutional mechanisms are available to monitor the effective and efficient use of financial resources. An Finance Committee is there to monitor the annual budget of revenue expenditure and capital expenditure. Apart from this, to monitor the financial resources, regular audit of all day to day transactions are carried out in the university.

- Finance Committee for the University, consists following members, namely:-
 - i) Vice Chancellor;
 - ii) Registrar
 - iii) Controller Finance
 - iv) Secretary in charge of Manpower Planning Department, Government of Madhya Pradesh or his nominee not below the rank of deputy Secretary;
 - v) Secretary in charge of Finance Department, Government of Madhya Pradesh or his nominee not below the rank of Deputy Secretary.

Finance Committee exercises the powers and performs the functions as under:

- a. To review the Income and Expenditure of the university ;
- b. To prepare the Annual Financial Estimates of the university before the commencement of the financial year and place it before the Executive Council for approval and to advise amendment therein from time to time;
- c. To sanction proposals and take decisions on the income and expenditure of the university
- d. To get the annual accounts and the annual audit of the university

completed in time and. In the light of the report, order appropriate directions.

- Three members form the quorum out of which presence of Vice Chancellor and one member either from clause (iv) or (v) of sub-section (I) are essential.

6.4.2. Does the University have a mechanism for internal and external audit? Give details.

Yes, the University has a mechanism for internal and external audit. The internal audit is done through “Internal Audit Section.” Every bill is passed through this section only after pre audit. The irregularities pointed out by the internal audit section are corrected before passing the bills.

The Controller Finance is appointed by Govt. of M.P. and perform following duties:

- To hold and manage the property and investments of the University including trusts and endowed property.
- To ensure that the limits fixed by Executive Council for recurring and nonrecurring expenditure for a year are not exceeded and that all monies are expended for the purpose for which they are granted or allotted.
- To keep a constant watch on the state of the cash and bank balances and on the state of investment.
- To suggest measures of additional internal revenue generation for the university.

6.4.3. Have the accounts been audited regularly? What were the audit objections, if any, and how were they complied with?

Yes, the university accounts are audited regularly by the university’s auditor’s committee. So far there have been no major objections pointed by the committee. The minor errors pointed by the internal/external auditors are immediately corrected and precautionary steps are taken to avoid such mistake in future.

6.4.4. Provide the audited income and expenditure statement of academic and administrative activities of the last four years.

The audited income and expenditure statement of the University is as follows:

Year	Income (Rs. Lakhs)	Expenditure (Rs. Lakhs)
2011-12	12804.11	9105.18
2012-13	12550.12	10500.53
2013-14	16796.96	9358.64
2014-15	15887.16	5366.47

6.4.5. Narrate the efforts taken by the University for Resource Mobilization.

The University receives grants from various funding agencies like AICTE, UGC, MPCOST and TEQIP. Various efforts involving the better use of resources and maximizing the existing resources also include the activities involved in securing new and additional resources to the university time to time for the better use of funds and resources.

6.4.6. Is there any provision for the University to create a corpus fund? If yes, give details.

Yes, there is a provision to create a corpus fund by the University. At the end of each financial year, surplus amount from the University's budget is transferred to corpus fund. Thus, at the end of year 2014-15, University has a corpus fund of Rs. 25385.85 Lakhs.

6.5. Internal Quality Assurance System

6.5.1 Does the University conduct an academic audit of its departments? If yes, give details.

Yes, the university conducts the academic audit of its department. Following procedure is adopted for this

- Constitution of Academic Audit team
- Filling of the academic performance evaluation sheet by the faculty
- Fixing the suitable date for visit to departments
- Filling up the evaluation sheet of academic audit in consultation with departmental heads
- Allotting the Grade point /performance appraisal Index.

- Enlisting suggestions /advices for improvements if any.
- Conduction of focused Group discussions with following groups
 - a) Administration
 - b) Head of departments
 - c) Faculty Members
 - d) UG & PG students groups
 - e) Supporting staff

6.5.2 Based on the recommendations of the academic audit, what specific measures have been taken by the University to improve teaching, learning and evaluation?

On the basis of the recommendations of the academic audit following measures were taken:

- Standard of question papers are scrutinized by examination section and the corresponding departments are advised to take corrective action.
- Tutorial and remedial classes in specified courses have been arranged, wherein numerical problems and student doubts are resolved.
- To improve the quality of question papers, the questions are set, based on Bloom's taxonomy.
- Faculty training programs are arranged in pedagogy, Pedagogy and Emerging Technologies.
- The attainment of course outcomes is measured at the end of each semester.
- Modernization of infrastructure was taken up.

6.5.3 Is there a central body within the University to continuously review the teaching learning process? Give details of its structure, methodologies of operations and outcome?

Yes, the University has setup the Academic Planning and Evaluation Board as per the RGPV Act. The Academic Planning and Evaluation Board consist of the following Planning and members.

- A) The Vice Chancellor-Ex-officio Chairman;
- B) The Rector;
- C) Dean of Faculties;
- D) Three Heads of University Departments/Schools of Studies nominated by Vice-chancellor
- E) Three college Professors nominated by the Vice-chancellor;
- F) Three scholars of repute not connected with the university;
- G) Three Heads of Departments nominated by the Vice-chancellor;

- H) Two representatives of Industry nominated by the Chancellor.

Methodologies of operations and outcome are as follows:

The time-table meetings pertaining to the workload and paper allocation start well in advance of the next academic session with a view to enable the Departmental Heads to work out and allocate the desired subject papers to the teachers. This also enables the teachers to prepare their allocated subject papers well in advance, thereby giving them ample time. Each department holds regular meetings to discuss and review issues pertaining to the syllabus covered by each teacher and other academic issues. There is a mechanism of regular monitoring of the student attendance which in turn is uploaded on the website. The parents are duly informed when their wards are short of attendance. The monthly attendance of the students is uploaded on the college website. To ensure regularity of classes also classes found not engaged are reported on the staff notice board.

6.5.4 How has IQAC contributed to institutionalizing quality assurance strategies and processes?

The IQAC contributed to institutionalizing quality assurance strategies and processes as follows:

- Development and application of quality benchmarks/parameters for the various academic and administrative activities.
- Facilitating the creation of a learner-centric environment conducive for quality education and faculty maturation to adopt the required knowledge and technology for participatory teaching and learning process;
- Arrangement for feedback responses from students, parents and other stakeholders on quality related institutional processes;
- Dissemination of information on the various quality parameters of higher education;
- Organization of inter and intra institutional workshops, seminars on quality related themes and promotion of quality circles;
- Documentation of the various programmes /activities of the College, leading to quality improvement;
- Acting as a nodal agency for coordinating quality-related activities, including adoption and dissemination of good practices.
- Development and maintenance of institutional database through MIS for the purpose of maintaining / enhancing the institutional quality;
- Development of the Annual Quality Assurance Report (AQAR) based on the quality parameters/assessment criteria developed by the relevant quality assurance body (like NAAC, NBA, AB) in the prescribed format;

- Interaction with SQACs in the pre and post accreditation quality assessment, sustenance and enhancement endeavors.

6.5.5 How many decisions of the IQAC have been placed before the statutory authorities of the University for Implementation?

The following decisions of the IQAC have been placed before the statutory authorities of the University for Implementation:

- Change in the Ordinance for award of Doctoral degree
- Making pre-submission presentation for M Tech & Ph.D. thesis mandatory
- Requiring that minutes be recorded of Ph.D. viva-voce examinations, which are to be sent to the Controller of Examinations
- A committee for scrutinizing manuscripts of books authored by faculty prior to publication.
- Establishment of Director of Research and Development Cell for ensuring quality of research proposals submitted to funding agencies.
- Financial Assistance and support to teachers for participation in overseas conferences / seminars. Teaching / Research collaboration with overseas institutions and organizations.
- Consultancy charges varying proportion based on the type of consultancy.
- Use of Plagiarism soft ware for PhD thesis and M Tech dissertation reports.
- Seeking Comments on dissertation reports from examiners for necessary corrections before the final presentation.
- Introduction of CBCS syllabus.
- Introduction of on line practical Examinations

6.5.6 Does the IQAC have external members on its committees? If so, mention any significant contribution made by such members.

Yes, IQAC has nominees from local society. They contribute in terms of organizing IQAC activities and sensitizing other IQAC members for planning and methodologies for academic audit through experience sharing. Recently their active participation was sought in framing choice based credit system for the undergraduate courses.

6.5.7 Has the IQAC conducted any study on the incremental academic growth of students from disadvantaged sections of society?

The IQAC has appointed a committee to study the incremental academic growth of students from disadvantaged sections of society.

6.5.8 What policies are in place for the periodic review of administrative and academic departments, subject areas, research centers, e t c .?

The periodic review of academic activities is taken through Vice- Chancellor's visits to all the Departments at the beginning of the year. Amongst a large variety of long and short term programs, Department-wise review meetings are conducted to formulate policies/design strategies to strengthen the functioning of the departments of study in various dimensions. Several issues are addressed on a regular basis including lesson plan, weekly log, quality assurance in teaching, student's performance, examination reforms, improvement of infrastructural facilities placement details, research, consultancy and extension activities, energy conservation measures, gender sensitization, and general maintenance of the departments and surroundings. The constraints are identified based on analysis and review. The exercise has provided scope for introspection and need for improvement. As a result of these meetings, all faculty members prepare lecture plans, which have improved the quality of teaching and time management. IQAC also regularly monitors the progress of administrative departments and research centers etc.

Any other information regarding Governance, Leadership and Management which the University would like to include.

- A student of UIT, Surbhi Gautam secured All India First Rank in the prestigious Engineering Service Examination (UPSC) in 2013.
- The University has adopted e-tender procedure for the purchase of materials costing more than 5 Lakhs.
- Student Service Portal of RGPV facilitates all the students of RGPV including affiliated colleges to fill up their examination forms without transaction charges.
- The University did not raise the examination fees since 2007.
- The University has adopted citizen charter to avoid delay in issuing duplicate marksheet, degree, migration certificates.
- Students can register their complain(s) on Chief Minister Helpline which is forwarded to RGPV to look into.
- Marks awarded to students in the end semester practical examination is posted on the same day at the RGPV Exam Portal.
- University Officers including Registrar, Dean Students Welfare present during students grievance redressal hearing held on every Tuesday.
- Some of the affiliated institutes of the University are conducting part-

time undergraduate and post-graduate programme in Engineering.

- There is a provision for surprise visits to its affiliated colleges to ensure their smooth functioning of academic and administrative activities.

CRITERION VII

INNOVATIONS AND BEST PRACTICES

7.1 Environment Consciousness

One of the prime objectives of the university is to create environment awareness amongst the stake holders. For this purpose university has started Energy and Environmental Management program.



Frequent plantation drives are taken up from time to time to make campus green. In pace with “Swachh Bharat Abhiyan” a clean line inside the campus is maintained. Rain water harvesting systems are installed on all buildings of campus. Solar street lamps are installed inside the campus. Energy Park inside is equipped with non-conventional energy devices for research and demonstration like solar fountains, solar water heater, solar-wind biomass hybrid system, biodiesel generation plant, CO₂ sequestration plant and ultra modern wind mill turbine. Facilities are available for disposal of solid and liquid waste inside the campus. A group of students namely “The Green Army” is formed to spread the environmental awareness. Earth day and earth hours are celebrated here with zeal and enthusiasm. First and fourth Saturdays of every month are observed as No-Vehicle Day for the campus.

7.1.1. Does the university conduct a Green Audit of its campus?

The University conducts green audit of its campus frequently following the Guidelines of Central Pollution Board. Use of polyphase bags is discouraged inside the campus; as far as possible both the side of papers are used. Emails communications and telephone communications are preferred over paper communication. Central library and new university buildings are equipped with passive solar architecture concepts. The lights are usually not needed in day time and sufficient natural ventilation is available. Green audit is used to calculate potential carbon sequestration on the campus. The recyclable garbage waste and non recyclable wastes are dumped in specified containers /dustbins.

Important features of green audits are listed below:

- a. **Energy Audit:** For all its administrative buildings, academic buildings, and supportive services energy audit is done by PG students of Energy Environment and Management Department. Plantation is done time to time in coordination with Forest Dept of Govt. of M.P, solar water heater, wind power generation are also in place.
- b. **Water Audit:** A small pond is dug inside the campus to create a water storage body. Water harvesting system is mounted on the roof top of all the buildings.
- c. **Solid Waste Management:** The practice of segregation of solid waste and its disposal is adapted by the university.
- d. **Hazardous Waste Management:** Rarely need of hazard waste disposals arise but are done by outsourcing.

7.1.2. What are the initiatives taken by the university to make the campus eco-friendly?

The university has taken up following initiatives:

- **Energy conservation**

The University promotes procurement and installation of efficient electrical systems to save electricity. The UPS Batteries are maintained in good condition which reduces charging current of batteries. Equipment checking and monitoring is also carried out periodically to avoid the excess current withdrawal. Energy and Environmental Management Department has well established Energy Park to promote research and development in the field of non-conventional energy sector.

Part of the street light load of the university is born by the solar energy powered street lights. It's planned to make the campus self sufficient in its energy needs by 2020.

At present following equipments are installed in the departments connected to environmental studies.

- i. Solar wind hybrid power generation plant.
- ii. Bio diesel reactor.
- iii. Solar pump and fountains.

- iv. CO₂ suppression unit.
- v. Solar Bio diesel hybrid vehicle.
- vi. Bio mass gasifier.

Most of the new buildings are designed and developed with solar passive architecture concept so that during the day time artificial illuminations is not needed and ventilation is also natural.

Following steps are being taken to conserve energy:

- ✓ Use of Compact Fluorescent Light (CFL) Bulbs.
- ✓ Adopting LED lights.
- **Use of renewable energy**
 - ✓ Solar energy is one of the sources for lights, fans, heaters used in the residences and in the university. Solar PV cells for street lights inside the campus of the university
 - ✓ Wind mills on Hill top energy generation and lighting.
 - ✓ Solar-wind-Biomass hybrid system for street lighting inside the campus of the university.
 - ✓ Cross Linear Concentrated Solar Power Plant is installed that will enable university self sufficient in power generation.
 - ✓ Solar water heaters are installed in hostels.
- **Water harvesting**

Roof top water harvesting is installed on all buildings of the campus to ensure continuous recharging of ground water level. A small water body is dug inside the campus arresting the water flow down the hillock in the rainy season is a great challenge. The rain water is channelized towards bore wells to raise the ground water level.

- **Efforts for Carbon neutrality**

Proper measures have been taken to reduce carbon emission to keep the campus pollution-free and uncontaminated. Routine inspection of university vehicles and generator sets and other equipment ensures lowest possible emission and pollution free environment thereby neutralizing the carbon effect. Other than this the green lawns and plantation are also helpful in fixation of carbon content present in environment and help in making pollution free environment.

- **Plantation**

Plantation drives are taken up by university from time to time to keep the campus green. Each block of the building and playgrounds are surrounded by large green lawns, and plants, which maintain healthy and balanced environment. The gardeners are taking care of the trees and plants in the university campus.

- **Hazardous waste management**

The recyclable garbage waste and non recyclable wastes are dumped in specified containers/dustbins. A separate agency is dealing with waste collection and its proper disposal. Following steps are taken up for hazardous waste management.

- ✓ Glass and other non infection sharp materials are sent for recycling.
- ✓ All hazardous material from chemical labs are diluted 100 times by water.

- **e-Waste Management**

All the e-Waste such as CDs, batteries, fluorescent bulbs, PCBs and electronic items are collected from all the departments and delivered for safe disposals. The old computers are also exchanged with new computers. The waste compact discs are used by students for decoration and participation in competitions on 'Art from Waste'.

- **The Green Energy Tech Center**

Modeling & Simulation of Carbon Recycling Technology through Conversion of CO₂ into Useful Multi- Purpose fuel:

The carbon sequestration project aims at development of a unique plant for CO₂ capture and production of useful multipurpose fuel like Hydrogen, Methane and Algae growth for Bio diesel production in the Energy park of RGPV.

Objective:

1. Sequester CO₂ and convert the same into useful multipurpose fuels.
2. Use CO₂ to grow micro algae to produce Bio-diesel and Methane Gas.
3. To establish a Pilot Plant for CO₂ sequestration and conversion in to multipurpose fuel.
4. To develop mathematical & chemical models for CO₂ sequestration and Hydro Gasifier

The Rajiv Gandhi Technological University is having 10 kW Biomass Gasifier

and Bio-Diesel Reactor (100 LPD) in its Energy Park. Using Exhaust from Gasifier and Char coal, a pilot plant for capture of CO₂ based on Chemical solvent and for converting the same into useful fuel like Hydrogen for Fuel Cell application and Methane is developed. Additionally, a Bio-fuel Incubator is developed for producing variety of Algae culture for CO₂ capture. An Incubation Unit on fuel Cell is also developed by RGPV wherein Hydrogen from the pilot is the prime input.



A working plant to Capture CO₂

Solar Wind Hybrid System

A 1.6 kW Solar Wind Hybrid System has been designed and erected with a Solar-Wind ratio of 3:13 i.e. 300 Watt Solar and 1300 Watt Wind. This optimized configuration has been chosen through WaSP software. A Biomass Gasifier is being integrated into the system for a reliable configuration of Hybrid system of the three Renewable sources.

Biodiesel Project- A Contribution to National Biodiesel Mission



A glimpse of mini boiler



Biodiesel Plant at RGPV

India's energy independence is on top of the national agenda of policy planners and the university is supporting this mission. The RGPV Biodiesel park is conceived from the view point of accelerating the energy farming and cultivating the knowledge and know-how for producing world class Quality Biodiesel. The RGPV Biodiesel Park is a joint venture of School of Biotechnology, School of Energy & Environment and generously supported by Centre of Green Technologies at RGPV. The park receives support from University of Houston with whom a MoU for collaborating research has been signed.

Energy Farming:

The energy farming is planned in an area of 8 acres of land in the Energy Park and in the outskirts of the Campus. The plantation of promising variety of

Jatropha curcas is being done to the tune of 6000 plants.

7.2 Innovations

7.2.1 Give details of innovations introduced during the last four years which have created a positive impact on the functioning of the university.

Innovations made in academic and related activities speak of the progress of the university in leaps and bounds. The details of the innovations are given below:

- i. Introduction of Choice Based Credit System.
- ii. Office automation and paperless office system are adopted.
- iii. Examination system is totally computerized.
- iv. Wind-solar-biomass hybrid system is developed by the energy department.
- v. Solar-biodiesel hybrid is developed by energy department.
- vi. RGPV web portal is developed
- vii. Personality Development Programs
- viii. Faculty Development Programs
- ix. MoU Signed with industries and academia
- x. Model Solutions
- xi. Incubation centre
- xii. Soft Skills and Aptitude classes
- xiii. conduction of online practical examination

7.3 Best Practices

The university has implemented the following best practices:

- i. Corporate School.
- ii. Earn while learn scheme.
- iii. MoU's with foreign university.
- iv. Industry Institute Interaction
- v. Showing valued answer books to the students.
- vi. Dual degree courses.
- vii. Compulsory industrial training and six month apprentice ship in dual degree course.
- viii. Best research paper award and Best engineering project award.
- ix. Academic Staff College conducting refresher course and orientation courses for faculty of affiliated colleges
- x. Finish School activity.
- xi. Scholarship for weaker section students of society
- xii. Creation of Research fund
- xiii. Creation of venture fund
- xiv. Introduction of Choice Based Credit System

- xv. Automation of Library & moderns RFID system in library
- xvi. Conduction of on line practical examinations.

7.3.1. Give details of any two best practices which have contributed to better academic and administrative functioning of the university.

- **Best Practice I**

a. Title of the practice: Corporate School

b. Objectives of the Practice

To enhance industry institute interaction, inducting students to the industry problems during their studies, running joint courses with industry for students, providing better opportunity to students for placement, creating a win-win situation for students and industry both .

c. The Context

Opening full corporate office of the industry inside the campus will bring students close to industry, provide better exposure to various subjects by industry personals, student will take up their project problems in consultation of the industry personnel preferably the industry related problems.

d. The Practice

The space and infrastructure to corporate houses is provided inside the university campus, industry personnel working with the students, solving their problems with the help of the students and students taking up their projects as assignments. Industry personnel conduct certificate courses for the select lot of the students, making them industry ready.

The following activities are also taken up from time to time in the corporate school:

1. National and international conferences.
2. Short term courses.
3. Webinars from IITs/ NITs

e. Evidence of Success

Students become industry-ready with corporate school, a close linkage between the corporate houses and students built up, the corporate houses also absorb competent students in their concern as and when needed. The students get the real time experience of industry problems inside the academic campus itself.

f. Problem Encountered and Resources Required

In the beginning engagement of Corporate Houses was difficult but with continuous perusal the concept was materialized

Required resources are shared by the University and Corporate Houses

BEST PRACTICE II

a. Title of the practice: Mentoring System

b. Objectives of the Practice

Improvement of teacher-student relationship, Counseling students for solving their problems and provide, confidence to improve their quality of life, guiding students to choose right career path for job, higher studies, Entrepreneurship, etc, to ease out pressure to perform in current competitive world and to face the challenges of the society.

c. The Context

The pressure to perform in current competitive world and to face the challenges of the society, students need mentoring support to achieve academic excellence. The scheme aims at addressing conflicts in attitudes, habits, and knowledge of the students towards learning practices. Many other supporting methods have been introduced for better coordination of lectures, tutorials and practical classes. Advanced tutorials are arranged by the mentors in association with the respective subject teachers and experts who focus on problem-based learning of modern technology. Towards the end of semester, students gain confidence and improve career as well as overall personality.

d. The Practice

The practices that may be unique in the higher education and constraints or limitations faced during their implementation are described here. A record keeping document is maintained for the students under the mentors for monitoring and analysis of the practice on regular basis. Batches of 10–15 students are allotted to a mentor. Each mentor maintains the history cards of allotted students. Mentor has direct communication with the Class Representatives (CR). The Mentors meet the students associated with them once in a fortnight, The Parents/Guardians of poor attendee/performance. Students are called to meet the mentors and corrective and preventive measures are implemented for further improvement. The mentors take initiative to arrange remedial and tutorial classes for slow learners. Each mentor maintains the entire students information, which is examined by the

HOD and others concerned when necessary. During feedback given by the students, mentors take active initiative to address the same. Mentors meet each group during the semester to discuss academic and non-academic issues. The issues include: good and bad study habits, study planning and techniques, how to make the most of lectures and practical classes useful, distractions if any, and how to cope with them, what to do when things go wrong, examination preparation, health issues, etc. The meetings also provide the students with a forum for discussing their own experiences and ideas, fostering networking and mutual support within the class. In addition, mentors are available even after the college hours, so that students could consult them individually regarding exigencies they might encounter. Such consultations remain confidential on case basis. The University regularly arranges mentorship awareness program, mainly for newly recruited faculty members.

e. Evidence of Success

Student's attendance has improved after counseling by the mentors. The direct communications between mentor and students have nurtured the teacher-student relationship. Academic performances of the students have improved. Participation in extra-curricular activities has been enhanced. Students become more disciplined compared to their initial sessions. During last few years, the Mentors have taken active initiatives and have prohibited ragging completely in the campus.

f. Problems Encountered and Resources Required.

The newly joined faculty members who are not accustomed with the culture and instinct of the mentorship scheme are separately educated by the university to get involved in the mentorship scheme in the right direction. Apart from regular theory and practical classes, allocating sufficient time for one to one student interaction through mentorship program sometimes becomes a constraint for the faculty members. However, the university encourages and appreciates such activities through the annual appraisal of the faculty members.

DECLARATION
BY THE HEAD OF THE INSTITUTION

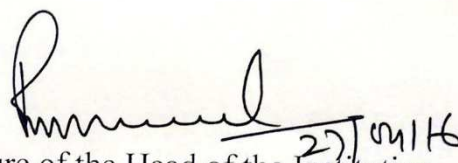
I certify that the data included in this Self –Study Report (SSR) are true to the best of my knowledge.

This SSR is prepared by the Institution after internal discussions, and no part thereof has been outsourced.

I am aware that the Peer team will validate the information provided in this SSR during the peer team visit.

Place : Bhopal

Date : 27-Apr-2016



Signature of the Head of the Institution

with seal.

Prof. Piyush Trivedi
Vice-Chancellor
Rajiv Gandhi Proudyogiki Vishwavidyalaya
Bhopal

Prof. Piyush Trivedi
Vice-Chancellor
Rajiv Gandhi Proudyogiki Vishwavidyalaya
Bhopal

ABBREVIATIONS

AC	: Academic Council
AICTE	: All India Council for Technical Education
ASC	: Academic Staff College
BCUD	: Board of College And University Development
BOS	: Board of Studies
BSNL	: Bharat Sanchar Nigam Limited
BUTR	: Board of University Teaching And Research
CAD	: Computer Aided Design
CAT	: Common Admission Test
CBCS	: Choice Based Credit System
CCTV	: Closed-Circuit Television
CDs	: Compact Disk
CE	: Civil Engineering
CL-CSP	: Cross Linear Solar Concentration System Project
CSE	: Computer Science and Engineering
IPG	: Integrated Post Graduate
DELNET	: Developing Library Network
DST	: Department of Science and Technology
DSW	: Department of Student and Welfare
DTE	: Directorate of Technical Education
EAA	: Experimental Aircraft Association
EC	: Executive Council
EEE	: Electrical and Electronic s Engineering
EEM	: Energy, Environment and Management

FDP	: Faculty Development Programme
GATE	: Graduate Aptitude Test in Engineering
GPAT	: Graduate Pharmacy Aptitude Test
GRE	: Graduate Record Examination
HIV	: Human Immunodeficiency Virus
HU	: Humanities
IE	: Institution Of Electrical Engineers
IEEE	: Institute Of Electrical and Electronics Engineers
IIM	: Indian Institute of Management
IIT	: Indian Institute of Technology
IQAC	: Internal Quality Assurance Cell
IT	: Information Technology
JEE	: Joint Entrance Examination
LAN	: Local Area Network
MAPIT	: Madhya Pradesh Agency for Promotion of Information Technology
ME	: Mechanical Engineering
MHRD	: Ministry of Human Resource Development
MIC	: Microphone
MPCOST	: M.P. Council of Science & Technology
NAAC	: National Assessment and Accreditation Council
NBA	: National Board of Accreditation
NET	: National Eligibility Test
NGO	: Non-Governmental Organization
NHPC	: National Hydroelectric Power Corporation

NITTTR	: National Institute of Technical Teachers Training Research
NMEICT	: National Mission on Education Through Information And Communication Technology
NPTEL	: National Programme on Technology Enhanced Learning
NSDC	: National Skill Development Corporation (NsdC)
NSS	: National Service Scheme
OPAC	: Online Public Access Catalog
PCI	: Pharmacy Council Of India
PCT	: Petro-chemical Technology
PG	: Post Graduation
Ph D	: Doctor of Philosophy
PPT	: Power Point Presentation
PSU	: Public Sector Unit
QIP	: Quality Improvement Programme
RDC	: Research Defense Committee
RFID	: Radio Frequency Identification
RGPV	: Rajiv Gandhi Proudyogiki Vishwavidyalaya
RTGS	: Real-Time Gross Settlement Systems
SAIL	: Special Analytical Testing Laboratory
SCI	: Science Citation Index
SOIT	: School of Information Technology
SONT	: School of Nano-technology

SOPS	:	School of Pharmaceutical Sciences
TEQIP	:	Technical Education Quality Improvement Programme
TG	:	Tutor Guardian
TI	:	Texas Instrumentation
UG	:	Under Graduation
UGC	:	University Grant Commission
UIT	:	University Institute of Technology
UPS	:	Uninterruptible Power Supply
UTD	:	University Teaching Department

NAAC SELF STUDY REPORT
Evaluation Report Department Wise
(University Teaching Departments)



RAJIV GANDHI PROUDYOGIKI VISHWAVIDYALAYA

(State Technological University of Madhya Pradesh)

Airport Road, Gandhi Nagar

Bhopal, Madhya Pradesh-462033

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NAAC SELF STUDY REPORT
Evaluation Report: Department Wise
(University Institute of Technology)



RAJIV GANDHI PROUDYOGIKI VISHWAVIDYALAYA

(State Technological University of Madhya Pradesh)

Airport Road, Gandhi Nagar

Bhopal, Madhya Pradesh-462033

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1. SCHOOL OF PHARMACEUTICAL SCIENCES

1. **Name of the Department** : School of Pharmaceutical Sciences
2. **Year of establishment** : 2002
3. **Is the Department part of a School/Faculty of the University?** :

Yes, School of Pharmaceutical Sciences, part of UTD- RGPV Bhopal

4. **Names of Programmes / Courses offered**

(UG, PG, M. Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.) :

Sl. No.	Name of the Programme offered	Remarks (UG/PG/M. Phil/Ph.D.)
1	M. Pharm (Master of pharmacy in Pharmaceutical chemistry, Pharmaceutics and Quality assurance)	PG
2	Doctorate in Pharmacy	Ph.D.

5. **Interdisciplinary courses and departments involved:**

Sl. No.	Interdisciplinary courses offered	Names of the Departments involved
1.	Research Methodology for all PG M. Pharm, Programmes.	Department of Mathematics.

6. **Courses in collaboration with other universities, industries, foreign institutions etc.:**

Sl. No.	Collaborative courses offered	Remarks (with other Universities / Industries / Foreign Institutions)
	-	-

7. **Details of programmes / courses discontinued, if any, with reasons:**

Sl. No.	Name of the Programme discontinued	Reason
	-	

8. **Annual/ Semester/Choice Based Credit System:**

Semester Based Credit System for all PG Programmes.

9. **Participation of the department in the courses offered by other departments:**

Sl. No.	Name of the courses handled for other departments	Name of the other department
	-	

**10. Number of Teaching posts sanctioned and filled
(Professors/Associate Professors/ Assistant Professors):**

Sl. No.	Name of the teaching post	Sanctioned	Filled
1	Professor	01	01
2	Associate Professor	03	01
3	Assistant Professor	03	01
Total		07	03

11. Faculty profile with name, qualification, designation and specialisation (D.Sc./D.Litt./ Ph.D./M. Phil., etc.)

Name	Qualification	Designation	Specialization D.Sc., D.Litt., Ph.D., M. Phil, M.E.	No. of Years of Experience	No. of Ph.D. students guided for the last 4 years
Prof. Piyush Trivedi	M. Pharm. Ph. D.	Honorable Vice Chancellor	Pharmaceutical Chemistry	35	8
Prof. N. K. Jain	M. Pharm. Ph. D.	UGC Emeritus- Professor	Pharmaceutics	42	8
Dr. Deepti Jain	M. Pharm. Ph. D.	Associate Professor	Pharmaceutical Chemistry	17	3
Dr. Suman Ramteke	M. Pharm. Ph. D.	Assistant Professor	Pharmaceutics	13	1
Dr. Anita Dutt Konar	M. Sc. Chemistry Ph. D.	UGC- Assistant Professor	Chemistry	10	2
Dr. C. Karthikeyan	M. Pharm. Ph. D.	Assistant Professor (Contractual)	Pharmaceutical Chemistry	12	00
Mrs. Vandana Gupta	M. Pharm.	Assistant Professor (Contractual)	Pharmaceutics	8	00

Mr. Farhad F. Mehta	M. Pharm.	Assistant Professor (Contractual)	Pharmaceutics	8	00
Mr. R. Rajagopalan	M. Pharm.	Assistant Professor (Contractual)	Pharmaceutics	6	00
Mr. Digambar Kumar Waiker	M. Pharm.	Assistant Professor (Contractual)	Pharmaceutical Chemistry	4	00

12. List of senior Visiting Fellows, faculty, adjunct faculty, emeritus Professors

Sl. No.	Name of the Faculty Member	Designation (Visiting fellow, visiting Faculty, adjunct faculty, Emeritus Professors)
1.	Prof. N. K. Jain	UGC -Emeritus Professor
2	Prof. N.S.H.N. Moorthy	Visiting Faculty, University of Porto.

13. Percentage of classes taken by temporary faculty (Guest faculty) – Programme-wise Information:

Sl. No.	Name of the Programme	% of classes taken by temporary Faculty members
	UG programmes	
1.	B. Pharm.	-NIL-
	PG programmes	
2.	M. Pharm (Master of pharmacy in Pharmaceutical chemistry, Pharmaceutics and Quality assurance)	50%

14. Programme-wise Student Teacher Ratio

S. No.	Name of the Programme	Student-Teacher ratio
	UG programmes	
1.	B. Pharm.	NIL
	PG programmes	
2.	M. Pharm (Master of pharmacy in Pharmaceutical chemistry, Pharmaceutics and Quality assurance)	7.5:1

15. Number of academic support staff (technical) and administrative staff: Sanctioned and Filled:

Provided from common pool of the University

16. Research thrust areas recognized by funding agencies:

School of Pharmaceutical Sciences has already established research partnerships with Scientist from prestigious international institutions like Advanced Medical Research Institute of Canada (AMRIC), Ontario, Canada, Centre National de la Recherche Scientifique (National Center for Scientific Research), France, University of Toledo, Toledo, USA, University of Malaya, Kuala Lumpur, Malaysia, International Center for Genetic Engineering and Biotechnology (ICGEB), New Delhi, and Indian research organizations like Central Drug Research Institute (CDRI), Lucknow, Institute of Nuclear Medicine & Allied Sciences (INMAS), New Delhi, Centre for Excellence in Genomic Sciences, Madurai Kamaraj University (MKU), Madurai, India, Department of Biotechnology, Indian Institute of Technology (IIT), Chennai, University of Lucknow, Lucknow for collaborative research in the area of new drug discovery for life threatening diseases like Cancer, Alzheimer's disease and Diabetes. These research linkages with eminent Scientist from national and international research organizations and universities has given an impetus to our research efforts expended on discovery of novel and cheaper drugs for treatment of Cancer, Alzheimer's disease and Diabetes.

Area of Research – Pharmaceutics

1. Novel Drug Delivery System

The innovation and versatility of a vesicular lipidic system lies in the attainment of a direct deposit of the active substance in the area of activity which stimulates the effect rapidly and efficiently. In order to increase the stability of vesicular systems the concept of the provesicular approach has been proposed. Traditional novel drug delivery systems (e.g. liposomes, niosomes, nanospheres, microspheres etc.) are of little value because of stability problem and poor absorption at the targeted site. To overcome the problem of stability and poor absorption, the design of novel carrier systems has been proposed.

2. Formulation Development and Optimization

Various formulations have been developed and optimized on the basis of process parameters to improve the efficacy of drug and dosage forms. These formulations include: flexible vesicular system, provesicular formulation (proliposomes and protransfersome), organogel, dual drug delivery system, colloidal semisolid formulations.

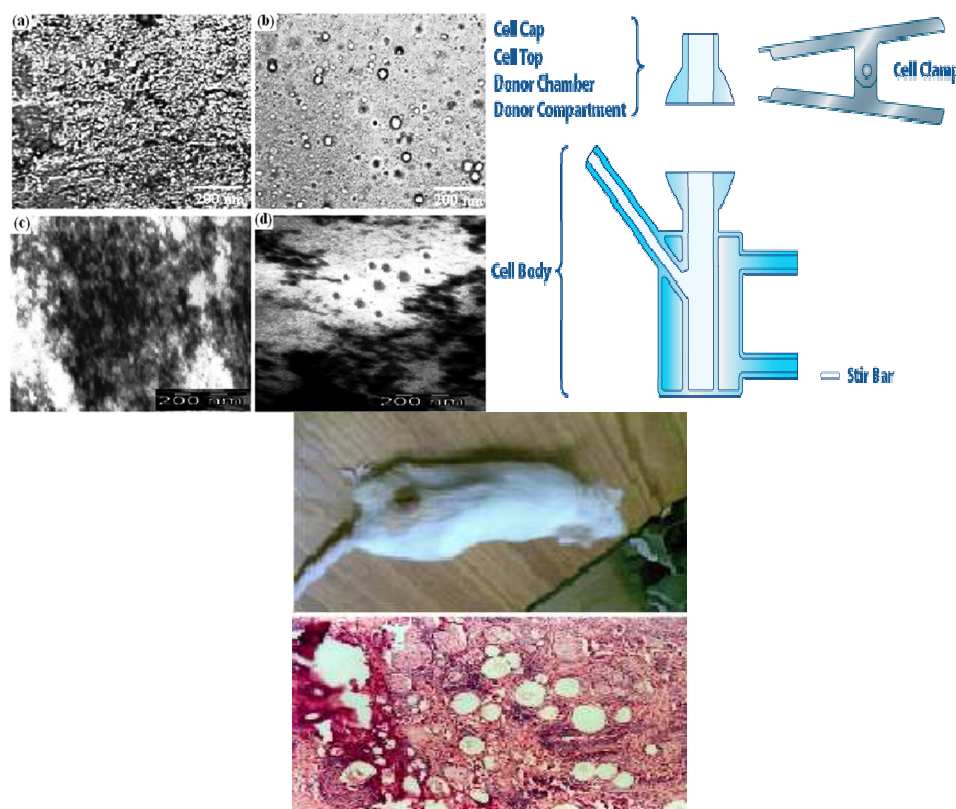
3. Topical drug delivery system

Topical vectorization of drug was made successful by using lipid-based colloidal systems, i.e., proliposomal formulations, microemulsions, elastic liposomes or transfersomes, Protransfersome, Modified protransfersome gel and organogel. Further, comparison for the percutaneous penetration and localization of drug using pig-ear, goat-ear, and mice-skin models has been performed by using Franz diffusion cell for the flexible vesicular systems.

4. Skin cancer management

A common skin disease characterized by abnormal proliferation of keratinocyte, which can progressively transform them into Squamous Cell Carcinoma. Topical therapy is a preferable route for direct, sitespecific, local treatment of skin-related malignancies, and it is a noninvasive method of treatment as compared to parenteral route. Further, it can

eliminate the systemic toxicities associated with the antineoplastic agents. Further, Strategy of dual therapy has been proposed to minimize the amount of each drug and to achieve the synergistic effect for skin cancer therapies.



School of Pharmaceutical Sciences has formulated Corn Zein biodegradable medicated chewing gum delivery of Diphenhydramine Hydrochloride for motion sickness. A big problem in use of synthetic gum base chewing gum is the fact that after use, the chewing gum is often not disposed of in an environmentally compatible manner in waste bins or waste paper baskets, but is carelessly disposed of in the manner and binds to dust on account of its stickiness, become stained black and forms black spots. The synthetic polymer based chewing gum does not decompose significantly under normal climatic condition and cannot be removed using street clearing methods. A long felt need has existed, therefore either to modify chewing gum base, in such a manner that they become more easily removed or to modify chewing gum base in such a manner that they are chemically degradable. Corn zein as a gum base offers nonadhesive and biodegradable property.

For characterization of medicated chewing gum, we have indigenously design and developed *In Vitro* chewing machine, which mimics chewing action of mouth and is used for *In Vitro* characterization of Medicated Chewing Gum. This *In Vitro* chewing machine design is registered (Design number 220364) at office of Controller General of Patent and Design, Kolkata, under Department of Industrial policy and promotions, Ministry of commerce and industry, Government of India. Commercially available *In Vitro* chewing machine from AB FIA Eweraka Sweden cost approx Rs40 lakh (40,000/- Euros). Indigenously design and developed single cell *In Vitro* chewing machine at SOPS, RGPV was fabricated at cost of about Rs25,000/-. We are in talks with ITC limited Bangalore as

they have shown interest in commercialization of corn zein MCG formulation for human well being.



Fig: Medicated Chewing Gum.

- 17. Name of faculty with ongoing projects from a) National b) International funding agencies and c) Total grants received. Give the names of the funding agencies and grants received project-wise. -**

S. No.	Title of the Project	Name of Principal Investigator	Name of the funding agency and year	Grant received (Rs. in Lakhs)
1	R & D project (Bioscience) : Structure Based Design of Novel Non- Carboxylic inhibitors of PTB 1 B enzyme as anti diabetic agents	Prof. Piyush Trivedi, School of Pharmaceutical Sciences	MPCST	9.22 lacs
2	Quantitative Determination of Active Pharmaceutical Ingredients in Pharmaceutical Formulations by FTIR/Near IR Spectroscopy	Dr. Deepti Jain. School of Pharmaceutical Sciences	AICTE	17.55 lacs
3	Research Promotion Scheme : Development and Pharmacokinetic evaluation of multidrug gastroretentive system for the treatment of H. Pylori	Dr. Suman Ramteke. School of Pharmaceutical Sciences	AICTE	14.6 lacs
4	Major Research Project: Targetted Nano carriers for the treatment of Cerebral Malaria.	Dr. Suman Ramteke. School of Pharmaceutical Sciences	UGC	12.20 lacs

- 18. Inter-institutional collaborative projects and grants received**
a. All India collaboration b) International

Sl. No.	Title of the Inter-institutional collaborative project	Name of the Institution & Year	National / International	Amount (Rs. in Lakhs)
	-	-	-	-

19. Departmental projects funded by DST-FIST; UGC-SAP/CAS, DPE; DBT, ICSSR, etc.; total grants received.

Sl. No.	Title of Department project	Name of the funding agency and amount
1	R & D project (Bioscience) : Structure Based Design of Novel Non- Carboxylic inhibitors of PTB 1 B enzyme as anti diabetic agents	MPCST – Rs.9.22 lacs
2	Formulation and characterization of biodegradable medicated chewing gum delivery.	MPCST -
3	Quantitative Determination of Active Pharmaceutical Ingredients in Pharmaceutical Formulations by FTIR/Near IR Spectroscopy	AICTE – Rs.17.55 lacs
4	Research Promotion Scheme : Development and Pharmacokinetic evaluation of multidrug gastroretentive system for the treatment of H.	AICTE - Rs.14.6 lacs
5	Major Research Project : Targetted Nano carriers for the treatment of Cerebral Malaria.	UGC – Rs.12.20 lacs

20. Research facility / centre

- with State recognition
- National
- recognition
- International recognition

Sl. No.	Name of the research facility / Centre	Type of Recognition (State National /
1	Sophisticated Analytical Instrumentation Laboratory.	State Govt. approved.

21. Special research laboratories sponsored by / created by industry or corporate bodies:

S. No.	Name of the special laboratories sponsored	Sponsoring agency (Industry / Corporate Body)
	-	-

22. PUBLICATIONS:

a. Number of papers published in peer reviewed journals (National/ International)

Year	No. of Publication
2011-12	25
2012-13	31
2013-14	41
2014-15	50
Total	157

b. Monographs, Chapters in Books, Edited Books, Books with ISBN with details of publishers (include Hindi Medium Books)-

Sl. No.	Name of the faculty member	Monographs authored	Books	Books edited	Books authored with ISBN
1.	Prof. N.K.Jain		Current Dosage Form Design, Vallabh Prakashan , Delhi		ISBN : 978-81-85731-97-1
2.	Prof. N.K.Jain		Pharmaceutical Jurisprudence , Vallabh Prakashan , Delhi Del110034		ISBN : 978-81-85731-92-6
3.	Prof. N.K.Jain		A Textbook of Forensic Pharmacy , Vallabh Prakashan , Delhi		ISBN 978-81-85731-87-2 VPBN 19
4.	Prof. N.K.Jain		Health Education and Community Pharmacy, Vallabh Prakashan , Delhi		81-239-2319-2
5.	Prof. N.K.Jain		Introduction to Novel Drug Delivery System, Vallabh Prakashan , Delhi		81-85731-53-7
6.	Prof. N.K.Jain		A Textbook of Professional Pharmacy, Vallabh Prakashan , Delhi		85731-10-1
7.	Prof. N.K.Jain		Pharmaceutical Microbiology, Vallabh Prakashan , Delhi		85731-25-X
8.	Prof. N.K.Jain		Pharmaceutical Product Development, CBS Publishers & Distributors		ISBN 978-81-239-1963-8
9.	Prof. N.K.Jain		Pharmaceutical Arithmetic , CBS Publishers		ISBN 81-239-0275-1
10.	Prof. N.K.Jain		Controlled & Novel Drug Delivery, CBS Publishers		81-239-0517-3

- c. Number listed in International Database (For e.g. Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.) Citation Index – range / average, SNIP, SJR, Impact Factor – range/ average, h-index -

S. No.	Name of the faculty member	Number listed in Intl. database (Web of science, scopes science directory etc.	Citation index	h-index
1.	Prof . Piyush Trivedi (2011-15)	46	868	13
2	Dr .Deepti Jain	30	375	11
3	Dr. Suman Ramteke	9	210	8
4.	Dr. Anita Dutt Konar	7	49	4
5.	Dr. C. Karthikeyan	46	357	11
6	Mrs Vandana Gupta	4	77	4
7	Mr. Farhad F. Mehta	9	32	4
8	Mr. R. Rajagopalan	6	20	2
9	Mr. Digamber Kumar Waiker	2	12	2

23. Details of patents / Design and income generated:

Sl. No.	Name of the faculty member	Patent received	Income generated in Rs.
1.	S.O. P.S; Prof. Piyush Trivedi and Farhad Mehta.	For Design of In vitro Chewing machine, Certificate No:39646 Design no: 260364	In talks with ITC, Bangalore.

24. Areas of consultancy and income generated:

Sl. No.	Name of the faculty member	Areas of consultancy carried out	Income generated (Rs. in Lakhs)
1	Prof. Piyush Trivedi	SAIL (Analytical Work)	6.00 lacs approx

25. Faculty selected nationally/internationally to visit other laboratories in India and abroad

Sl. No.	Name of the Faculty member	Name of the Lab visited in India	Name of the Lab visited abroad
1.	Prof. Piyush Trivedi	--	

26. Faculty serving in various Committees:

S. No.	Name of the Faculty member	Details of National / International committee served	Details of Editorial Board served	Any other committee
1.	Prof Piyush Trivedi	<ol style="list-style-type: none"> 1. Member, Executive Council, M. P. Council of Science & Technology, Bhopal. 2. Chairman, Graduate Pharmacy Aptitude Test (GPAT)-National Monitoring Committee (NMC), All India Council of Technical Education, New Delhi. 3. Member, Steering Committee, Intellectual Property facilitation Centre, M. P. Council of Science & Technology, Bhopal. 4. Member, Executive Committee & Regional Committee, All India Council of Technical Education, New Delhi 5. Member, Executive Council, Swami Vivekananda Technical University, Chhatisgarh. 6. Member, Various committees (RDC, Academic council, Admission, Examination and Standing) Rajiv Gandhi Proudyogiki Vishwavidyalaya, Bhopal. 7. Member, Board of Studies in Pharmacy, Shri G. S. Institute of Technology & Sciences, Indore. 8. Member, Selection Committee for various Universities. 		1.

27. Faculty recharging strategies:

The following recharging strategies are adapted by the University to refresh the knowledge and provide exposure to latest developments in the areas of interest of the Faculty members:

- Opportunities for attending summer and winter schools organized by leading institutions and research institutes.
- Nominating the faculty for special training programmes organized by CSIR laboratories and other R&D institutes.
- Sponsing the faculties to attend National and International Conferences as

well as to visit research laboratories within India and abroad.

28. Student projects (last five years)

- Percentage of students who have done in-house projects including inter-departmental projects
- Percentage of students doing projects in collaboration with other universities / industry/ institute

S. No.	Name of the Programme offered	Percentage of students who have done in-house projects including inter-departmental projects	Percentage of students who have done in-house projects in collaboration with other universities for industry / institute
1	M. Pharm. Dissertation – Part- I & Dissertation Part - II	80	20

29. (a) Awards / recognitions received at the National and International level by Faculty:

Sl. No.	Name of the Faculty Member	Awards /recognition received	
		National	International
1	Prof Piyush Trivedi.	05	02

List of awards of Prof. Piyush Trivedi:

1. Excellence in Education Award in 7th CMAI CCI Technology Education Excellence Awards 2015 by Communication Multimedia Applications Infrastructure (CMAI) Association of India, New Delhi.
2. EMC Distinguished leadership award 2015 by EMC Corporation, USA.
3. Gour Gaurav Award - 2014, Dr. Harisingh Gour Dr. Harisingh Gour University, Sagar University (Central University), Sagar, Madhya Pradesh.
4. Visionary in ICT Education in 7th NTA ICT World Communication Awards 2013 by Communication Multimedia Applications Infrastructure CMAI Association of India New Delhi.
5. EMC Individual Excellence Award 2012 by EMC Corporation, USA.
6. Excellence Achievement Award 2012 by Intellectual Press Council, Bhopal.
7. CIDC Vishwakarma Award 2011 for Outstanding Academician/ Technologist/Scientist/Innovator by Construction Industries Development Council (CIDC), New Delhi.

29 (b) Awards / recognitions received at the National and International level by Doctoral / post doctoral fellows:

Sl. No.	Name of the Doctoral / Post doctoral Fellow	Awards /recognition received	
		National	International
-	-	-	-

29 (c) Awards / recognitions received at the national and international level by Students:

Sl. No.	Name of the Student	Programme	Awards/Recognition received	
			National	International
-	-	-	-	-

30. Seminars/ Conferences/Workshops organized and the source of funding (national / international) with details of participants.-

S. No.	Name of the seminar / conference / workshop organized		Source of funding	Details of participants
	National	International		
1	DST sponsored National seminar on “Current trends in drug regulatory Affairs”		DST	Post Graduate students, Research Scholars and Faculty members
2		International seminar on Computational Drug Discovery in Pharma Research and Development	RGPV	Post Graduate students, Research Scholars and Practicing Pharmacy.

31. Code of ethics for research followed by the departments:

The following codes of ethics are followed:

- Thesis is accepted only if it is certified by the research supervisor that the research work reported does not form part of any other thesis or dissertation on the basis of which a degree or award was conferred on an earlier occasion of this or any other scholar.
- It is also certified by the research supervisor that the corrections and suggestions pointed by the Indian and Foreign examiners are incorporated in the thesis submitted. This certification is required when thesis is to be corrected/ modified after evaluation.
- Plagiarism is strictly viewed and any scholar found indulged in such activities, his/her registration will be cancelled and debarred to register for any other programme in the University. Also the supervisor recognition of the concerned faculty will be withdrawn for a period of 5 years and debarred from guiding

the scholar in the University for the debarred period.

- The System is very transparent and information pertaining to date of dispatch of thesis to the examiners, status of evaluation, receipt of report etc. will be posted in the web site.
- Strict confidentiality will be maintained regarding panel of examiners. The Vice- Chancellor nominate one Indian and one Foreign among the two independent panel of examiners (Indian and Foreigner) recommended by the Doctoral Committee, which is the body monitoring the progress of the candidate.

32. Student profile course-wise:

Name of the Course (refer to question no. 4)	Applications received	Year	Selected		Pass percentage	
			Male	Female	Male	Female
M. Pharm (Master of pharmacy in Pharmaceutical chemistry, Pharmaceutics and Quality assurance)	400	2011-12	11	19	100	95
	190	2012-13	15	12	100	100
	92	2013-14	11	17	95	100
	118	2014-15	8	13	--	--

33. Diversity of students

Name of the Course (refer to question no. 4)	Year 2011-15	% of students from the same university	% of students from other universities within the State	% of students from universities outside the State	% of students from other countries
M. Pharm (Master of pharmacy in Pharmaceutical chemistry,		85%	5%	10%	0
Ph.D Pharmacy	2011-15	90%	5%	5%	00%

** Majority of students are from State of MP

34. How many students have cleared Civil Services and Defence Services examinations, NET, SET, GATE and other competitive examinations? Give details category-wise. Provide details with proof like name of the student, email, appointment/selection letter etc.

Sl. No.	Name of the competitive Examination	Number of students cleared
1.	Civil services	00
2.	Defense services	01
3.	NET	00
4.	SET	00
5.	GATE / GPAT	58
6.	Any other competitive examination / UPSC.	01

35. Student progression:

Student progression	Percentage			
	2011-12	2012-13	2013-14	2014-15
UG to PG	--	--	--	--
PG to M. Phil.	--	--	--	--
PG to Ph.D.	--	--	--	--
Ph.D. to Post-Doctoral	--	--	--	--
Employed				
Campus selection UG	--	--	--	--
PG	--	--	65	60
Other than campus recruitment				
UG	--	--	--	--
PG	100	100	35	40
Entrepreneurs	0	0	0	0

36. Diversity of staff:

Percentage of faculty who are graduates	PG	Ph.D.
of the same university	50%	00%
from other universities within the State	50%	100%
from universities from other States	0%	0%
from universities outside the country	0%	0%

37. Number of faculty who were awarded Ph.D., D.Sc. and D.Litt. during the assessment period:

Year	Number of Faculty awarded Ph.D / D.Sc., D.Litt
2011-12	-
2012-13	-
2013-14	-
2014-15	1 (Ph.D.)

38. Present details of infrastructural facilities with regard to Library, Internet facilities for staff and students, Total number of class rooms, Class rooms with ICT facility, Students' laboratories, Research laboratories

Sl. No.	Name of the Infrastructural Facility	Quantity / Details	
1.	Library	02	01 institutional, 01 Central lib.
2.	Internet for staff	80 to 100 Mbps	BSNL
3.	Internet for students	80 to 100 Mbps	BSNL
4.	Number of class rooms	06	266 Sqm.
5.	Classrooms with ICT facility	02	ICT Board
6.	Research Labs	06	590 Sqm.

INFRASTRUCTUREAL FACILITY:

Facility for M. Pharm	No. Available	Available (Sq.m.)
Machine Room	1	106.28
Central Instrumentation Room	2	163.50 81.75
Store Room-I	1	81.75
Store Room-II	1	24.52
Animal House	1	-
Library	1	190.63
Museum	1	-
Auditorium / Multi Purpose Hall (Desirable) 250-300 seating capacity	4	500 seating capacity (3000 sq m) Common in university campus
Seminar Hall	1	Available
Herbal Garden (Desirable)	1	Adequate
Computer (Latest Configuration) With Internet Browsing Facility	50	50
Printers	06	06
Multi Media Projector	03	03
Generator (5KVA)	01	Available
Girl's Common Room	01	53.14
Boy's CommonRoom	01	24.52
Toilet Blocks for boys	02	20 20
Toilet Blocks for Girls	02	20 20

Drinking Water facility Water Cooler	01	20
Boy's Hostel (Desirable)	01	Available*
Girl's Hostel (Desirable)	01	Available*
Power Backup Provision	01	Available*

39. List of Doctoral, Post-Doctoral students and Research Associates from the Host University, from other Universities

Sl. No.	Name of the Student	Category Post-doctoral / Doctoral / Research associate	Name of the University (Host / other University)
-	-	-	-

40. Number of post graduate students getting financial assistance from the university. GATE, Scholarship, Rajiv Gandhi Scholarship etc. received through University

Programme	Number			
	2011-12	2012-13	2013- 14	2014-15
<i>GATE / GPAT stipend</i>	15	10	15	8

41. Was any need assessment exercise undertaken before the development of new Programme(s)? If so, highlight the methodology.

Yes, before development of new program (s), Need of the programme and target recruitment possibility are explored. Discussion with CEO of various pharmaceutical industries are under taken to understand the skill set required from the students. The scheme and syllabus is approved by board of studies.

42. Does the department obtain feedback from -

(a) Faculty on curriculum as well as teaching-learning-evaluation? If yes, how does the department utilize the feedback?

No

(b) Students on staff, curriculum and teaching-learning-evaluation and how does the department utilize the feedback?

NO

(c) Alumni and employers on the programmes offered and how does the department utilize the feedback? NO

43. List the distinguished alumni of the department (maximum 10):

S.No.	Batch	Name	Designation	Organization
1.	2005	Dr. Omprakash Tanwar	Research Scientist	Piramal Healthcare Ahmedabad
2.	2005	Kiran Kumar Magre	Drugs Inspector	Food And Drugs Administration Madhya Pradesh
3.	2005	Anil Sharma	Asst. Professor	Dipsar New Delhi
4.	2005	Sanjay Netam	Drugs Inspector	Food And Drugs Administration Madhya Pradesh
5.	2005	Dr. Yogesh Agrawal	Asst. Professor	Govt. College Of Pharmacy Ratnagiri Maharashtra
6.	2006	Fahim Khan	Drugs Inspector	Cdsco New Delhi
7.	2007	Radheshyam Sahu	Sr. Research Scientist	Fresenius Kabi Oncology Division Gurgaon Haryana
8.	2008	Sourabh Sharma	Research Scientist	R&D Sun Pharmaceuticals Gurgaon
9.	2008	Sunil Sahu	Research Scientist	Zydus Research Centre Ahmedabad
10.	2009	Lokesh Choure	Research Scientist	Dr. Reddys Lab Hyderabad
11.	2009	Pankaj Goyal	Qa Officer	Lupin Laboratories Pithampur Indore
12.	2009	Sourabh Jain	Qa Officer	R&D Sun Pharmaceuticals Gurgaon
13.	2009	Chhaya Dhote	Qa Officer	Wochart Laboratories Aurangabad
14.	2010	Ashish Bhawsar	Assistant Drugs Inspector	Cdsco New Delhi
15.	2010	Rajendra Badodiya	Asst.Sub Inspector	Border Security Forces Rajasthan
16.	2010	Sunil Panda	Drugs Inspector	Food And Drugs Administration Chhattisgarh
17.	2010	Kalicharan Sharma	Research Associate	Piramal Healthcare Ahmedabad
18.	2010	Nitin Sonwane	Senior Process Associate	Tata Consultancy Services Mumbai
19.	2010	Prakash Gupta	Chemist	Mylan Laboratories Nashik Maharashtra

20.	2011	Bhawti Pandya	Self Employed Owner	Startup It Sector
21.	2012	Nihali Jain	Chemist	Mecleods Pharmaceuticals Saregam Gujrat
22.	2012	Nusrat Jahan	Chemist	Mecleods Pharmaceuticals Saregam Gujrat
23.	2012	Sashikant Dohare	Asst. Res.Sci.	R&D Mecleods Pharmaceuticals Mumbai
24.	2012	Kruttika Barethiya	Qa Assistant	Syngyn Laboratories Baddi Himachal Pradesh

44. Give details of student enrichment programmes (Special Lectures / Workshops / Seminar) involving external experts:

Sl. No.	Title of the Special Lecture / Workshop / Seminar organized	Details of the External Expert
1.	System Formwork Technology with special focus on High Rise Constructions	
2.	Management of Construction	

45. List the teaching methods adopted by the faculty for different programmes.

- a. Lecture by Teacher
- b. Lecture-demonstration by special speaker
- c. Presentation by students (individual/group) by invitation
- d. Discussion groups conducted by class teacher
- e. Assignments (Test books, supplementary books, Journals and supplementary reading)
- f. Case study presentation
- g. Teaching supported by LCD projector, D Interactive Board, PowerPoint, Video.
- h. Demonstration in the Laboratory
- i. Implant training
- j. Design projects
- k. Thesis/Dessertation work 3rd and 4th semester in the case of M. Ph Courses.
- l. Exclusive laboratory training for certain theory course
- m. Industrial visits are arranged by course coordinator so that the students are exposed to actual field environment and opportunities are made to learn from theory to practice. To make the teaching very effective and lively, required modern teaching tools (Computer, LCD, OHP etc.,) are provided in each class room. Apart from this each division/centre has seminar room with all projection facilities that of a smart room.

46. How does the department ensure that programme objectives are constantly met and learning outcomes are monitored?

Teaching Methods adopted are:

The system adopted by the department to meet the objectives of programme and monitoring learning is as follows:

- The Course Coordinator prepares Schedule of teaching, sessional schedule and Date for End Semester examination for M. Pharm programme and communicates to the students and faculties through Head of Department.
- The course coordinator maintain a record of class work and it will be reviewed by the HOD at the end of each assessment period. Any laps in the class work (teaching) will be brought to the attention of course instructor and advised suitably to rectify or improve his/her performance.
- The learning outcome of students is assessed continuously by conducting two sessionals and one end semester examination. The internal assessment and end semester carry equal weightage (50:50). The performance of students in each assessment is displayed. The students are awarded grades based on their performance and they must earn minimum 10 marks for sessional and 35 marks for end semester examination) out of 100 marks to obtain pass grade.
- Performance of course teacher is evaluated by the students at the end of each semester. Any teacher gets less than 3 points in the 5 point scale is advised and motivated by the university authorities improve his/her performance.

47. Highlight the participation of students and faculty in extension activities-

Apart from class room teaching and learning, and students participate themselves in the following extension activities.

- Students are encouraged to participate in state and national level seminars and conferences.
- Students and faculty are encouraged and funded to present their contributions in international forum.
- Students are provided financial support for innovative projects.
- Faculty members are encouraged to do funded research projects and consultancy services.
- Young faculties are supported financially for carrying out innovative projects.

Faculties are encouraged to publish their research works and contributions in international forums by providing financial support. Faculties are involved in running and monitoring student hostels of the campus. In monitoring hostels, student representatives (mess

representative, wing representative, Environment representative etc.,) play major role.

48. Give details of “beyond syllabus scholarly activities” of the department.

- Conference papers by students and Ph.D scholars.
- Students organize seminars, training programmes,
- Participate National level/state level competitions to show case their talents.
- Students publish their contributions in International and National journals and conferences.
- Students obtained national and international awards for their scholarly research work

(a) List of Awards

S.No	Name of the Student	Programme	Award Name
-	-	-	-

(ii). List of conference papers by students

Programme	No. of conference papers by students				
	2007-08	2008-09	2009-10	2010-11	2011-12
-	-	-	-	-	-

49. The programme/ department is accredited/ graded by other agencies? If yes, give details.

Accreditation Status of UG & PG Programme:

NIL

50. Briefly highlight the contributions of the department in generating new Knowledge, Basic or Applied.

Department has filled 02 US patents and got industrial design registered For indigenously design and developed, In vitro Chewing machine, Certificate No:39646 ,Design no: 260364 at Indian Patent office Kolkata, under able guidance/ supervision of Prof. Piyush Trivedi. About 130 research papers have been published in number of national and international journals.

Institute has excellent research facilities in form of SAIL, Sophisticated analytical instrumentation lab, providing opportunities to work on the above themes for research in addition to work on associated pharmaceutical problems.

51. Future plans of the department.

The department has expertise in Pharmaceutical Science. There is a lot of expectations and need for Pharmaceutical development in the country and state of MP in particular. The experience of department, in cancer research and well equipped laboratories could be utilized for development of cancer, diabetes, neurodegenerative diseases in state.

School of Pharmaceutical Sciences has already established research partnerships with Scientist from prestigious international institutions like Advanced Medical Research Institute of Canada (AMRIC), Ontario, Canada, Centre National de la Recherche Scientifique (National Center for Scientific Research), France, University of Toledo, Toledo, USA, University of Malaya, Kuala Lumpur, Malaysia, International Center for Genetic Engineering and Biotechnology (ICGEB), New Delhi, and Indian research organizations like Central Drug Research Institute (CDRI), Lucknow, Institute of Nuclear Medicine & Allied Sciences (INMAS), New Delhi, Centre for Excellence in Genomic Sciences, Madurai Kamaraj University (MKU), Madurai, India, Department of Biotechnology, Indian Institute of Technology (IIT), Chennai, University of Lucknow, Lucknow for collaborative research in the area of new drug discovery for life threatening diseases like Cancer, Alzheimer's disease and Diabetes. These research linkages with eminent Scientist from national and international research organizations and universities has given an impetus to our research efforts expended on discovery of novel and cheaper drugs for treatment of Cancer, Alzheimer's disease and Diabetes.

52. Detail any five Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department.

Strength:

- The department has three PG programmes. This is the department, which has expertise in almost all the disciplines of Pharmacy and it is very rare to see a department like this among the institutions of higher learning in India.
- Excellent environment and facility available for carrying out research in interdisciplinary areas.
- Well equipped laboratories with latest equipments and computing facilities in form of SAIL.
- Well qualified (50% of faculties are Ph.D degree holders) and well experienced faculties.
- Attracts the best students of the country.
- Excellent infrastructure.
- Experienced and motivated faculty members.
- Learning Management System.
- Research oriented learning
- Mentoring System.
- Regularly organized expert talks / workshops / debates/ conferences and seminars.

Weakness:

- Limited funding for research and little scope for participation in international level research and consultancy.
- Administrative responsibilities are more for faculty members.
Involved administrative procedure causing delay in implementation of research and consultancy projects.

Opportunities

- University provides financial support to present contributions of faculty in international forum, which motivates the faculty to involve in research. Students are also encouraged to present their contributions.
- Encourages to take of consultancy projects independently even by young faculty members.
- Good environment to pursue research in inter/multi disciplinary areas.
- Any Autonomy in curriculum development.
- Organizing National-level technical fest.
- International exposure in teaching and research.
- Comfortable and adaptive work/ Learning environment.
- State of art technologies at disposal.

Challenges

- Though our department is the best Pharmacy department in the state, it has to compete with the departments of national level institutions like NIPER, DIPSER, MANIPAL, JSS OOTY, BHU etc. to attract students for Post Graduate studies and research.
- Day by day level of funding for higher education particularly state level institutions is limited; hence it is necessary to plan for generating resources required for research.
- In the present scenario of globalization of education, internationally well known Universities are taking steps to establish their institutions in India, since there is a very big task before the department to develop and maintain the standards of teaching and learning on par with those institutions.
- Training the students to meet the global challenges of 21st century and International standards so that they are employable globally.
- The institute is initiated the process to collaborate with National and international agencies / Corporate houses for inter-institutional projects.

2. SCHOOL OF ENERGY & ENVIRONMENT MANAGEMENT

1. Name of the Department : **School of Energy & Environment Management**

2. Year of establishment : 2002

3. Is the Department part of a School/Faculty of the University?:

Yes, School of Energy & Environment Management is part of RGPV Bhopal

4. Names of Programmes / Courses offered
(UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.) :

Sl. No.	Name of the Programme offered	Remarks (UG/PG/M.Phil/Ph.D.)
1	M. Tech (Energy Technology)	PG
2	Ph.D in Energy Technology	Ph.D.

5. Interdisciplinary courses and departments involved:

Sl. No.	Interdisciplinary courses offered	Names of the Departments involved
1.	Applied Mathematics	Department of Mathematics
2.	Power Generation Transmission & Distribution	Department of Electrical & Electronics Engineering
3.	Energy Efficiency in Electrical Utilities.	Department of Electrical & Electronics Engineering

6. Courses in collaboration with other universities, industries, foreign institutions etc. : No

Sl. No.	Collaborative courses offered .	Remarks (with other Universities / Industries / Foreign Institutions)

7. Details of programmes / courses discontinued, if any, with reasons:

Sl. No.	Name of the Programme discontinued	Reason
	- NIL -	

8. Annual/ Semester/Choice Based Credit System:

Semester and Choice Based Credit System for PG Programme.

9. Participation of the department in the courses offered by other departments:

Sl. No.	Name of the courses engaged for other departments	Name of the other department
1	Environmental Lab Facility	Department of Civil & Petrochemical Engineering
2	Energy Park Facility	Department of Mechanical, Electrical & Petrochemical Engineering

10. Number of Teaching posts sanctioned and filled. (Professors/Associate Professors/ Assistant Professors):

Sl. No.	Name of the teaching post	Sanctioned	Filled
1	Professor	01	01
2	Associate Professor	02	00
3	Assistant Professor	03	02+1(Contractual)
Total		6	4

11. Faculty profile with name, qualification, designation and Specialization (D.Sc./D.Litt./ Ph.D./M.Phil.,etc.)

Name	Qualification	Designation	Specialization D.Sc., D.Litt., Ph.D., M.Phil, M.E.	No. of Year of Experience	No. of Ph.D. students guided.
Dr. Mukesh Pandey	Ph.D (Mechanical Engineering.), M.Tech.- Mechanical , BE (Mechanical)	Professor & Dean	Energy Technology	23 Years	Ph.D.- 10: Awarded 1: Submitted 8: Registered

Ms. Savita Vyas	Ph.D Pursuing, M.E. (Environment Engg.), BE, Civil, Environment Engineering	Assistant Professor	Civil & Environment Engineering	17 Years	Nil
Dr. Pankaj Jain	Ph.D In Energy Tech., M.Tech. Energy & Environment Management, B. Tech (Mechanical)	Asst. Professor	Mechanical & Energy Technology	12 Years	Nil
Er. Anurag Gour (Contractual)	Ph.D Pursuing In Energy Tech., PG Course In M.Tech. (Energy & Environment Management),	Asst. Professor	Electrical & Energy Technology	10 Years	Nil

12. List of senior Visiting Fellows, faculty, adjunct faculty, emeritus professors

Sl. No.	Name of the Faculty Member	Designation (Visiting fellow, visiting Faculty, adjunct faculty, Emeritus Professors)
1.	Prof. Y Tamura	Visiting Faculty
2.	Mr. Y. Kato	Invited Expert from Industry
3.	Mr. K. Satake	Invited Expert from Industry
4.	Mr. R. Kaura	Invited Expert from Industry

**13. Percentage of classes taken by temporary faculty (Guest faculty) –
Programme- wise Information.**

Sl. No.	Name of the Programme	% of classes taken by temporary Faculty members
	PG programmes	
1.	M.Tech. Energy Technology	20%

14. Programme-wise Student Teacher Ratio

Sl. No.	Name of the Programme	Student-Teacher ratio
	PG programmes	
1.	M.Tech. Energy Technology	9:1

15. Number of academic support staff (technical) and administrative staff: Sanctioned and Filled:

Provided from common pool of the University

16. Research thrust areas recognized by funding agencies.

Discipline	Funding Agency	Research thrust areas
Energy	MNRE and MPUVNVL	<ul style="list-style-type: none"> Affordable Renewable Energy Technologies Wind and solar energy
Energy & Environment	DST	<ul style="list-style-type: none"> Green House Gas emission reduction and CO₂ Capture Technologies Zero Emission Technologies Carbon capture technologies specially for thermal power plants
Energy & Environment	AICTE	<ul style="list-style-type: none"> Wind, Solar & Biomass Energy
Energy & Environment	MPCoST, Govt. of MP	<ul style="list-style-type: none"> Wind & Solar Energy
Environment	EPCO, Govt. of MP	<ul style="list-style-type: none"> Climate Change & CDM opportunities

17. Name of faculty with ongoing projects from a) National b) International funding agencies and c) Total grants received. Give the names of the funding agencies and grants received project-wise..

S. No.	Title of the Project	Name of Principal Investigator	Name of the funding agency and year	Grant received (Rs. In Lakhs)
01	“30 kW Cross Linear -CSP System Test Unit at RGPV, Bhopal ”	PI- Dr. Mukesh Pandey and Co-PI Dr. V.K.Sethi	MNRE 2014	970.18 Lakhs

02	“Enhanced Power Performance of horizontal Axis Wind Turbine (HAWT) using optimal wind turbine design with dual rotor”	Dr. Mukesh Pandey and Co-PI Mr. Anurag Gour	AICTE, New Delhi, Funded Project under RPS” (Sanctioned on Feb.03,2012 to Aug,2015) (File No/Ref.No.- 8023/RID/RPS-13(Govt),II Policy/2011-12)	Rs. 18.00 Lakhs
03	“An Investigation of Operating Parameters of wind Power Generation for optimum performance of the Unit”	PI-Dr. Pankaj Jain and Co-PI Dr. Mukesh Pandey	M.P. council of Science & Technology (MPCOST) Bhopal 2013	Rs. 7.11 Lakhs

18. Inter-institutional collaborative projects and grants received .

Sl. No.	Title of the Inter-institutional collaborative project	Name of the Institution & Year	National / International	Amount (Rs. in Lakhs)
1	“30 kW Cross Linear -CSP System Test Unit at RGPV, Bhopal ”	Tokyo Institute of Technology, Tokyo, JAPAN (Feb.2014 to Feb .,2016)	International	970.18 Lakhs

19. Departmental projects funded by DST-FIST; UGC-SAP/CAS, DPE; DBT, ICSSR, etc.; total grants received.

Sl. No.	Title of Department project	Name of the funding agency and amount
1	Modeling and Simulation of Carbon Recycling Technology Through Conversion of CO ₂ in to useful multi- purpose fuel. Extension Project- Process Stabilization, Evaluation and Analysis of CO ₂ capture and its conversion into fuel molecules CO, H ₂ CH ₄ using pilot plant of CO ₂ capture and sequestration at RGPV.	DST, Delhi (2008-2013) Rs. 37 Lakhs

20. Research facility / centre with Staterecognition National recognition/International recognition

Sl. No.	Name of the research facility / Centre	Type of Recognition (State National / International)
1	Energy Park: A Renewable Energy Technology Park has been established with various Renewable Energy devices like: Biodiesel Reactor, Biomass Gasifier, Solar Pumps & Fountain, CO ₂ Sequestration Unit, Solar-Biodiesel Hybrid Vehicle, Solar Wind Hybrid Power Plants etc. which is being used by MPUVNL, EPCO and several state level bodies & Colleges and schools for training and awareness purposes.	State
2	At National Level, the efforts are under way through MNRE support for setting up Centre of Excellence in Green Energy Technology with following objectives: <ul style="list-style-type: none"> • State-of-the-Art Clean Coal Technologies • Affordable Renewable Energy Technologies • Research Initiatives in Zero Emission Technologies • Climate Change and CO₂ Capture Technologies • Bio Fuels & Bio Diesel • Bio Science in Waste Management • Green House Gas emission reduction and CO₂ Capture Technologies. • Clean Development Mechanism (CDM) and evolving Base Line Methodologies for emerging Technologies 	National
3.	RGPV has also tied-up with Tokyo Institute of Technology, Tokyo, Japan for research on futuristic solar thermal power generation technology - the Cross Linear Concentrated Solar Power (CL-CSP). The University will be pioneer in India to facilitate this low cost and most efficient Solar thermal initiative for Coal Substitution in Thermal Power Plants	International

21. Special research laboratories sponsored by / created by industry or corporate bodies .: Nil

Sl. No.	Name of the special laboratories sponsored	Sponsoring agency (Industry / Corporate Body)

22. Publications .:

a. Number of papers published in peer reviewed journals (National/International)

Year	No. of Publication
2011-12	22
2012-13	32
2013-14	34
2014-15	24
Total	132

b. Monographs, Chapters in Books, Edited Books, Books . with ISBN with detailsof publishers (include Hindi MediumBooks)-

S. No.	Name of the faculty member	Books/Monographs authored	Chapters authored in Books	Books edited	Books authored with ISBN
1	Dr. Mukesh Pandey	06 (List Attached below)	All		*“A Text Book Of Fundamentals Of Mechanical Engineering ”- 2012-13,ISBN:-978-81-7700-099-3 *“Design Data Book” ISBN:978-93-82332-18-3
2	Dr. V.K.Sethi	03-books & 08 monographs (List Attached below)	All	-	-

Dr. V.K.Sethi -03-Books & 08 Monographs Written:

- Green Power , IK Publishers , New Delhi 2014
- Power Generation Technology - Conventional thermal to Green Mega Power, Book Paradise Bhopal, 2013
- Thermal Power Technology – Conventional to Green Mega Power, Book Paradise Bhopal, 2012

- iv. A Monograph entitled “Rationale for Adoption of IGCC technology for Indian coals’ Published by Book links Corporation, Hyderabad, March 2001.
- v. A Monograph entitled “Adoption of Supercritical technology for Power generation in India” Published by CET, Osmania University Hyderabad, September 2001.
- vi. Monograph “Performance Monitoring & Testing of Thermal Part Plants” published by CET, Osmania University, Hyderabad, June 2003.
- vii. Monograph on ‘A Rationale on CDM’, under print; RGTU, Bhopal, Dec.2005.
- viii. Monograph on ‘Renewable Energy Technologies – Captive and Cogeneration Power generation.’
- ix. Monograph on ‘Methane based Power Generation’.
- x. Monograph on ‘Small Hydro Power Generation’.
- xi. Monograph on ‘Energy Management - Conservation’.

Dr. Mukesh Pandey: 06-Books Written:

- 01. Written the Book for Mechanical Engineering students of engineering Titled “A Text Book Of Fundamentals Of Mechanical Engineering ”, Printed and Published by Dhanpat Rai & Co. (P) Ltd, New Delhi(Educational and Technical Publishers) ,2012-13,ISBN -978-81-7700-099-3.[Mukesh Pandey ,K.K.Dwivedi,Bhupendra Gupta]
 - 02. Written the Book for Mechanical Engineering students of engineering Titled “Design Data Book”, Printed and Published by I K Publisher, ISBN -978-93-82332-18-3 .[Mukesh Pandey , P.K.Sharma,Prashant Sharma]
 - 03. Written the Book for Mechanical Engineering students of engineering Titled “Industrial Engineering and Operation Research”, Printed and Published by Khanna Publishers, New Delhi.
 - 04. Written the Book for Mechanical Engineering students of engineering Titled “Basic Mechanical Engineering”, Printed and Published by Dhanpat Rai & Co. (P) Ltd, New Delhi.
 - 05. Written the Book for Mechanical Engineering students of engineering Titled “Manufacturing Process”, Part –I Under Printing by Dhanpat Rai & Co. (P) Ltd, New Delhi.
 - 05. Written the Book for Mechanical Engineering students of engineering Titled “Engineering Mechanics”, Printed and Published by Dhanpat Rai & Co. (P) Ltd, New Delhi(Educational and Technical Publishers).
- c. Number listed in International Database (For e.g. Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.) Citation Index – range / average, SNIP,**

SJR, Impact Factor – range/ average, h-index- .

S. No.	Name of the faculty member	Number listed in Intl. database (Web of science, scopes science directory etc.	h-index (Since 2011)
1.	Dr. Mukesh Pandey	Web of science-03, scopes science-03,Google Scholar-39	05
2.	Dr. V.K.Sethi	Google Scholar-116	05
3.	Ms.Savita Vyas	Google Scholar-01	-
4.	Dr. Pankaj Jain	Google Scholar-05	02
5.	Mr. Anurag Gour	Google Scholar-04	01

d. Impact Factor and h-index year wise from 2011 to 2015

Sl. No.	Name of the faculty member	Citation index		Impact Factor (Range/ Avg.)*
1.	Dr. Mukesh Pandey	2011	10	-
		2012	15	1.40- 5.126 / 3.263
		2013	16	0.806 – 2.70 / 1.753
		2014	13	1.736 – 2.70 / 2.218
		2015	15	2.187 – 5.901 / 4.044
2.	Dr.V.K.Sethi	2011	06	1.18 – 5.126 / 3.153
		2012	09	0.0 – 2.12 / 2.12
		2013	24	2.324 – 3.785 / 3.054
		2014	25	-
		2015	34	-
3.	Ms. Savita Vyas	2011	-	-
		2012	-	-
		2013	-	2.324 – 2.70 / 2.512
		2014	-	1.252 -2.70 /1.97
		2015	-	1.823 – 3.559 / 2.691
4.	Dr.Pankaj Jain	2011	-	-
		2012	-	-
		2013	-	1.00 – 1.932 / 1.466
		2014	2	2.70 – 3.38 / 3.04

		2015	3	0.0 – 3.127 / 3.127
5.	Anurag Gour	2011	-	0.0 – 0.078 / 0.078
		2012	-	3.8 – 6.94 / 5.37
		2013	-	1.76 – 3.785 / 2.77
		2014	2	1.962 - 2.70 / 2.33
		2015	2	2.187 – 3.559 / 2.873

23. Details of patents and income generated .:

Sl. No.	Name of the faculty member	Patent received	Income generated in Rs.
1.	Dr. Mukesh Pandey	01 for “Dual Rotor Horizontal Axis Wind Turbine” 16 April 2016	Applied
2.	Dr. V.K.Sethi	01 for “CO2 Capture and Sequestration” 27 June 2014	Applied

24. Areas of consultancy and income generated .:

Sl. No.	Name of the faculty member	Areas of consultancy carried out	Income generated (Rs. in Lakhs)
1	<ul style="list-style-type: none"> Dr. V.K. Sethi, Dr. Mukesh Pandey Mr.Anurag Gour 	<ul style="list-style-type: none"> Provided free consultancy to Rajbhawan for 30 kW Solar Plant and Energy Audit of various Government Buildings in Bhopal. 	No income generated (Consultancy was carried out for the Govt. of M.P.)
2.	<ul style="list-style-type: none"> Dr. V.K. Sethi, Mr.Anurag Gour 	<ul style="list-style-type: none"> Conducted “Carpet Coal Analysis of Satpura Thermal Power Station & Amarkantak Thermal Power Station and Chacai Thermal Power Station of M.P.Power Generation Company MP Govt. 	--

25. Faculty selected nationally/internationally to visit other laboratories in India and abroad .: Nil

Sl. No.	Name of the Faculty member	Name of the Lab visited in India	Name of the Lab visited abroad

26. Faculty serving in various Committees:

S. No	Name of the Faculty member	Details of National / International committee served	Details of Editorial Board served	Any other committee
1.	Dr. Mukesh Pandey	<u>National</u> *Member of World Bank Project constituted for 'Technical Education Quality Improvement Programme (TEQIP) * Members of Governing Body as an AICTE/University nominee for Engineering Institution of M.P.		<ul style="list-style-type: none"> • Actively involved in preparation of Ordinance and Scheme Syllabus for Graduate and under graduate incorporating Choice Based- Credit Based Grading System. • Actively involved in preparation of projects proposals of Graduate & Post Graduate Courses as per AICTE norms submitted to AICTE. • For the academic development of the college, involved extensively in various activities such as guiding research/project works at graduate level, developing learning material, delivering expert lectures, Setting –up of Thermal Lab, expansion of Workshop etc. • Visiting Faculty Member of PMRY Programme & Faculty Development Programme of EDC, Bhopal & Vidisha. • Co-ordinated the various Inspection committees/Visits constituted for inspection of the Post Graduate and Under Graduate course of Engineering /M.C.A./B. Pharmacy Institutions. • Co-ordinated the meeting constituted for examining the proposals of Starting New technical institutions /Variation of intake capacity/ starting the additional courses at the University. • Member of Engg./Arch. Admission counseling committee for Admissions in various courses in the engineering colleges of MP. • Member nominated by AICTE/RGPV in the Selection Committees constituted for interview of Lecturer, Reader in the Various Engineering Institutions at M.P.

				<ul style="list-style-type: none"> • Worked as co-coordinator Entrepreneurship Development Cell sponsored by Department of Science and Technology GoI New Delhi and taken over various projects of DST [Entrepreneurship, Skill Development Programme, and Faculty Development Programme] <p>Coordinator / Co-Coordinator/ Convener/ Member of Various/ International/ National Seminars / Conferences / Symposiums/ Workshops:</p> <ul style="list-style-type: none"> • Coordinator of faculty of energy technology in “National Workshop 2 days on Curriculum Innovation & choice based credit system (CBCS)”, organized by R.G.P.V. Bhopal ,June2-3, 2015. • Member of Advisory Committee of “Role of Mathematics in Science and Engineering” organized by R.G.P.V. Bhopal and Sponsored by MPCST, Bhopal, March 26, 2013. • Member of Jury Committee of “National MP Education Award 2013” organized by CMAI Association of India Communication Multimedia and Infrastructure and R.G.P.V. Bhopal , March 19, 2013. • Chaired the session on the topic “Tech education in India: Challenges, Opportunities & Insights” , State Education Summit 2012, Indore ,Dec.-19 ,2012.
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2	Ms. Savita Vyas			<ul style="list-style-type: none"> • Member, Board of Studies (Faculty of Energy & Environment), RGPV • Departmental Coordinator for TEQIP-II. • Coordinator of Academic Staff College(ASC), RGPV • Coordinator of Inter College Workshop on Innovative model Preparation on “Energy Technology” in Srijan in the year 2013, 2014, 2015. (State Level) organized by Sister Nivedita Takniki Shiksha Samiti. • Coordinated from RGPV the participation of students innovative models in Saviskar-2015 Organized by MPCost & ABVP during February 2015 at MANIT Campus, Bhopal. (National) • Coordinated student’s Interaction with Dr. R. K. Pachauri, Chairman IPCC on behalf of RGPV in coordination with EPCO, Bhopal &TERI , Delhi , 30 June 2011. • Coordinated the formation of “Climate Change Clubs “ in the 19 Engineering institutions of MP and further coordination of them with Climate Change Cell MP at EPCO, Bhopal.
3	Dr. Pankaj Jain	<u>National</u> *University Coordinator of UGC’s XI & XII plan. *Coordinator UGC XI plan proposal at University label. *Coordinator UGC XII plan proposal at university label. *Member of the core team for UGC visit for 12b & 12f recognition *Member of the core team for accreditation by		<ul style="list-style-type: none"> • Member, Board of Studies (Faculty of Energy & Environment), RGPV • Member of the core team for academic two month training programme under “mukhya mantri yuva engineer contractor yojna” 12 February to 12 April 2014 • Member of the core team for academic two month training programme under “mukhya mantri yuva engineer contractor yojna” 7th April to 6th June 2014. <p>Additional Responsibilities/ Actively Involvement:</p> <ul style="list-style-type: none"> • Coordinator Nodal Centre Bhopal Zone, Engineering Courses Counseling Authority for the state of MP. • Member of Central Team,

		<p>TCS</p> <p>* Nodal Officer of RGPV for the state :-</p> <p>AISHE survey for 2011-2 to 2015-16</p>		<p>Engineering Courses Counseling Authority for the state of MP.</p> <ul style="list-style-type: none"> • Member of the core team for Central placement. • Member of the core team for Establishment of UTD's of RGTU. • Member of the core team for Establishment of Center of Excellence at RGTU. • Member of the core team for Establishment of Different Laboratories. • Member of the core team for Establishment of Studio for ISRO Project. <p>Participation In Various Activities:</p> <ul style="list-style-type: none"> • Member of the core team for INSPIRATION-2010, an industry student interaction programme, 23-24 November 2010 • Member of the core team for RGPV-Codeforce1.0, state level university online Programming Contest, March-April 2011 • Member of the core team for MANTHAN-2012, redefining academia industry relationship, 10-11 April 2012 • Member of the core team for campus training programme for all final year students • Member of the core team for INQUIZITIVE, state level university general knowledge quiz • Organizing Secretary of two days National Workshop on "Curriculum Innovation and Choice Based Credit System (CBCS) on 2nd & 3rd June 2015 held at RGPV.. • Member of Core Team for Chancellors Scholarship since 2008-9 to 2015-16 • Member of Core Team for Convocation since 2003 to 2013 • Member of Expert Committee for Examination & Evaluation of proposal of Solar Training & Research Centre at RGPV.
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4	Anurag Gour			<p>Funded Research Project in Which Actively Involved:-</p> <ul style="list-style-type: none"> • Working as Co- Principal Investigator of Project entitled “Enhanced power performance of Horizontal Axis wind Turbine (HAWT) using optimal wind Turbine design with dual Rotor”, Principal Investigator- Dr. Mukesh Pandey under Research Promotion Schemes (RPS) and funded by All India Council For Technical Education, New Delhi, Total cost of Project Rs. 22 Lakhs • Working as Team member of Project entitled “An Investigation of Operating Parameters of Wind Power Generation for Optimum Performance of the Unit”, Principal Investigator- Dr. Pankaj Jain and funded by M.P. council of Science & Technology (MPCOST), Bhopal, Total cost of Project Rs. 7.42 Lakhs • Worked as Team member of Project entitled “Optimization and Sensitivity Analysis of Solar, Wind & Biomass Hybrid System”, Principal Investigator- Dr. Mukesh Pandey and funded by M.P. council of Science & Technology (MPCOST), Bhopal, Total cost of Project Rs. 4.52 Lakhs • Worked as Team member of Project entitled “CO₂ Capture and Sequestration & Conversion into Multipurpose Fuels”, Principal Investigator- Dr. V.K.Sethi and funded by Department of Science & Technology (DST), New Delhi, Total cost of Project Rs. 40 Lakhs • Working as Team member of Project entitled “30 kWth Solar Thermal CL-CSP System at RGPV”, Principal Investigator- Dr. Mukesh Pandey, a Collaborative Research Project and jointly funded by Ministry of New & Renewable Energy (MNRE), New Delhi, RGPV, M.P and Tokyo
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				<p>Institute of Technology, Japan, Total cost of Project Rs. 970.18 Lakhs</p> <ul style="list-style-type: none"> Books/Monographs/Manuals <p>Written:-</p> <p>Written the “Technical Manual of Renewable Energy” for Technical Training Programme” on “Energy Efficiency and Renewable Energy” of Renewable Energy Shops of MP Urja Vikas Nigam Ltd.</p> <ul style="list-style-type: none"> Extra Curricular Activities or Other Responsibilities Actively involved in preparation of projects reports of Graduate & Post Graduate Courses. Member of “Renewable Energy Club” at School of Energy & Environment Management , Rajiv Gandhi University Of Technology ,Bhopal (M.P.) Member of “Medal Distribute on Committee of 6th & 7th Convocation of RGPV”. Conducted “Energy Audit of Raj Bhajan” as team Member. Conducted “Carpet Coal Analysis of Satpura Thermal Power Station & Amarkantak Thermal Power Station and Chacai Thermal Power Station of M.P.Power Generation Company MP Govt.
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27. Faculty recharging strategies :

The following strategies are adapted:

- Faculty is being motivated to attend STTPs, FDP’s, Refresher courses, Orientation Program organized by reputed institutions for refreshing and updating the knowledge.
- Time to time faculty is being sponsored to attend National and International Conferences, workshops.
- Faculty is being inspired to organize invited expert lectures from institution & industry
- Latest Books, Research Journals, Magazines are made available for faculty and students.

28. Student projects (.)

S. No.	Name of the Programme offered	Percentage of students who have done in- house projects including inter- departmental projects	Percentage of students who have done in-house projects in collaboration with other universities for industry / institute
1	M.Tech (Energy Technology)	47%	53%

29. (a) Awards / recognitions received at the National and International level by Faculty :: NIL

Sl. No.	Name of the Faculty Member	Awards /recognition received	
		National	International

29 (b) Awards / recognitions received at the National and International level by Doctoral / post doctoral fellows: Nil

Sl. No.	Name of the Doctoral / Post doctoral Fellow	Awards /recognition received	
		National	International

29 (c) Awards / recognitions received at the national and international level by Students: Nil

Sl. No.	Name of the Student	Programme	Awards/Recognition received	
			National	International

30. Seminars/ Conferences/Workshops organized and the source of funding (National / International) with details of participants -

S. No.	Name of the seminar / conference / workshop organized		Source of funding	Details of participants
	National	International		

1	“Technical Training Programme” on “Energy Efficiency & Renewable Energy”	12 th -14 th February 2014	MPUVN, Bhopal.	150 Participants from Renewable Energy Shops of MP Urja Vikas Nigam Ltd
2	International Symposium on CSP at RGPV	25 th January 2012	RGPV, Bhopal	200 Industrialist & Faculty, students from Japan & India.

31. Code of ethics for research followed by the departments:

The following codes of ethics are followed:

- Research progress and data is being recorded regularly in a Log Book.
- Research results, analysis and interpretations reviewed and progress is being discussed in project steering committees/ Project Evaluation committees
- All data collected belongs to the University
- The participants involved in making decisions about the publication and the distribution of all or parts of the research results.
- The project guideline as decided by the RGPV/funding agency are being strictly followed.
- Plagiarism is strictly viewed.

32. Student profile course-wise :

Name of the Course	Applications received	Year	Selected		Pass percentage	
			Male	Female	Male	Female
M. Tech (Energy Technology)	110	2011-12	12	6	100	100
	175	2012-13	16	2	100	100
	192	2013-14	17	1	100	100
	160	2014-15	11	7	100	100

33. Diversity of students .

Name of the Course	YEAR	% of students from the same university	% of students from other universities within the State	% of students from universities outside the State	% of students from other countries
PG Course M. Tech in Energy Tech.	2011	88.88%	-	11.12%	-

	2012	100%	-	-	-
	2013	100%			-
	2014	94.44%		5.569%	-
	2015	88.88%	5.56%	5.56%	-
Ph.D.- Energy Tech.	2011	40 %	60%	-	-

34. How many students have cleared Civil Services and Defence Services examinations, NET, SET, GATE and other competitive examinations? Give details category-wise. Provide details with proof like name of the student, email, appointment/selection letter etc.:

: NA

S. No.	Name of the competitive Examination	Number of students cleared
1.	Civil services	
2.	Defense services	
3.	NET	
4.	SET	
5.	GATE	5 (2014 batch)*
6.	Any other competitive examination.	4*

*Details given as per the information available.

35. Student Progression .:

	2011-12	2012-13	2013-14	2014-15
UG to PG	-	-	-	-
PG to M.Phil.	-	-	-	-
PG to Ph.D.	5%	-	-	-
Ph.D. to Post-Doctoral	-	-	-	-
Employed	Nil	Nil	Nil	27% (5 in TCS: 2014 admitted batch)
Campus selection PG				
Other than campus Recruitment: PG	77%	77%	55%	44%
Entrepreneurs	33%	33%	45%	56%

36. Diversity of staff .:

Percentage of faculty who are graduates	PG	Ph.D.
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of the same university	50%	100%
from other universities within the State	25%	0%
from universities from other States	25%	0%
from universities outside the country	0%	0%

37. Number of faculty who were awarded Ph.D., D.Sc. and D.Litt. during the assessment period .:

Year	Number of Faculty awarded Ph.D / D.Sc., D.Litt
2011-12	
2012-13	
2013-14	1 Ph.D
2014-15	

38. Present details of infrastructural facilities with regard to Library, Internet facilities for staff and students, Total number of class rooms, Class rooms with ICT facility, Students' laboratories, Research laboratories ..

S. No.	Name of the Infrastructural Facility	Quantity / Details	
1.	Library	388 Books	293 books issued from central Library. 95 from projects
2.	Internet for staff , WiFi Campus and each student and faculty is provided with Laptop	Internet with LAN	7 Nos.
3.	Internet for students	Internet with LAN	10 No.
4.	Number of class rooms	2 Nos.	
5.	Classrooms with ICT facility	1 No.	
6.	Research Labs		
Sl. No.	Name of the Infrastructural Facility	Quantity / Details	
1	<u>Energy Park</u>	Solar Home Lighting System	
		Solar Water Heating System 100ltrs	
		Solar Fountain	
		1.6 Kw SPV Wind Hybrid System	
		Wind Mill For Water Pumping	
		BIOMASS GASIFIER WITH DG SET 10 Kw	
		Biodiesel Reactor (100 Lpd)	
		Solar Street Lighting System	
		Biodiesel Reactor (10 Lpd)	
		Solar Reflector	

		Biogasifier Based Mini Stove
		HYBRID CAR (Solar & Bio-Diesel)
		CO ₂ Sequestration Unit With CO Converter, H ₂ Producer Catalytic Converter
		Baby Boiler
		Wind Anemometer 40 Mast Height
		Oil Expeller Unit
		Solar Thin Film Plant-900watt With Solar Pump
		Solar Power Conditioning Unit
		Pelton Wheel Turbine- Test Rig
		Kaplan Wheel Turbine- Test Rig
		Francis Wheel Turbine- Test Rig
		Combustion Gas Analyser (Data Acquisition System)
		Dual Rotor Wind Turbine
		Weather Monitoring Station (Watchdog)
		Solar Experimental Kit
		Thermal Experimental Kit
		Wind Experimental Kit
		Automatic Weather Monitoring System
	Energy ,Environment Lab	Hygrometer Thermo
		Sound Level Meter
		TACHOMETER (Digital)
		Infra Red Thermometer
		Radiation Pyranometer
		Bomb Calorimeter
		Micro Amp. Meter
		Digital Lux Meter
		Vane Type Anemometer
		Digital Thermometer
		Anemometer Digital
		Wind Farmer Software
		Global Positioning System (Gps)
		Solar Experimental Kit
		Solar Educational Kit
		Ss Mono Block Pump With 10hp Motor
		Product Cooler With Motor
		Energy Audit Kit
		Thermometer –Mercury
		Cup Type Anemometer
		Digital Photoelectric Colorimeter
		Spectro Photo Meter (Visible Range)
		Nephelo Turbidity Meter
		Digital Dissolved Oxygen Meter
		Conductivity Meter
		µp BASED PH METER
		Electronic Balance

	Double Beam Uv-Vis Spectro Photo Meter
	µp BASED CONDUCTIVITY /TDS METER
	Surface Temp. Meter
	Humidity Meter
	Laboratory Oven
	Magnetic Stirrer With Hot Plate
	Distillation App.(Wall Pattern)
	Hot Plate With Digital Temp Controller
	Combustion Gase Analyser
	Pyronometer

39. List of Doctoral, Post-Doctoral students and Research Associates from the Host University, from other Universities .

Sl. No.	Name of the Student	Category Post-doctoral / Doctoral / Research associate	Name of the University (Host / other University)
1	Shammimuddin (2011)	Ph.D	RGPV, Bhopal
2	Ajeet K Soni (2011)	Ph.D	RGPV, Bhopal
3	Assem Shrivastava (2011)	Ph.D	RGPV, Bhopal
4	Suresh K Soni (2011)	Ph.D	RGPV, Bhopal
5	Ruchi Pandey (2011)	Ph.D	RGPV, Bhopal
6	Vijay Shrichandani (2012)	Research associate	RGPV, Bhopal
7	Suresh Singh Jathav (2012)	Research associate	RGPV, Bhopal
8	Javed Akhtar (2013)	Research associate	RGPV, Bhopal
9	Assem Shrivastava (2014)	Research associate	RGPV, Bhopal
10	Prashant Mishra (2014)	Project Manager	RGPV, Bhopal
11	Himanshu Bora (2014)	Project Engineer	RGPV, Bhopal

- 40. Number of post graduate students getting financial assistance from the university. *GATE, Scholarship, Rajiv Gandhi Scholarship etc. received through University***

Programme	Number of students getting financial assistance from the University			
	2011-12	2012-13	2013 - 14	2014-15
<i>GATE stipend</i>	11	14	18	14

- 41. Was any need assessment exercise undertaken before the development of new Programme(s)? If so, highlight the methodology.**

Not Applicable

- 42. Does the department obtain feedback . from-**

- (d)** Faculty on curriculum as well as teaching-learning-evaluation? If yes, how does the department utilize the feedback?

Yes, through interaction with the faculty from department, other institution as experts of industry visiting the department. This feedback is forwarded to the Board of Studies for approval and consideration in modification and revision of syllabus.

Based on the feedback new subjects related to need based are introduced as special Electives with the approval of the Board of Studies. M.Tech (Energy Technology) Syllabus was revised in July 2013.

As per the trend of the changing technology and new research areas, the department had been equipped with added resources such as equipments, books and journals.

- (e)** Students on staff, curriculum and teaching-learning-evaluation and how does the department utilize the feedback?

Yes, through questionnaire and regular interactions. Based on the feedback departmental faculty incorporate the necessary changes time to time.

Students being given experience of the latest technology and provided opportunities to work on departmental projects and being given exposure through visit to various industry & institutes, project like Solar & Thermal Power plants at BHEL, CDM Cell, MANIT. As per the trend of the changing technology and new research areas, the department had been equipped with added resources such as equipments, books and journals.

- (f)** Alumni and employers on the programmes offered and how does the department

utilize the feedback?

Yes, pass out students have been invited to the department time to time for sharing their experiences and interaction with students. Their inputs are given due importance in research projects and syllabus modification.

43. List the distinguished alumni of the department (maximum 10):

Sl. No.	Name of the distinguished Alumni	Details of occupation
1	Sanjay Shrivastava	Vice President, Chetak Enterprises, Gajiabad.
2.	Dr. Sudheer Shukla	Prof., Caledonian College of Engineering. Muscat, Oman
3	Garima Dubish	Research Associate, Central Pollution Control Board, New Delhi
4	Dinkar Patil	Scientist, NEERI, Nagpur APC Division NEERI ,Nagpur-440020
5	Sumeet Shrivastava	Associate Consulting Partner Tata Consultancy Services Limited, Mumbai
6	Navami Geethraj	Reliance Industries Limited, Manager ,Navi Mumbai (New Mumbai), India
7	Ashish Rai	Assistant Professor, Corporate institute of Technology, Bhopal
8	Dr ShantanuPani	Research Scientist: National Central University, Taoyuan County, Taiwan
9	Dr. Pankaj Jain	Assistant Professor, EEM, RGPV, Bhopal
10	Anurag Gour	Assistant Professor, EEM, RGPV, Bhopal

44. Give details of student enrichment programmes . (Special Lectures / Workshops / Seminar) involving external experts:

Sl. No.	Title of the Special Lecture / Workshop / Seminar organized	Details of the External Expert
1.	Srijan (Festival of Technical Papers & Innovative models) Workshop in the years 2013, 2014, 2015 (State Level)	<ul style="list-style-type: none"> • Dr. Prashant Baredar, Prof. MANIT, Bhopal • Dr. Saroj Rangnekar, Prof. MANIT, Bhopal • Shri Lokendra Thakkar , GM, Climate Change Cell, Govt of MP

2	Expert Lectures delivered by team of CDM Cell, Govt. of MP , for duration of one week in May 2014.	<ul style="list-style-type: none"> Shri Lokendra Thakkar GM, CDM Cll, Govt. of MP and team
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45. List the teaching methods adopted by the faculty for different programmes.

- Presentation by student in a identified team on a specific topic.
- Assignments
- Use of LCD projector, Interactive Board, PowerPoint, Use of audiovisual aids in Presentation of lectures.
- Practical demo.
- Seminar, thesis work in the 3rd and 4th semester courses.

46. How does the department ensure that programme objectives are constantly met and learning outcomes are monitored?

- Program objectives are being achieved with time to time changing the syllabus as per the new technologies and real world challenges.
- As per the curriculum the lectures are being delivered to the student and facilitate the students for taking real world problem as thesis work.
- Performance and progress of students are being monitored by practical examination, theory examination and assignments, seminar, quizzes.
- The department prepares Schedule of teaching, Assessment schedule and Date for End Semester examination and communicates to the students and faculties through Head of Department.
- Outcome is being evaluated by the placement of student and feedback from the employer and alumni.

47. Highlight the participation of students and faculty in extension activities .-

Faculty & Students participated in the following extension activities of the department.

- Srijan (Festival of Technical Papers & Innovative models) inter college Workshop in the years 2013, 2014, 2015 (State Level). Students participated as volunteer during college, state level event.
- Participation by faculty and students in the Awareness Program on Energy efficiency run by NEED Mission in the different schools of Bhopal during Sept-Oct. 2015.
- Participation of students as volunteer innovative models in Saviskar-2015 Organized by MPCoST & ABVP @MANIT Campus, Bhopal. *February 2015.*

(National), Participation of students in Bhopal Vigyan Mela -2015 organised by MPCost & Vigyan Bharti during 20th-23rd February 2015. (State Level)

- Students are encouraged to participate in state and national level seminars and conferences.
- Students and faculty being nominated for participation in National Summit on “Global warming & Climate Change- A Way out” 21-22 Nov. 2015 at state assembly hall, organized by EPCO, Govt. of MP
- Students and faculty volunteered and coordinated the university event for students. An interactive talk and address to students on Mind Management by H.H. Sri Sri Ravishankarji, Founder Art of Living on 22nd November 2015. 2000 Students from various engineering college of Bhopal and other cities participated.
- Departments Faculty and students coordinated the “Student’s Interaction with Dr. R. K. Pachauri, DG, TERI” , JUNE – 30th, 2011, Venue: Samanvay Bhawan. Approx. 1000 students from colleges and school of Bhopal Participated.
- Visit of various College and School students of Bhopal to Energy Park of the department is being organized regularly for promoting awareness about renewable sources of energy among the students.
- Faculty members are encouraged to do funded research projects and consultancy services. The students are involved in research and consultancy projects of faculty and their support/involvement are rewarded suitably.

48. Give details of “beyond syllabus scholarly activities” of the department ..

1. R&D Project 01- “30 kWt Thermal Cross Linear CSP system test unit”

2.

The CL- The CL-CSP project is Technology based attempt by a consortium of Universities and Industries from India (RGPV, MNRE –GOI, BERGEN) and Japan (Toyo Engineering Corporation ,Tokyo Institute of Technology & Solar flame Corporation). This project aims at the proof on the principle of the cross linear concentration (CL) concept which has been invented and conceptualized by Prof. Yutaka Tamaura, Emeritus Professor of Tokyo Institute of Technology and Representing Director of Solar Flame Corporation (Tokyo Tech Venture). Also it aims that a new advanced technology on the CSP can activate the solar energy economy and enhances the employment in India with a mass production of the CL-CSP components in India. The CL-CSP plant components for the solar field are small which can be easily produced by Indian small production factories. This project is the India/Japan international collaborative project to facilitate the solar energy development in India by joint venture between India and Japan. Also this project includes the academic education program to grow the experts and trained the Manpower for the CSP plant operation, construction and maintenance for the next generation.

Objectives of the Project:-

Setting up a test unit of 30kWt Cross Linear CSP System at RGPV, Bhopal with the following objectives:

- a. Demonstrate high temperature ($\geq 6000^\circ\text{C}$) attainment from CL-CSP.
- b. Optimize simulation technology of CL-CSP.
- c. Utilize to develop 1MWe plant.

- d. Development of road map to bring down the tariff based on this technology to be competitive to solar PV plants considering scaling up and indigenization aspects of the technology.

To contribute in target of GOI, RGPV start a R&D project on a path breaking and innovative solar thermal technology with the collaboration with Tokyo institute of technology Japan. This Technology is known as Cross linear CSP (CL-CSP). This technology is amalgamation of two exiting solar thermal technology ie. Linear Fresnel and solar Tower. CL-CSP has virtues of both conventional Linear Fresnel and Tower technologies.

In this innovative and breakthrough CL-CSP technology temperature of 600 degree c will be achieved by concentrating solar to the receiver. The Heliostat use in this new technology is gyro type with E-W and N-S tracking facility, which is first time manufacture in world wide. The power consumption for operational of this tracking mechanism is very less. The heliostat is very cost effective with reflective efficiency of 95% and weight 90 kg with approx. 3.5 m² areas as compare with conventional heliostat and air is being used as a heat transfer medium in the solar air receiver which can further can be utilized to generate steam. This Technology may be substitution of coal for existing Thermal Power Plants during the day Time. As the Thermal to Thermal Conversion efficiency is 80%. This can also replace Fossil Fuels in Factories/industries and use for Hybrid Technology for CSP Plants. The construction & installation of the plant is completed and the commissioning & testing will be started from May-2016.

1. The Impact Green Energy Technology Project:

“Process Stabilization, Evaluation and Analysis of CO₂, capture and its conversion into fuel molecules CO, H₂, CH₄ using pilot plant”:-

The project aims at development of a pilot plant for CO₂ capture and production of useful multipurpose fuel like Hydrogen, Methane and Algae growth for Bio diesel production in the Energy park of RGTU.

Overall expected out come from CO₂ plant:

Development of a working plant to Capture CO₂, the prime GHG and generate non conventional Energy sources viz. H₂, CH₄, Bio-diesel and thus provide formidable support to National Mission on GHG reduction for combating Global warming and consequent Climate Change.

Objectives:

1. Sequester CO₂ and convert the same into useful multipurpose fuels.
2. Use CO₂ to grow micro algae to produce Bio-diesel and Methane Gas.
3. To establish a Pilot Plant for CO₂ sequestration and conversion in to multipurpose fuel.

To develop mathematical & chemical models for CO₂ sequestration, Gasifier & Algae pond systems.

For this purpose following four systems are incorporated:

- CO₂ sequestration system – Metallic solvent for CO₂ capture
- Catalytic Flash Reduction of CO₂ using charcoal from Gasifier.
- Production of Hydrogen from CO.
- Production of Methane using ‘Hydro Gasification of Biomass’ process.
- Pilot study to capture CO₂ for algae production and extraction of Biodiesel

3. Other initiatives:

The School of Energy & Environment Management, RGPV is having 10 kW Biomass Gasifier and Bio-Diesel Reactor (100 LPD) in its Energy Park. Using Exhaust from Gasifier and Char coal, a pilot plant for capture of CO₂ based on Chemical solvent and for converting the same into useful fuel like Hydrogen for Fuel Cell application and Methane is being developed. Additionally, a Bio-fuel Incubator is being developed for producing variety of Algae culture for CO₂ capture.

4. Conference papers by students and Ph.D scholars. Students publish their contributions in International and National journals and conferences

(a) List of Awards .: NIL

S.No	Name of the Student	Programme	Award Name
1.			

(ii). List of conference papers by students .

Programme	No. of conference papers by students			
	2011-12	2012-13	2013-14	2014-15

49. State whether the programme/ department is accredited/ graded by other agencies? If yes, give details ..

Not Accredited

50. Briefly highlight the contributions of the department in generating new Knowledge, Basic or Applied.

Energy Savvy Campus with several innovative Projects in the Energy Park of the department focusing on development of clean & green energy.

51. Future plans of the department.

- Organizing Refresher Courses/ FDPs .
- More Field/industry visits for students .
- Organizing National/ International Conference & Seminars.
- Organizing invited expert lectures from Industry and academia.
- Introducing new M.Tech course on Energy & Environment Management.
- To establish a "Center of Excellence (CoE) in Solar Energy" to cater the next generation Solar Professionals and for training, skill capacity building in renewable Energy in the State of Madhya Pradesh.
- Increase in the consultancy assignment
- Establishment of Centre of Skill development and training in the field of renewable energy.

Towards an Energy Savvy Campus

- Energy conservation through Solar street lights and LED Lights in the RGPV Campus.
- Use of Biomass Energy through Solid Waste and Hostel Kitchen waste
- To develop RGPV as an Energy independent campus through various initiatives like installation of solar roof top PV Systems.
- Application of Water Harvesting system in the RGPV Campus.
- Establishment of centre of Excellence for Solar Energy (Thrust areas – Generation of future solar engineers, training, skill development, operation and maintenance).
- Green audit of RGPV Campus.

R&D and Technology incubation

- To Promote R&D in Biomass, Solar/ Wind Hybrid and integration.
- To Promote Energy Efficiency Measures & develop Energy Conservation Awareness around.

52. Detail any five Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department.

Strength:

- Energy Savvy Campus with several innovative Projects in the Energy Park of the department on Solar, Wind, CCS & Rural Energy Needs.
- Excellent environment and facility available for carrying out research in interdisciplinary areas. Well equipped laboratories with latest equipments.
- Efficient Faculty Member with Proficient Knowledge
- Industry Exposure of the faculty members before joining academics

Weakness:

Have to work on following weaknesses:-

- Collaboration/interaction with other universities, industries, foreign institutions etc
- Special research laboratories sponsored by industry or corporate bodies/Govt departments.
- Exposure to National/International Laboratories/research facilities
- Infrastructural facilities like additional ICT Class Rooms and development of new labs.
- Entrepreneur skill development on Renewable Energy among the PG Students.
- Motivation of students for publishing research papers in Journals/conference.

Opportunities:

- Participation opportunities in the Jawaharlal Nehru Solar Mission/Revised new target of Renewable energy as decided by govt. of India.
- Participation in the skill development activities
- Consultancy assignments
- Good environment to pursue research in inter/multi disciplinary areas.
- Training the students to meet the global challenges of 21st century and International standards so that they are employable globally.

Challenges:

- Meeting the industry needs.
- Arrangement of the funds for R&D in the renewable energy area.
- Necessary plan for generating resources required for research.
- To develop and maintain the standards of teaching on par with International & National institutions like IIT's.

3. SCHOOL OF BIOTECHNOLOGY

1. Name of the Department :SCHOOL OF BIOTECHNOLOGY
2. Year of establishment :2003
3. Is the Department part of a School/Faculty of the University? :

Yes, School of Biotechnology is part of RGPV, Bhopal

4. Names of Programmes / Courses offered
(UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.) :

Sl. No.	Name of the Programme offered	Remarks (UG/PG/M.Phil/Ph.D
1	M.Tech	PG
2	Doctorate in Biotechnology	Ph.D.

5. Interdisciplinary courses and departments involved:

Sl. No.	Interdisciplinary courses offered	Names of the Departments involved
1.	Engineering Mathematics for M.Tech Biotechnology Programme	Department of Mathematics

6. Courses in collaboration with other universities, industries, foreign institutions etc.:

Sl. No.	Collaborative courses offered	Remarks (with other Universities / Industries / Foreign Institutions)
	NIL	NIL

7. Details of programmes / courses discontinued, if any, with reasons:

Sl. No.	Name of the Programme discontinued	Reason
	- NIL -	

8. Annual/ Semester/Choice Based Credit System:

CBCS and Semester Based Credit System for PG Programmes.

9. Participation of the department in the courses offered by other departments:

Sl. No.	Name of the courses handled for other departments	Name of the other department
	-NIL-	

**10. Number of Teaching posts sanctioned and filled
(Professors/Associate Professors/ Assistant Professors):**

Sl. No.	Name of the teaching post	Sanctioned	Filled
1	Professor	01	-
2	Associate Professor	02	01
3	Assistant Professor	03	01
Total		06	02

11. Faculty profile with name, qualification, designation and specialisation (D.Sc./D.Litt./ Ph.D./M.Phil., etc.)

Name	Qualification	Designation	Specialization D.Sc., D.Litt., Ph.D., M.Phil, M.E.	No. of Years of Experience	No. of Ph.D. students guided for the last 4 years
Dr. Archana Tiwari	M.Sc. Ph.D, Post Graduate Diploma in Bioinformatics	Associate Professor	Ph.D	22 years	06 (RGPV)
Dr. Mahavir Yadav	M.Sc. Ph.D	Assistant Professor	Ph.D	15 years	01 (Enrolled from Rewa University) 02 (Enrolled from National University, Jodhpur
Dr. Moumita Das	M.Sc. Ph.D	Assistant Professor (On contract)	Ph.D	3 years 09 months	---

Dr. Devika Dogra	M.Sc. Ph.D	Assistant Professor (On contract)	Ph.D	11 months	---
Ms Priyanka Mishra	M.Tech	Assistant Professor (On contract)	---	2 years	----
Mr. Rakesh Arya	M.Tech	Assistant Professor (On contract)	---	2 years	----
Mr. Dipesh Gupta	M.Tech	Assistant Professor (On contract)	---		---
Mr. Richa Gupta	M.Tech	Assistant Professor (On contract)	---		---
Mr. Pushpendra Gupta	M.Tech	Assistant Professor (On contract)	----		---

12. List of senior Visiting Fellows, faculty, adjunct faculty, emeritus professors

Sl. No.	Name of the Faculty Member	Designation (Visiting fellow, visiting Faculty, adjunct faculty, Emeritus Professors)
1.	Dr. Ashutosh Verma	Associate Professor, Finance and Management, IIFM, Bhopal
2.	Dr. Manmohan Yadav	Associate Professor, Marketing & Management, IIFM, Bhopal
3.	Dr. Rajesh Dubey	Associate Professor, IIFM, Bhopal
4.	Dr. Jayashree Dubey	Assistant Professor, Marketing Management, IIFM, Bhopal
5.	Dr. Harshad Murughkar	Principal Scientist, NIHSAD, Bhopal
6.	Dr. DD Kulkarni	Principal Scientist, NIHSAD, Bhopal
7.	Dr. S.C Dubey	Principal Scientist, NIHSAD, Bhopal
8.	Dr. Nagarajan	Senior Scientist, NIHSAD, Bhopal

9.	Dr. C. Tosh	Principal Scientist, NIHSAD, Bhopal
10.	Dr. Richa Sood	Senior Scientist, NIHSAD, Bhopal
11.	Dr. G. Venkatesh	Senior Scientist, NIHSAD, Bhopal
12.	Dr. Sandeep Bhatia	Principal Scientist, NIHSAD, Bhopal
13.	Prof. Doble Mukesh	Professor, Department of Biotechnology, IIT Madras, Chennai
14.	Prof. R.S Verma	Professor, IIT Madras, Chennai
15.	Dr. Ashok Kumar	Assistant Professor, AIIMS, Bhopal
16.	Dr. Puneet Gandhi	Professor & Head Department : Research, BMHRC, Bhopal
17.	Prof. Parimal C. Sen	Senior Professor and Head, Division of Molecular Medicine, Bose Institute, Kolkata
18.	Dr. K Krishnamoorthy	Principal Scientist, NEERI, Nagpur
19.	Prof. R.P Singh	Professor, Department of Biotechnology, IIT Roorkee
20.	Prof. Reetu Barthwal	Professor, Department of Biotechnology, IIT Roorkee
21.	Dr. Partha Roy	Head of the Department, Department of Biotechnology, IIT Roorkee
22.	Prof. Prashant Mishra	Professor, IIT, Delhi
23.	Prof. T Shrikrishnan	Professor, IIT, Delhi
24.	Prof. Saroj Mishra	Professor, IIT, Delhi
25.	Prof. S.M Singh	Professor, School of Biotechnology, BHU, Varanasi
26.	Dr. Yamini Tripathi	Professor, Department of Medicinal Chemistry, IMS, BHU, Varanasi
27.	Dr. Anil Tripathi	Professor, Department of Biotechnology, IIT, BHU, Varanasi

13. Percentage of classes taken by temporary faculty (Guest faculty) – Programme-wise Information:

Sl. No.	Name of the Programme	% of classes taken by temporary Faculty members
	PG programmes	
1.	M.Tech Biotechnology	80%

14. Programme-wise Student Teacher Ratio

Sl. No.	Name of the Programme	Student-Teacher ratio
	PG programmes	
1.	M.Tech Biotechnology (2011-12)	33:4
2.	M.Tech Biotechnology (2012-13)	30:4
3	M.Tech Biotechnology (2013-14)	27:4
4	M.Tech Biotechnology (2014-15)	20:4
5	M.Tech Biotechnology (2015-16)	17:4

15. Number of academic support staff (technical) and administrative staff: Sanctioned and Filled:

Provided from common pool of the University

16. Research thrust areas recognized by funding agencies

Biotechnology (RGPV)	Instrumentation and Infrastructure development
Medical Biotechnology (MPCOST, DST, UGC, ICMR)	<ul style="list-style-type: none"> • Epigenetic signatures of hematological malignancies • Molecular signature patterns MIC affected patients with gastrointestinal malignancies • Molecular diagnosis of Beta Globin gene mutations in Bhopal • Molecular mechanisms of biologic responses of thiazolidinediones in Balb/ can.n (I.B.) mice of type -2 diabetes

Environmental Biotechnology (DST, UGC)	<ul style="list-style-type: none"> • Engineering of novel sheet material from biological sources deciphering bioplastic production • Cloning, Nucleotide Sequencing and Functional Analysis of a Novel Mobile Cluster of Biodegradation Genes from selected microbial strains • Biochemical Degradation of Polyblends and formation of formidable bioplastics by the help of Microbial Tools
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17. Name of faculty with ongoing projects from a) National b) International funding agencies and c) Total grants received. Give the names of the funding agencies and grants received project-wise. -

S. No.	Title of the Project	Name of Principal Investigator	Name of the funding agency and year	Grant received (Rs. in Lakhs)
1	Exploration of epigenetic signatures of hematological malignancies genes: A Prognostic, Diagnostic & Therapeutic Approach	Dr. Archana Tiwari	MPCOST (2015)	Rs. 7,50,000
2	Engineering of novel sheet material from biological sources deciphering bioplastic production	Dr. Archana Tiwari	DST, New Delhi & CONACYT, Mexico (2010)	Rs.52,54,600
3	A retrospective and prospective analysis of molecular signature patterns and genomic instability profiles among first and second generation victims of Bhopal gas tragedy diagnosed with gastro-intestinal malignancies	Dr. Archana Tiwari	University Grants Commission (UGC), New Delhi (2008)	Rs. 700000
4	Carrier detection and molecular diagnosis of Beta Globin gene mutations in Bhopal	Dr. Archana Tiwari	Indian Council of Medical Research (ICMR), New Delhi (2012)	Rs. 7,08,000

18. Inter-institutional collaborative projects and grants received
a) All India collaboration b) International

S. No.	Title of the Inter-institutional collaborative project	Name of the Institution & Year	National / International	Amount (Rs. in Lakhs)
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1	Engineering of novel sheet material from biological sources deciphering bioplastic production	Indo-Mexican Bilateral Collaborative Research Project DST, New Delhi & CONACYT, Mexico	International	Rs. 52,54,600
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19. Departmental projects funded by DST-FIST; UGC-SAP/CAS, DPE; DBT, ICSSR, etc.; total grants received.

S. No.	Title of Department project	Name of the funding agency and amount
1	Exploration of epigenetic signatures of hematological malignancies genes: A Prognostic, Diagnostic & Therapeutic Approach	MPCOST (2015) Rs. 7,50,000
2	Engineering of novel sheet material from biological sources deciphering bioplastic production	DST (2010) Rs. 52,54,600
3	A retrospective and prospective analysis of molecular signature patterns and genomic instability profiles among first and second generation victims of Bhopal gas tragedy diagnosed with gastro-intestinal malignancies	UGC RGNF (2008) Rs. 700000
4	Carrier detection and molecular diagnosis of Beta Globin gene mutations in Bhopal	ICMR (2012) Rs. 7,08,000
5	Quest of molecular mechanisms of biologic responses of thiazolidinediones in Balb/ can.n (I.B.) mice of type -2 diabetes	ICMR (2008) Rs. 7,08,000
6	Cloning, Nucleotide Sequencing and Functional Analysis of a Novel Mobile Cluster of Biodegradation Genes from selected microbial strains	UGC (2006) Rs. 1200000
7	Biochemical Degradation of Polyblends and formation of formidable bioplastics by the help of Microbial Tools: A Recent Approach	DST SERC Fast Track (2006) Rs. 9,26,000

20. Research facility / centre

- with State recognition
- National
- recognition
International
recognition

Sl. No.	Name of the research facility / Centre	Type of Recognition (State National / International)
1	School of Biotechnology	State and National

21. Special research laboratories sponsored by / created by industry or corporate bodies:

Sl. No.	Name of the special laboratories sponsored	Sponsoring agency (Industry / Corporate Body)
	NA	NA

22. PUBLICATIONS:**a) Number of papers published in peer reviewed journals (National/ International)**

Year	No. of Publication
2011-12	4
2012-13	5
2013-14	4
2014-15	6
Total	19

b) Monographs, Chapters in Books, Edited Books, Books with ISBN with details of publishers (include Hindi Medium Books)-

S. No.	Name of the faculty member	Monographs authored	Chapters authored in Books	Books edited	Books authored with ISBN

1	Dr. Archana Tiwari	A new approach for diabetic therapeutics Analysis of influx of extracellular Calcium in association with ascorbic acid on insulin secretion in diabetic MIN6 cell A New Approach For Diabetic Therapeutics (pp. 88): LAP LAMBERT Academic Publishing GmbH & Co. KG, Germany 2012, ISBN: 978-3-659-10606-4.			
2	Dr. Archana Tiwari	Monograph: Ochrocarpus longifolius, Pharmacognosy Research, 3(2),146. (PMCID: 21772761)			
3	Dr. Archana Tiwari		Bioactive Estimation of Jatropha Curcus: Screening and Characterization of Bioactive compounds from the seed extract. In.: LAP LAMBERT Academic Publishing 2012. GmbH & Co. KG, Germany		
4	Dr. Archana Tiwari				A new approach for diabetic therapeutics Analysis of influx of extracellular Calcium in association with ascorbic acid on insulin secretion in diabetic MIN6 cell. In: A New Approach For Diabetic Therapeutics. LAP LAMBERT Academic Publishing; 2012: 88. GmbH & Co. KG, Germany 2012, ISBN: 978-3-659-10606-4.

5	Dr. Archana Tiwari		Dugeshwar Karley, Deepesh Gupta, Archana Tiwari: Inflammation and Cancer: A step towards early detection of cancer. In.: LAP LAMBERT Academic Publishing GmbH &Co. KG, Germany 2012:72		
6	Dr. Archana Tiwari		DNA- Based signature defends against biological warfare agent and their markers. On Bioterrorism and Biological warfare		
7	Dr. Archana Tiwari		Components of environment and their interactions, Environmental Sciences for Correspondence Course, Dr. Hari Singh Gour Vishwavidyalaya, Sagar (M.P.)		

Number listed in International Database (For e.g. Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.) Citation Index – range / average, SNIP, SJR, Impact Factor – range/ average, h-index -

S. No.	Name of the faculty member	Number listed in Intl. database (Web of science, scopes science directory etc.	Citation index	h-index
1	Dr. Archana Tiwari	SCOPUS (03)	16	
2	Dr. Mahavir Yadav	SCOPUS (03)	16	
3	Dr. Moumita Das	SCOPUS (07)	46	
4	Dr. Devika Dogra	SCOPUS (01)	00	
5	Ms. Priyanka Mishra	SCOPUS (00)	00	
6	Mr. Rakesh Arya	SCOPUS (00)	00	
7	Ms. Richa Gupta	SCOPUS (00)	00	

8	Mr. Deepesh Gupta	SCOPUS (00)	00	
1	Dr. Archana Tiwari	GOOGLE SCHOLAR (74)	378	
2	Dr. Mahavir Yadav	GOOGLE SCHOLAR (12)	32	
3	Dr. Moumita Das	GOOGLE SCHOLAR (11)	70	
4	Dr. Devika Dogra	GOOGLE SCHOLAR (03)	01	
5	Ms. Priyanka Mishra	GOOGLE SCHOLAR (01)	00	
6	Mr. Rakesh Arya	GOOGLE SCHOLAR		
7	Ms. Richa Gupta	GOOGLE SCHOLAR		
8	Mr. Deepesh Gupta	GOOGLE SCHOLAR		

23. Details of patents and income generated:

S. No.	Name of the faculty member	Patent received	Income generated in Rs.
1.	Dr. Archana Tiwari	Development of membrane bound expression based DNA vaccine against ϵ -Toxin of Clostridium Perfringens Application No. 1462/DEL/2012.	-
2.	Dr. Archana Tiwari	Development of cytosolic expression and heterologous booster based DNA vaccine against ϵ -toxin of Clostridium perfringens. Application No. 1463/DEL/2012.	-
3.	Dr. Archana Tiwari	Development of cytosolic expression based DNA vaccine against ϵ -toxin of Clostridium perfringens Application No. 1464/DEL/2012	-
4.	Dr. Archana Tiwari	Development of membrane bound expression and heterologous booster based DNA vaccine against ϵ -toxin of Clostridium perfringens Application No. 1465/DEL/2012.	-
5.	Dr. Archana Tiwari	Development of vaccine against epsilon toxin of Clostridium perfringens employing LTB-epsilon toxin epitopes in translational fusion with LTB Application No. 1466/DEL/2012.	-

24. Areas of consultancy and income generated:

Sl. No.	Name of the faculty member	Areas of consultancy carried out	Income generated (Rs. in Lakhs)
1	NA	NA	NA

25. Faculty selected nationally/internationally to visit other laboratories in India and abroad

Sl. No.	Name of the Faculty member	Name of the Lab visited in India	Name of the Lab visited abroad
1.	Dr. Archana Tiwari	-Indian Institute of Sciences, Bangalore (IISc) -Centre for Cellular and Molecular Biology (CCMB), Hyderabad -Indian Institute of Chemical Biology (IICB), Calcutta -Jawaharlal Nehru University, New Delhi (JNU)	-CINVESTAV-IPN, Unidad Queretaro, Mexico -University of California, Chicago(USA) -Hunan University, Changsha, China -University of Reids, Mauritius
2.	Dr. Mahavir Yadav	-Higher Security Animal diseases, IVARI, Bhopal -Indian Institute of Sciences Education and Research, Bhopal.	NA

26. Faculty serving in various Committees:

S. No.	Name of the Faculty member	Details of National / International committee served	Details of Editorial Board served	Any other committee
1.	Dr. Archana Tiwari	- DBT Nominee of IBSC, National Institute of Higher Security Animal diseases, IVARI, ICAR, Bhopal. - External member of IBSC, Indian Institute of Sciences Education and Research, Bhopal.	-	-Chairperson of Board of Studies (BOS) in Biotechnology -Chairperson of IBSC, Rajiv Gandhi Proudhyogiki Vishwavidyalaya, Bhopal. RGPV, Newsletter (Editorial Board)
2.	Dr. Mahavir Yadav			Secretary of IBSC, Rajiv Gandhi Proudhyogiki Vishwavidyalaya, Bhopal.

27. Faculty recharging strategies:

The following recharging strategies are adapted by the University to refresh the knowledge and provide exposure to latest developments in the areas of interest of the Faculty members:

- Opportunities for attending summer and winter schools organized by leading institutions and research institutes.
- Nominating the faculty for special training programmes organized by CSIR laboratories and other R&D institutes.
- Sponsoring the faculties to attend National and International Conferences as well as to visit research laboratories within India and abroad.

28. Student projects (last five years)

- Percentage of students who have done in-house projects including inter-departmental projects
- Percentage of students doing projects in collaboration with other universities / industry/ institute

Sl. No.	Name of the Programme offered	Percentage of students who have done in-house projects including inter-departmental projects	Percentage of students who have done in-house projects in collaboration with other universities for industry / institute
1	M.Tech. Biotechnology	95	5

29.(a) Awards / recognitions received at the National and International level by Faculty:

S. No.	Name of the Faculty Member	Awards /recognition received	
		National	International
1.	Dr. Archana Tiwari	- Global Society for health & educational growth, New Delhi- Bharat Shiksha ratan award. - Economic development & health (EDH, New Delhi)-Glory of India award	-

29 (b) Awards / recognitions received at the National and International level by Doctoral / post doctoral fellows:

Sl. No.	Name of the Doctoral / Post doctoral Fellow	Awards /recognition received	
		National	International
1.	Dr. Archana Tiwari	UGC, New Delhi-Post doctoral Research award	-
2.	Dr. Mahavir Yadav	CSIR-JRF - SRF Award fellowship DBT-RA fellowship in the project tomato genome sequencing& Rice genome project.	

29 (c) Awards / recognitions received at the national and international level by Students:

Sl. No.	Name of the Student	Programme	Awards/Recognition received	
			National	International
1.	Ankita Suhag	National conference organized in Govt. Science college, Guna	Best paper presentation	-

30. Seminars/ Conferences/Workshops organized and the source of funding (national / international) with details of participants.-

S. No.	Name of the seminar / conference / workshop organized		Source of funding	Details of participants
	National	International		
1	National conference on Cellular& Molecular Medicine	-	DST,MPCOST, ICMR,UGC	Post Graduate students, Research Scholars and Faculty members

31. Code of ethics for research followed by the departments:

The following codes of ethics are followed:

- Thesis is accepted only if it is certified by the research supervisor that the research work reported does not form part of any other thesis or dissertation on the basis of which a degree or award was conferred on an earlier occasion of this or any other scholar.
- It is also certified by the research supervisor that the corrections and

suggestions pointed by the Indian and Foreign examiners are incorporated in the thesis submitted. This certification is required when thesis is to be corrected/ modified after evaluation.

- Plagiarism is strictly viewed and any scholar found indulged in such activities, his/her registration will be cancelled and debarred to register for any other programme in the University. Also the supervisor recognition of the concerned faculty will be withdrawn for a period of 5 years and debarred from guiding the scholar in the University for the debarred period.
- The System is very transparent and information pertaining to date of dispatch of thesis to the examiners, status of evaluation, receipt of report etc. will be posted in the web site.
- Strict confidentiality will be maintained regarding panel of examiners. The Vice- Chancellor nominate one Indian and one Foreign among the two independent panel of examiners (Indian and Foreigner) recommended by the Doctoral Committee, which is the body monitoring the progress of the candidate.

32. Student profile course-wise:

Name of the Course (refer to question no. 4)	Applications received	Year	Selected		Pass percentage	
			Male	Female	Male	Female
M.Tech. Biotechnology		2011-12	10	6	94%	100%
		2012-13	29	38	94%	100%
		2013-14	28	36	100%	100%
		2014-15	21	32	100%	100%
		2015-16	8	6		

33. Diversity of students

Name of the Course (refer to question no. 4)	Year	% of students from the same university	% of students from other universities within the State	% of students from universities outside the State	% of students from other countries
M.Tech. Biotechnology	2011-15	21.5%	13.8%	64.6 %	0%

34. How many students have cleared Civil Services and Defense Services examinations, NET, SET, GATE and other competitive examinations? Give details category-wise. Provide details with proof like name of the student, email, appointment/selection letter etc.

Sl. No.	Name of the competitive Examination	Number of students cleared
1.	Civil services	-
2.	Defense services	1
3.	NET	5
4.	SET	-
5.	GATE	21
6.	Any other competitive examination.	-

35. Student progression:

Student progression	Percentage against enrolled				
	2011-12	2012-13	2013-14	2014-15	2015-16
UG to PG	14.2%	42.8%	14.2%	0%	28.5%
PG to M. Phil.	-	-	-	-	-
PG to Ph.D.	-	-	-	-	-
Ph.D. to Post-Doctoral	-	-	-	-	-
Employed Campus selection UG PG	-	-	-	-	-
Other than campus recruitment PG					
Entrepreneurs	-	-	-	-	-

36. Diversity of staff:

Percentage of faculty who are graduates	PG	Ph.D.
of the same university	-	-
from other universities within the State		2
from universities from other States	3	2
from universities outside the country	-	-

37. Number of faculty who were awarded Ph.D., D.Sc. and D.Litt. during the assessment period:

Year	Number of Faculty awarded PhD / D.Sc., D.Litt
2011-12	-
2012-13	-
2013-14	-
2014-15	-
2015-16	-

38. Present details of infrastructural facilities with regard to Library, Internet facilities for staff and students, Total number of class rooms, Class rooms with ICT facility, Students' laboratories, Research laboratories

Sl. No.	Name of the Infrastructural Facility	Quantity / Details	
1.	Library	01	Departmental Library
2.	Internet for staff	Internet provided to all teaching and office staff	Wi-Fi connectivity is available
3.	Internet for students	Internet provided to all students	Wi-Fi connectivity is available
4.	Number of class rooms	03	
5.	Classrooms with ICT facility	01	
6.	Research Labs	10	<ul style="list-style-type: none"> • Genomics and Genetic Engineering Lab, • Environmental Biotechnology Lab, • Animal Tissue Culture Lab, • Gas Chromatography Lab, • Nucleic acid detection Lab. • Distillation Chamber, • HPLC Chamber, • Dark Room, • Cold Room, • Laminar Airflow Chamber.

Note: 24 hours / 7 days campus Wi-Fi connectivity is available for students and faculties.

39. List of Doctoral, Post-Doctoral students and Research Associates from the Host University, from other Universities

Sl. No.	Name of the Student	Category Post-doctoral / Doctoral / Research associate	Name of the University (Host / other University)
1	Amitabh Chaturvedi	Doctoral	RGPV
2	Sumit Koshta	Doctoral	RGPV

3	Suresh Jatawa	Doctoral	RGPV
4	Sachin Deshmukh	Doctoral	RGPV
5	Amit Mishra	Doctoral	RGPV
6	Himani Kaushik	Doctoral	RGPV
7	Nisha Upadhay	Doctoral	RGPV
8	Roopesh Jain	Doctoral	RGPV

- 40. Number of post graduate students getting financial assistance from the university. GATE, Scholarship, Rajiv Gandhi Scholarship etc. received through University**

Programme	Number of students getting financial assistance from the University				
	2007-08	2008-09	2009-10	2010-11	2011-12
<i>GATE stipend</i>	08	01	05	04	06
M. Tech Biotechnology					

Programme	Number of students getting financial assistance from the University				
	2012-13	2013-14	2014-15	2015-16	
<i>GATE stipend</i>	02	05	01	03	
M. Tech Biotechnology					

- 41. Was any need assessment exercise undertaken before the development of new Programme(s)? If so, highlight the methodology.**

Not Applicable

- 42. Does the department obtain feedback from -**

- (g) Faculty on curriculum as well as teaching-learning-evaluation? If yes, how does the department utilize the feedback?**

Not Applicable.

- (h) Students on staff, curriculum and teaching-learning-evaluation and how does the department utilize the feedback?**

Yes,

Feedback given by students is utilized for preparing reports and papers.

(i) Alumni and employers on the programmes offered and how does the department utilize the feedback?

Not Applicable

43. List the distinguished alumni of the department (maximum 10):

Sl. No.	Name of the distinguished Alumni	Details of occupation
	NA	

44. Give details of student enrichment programmes (Special Lectures / Workshops / Seminar) involving external experts:

Sl. No.	Title of the Special Lecture / Workshop / Seminar organized	Details of the External Expert

1	National conference on Cellular & Molecular Medicine	<ol style="list-style-type: none"> 1. Prof. Rama Shankar Verma, IIT Chennai 2. Prof. B Jayram, Supercomputing Facility for Bioinformatics and Computational Biology, IIT Delhi 3. Dr. DD Kulkarni, Principal Scientist, NIHSAD, Bhopal 4. Dr. Pramod Kumar Verma, DIG, MPCOST, Bhopal 5. Prof. K Muniappa, IISC, Bangalore 6. Dr. K.K Maudar, BMHRC, Bhopal 7. Dr. D.C Jain, IPCA Pharmaceutical 8. Prof. Parimal Sen, Bose Institute, Kolkata 9. Dr. Murli Bhashyam, CDFD, Hyderabad 10. Prof. Yamini Tripathi, BHU, Varanasi 11. Dr. Prashant Kumar Mishra, IIT, Delhi 12. Dr. Girish Mahajan, Nicholas Piramal, Mumbai 13. Dr. Sagarika Biswas, IJIB, New Delhi 14. Mr Samir Maheshwari, ESCO Biotech Pvt Ltd, Mumbai
2	National conference on Biotechnology in India: Emerging trends and future prospects	<ol style="list-style-type: none"> 1. Prof. Ram Karan Sharma 2. Prof Bharat B Agarwal, University of Texas, MD Anderson Cancer Centre Houston, USA 3. Dr. D.C Jain, IPCA Laboratories, Ratlam 4. Dr. Murari Prasad, AMPRI, Hoshangabad Road, Bhopal 5. Dr. P.S Bisen, Jiwaji University, Gwalior 6. Dr. N.K Saha, Department of Botany, TND College, Bhagalpur 7. Prof. B.K Behera, Department of Biotechnology, MD University, Rohtak

45. List the teaching methods adopted by the faculty for different programmes.

- (a) Lecture by Teacher
- (b) Lecture-demonstration by specially invited speakers

- (c) Presentation by students (individual/group) by invitation
- (d) Discussion groups conducted by class teacher
- (e) Assignments allotted by teacher to students.
- (f) Powerpoint presentations by eminent speakers, students and industry personnel.
- (g) Laboratory and industry visits are arranged for staff and students.
- (h) Trainings and staff development programs are conducted for faculty and staff.

46. How does the department ensure that programme objectives are constantly met and learning outcomes are monitored?

Teaching Methods adopted are:

The School is regularly visited by eminent Professors and Academicians who monitor and examine all the objectives and learning outcomes. The monitoring and observation of the HOD and other responsible staff of school is also there.

47. Highlight the participation of students and faculty in extension activities-

Students have the option to do projects and trainings in laboratories of CSIR ICMR and ICAR. Duties of other state govt. bodies such as MPPSC and VYAPM are also done with due permission from the university authorities.

48. Give details of “beyond syllabus scholarly activities” of the department.

Students and Ph. D scholars participate in conferences and work in national laboratories to strengthen their resume.

(a) List of Awards

S. No	Name of the	Programme	Award Name
1.	Ankita Suhag	M.Tech Biotechnology	Best Paper Presentation in the National conference organized in Govt. Science college, Guna

(ii). List of conference papers by students. Every year one review and research paper is published by each M. Tech student. The total no. may be in hundreds. Exact no. will be estimated.

Programme	No. of conference papers by students
-----------	--------------------------------------

	2011-12	2012-13	2013-14	2014-15
M. Tech Biotechnology				

49. State whether the program me/ department is accredited/ graded by other agencies? If yes, give details.

Recognition status of PG Programme: By AICTE

Sl. No.	Name of the Program	Agency of Accreditation	Date of Expiry
1.	M. Tech. Biotechnology	AICTE	Not yet
			Expired

50. Briefly highlight the contributions of the department in generating new Knowledge, Basic or Applied.

The department is continuously generating new basic and applied knowledge.

51. Future plans of the department.

The plans of the department are as per the rules and wishes of RGPV.

52. Detail any five Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department.

Strength:

Our strength are that inspite of so many Biotech departments and universities in India, students still opt for RGPV. Students come from all parts of India i. e from Sikkim in the North to Kerala in the south and from Gujarat in the west to West Bengal in the east.

Weakness: No untoward weaknesses are there.

Opportunities Are utilized as and when available.

Challenges:

Every morning gives a new challenge. We find internal strength and take external assistance to meet whatever difficult situation comes to us. By gods grace we are still surviving inspite of so many challenges and hardships. Any further challenges will be suitably dealt with as we are also maturing each day and month.

4. SCHOOL OF INFORMATION TECHNOLOGY

1. Name of the Department : **SCHOOL OF INFORMATION TECHNOLOGY**
2. Year of establishment : 2002
3. Is the Department part of a School/Faculty of the University? :

Yes, School of Information Technology is part of RGPV Bhopal

4. Names of Programmes / Courses offered

(UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.) :

Sl. No.	Name of the Programme offered	Remarks (UG/PG/M.Phil/Ph.D)
1	M.Tech Information Technology	PG
2	M.Tech Computer Technology & Applications	PG
3	M.Tech Cyber Forensics	PG
4	M.Tech Data Science	PG
5	Doctorate in Information Technology	Ph.D

5. Interdisciplinary courses and departments involved:

Sl. No.	Interdisciplinary courses offered	Names of the Departments involved
1.	Data Mining	IT, UIT, RGPV
2.	Data Analytics	IT, UIT, RGPV
3.	Data Center Virtualization	IT, UIT, RGPV

6. Courses in collaboration with other universities, industries, foreign institutions etc.:

Sl. No.	Collaborative courses offered	Remarks (with other Universities / Industries / Foreign Institutions)
1.	Data Science	EMC Corporation
2.	MS Cyber Law & Information Security	NLIU Bhopal

7. Details of programmes / courses discontinued, if any, with reasons:

Sl. No.	Name of the Programme discontinued	Reason

8. Annual/ Semester/Choice Based Credit System:

Semester Based Credit System for all PG Programmes.

9. Participation of the department in the courses offered by other departments:

Sl. No.	Name of the courses handled for other departments	Name of the other department
	-----	-----

10. Number of Teaching posts sanctioned and filled (Professors/Associate Professors/ Assistant Professors):

Sl. No.	Name of the teaching post	Sanctioned	Filled
1	Professor	02	NIL
2	Associate Professor	04	01
3	Assistant Professor	06	04
Total		12	05

11. Faculty profile with name, qualification, designation and specialization (D.Sc./D.Litt./ Ph.D./M.Phil.,etc.)

Name	Qualification	Designation	Specialization D.Sc., D.Litt., Ph.D., M.Phil, M.E.	No.of YearsofE xperience	No.of Ph.D. students guidedforthe last4years
Dr. Sanjeev Sharma	Ph.D	Associate Professor	Adhoc Network, Wireless Communication	24	06

Dr. Jitendra Agrawal	Ph.D	Assistant Professor	Data Mining, Soft Computing	19	---
Dr. Nishchol Mishra	Ph.D	Assistant Professor	Image Processing	14	---
Dr. Varsha Sharma	Ph.D	Assistant Professor	Wireless Network, Mobile Communication	10	---
Prof. Yogendra P.S. Maravi	M.Tech	Assistant Professor	Image Processing, AI	07	---
Mr. Santosh Sahu (Contract Basis)	M.Tech, Ph.D Pursuing	Assistant Professor	Adhoc Network, Wireless Communication	09	---
Mr. Vivek Sharma (Contract Basis)	M.Tech	Assistant Professor	Adhoc Network	12	---
Mr. Jitendra Singh Verma (Contract Basis)	M.Tech, Ph.D Pursuing	Assistant Professor	Image Processing, Sensor Network	07	---
Mr. Abhisek Kori (Contract Basis)	M.Tech	Assistant Professor	Mobile Computing	03	---
Mr. Arun Kumar (Contract Basis)	M.Tech	Assistant Professor	Image Processing	01	---

12. List of senior Visiting Fellows, faculty, adjunct faculty, emeritus professors

Sl. No.	Name of the Faculty Member	Designation (Visiting fellow, visiting Faculty, adjunct faculty, Emeritus Professors)
1.	Mr. Navjot Singh,	EMC Corporation
2.	Dr. A.K. Singh,	Professor MNNIT Bhopal.
3.	Dr. S. N. Sharma	Professor SATI Vidisha

13. Percentage of classes taken by temporary faculty (Guest faculty) – Programme- wise Information:

Sl. No.	Name of the Programme	% of classes taken by temporary Faculty members
	PG programmes	
1.	M.Tech Information Technology	50%
2.	M.Tech Computer Technology & Application	66.66%
3.	M.Tech Cyber Forensic	33.33%
4.	M.Tech Data Science	33.33%

14. Programme-wise Student Teacher Ratio

Sl. No.	Name of the Programme	Student-Teacher ratio
	PG programmes	
1.	M.Tech Information Technology	14.4:1
2.	M.Tech Computer Technology & Application	14.4:1
3.	M.Tech Cyber Forensic	14.4:1
4.	M.Tech Data Science	14.4:1

15. Number of academic support staff (technical) and administrative staff: Sanctioned and Filled:

Provided from common pool of the University

16. Research thrust areas recognized by funding agencies

Research Areas	Funding Agencies
Adhoc Network	MPCST Bhopal
Data Mining and Soft Computing	MPCST Bhopal
Information Security	ISEA CDAC

17. Name of faculty with ongoing projects from a) National b) International funding agencies and c) Total grants received. Give the names of the funding agencies and grants received project-wise.-

Sl. No.	Title of the Project	Name of Principal Investigator	Name of the funding agency and year	Grant received (Rs. in Lakhs)	Status
1.	Evaluation of Routing Protocols for Mobile Ad-Hoc Network	Dr. Sanjeev Sharma, School of IT, RGPV, Bhopal	MPCST , 2012	4.92 Lakh	Completed
2.	Investigation of Association rule mining in soft computing framework	Dr. Jitendra Agrawal, School of IT, RGPV, Bhopal	MPCST, 2009-2012	8.92 Lakh	Completed

18. Inter-institutional collaborative projects and grants received
a. All India collaboration b) International

Sl. No.	Title of the Inter-institutional collaborative project	Name of the Institution & Year	National / International	Amount (Rs. in Lakhs)
	-----	-----	-----	-----

19. Departmental projects funded by DST-FIST; UGC-SAP/CAS, DPE; DBT, ICSSR, etc.; total grants received.

Sl. No.	Title of Department project	Name of the funding agency and amount
1.	ISEA Phase II	CDAC, 1 Crore 11 Lakh

20. Research facility / centre

- with Staterecognition
- National
- recognition
- International
- recognition

Sl. No.	Name of the research facility / Centre	Type of Recognition (State National / International)
1.	IBM Center of Excellence	International

21. Special research laboratories sponsored by / created by industry or corporate bodies:

Sl. No.	Name of the special laboratories sponsored	Sponsoring agency (Industry / Corporate Body)
1.	Corporate School	EMC ²
2.	IBM Center of Excellence	IBM

22. PUBLICATIONS:

a. Number of papers published in peer reviewed journals (National/International)

Year	No. of Publication
2011-12	39
2012-13	27
2013-14	21
2014-15	06
Total	93

b. Monographs, Chapters in Books, Edited Books, Books with ISBN with details of publishers (include Hindi Medium Books)-

Sl. No.	Name of the faculty member	Monographs authored	Chapters authored in Books	Books edited	Books authored with ISBN
1	Dr. Sanjeev Sharma		SRIP: A Secure Hybrid Routing Information Protocol for WSN, Strategic Pervasive Computing Applications – Emerging Trends (Information Science References), IGI Global		9781615207534
2	Dr. Sanjeev Sharma		Security for Cognitive Radio Networks, Cognitive Radio and Interference Management: Technology and Strategy		9781466620056

c. Number listed in International Database (For e.g. Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.) Citation Index – range / average, SNIP, SJR, Impact Factor – range/ average, h-index-

Sl. No.	Name of the faculty member	Number listed in Intl. database (Web of science, scopes science directory etc.	Citation index	h-index
1.	Dr. Sanjeev Sharma	82	322	10
2.	Dr. Jitendra Agrawal	31	100	05
3.	Dr. Nishchol Mishra	24	94	08
4.	Dr. Varsha Sharma	19	34	03
5.	Prof. Yogendra P. S. Maravi	05	15	02
6.	Mr. Santosh Sahu (Contract Basis)	13	54	04
7.	Dr. Vivek Sharma (Contract Basis)	04	05	00
8.	Dr. Jitendra Singh Verma (Contract Basis)	04	07	01
9.	Abhisek Kori (Contract Basis)	01	00	00

10.	Mr. Arun Kumar (Contract Basis)	01	00	00
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d. Impact Factor and h-index year wise from 2011 to 2015

Sl. No.	Name of the faculty member	Citation index		Impact Factor (Range/ Avg.)*
1.		2011	224	(0.476 – 3.8)/ 2.138
		2012	35	(0.715 – 2.804)/ 1.7595
		2013	60	(0.715 – 0.715)/ 0.715
		2014	03	(0.705 – 5.427)/ 3.066
		2015	00	(1.728 – 1.728)/ 1.728
2.	Dr. Jitendra Agrawal	2011	45	(2.804-2.804)/2.804
		2012	26	(0.715-3.121)/1.918
		2013	23	(0.715-1.76)/1.237
		2014	03	-----
		2015	01	(0.705-1.647)1.176
3.	Dr. Nishchol Mishra	2011	01	(0.715-0.715)/0.715
		2012	47	(0.715-2.804)/1.759
		2013	33	(0.715-0.715)/0.715
		2014	03	-----
		2015	00	(1.739-2.5)/2.119
3.	Dr. Varsha Sharma	2011	27	(0.715-3.8)/2.257
		2012	06	(0.715-0.715)/0.715
		2013	01	-----
		2014	00	(0.715-0.715)/0.715
		2015	00	-----
4.	Mr. Yogendra P. S. Maravi	2011	00	-----

		2012	00	-----
		2013	16	$(0.4-0.715)/0.557$
		2014	00	-----
		2015	00	-----
5.	Mr. Santosh sahu	2011	50	$(0.715-2.804)/1.759$
		2012	04	$(0.715-0.715)/0.715$
		2013	03	-----
		2014	00	-----
		2015	00	-----
6	Mr. Jitendra Singh Verma	2011	06	$(2.804-2.804)/2.804$
		2012	01	$(0.715-0.715)/0.715$
		2013	00	-----
		2014	00	-----
		2015	00	$(0.715-0.715)/0.715$
7	Mr. Abhishek Kori	2011	00	-----
		2012	00	-----
		2013	00	-----
		2014	00	-----
		2015	00	-----
8	Mr. Arun Kumar	2011	00	-----
		2012	00	-----
		2013	00	-----
		2014	00	-----

		2015	00	(1.739-1.739)/1.739
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23. Details of patents and income generated:

Sl. No.	Name of the faculty member	Patent received	Income generated in Rs.
1.	----	----	--

24. Areas of consultancy and income generated:

Sl. No.	Name of the faculty member	Areas of consultancy carried out	Income generated (Rs. in Lakhs)
1	-----	----	-----

25. Faculty selected nationally/internationally to visit other laboratories in India and abroad

Sl. No.	Name of the Faculty member	Name of the Lab visited in India	Name of the Lab visited abroad
	---	-----	-----

26. Faculty serving in various Committees:

Sl. No.	Name of the Faculty member	Details of National / International committee served	Details of Editorial Board served	Any other committee
1.	Dr. Sanjeev Sharma			Board of Studies Member RGPV
2.	Dr. Sanjeev Sharma			Academic Council Member SATI Vidisha

3.	Dr. Sanjeev Sharma	International Conference on Cloud Big Data & Trust (ICCBDT 2013), Bhopal, 13-15 Nov. 2013		
4.	Dr.Sanjeev Sharma	International conference on “Recent advances in mathematical science & application”ICRAMS A-2013		
5.	Dr.Sanjeev Sharma	National seminar on”Component based software engg.& testing”, 2011		
6.	Dr.Sanjeev Sharma	International conference on communication system & network Technology, NITTTR Bhopal, 2014		
7.	Dr.Sanjeev Sharma	National workshop on “cloud computing & security”, Delhi, 2014		
8.	Dr.Sanjeev Sharma	National conference on “Alternative & innovative construction material & technique”(AICMT) MITS Gwalior, 2014		

9.	Dr.Sanjeev Sharma	International conference on software knowledge ,Information management & application ,Kathmandu, Nepal SKIMA2015		
10.	Dr.Sanjeev Sharma	International conference on cloud computing :services& architecture(cloud2012),Delhi		
11.	Dr.Jitendra agrawal	International conference on communication system & network Technology, NITTTR Bhopal, 2014		
12.	Dr.Jitendraagrawal	International conference on software knowledge ,Information management & application ,Kathmandu,nepal SKIMA2015		
13.	Dr. Jitendra agrawal			Board of Studies Member RGPV
14.	Dr.Nishchol Mishra	International conference on communication system & network Technology, NITTTR Bhopal, 2014		

15.	Dr.Nishchol Mishra			Board of Studies Member RGPV
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27. Faculty recharging strategies:

The following recharging strategies are adapted by the University to refresh the knowledge and provide exposure to latest developments in the areas of interest of the Faculty members:

- Opportunities for attending summer and winter schools organized by leading institutions and research institutes.
- ↳ Nominating the faculty for special training programmes
- ↳ Sponsoring the faculties to attend National and International Conferences.

28. Student projects (last five years)

- Percentage of students who have done in-house projects including inter-departmental projects
- Percentage of students doing projects in collaboration with other universities / industry/institute

Sl. No.	Name of the Programme offered	Percentage of students who have done in-house projects including inter-departmental projects	Percentage of students who have done in-house projects in collaboration with other universities for industry / institute
1	M.Tech Information Technology	100 %	-----
2	M.Tech Computer Technology & Application	100 %	-----
3	M.Tech Data Science	80 %	20%

4	M.Tech Cyber Forensic	100 %	-----
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29. (a) Awards / recognitions received at the National and International level by Faculty:

Sl. No.	Name of the Faculty Member	Awards /recognition received	
		National	International
1.	Dr. Sanjeev Sharma	01	
2.	Dr. Jitendra Agrawal	01	

29 (b) Awards / recognitions received at the National and International level by Doctoral / post doctoral fellows:

Sl. No.	Name of the Doctoral / Post doctoral Fellow	Awards /recognition received	
		National	International
1.	Nil	---	--

29 (c) Awards / recognitions received at the national and international level by Students:

Sl. No.	Name of the Student	Programme	Awards/Recognition received	
			National	International
1.	-----	-----	-----	-----

30. Seminars/ Conferences/Workshops organized and the source of funding (national / international) with details of participants.-

S. No.	Name of the seminar / conference / workshop organized		Source of funding	Details of participants
	National	International		

1.		International Conference on Cloud Big Data & Trust (ICCBDT 2013)	EMC Corporation and RGPV	Number of Participant – 300, Students, Research Scholars, Faculty members, Industry Professional and
2.	Faculty development program on “Cloud Infrastructure Services” association with EMC ² 5 days (4 th to 8 th June ,2012)		EMC Corporation and RGPV	Number of Participant – 48, Faculty Members
3.	Faculty development program on “Cloud Infrastructure Services” association with EMC ² 5 days (4 th to 8 th February,2013)		EMC Corporation and RGPV	Number of Participant – 40, Faculty Members
4.	Staff Development Program on “Trends and Applications of Data Sciences” under the TEQIP-II 5 days (18 th to 22 th February,2014)		Under TEQIP-II and RGPV	Number of Participant – 60, Faculty Members, Technical Staff and Students
5.	Workshop on Computer Programming Conducted Remotely by IIT Bombay under the national mission on education through ICT. 5 days(16 th to 21 th June, 2014)		ISTE	Number of Participant – 67, Faculty Members

6.	Workshop on Cyber Security Conducted Remotely by IIT Bombay under the national mission on education through ICT 10 days (10 th to 20 th July, 2014)		ISTE	Number of Participant – 33, Faculty Members
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31. Code of ethics for research followed by the departments:

Code of Ethics:

- Dissertation is accepted only if it is certified by the research supervisor that the research work reported does not form part of any other thesis or dissertation on the basis of which a degree or award was conferred on an earlier occasion of this or any other scholar.
- Research supervisors ensure that proper documentation guidelines are followed by students for making dissertation report.
- Strict policies are followed to avoid plagiarism in the dissertation work and research papers. Students have to check and include plagiarism report in their dissertation.
- Students are required to publish their research in reputed journals and/or conferences.
- Students are required to give a presentation of their research work in department before the submission of the dissertation.
- Strict confidentiality is maintained regarding panel of examiners

32. Student profile course-wise:

Name of the Course(refer to question no. 4)	Application Received	Year	Selected		Pass Percentage	
			Male	Female	Male	Female
MTech(IT)	296	2011-12	9	7	50	50
MTech(CTA)	560		9	6	57.14	42.85
MTech(IT)	125	2012-13	10	6	75	25
MTech(CTA)	249		13	3	62.5	37.5

MTech(IT)	273	2013-14	10	8	42.85	57.14
MTech(CTA)	483		12	5	75	25
MTech(CF)	183		15	3	100	0
MTech(DS)	93		12	2	0	100
MTech(IT)	157	2014-15	8	10	0	0
MTech(CTA)	304		7	9	0	0
MTech(CF)	103		9	5	0	0
MTech(DS)	54		2	3	0	0

33. Diversity of students

Name of the Course(refer to question no. 4)	Year	% Of Students from the same university	% Of Students from other same universities within the State	% Of Students from universities outside the State	% Of Students from other Countries
MTech(IT)	2011-12	100	0	0	-
MTech(CTA)		73.33	0	26.66	-
MTech(IT)	2012-13	93.75	0	6.25	-
MTech(CTA)		87.5	6.25	6.25	-
MTech(IT)	2013-14	100	0	0	-
MTech(CTA)		100	0	0	-
MTech(CF)		88.88	0	12.5	-
MTech(DS)		100	0	0	-
MTech(IT)	2014-15	100	0	0	-
MTech(CTA)		100	0	0	-
MTech(CF)		78.57	7.14	14.28	-
MTech(DS)		100	0	0	-

** Majority of students are from State of MP

34. How many students have cleared Civil Services and Defence Services examinations, NET, SET, GATE and other competitive examinations? Give details category-wise. Provide details with proof like name of the student, email, appointment/selection letter etc.

Sl. No.	Name of the competitive Examination	Number of students cleared
1.	Civil services	----
2.	Defense services	----
3.	NET	01
4.	SET	----
5.	GATE	108
6.	Any other competitive examination.	10

35. Student progression:

Student progression	Percentage against enrolled			
	2011-12	2012-13	2013-14	2014-15
UG to PG	----	----	----	----
PG to M.Phil.	----	----	----	----
PG to Ph.D.	6.25	6.25	----	----
Ph.D. to Post-Doctoral	----	----	----	----
Employed Campus selection UG PG	----	----	----	----
Other than campus recruitment UG PG	----	----	----	----
Entrepreneurs	----	----	----	----

36. Diversity of staff:

Percentage of faculty who are graduates	PG	Ph.D.
of the same university	60%	100%
from other universities within the State	40%	0%
from universities from other States	0%	0%
from universities outside the country	0%	0%

37. Number of faculty who were awarded Ph.D., D.Sc. and D.Litt. during the assessment period:

Year	Number of Faculty awarded Ph.D / D.Sc., D.Litt
2011-12	-----
2012-13	1 (Ph.D.)
2013-14	1 (Ph.D.)
2014-15	1 (Ph.D.)

38. Present details of infrastructural facilities with regard to Library, Internet facilities for staff and students, Total number of class rooms, Class rooms with ICT facility, Students' laboratories, Research laboratories

Sl. No.	Name of the Infrastructural Facility	Quantity / Details	
1.	Library	01	Departmental Library Number of Text Books / Reference Books – 299, Number of Dissertation - 320
2.	Internet for staff	Yes	All Staff (Broadband/Wi-Fi)
3.	Internet for students	Yes	All Student (Broadband/Wi-Fi)
4.	Number of class rooms	06	Lecture Room
5.	Classrooms with ICT facility	02	Two classroom with LCD TV
6.	Research Labs	06	Data Science Lab, Cyber Forensic Lab, IT Lab, CTA Lab, IBM Center of Excellence, Corporate School

Note: 24 hours / 7 days campus Wi-Fi connectivity is available for students and faculties.

39. List of Doctoral, Post-Doctoral students and Research Associates from the Host University, from other Universities

Sl. No.	Name of the Student	Category Post-doctoral / Doctoral / Research associate	Name of the University (Host / other University)
1.	Mr. Jitendra Singh Verma	Doctoral Student	RGPV
2.	Mr. Santosh Sahu	Doctoral Student	RGPV

3.	Mr. Dhnanjay Bisen	Doctoral Student	RGPV
4.	Mrs. Renu Trivedi	Doctoral Student	RGPV
5.	Mr. Rajendra Tiwari	Doctoral Student	RGPV
6.	Mr. Mukesh Kumar Sharma	Doctoral Student	RGPV

40. Number of post graduate students getting financial assistance from the university. GATE, Scholarship, Rajiv Gandhi Scholarship etc. received through University

Programme	2011-12		2012-13		2013-14		2014-15	
	GATE	MP Govt. Scholarship	GATE	MP Govt. Scholarship	GATE	MP Govt. Scholarship	GATE	MP Govt. Scholarship
M.Tech Information Technology	12	02	16	----	08	02	06	01
M.Tech Computer Technology & Application	12	01	16	----	11	---	07	----
M.Tech Data Science	----	----	----	----	04	03	----	----
M.Tech Cyber Forensic	----	----	----	----	12	----	04	02

41. Was any need assessment exercise undertaken before the development of new Programme(s)? If so, highlight the methodology.

Yes, need assessment exercise was undertaken before the development of two new Programmes: M.Tech in Cyber Forensics and M.Tech in Data Sciences.

- The M.Tech course in Cyber Forensics was introduced first time in Madhya Pradesh. In view of increased activities in the field of cyber security, the course was in huge demand. A Detailed Project Report (DPR) was developed after survey and analysis of existing global needs. This branch of technology is closely associated with Cyber Crime Investigation. There was an increasing industry demand for specialized professionals in the area of Cyber forensics. To address this growing demand, the School of Information Technology at RGPV, Bhopal proposed to offer an M. Tech Program in Computer Science (CS) with specialization in cyber forensics.
- The M.Tech course in Data Sciences was introduced first time in Madhya Pradesh. In view of increased activities in the field of cloud computing and big data, the course was in huge demand. A DPR was made after survey and analysis of this field. Given the increasing complexity of data, the need for efficient data engineering techniques for obtaining useful information from the data has never been greater. Information can be regarded as an asset, which can significantly facilitate decision-making processes in any organization, thereby saving the organization both time as well as money. Consequently, there is an increasing industry demand for specialized professionals in the area of Data Engineering. To address this growing demand, the School of Information Technology at RGPV, Bhopal proposed to offer an M. Tech Program in Data Sciences. The main objective of the program was to develop manpower for data analytics related jobs.

42. Does the department obtain feedback from-

- (a) Faculty on curriculum as well as teaching-learning-evaluation? If yes, how does the department utilize the feedback?**

Yes,

The feedback obtained from the faculties is utilized if required to modify the Curriculum/Syllabus. Based on the suggestions, new courses related to research area and need based courses are introduced as special electives with the approval of the Board of Studies.

- (b) Students on staff, curriculum and teaching-learning-evaluation and how does the department utilize the feedback?**

Yes,

The feedback on faculty and staff is obtained from all students at the end of each semester for the courses taught by the faculties. It is been evaluated, the areas of improvement if indicated by students are conveyed to the faculty by HOD.

The students are part of syllabus subcommittee. The students view on curriculum and teaching – learning – evaluation is obtained during the class committee meetings and syllabus subcommittee meetings. The views if genuine are incorporated suitably.

(c) Alumni and employers on the programmes offered and how does the department utilize the feedback?

Yes,

Alumni have been invited to the Department for sharing their experience and delivering special lectures. The requirement of the industry and performance of students employed in their organizations are heard. Their suggestions are given due importance and implemented.

43. List the distinguished alumni of the department (maximum 10):

Sl. No.	Name of the distinguished Alumni	Details of occupation
1.	Dr. Deepak Tomar	Associate Professor MANIT Bhopal
2.	Mr. Kuldeep Sengar	Programmer analyst at Skillnet Solutions Inc United States
3.	Dr. Lokesh Chauhan	Assistant Professor NIT Hamirpur
4.	Mr. Rupesh Dewang	Assistant Professor MNNIT Allahabad
5.	Dr. Jitendra Agrawal	Assistant Professor School of IT RGPV Bhopal

44. Give details of student enrichment programmes (Special Lectures / Workshops / Seminar) involving external experts:

Sl. No.	Title of the Special Lecture / Workshop / Seminar	Details of the External Expert
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1.	Staff Development Program on “ Trends and Applications of Data Sciences ” under the TEQIP-II 5 days (18 th to 22 th February, 2014)	Mr. Navjot Singh, EMC Corporation. Prof. A.K. Singh, Professor MNNIT Bhopal. Prof. Sanjay Garg, Professor Nirma University Ahmedabad Gujarat. Prof. S.N. Sharma, Professor, SATI Vidisha Dr. D.K. Swami, Director VNS Group of Institution Bhopal. Dr. G. L. Prajapati, Associate Professor IET DAVV Indore. Dr. R.S. Jadon, Professor MITS Gwalior. Dr. K.R. Pradarshani, Professor MANIT Bhopal.
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45. List the teaching methods adopted by the faculty for different programmes.

- Lecture by course instructors/teachers on whiteboard
- Lectures with the help of Power Point presentations using LCD Television and projectors
- Research using internet
- Subject Assignments (Theoretical and Logical Questions)
- Lab Assignments (Analysis, Design and Implementation)
- Seminars and presentation by students
- Discussion groups
- Case Studies
- Practical/Research tools demonstration in labs
- Dissertation work in III and IV semester
- Industry Interaction sessions are arranged for students

46. How does the department ensure that programme objectives are constantly met and learning outcomes are monitored?

Teaching Methods adopted are:

The system adopted by the department to meet the objectives of programme and

monitoring learning is as follows:

- The HoD monitors the daily activities in the department
- The course instructor prepares a lecture plan for his/her subjects and ensures that the subject topics are covered as per the schedule of the lecture plan.
- The course instructors/teachers maintain a record of class activities and a course file which is reviewed by the HoD at the end of each assessment period.
- The continuous internal assessment of students is done by conducting two Mid-semester exams, internal viva and assignments for each subject.
- On the basis of internal assessment, weak students are identified and extra/remedial classes are arranged for such students which helps them to improve their performance prior to End-term examinations.
- At the end of each semester, an End-Term examination is conducted for each theory and practical subject in which external examiners are involved.
- The overall performance of a student is evaluated by the grades earned by him/her in each theory and practical subjects in End-term as well as Mid-semester exams.
- Transparency is ensured in the whole assessment process of students by displaying the answer books to students after valuation. This process also gives an opportunity to the students to improve their performance in forthcoming examinations.
- A feedback is obtained from students to evaluate the performance of course teachers and if any shortcomings are encountered the teachers are advised and supported by the HoD to rectify the problems.

47. Highlight the participation of students and faculty in extension activities-

Apart from class room teaching and learning, and students participate themselves in the following extension activities.

- Students are motivated to participate in state, national and international level seminars and conferences and workshops.
- Students are involved in management of hostels by forming mess committees, discipline committees, wing monitors etc.
- Students organize various cultural events in hostel like Ganesh Mahotsav etc.

- Students organize programs, events and competitions in department on Engineers day, Teacher's day etc.
- Students also participate/Volunteer in events like blood donation camps, Hindi science Writing Workshop, World Ayurveda Congress, Bhopal VigyanMela, India International Science Festival etc.

48. Give details of “beyond syllabus scholarly activities” of the department.

- Students are encouraged to present their research contribution in national and international conferences and journals.
- Faculty members are encouraged to do funded research projects. The students are also involved in research work of faculty.
- Faculties are motivated to publish their research works and contributions in international forums by providing financial support.

(a) List of Awards

S.No	Name of the Student	Programme	Award Name
1.	----	----	----

(ii). List of conference papers by students

Programme	No. of conference papers by students			
	2011-12	2012-13	2013-14	2014-15
MTech (IT, CTA, DS, CF)	04	04	13	05

49. State whether the programme/ department is accredited/ graded by other agencies? If yes, give details. Accreditation Status of UG & PG Programme:

Sl. No.	Name of the Student	Date of Accreditation	Date of Expiry
1.	----	----	----

** Steps begin taken to obtain Accreditation for the courses which are due as on date and also for Self Supporting courses

50. Briefly highlight the contributions of the department in generating new Knowledge, Basic or Applied.

Faculties and students of School of IT RGPV have published their research work in SCI and reputed peer reviewed journals which reflects the contributions of the department in generating new Knowledge .

51. Detail any five Strengths, Weaknesses, Opportunities and Challenges (SWOC)of the department.

Strength:

- Well qualified and experienced faculties.
- Spacious building and classrooms with ICT facilities
- Well-equipped laboratories with latest software and tools
- Excellent environment and facility available for carrying out research
- By exercising academic autonomy, course syllabus is updated regularly according to changing global needs
- Various Alumni are in good positions in various government organizations,PSUs, private sectors and academic institutions of higher learning.

Weakness:

- Regular faculty strength is less in certain branches.
- Administrative responsibilities are assigned to faculties which affects the affects their academic and research performance
- Delay in purchasing and establishment of new facilities because of involvement of administrative process
- Less collaboration with industry and institutions of higher learning
- Less supporting technical and administrative staff

Opportunities:

- To establish world class research facility & to get involve in solving existing industrial problems at local/regional/National level
- Faculty and student exchange programmes through MOUs with reputed foreign and national universities
- .To improve the quality of education by adopting modern tools, methodologies & learning materials.
- To develop world class Technical Resource Center.

- To be a part of global economy by providing excellent technical human resources.
- With available facilities, National/ International level seminars, conferences, workshops and continuous education programmes can be organized

Challenges:

- Due to fast changes in government policies (in education sector), new foreign universities, private universities are coming up, which will cause great challenges and competition.
- Challenges of fast changing scenario of global environment puts pressure to start new courses and programmes for students
- To train the faculties in new and emerging subject areas in order to meet the current global requirements
- Training the students to make them employable globally

52. Future plans of the department.

- To establish research laboratory and resource centre with the assistance provided by ISEA project funded by CDAC.
- Improvement in imparting quality education
- Increase in Library books and International Journals which will help in providing good knowledge and new know how to the students and staff
- Training of Faculty members in emerging areas in Industries, International Research Centers and reputed National Institutes
- To sustain high ranking of the institution

5. SCHOOL OF NANOTECHNOLOGY

1. **Name of the Department** : School of Nanotechnology
2. **Year of establishment** : 2007
3. **Is the Department part of a School/Faculty of the University?:** Yes
4. **Names of Programmes / Courses offered**
(UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.) :

Sl. No.	Name of the Programme offered	Remarks (UG/PG/M.Phil/Ph.D.)
1	M. Tech. Nanotechnology	PG
2	Doctoral	Ph. D.

5. **Interdisciplinary courses and departments involved:**

Sl. No.	Interdisciplinary courses offered	Names of the Departments involved
1.	Mathematical Methods and Programming [MNT-101]	Dept. of Mathematics, UIT, RGPV
2.	Materials Science at Nanoscale [MNT-104]	Dept. of Physics, UIT, RGPV
3.	Nano-Biotechnology [MNT-205]	School of Biotechnology, UTD, RGPV

6. **Courses in collaboration with other universities, industries, foreign institutionsetc. :**

Sl. No.	Collaborative courses offered .	Remarks (with other Universities / Industries / Foreign Institutions)
	NA	NA

7. **Details of programmes / courses discontinued, if any, with reasons:**

Sl. No.	Name of the Programme discontinued	Reason
	NA	NA

8. **Annual/ Semester/Choice Based CreditSystem:** Semester based credit system

9. Participation of the department in the courses offered by other departments:

Sl. No.	Name of the courses engaged for other departments	Name of the other department
	NA	NA

**10. Number of Teaching posts sanctioned and filled.
(Professors/Associate Professors/ Assistant Professors):**

Sl. No.	Name of the teaching post	Sanctioned	Filled
1	Professor	1	-
2	Associate Professor	1	-
3	Assistant Professor	2	2
Total		4	2

11. Faculty profile with name, qualification, designation and specialisation (D.Sc./D.Litt./ Ph.D./M.Phil.,etc.)

Name	Qualification	Designation	Specialization n D.Sc., D.Litt., Ph.D., M.Phil, M.E.	No. of Yearsof Experience	No. of Ph.D. students guided.
Dr. Purnima Swarup Khare	M. Sc., Ph. D.	Professor	Ph. D.	30	05
Dr. Jyotsna Chauhan	M. Sc., Ph. D.	Asst. Prof.	Ph. D.	16	01
Dr. Neel Mani Shrivastava	M. Sc., Ph. D.	Asst. Prof.	Ph. D.	01	00
Mr. Devendra K. Pandey	M.Sc. M.Tech.	Asst. Prof.	M. Tech.	05	00

12. List of senior Visiting Fellows, faculty, adjunct faculty, emeritus professors

Sl. No.	Name of the Faculty Member	Designation (Visiting fellow, visiting Faculty, adjunct faculty, Emeritus Professors)
1.		

13. Percentage of classes taken by temporary faculty (Guest faculty) – Programme-wise Information.

Sl. No.	Name of the Programme	% of classes taken by temporary Faculty members
UG programmes		
1.	BE	NA
PG programmes		
2.	M. Tech. Nanotechnology	66%

14. Programme-wise Student Teacher Ratio

S. No.	Name of the Programme	Student-Teacher ratio
UG programmes		
1.	NA	NA
PG programmes		
2.	M. Tech. [18 students in one batch per year]	1:6

15. Number of academic support staff (technical) and administrative staff: Sanctioned and Filled:

Provided from common pool of the University

16. Research thrust areas recognized by funding agencies.

Discipline	Research thrust areas	Funding Agency

17. Name of faculty with ongoing projects from a) National b) International funding agencies and c) Total grants received. Give the names of the funding agencies and grants received project-wise...

Sl. No.	Title of the Project	Name of Principal Investigator	Name of the funding agency and year	Grant received (Rs. in Lakhs)

1	“X-Ray crystallographic studies and structure activity relationship of fungicides”.	Dr. Jyotsna Chauhan	MPCST, Year 2008	
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18. Inter-institutional collaborative projects and grants received .

Sl. No.	Title of the Inter-institutional collaborative project	Name of the Institution & Year	National / International	Amount (Rs. in Lakhs)
1	NA	NA	NA	NA

19. Departmental projects funded by DST-FIST; UGC-SAP/CAS, DPE; DBT, ICSSR, etc.; total grants received ..

Sl. No.	Title of Department project	Name of the funding agency and amount
	NA	NA

20. Research facility / centre

- with State recognition
- National
- recognition
- International
- recognition

Sl. No.	Name of the research facility / Centre	Type of Recognition (State National / International)
	NA	NA

21. Special research laboratories sponsored by / created by industry or corporate bodies .:

Sl. No.	Name of the special laboratories sponsored	Sponsoring agency (Industry / Corporate Body)
	NA	NA

22. PUBLICATIONS .:

a. Number of papers published in peer reviewed journals (National/International)

Year	No. of Publication
2011-12	3
2012-13	2
2013-14	3
2014-15	4
Total	12

b. Monographs, Chapters in Books, Edited Books, Books . with ISBN with detailsof publishers (include Hindi MediumBooks)-

Sl. No.	Name of the faculty member	Monographs authored	Chapters authored in Books	Books edited	Books authored with ISBN
	NA	NA	NA	NA	NA

c. Number listed in International Database (For e.g. Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.) Citation Index – range / average, SNIP, SJR, Impact Factor – range/ average, h-index- .

Sl. No.	Name of the faculty member	Number listed in Intl. database (Web of science, scopes science directory etc.	h-index (Since 2011)
1	Dr Jyotsna Chauhan	ICV-5.27	01

d. Impact Factor and h-index year wise from 2011 to 2015

Sl. No.	Name of the faculty member	Citation index		Impact Factor (Range/ Avg.)*
5.	Dr. Jyotsna Chauhan	2011		2.97
		2012		2.97
		2013		3.2
		2014		3.2

		2015		3.2
		(Range/ Avg.)*		
6.	Dr. Purnima Swarup Khare	2011		
		2012		
		2013		
		2014		
		2015		
		(Range/ Avg.)		
3.	Dr. Neel Mani Shrivastava	2015		3.1

*Range/ Avg.

23. Details of patents and income generated .:

Sl. No.	Name of the faculty member	Patent received	Income generated in Rs.
	NIL	NIL	NIL

24. Areas of consultancy and income generated .:

Sl. No.	Name of the faculty member	Areas of consultancy carried out	Income generated (Rs. in Lakhs)
	NIL	NIL	NIL

25. Faculty selected nationally/internationally to visit other laboratories in India and abroad .

Sl. No.	Name of the Faculty member	Name of the Lab visited in India	Name of the Lab visited abroad
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1.	Devendra Kumar Pandey	NCL, Pune IISER, Bhopal UGC-DAE-CSR ,Indore RRCAT, Indore & AMPRI, Bhopal	NA
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26. Faculty serving in various Committees .:

Sl. No.	Name of the Faculty member	Details of National / International committee served	Details of Editorial Board served	Any other committee

27. Faculty recharging strategies :

28. Student projects (.)

- ▮ Percentage of students who have done in-house projects including inter-departmental projects
- ▮

Sr.No.	Total No. of Student [Final Semester]	Year	No. of Students done in-house project	Percentage
1.	14	2011-12	01	7.15
2.	15	2012-13	02	13.34
3.	14	2013-14	02	14.30
4.	13	2014-15	00	00
5.	15	2015-16	09	60
Average Percentage of students who have done in-house projects				19.72 %

Note: Total No. of students doing projects during their final semester.

- Percentage of students doing projects in collaboration with other universities / industry/institute

Sr.No.	Total No. of Student [Final Semester]	Year	No. of Students done in-house project	Percentage
--------	---------------------------------------	------	---------------------------------------	------------

1.	14	2011-12	13	92.85
2.	15	2012-13	13	86.66
3.	14	2013-14	12	85.70
4.	13	2014-15	13	100
5.	15	2015-16	06	40
Average Percentage of students doing projects in collaboration with other universities/ institutes				80.28 %

Note: Total No. of students doing projects during their final semester.

Sl. No.	Name of the Programme offered	Percentage of students who have done in-house projects including inter-departmental projects	Percentage of students who have done in-house projects in collaboration with other universities for industry / institute
1	M. Tech., Nanotechnology	19.72 %	80.28 %

29. (a) Awards / recognitions received at the National and International level by Faculty .:

Sl. No.	Name of the Faculty Member	Awards /recognition received	
		National	International

29 (b) Awards / recognitions received at the National and International level by Doctoral / post doctoral fellows .:

Sl. No.	Name of the Doctoral / Post doctoral Fellow	Awards /recognition received	
		National	International
	NIL	NIL	NIL
	NIL	NIL	NIL

29 (c) Awards / recognitions received at the national and international level by Students .:

Sl. No.	Name of the Student	Programme	Awards/Recognition received	
			National	International
	NIL	NIL	NIL	NIL

30. Seminars/ Conferences/Workshops organized and the source of funding (national / international) with details of participants ..-

31.

S. No.	Name of the seminar / conference / workshop organized		Source of funding	Details of participants
	National	International		
	NIL	NIL	NIL	NIL
	NIL	NIL	NIL	NIL

31. Code of ethics for research followed by the departments:

32. Student profile course-wise .:

Name of the Course	Applications received	Year	Selected		Pass percentage	
			Male	Female	Male	Female
M. Tech., Nanotechnology	230	2011-12	15	02	86.67	100
	248	2012-13	15	03	60.00	100
	198	2013-14	14	04	71.43	100
	164	2014-15	13	05	46.15	80
	Note: Passed in First Semester Exam of corresponding year					

33. Diversity of students .

Name of the Course	YEAR	% of students from the same university	% of students from other universities within the State	% of students from universities outside the State	% of students from other countries
M. Tech. Nanotechnology	2011-12	88.69	5.88	5.88	00
	2012-13	100	00	00	00
	2013-14	94.45	5.55	00	00
	2014-15	88.89	11.11	00	00

34. How many students have cleared Civil Services and Defence Services examinations, NET, SET, GATE and other competitive examinations? Give details category-wise. Provide details with proof like name of the student, email, appointment/selection letter etc. ..

35.

Sl. No.	Name of the competitive Examination	Number of students cleared
1.	Civil services	01

2.	Defense services	--
3.	NET	03
4.	SET	--
5.	GATE	--
6.	Any other competitive examination.	--

36. Student progression .:

Student progression	Percentage against enrolled			
	2011-12	2012-13	2013-14	2014-15
UG to PG	NA	NA	NA	NA
PG to M.Phil.	NA	NA	NA	NA
PG to Ph.D.	00	00	00	00
Ph.D. to Post-Doctoral	NA	NA	NA	NA
Employed Campus selection UG PG	NA	NA	NA	NA
Other than campus recruitment UG PG	NA	NA	NA	NA
Entrepreneurs	NA	NA	NA	NA

37. Diversity of staff .:

Percentage of faculty who are graduates	PG				Ph.D.			
	2011-12	2012-13	2013-14	2014-15	2011-12	2012-13	2013-14	2014-15
of the same university								
from other universities within the State	01	00	00	00	02	03	03	03
[Percentage]	33.33 %	NIL	NIL	NIL	66.66 %	100%	100 %	100%
from universities from other States	NA				NA			
from universities outside the country	NA				NA			

38. Number of faculty who were awarded Ph.D., D.Sc. and D.Litt. during the assessment period .:

Year	Number of Faculty awarded Ph.D / D.Sc., D.Litt
2011-12	NIL
2012-13	01
2013-14	NIL
2014-15	01

39. Present details of infrastructural facilities with regard to Library, Internet facilities for staff and students, Total number of class rooms, Class rooms with ICT facility, Students' laboratories, Research laboratories ..

Sl. No.	Name of the Infrastructural Facility	Quantity / Details	
1.	Library	Central Library	
2.	Internet for staff	03	Office PC
3.	Internet for students	08	Computer Lab PC
4.	Number of class rooms	02	Digital
5.	Classrooms with ICT facility	01	LCD & IP Board facility
6.	Research Labs	02	Material Synthesis & Characterization Lab
Sl. No.	Name of the Infrastructural Facility	Quantity / Details	
1.	Office	01	
2.	Research scholar's room	01	
3.	Computer Lab	01	

Note: 24 hours / 7 days campus Wi-Fi connectivity is available for students and faculties.

40. List of Doctoral, Post-Doctoral students and Research Associates from the Host University, from other Universities .

Sl. No.	Name of the Student	Category Post-doctoral / Doctoral / Research associate	Name of the University (Host / other University)
1.	Mr. Rishikesh Yadav	Doctoral	RGPV

41. Number of post graduate students getting financial assistance from the university. *GATE, Scholarship, Rajiv Gandhi Scholarship etc. received through University*

Programme	Number of students getting financial assistance from the University			
	2011-12	2012-13	2013 - 14	2014-15
<i>GATE stipend</i>				
M. Tech. Nanotechnology	17	13	17	15

42. Was any need assessment exercise undertaken before the development of new Programme(s)? If so, highlight the methodology. : NIL

43. Does the department obtain feedback . from-

(a) Faculty on curriculum as well as teaching-learning-evaluation? If yes, how does the department utilize the feedback? : NIL

(b) Students on staff, curriculum and teaching-learning-evaluation and how does the department utilize the feedback? : NIL

(c) Alumni and employers on the programmes offered and how does the department utilize the feedback? : NIL

44. List the distinguished alumni of the department (maximum 10): NIL

Sl. No.	Name of the distinguished Alumni	Details of occupation
1.	Mr. Rishikesh Yadav [Doctoral Student]	Scientific Officer-C, Madhya Pradesh Police. Through M.P.PSC exam.

45. Give details of student enrichment programmes . (Special Lectures / Workshops / Seminar) involving external experts:

Sl. No.	Title of the Special Lecture / Workshop / Seminar	Details of the External Expert	
Lecture Series-I; Year 2014-15			
1.	Nano-material characterization	Dr. Vilash Shelke	B.U. BHOPAL
2.	Magnetic Nanomaterials & Nanoscale devices	Dr. Mukta Singh	IISER, BHOPAL
3.	Quantum mechanics at nanoscale	Dr. Shashi B. Singh	IISER, BHOPAL
4.	Nanomaterials synthesis & Functional nano-materials	Dr. Apurba L. Koner	IISER, BHOPAL

46. List the teaching methods adopted by the faculty for different programmes.

- Class Lectures on white board & IP board through ICT
- E-Library
- Power point presentations
- Hard copy of course material
-

47. How does the department ensure that programme objectives are constantly met and learning outcomes are monitored?

The Department is constantly working to provide the students a better platform to understand a relatively new field of Nanoscience and Nanotechnology. After gaining the basics in this field the many students had been promoted to various national research laboratories like IIT-Bombay, IIT-Guwahati, IIT-Madras, IISER-Bhopal,

NPL-Delhi, University of Pune, CSR-Indore, RRCAT-Indore etc.

48. Highlight the participation of students and faculty in extension activities :-
NIL

49. Give details of “beyond syllabus scholarly activities” of the department .. : NIL

(a) **List of Awards** . : NIL

S.No	Name of the Student	Programme	Award Name
1.	NA	NA	NA

(ii). **List of conference papers by students .**

Programme	No. of conference papers by students				
	2007-08	2008-09	2009-10	2010-11	2011-12

50. State whether the programme/ department is accredited/ graded by other agencies? If yes, give details ..

Accreditation Status of UG & PG Programme: NA

Sl. No.	Name of the Student	Date of Accreditation	Date of Expiry
1.			

51. Briefly highlight the contributions of the department in generating new Knowledge, Basic or Applied.

52. Future plans of the department.

- ✓ To develop collaboration with other institutes and labs of national importance working in the same field.
- ✓ To develop synthesis lab for advanced Nanomaterials.
- ✓ To develop characterization with sophisticated instrumentation facility.
- ✓ To establish clean room technology for nano-electronic device fabrication.

53. Detail any five Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department.

Strength: Dedicated Faculty, Talented and devoted Students, Standard Syllabus

Weakness: Shortage of Funding

Opportunities: Research in best Indian Labs of national importance

Challenges: To earn national and international recognition

6. DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

1. Name of the Department : Department of Electrical and Electronics Engineering
2. Year of establishment : 1998
3. Is the Department part of a School/Faculty of the University?: Faculty of University
4. Names of Programs / Courses offered
(UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.) :

Sl. No.	Name of the Program offered	Remarks (UG/PG/M.Phil/Ph.D)
1	B.E. Electrical and Electronics Engineering	UG
2	M.E. Power Systems	PG
3	Doctorate in Electrical Engineering	PhD

5. Interdisciplinary courses and departments involved:

Sl. No.	Interdisciplinary courses offered		Names of the Departments involved
	Code	Subject	
1	MA1002	Engineering mathematics 1	Mathematics Department.
2	HN1003	Communication skills	Electronics and communication Department.
3	ME 1005	Engineering graphics	Mechanical Engineering Department.
4	ME1006	Workshop practice	Mechanical Engineering Department.
5	MA 1052	Engineering mathematics -II	Mathematics Department.
6	PH1051	Engineering physics	Physics Department.
7	ME 1053	Basic mech engineering	Mechanical Engineering Department.
8	ME 1054	Basic civil engineering and engg mechanics	Civil Engineering Department.
9	CS 1055	Basic computer	Computer science Engg. Department.

10	HN 1056	Language lab and seminars	Humanities Department.
11	MA2301	Mathematics – III	Mathematics Department.

6. Courses in collaboration with other universities, industries, foreign institutions etc.: Nil

Sl. No.	Collaborative courses offered .	Remarks (with other Universities / Industries / Foreign Institutions)

7. Details of programmes / courses discontinued, if any, with reasons: Nil

Sl. No.	Name of the Programme discontinued	Reason

8. Annual/ Semester/Choice Based Credit System:

➤ CBCS & Semester based Credit System

9. Participation of the department in the courses offered by other departments:

Sl. No.	Name of the courses engaged for other departments	Name of the other department
1	Basic Electrical Engineering	<ul style="list-style-type: none"> • Computer science Engg. Department. • Electronics and communication Department • Information and technology deptt. • Civil Engineering Department • Mechanical Engineering Department.

10. Number of Teaching posts sanctioned and filled .
(Professors/Associate Professors/ Assistant Professors): Nil

Sl. No.	Name of the teaching post	Sanctioned	Filled
1	Professor	01	01
2	Associate Professor	03	02
3	Assistant Professor	06	05
Total		10	08

11. Faculty profile with name, qualification, designation and specialisation (D.Sc./D.Litt./ Ph.D./M.Phil.,etc.)

Name	Qualification	Designation	Specialization D.Sc., D.Litt., Ph.D., M.Phil, M.E.	No.of Yearsof Experience	No.of Ph.D. students guided.
Dr.S.C.Choube	Ph.D	Professor	Power Systems	28	04
Dr. Seema Saxena	Ph.D	Associate Professor	Energy	27	Nil
Dr. Vinay Thapar	Ph.D	Associate Professor	Energy	26	Nil
Dr. K. T. Chaturvedi	Ph.D	Asst. Prof	Power Systems	09	01
Dr. Bhoopendra Singh	Ph.D	Asst. Prof	Electric Drives	19	Nil
Mrs. Aakansha Mercy Steele	M.Tech	Asst. Prof	Energy	11	Nil
Mrs. Deena Lodwal Yadav	M.E	Asst. Prof	Digital Tech. and Instrumentation	11	Nil
Mrs. Shobhna Jain	M.E.	Asst. Prof	Power Electronics	12	Nil
Namami K Sharma	M.E	Asst. Prof	Power Systems	05	Nil
Lovesh B Xaxa	M.Tech	Asst. Prof	Power Systems	05	Nil
Suvidha Kamble	M.E	Asst. Prof	Power Systems	03	Nil
Santosh Verma	M.E	Asst. Prof	Power Electronics	03	Nil
Kamal Shakya	M.E	Asst. Prof	Power Systems	03	Nil
Laxmikant Nagar	M.E	Asst. Prof	Power Systems	02	Nil
Akshay Sharma	M.E	Asst. Prof	Power Systems	02	Nil
Anurag S D Rai	M.E	Asst. Prof	Power Systems	02	Nil

12. List of senior Visiting Fellows, faculty, adjunct faculty, emeritus professors

Sl. No.	Name of the Faculty Member	Designation (Visiting fellow, visiting Faculty, adjunct faculty, Emeritus Professors)
1.	Prof L D Arya Retd. Professor Electrical Engg. Deptt, SGSITS Indore	Adjunct faculty

13. Percentage of classes taken by temporary faculty (Guest faculty) – Program-wise Information.

S. No.	Name of the Program	% of classes taken by temporary Faculty members
UG programs		
1.	BE	20%
PG programs		
2.	M.E. Power System	7 %

14. Programme-wise Student TeacherRatio

Sl. No.	Name of the Programme	Student-Teacher ratio
1	UG programmes	13:1
2	PG programmes	3:1

15. Number of academic support staff (technical) and administrative staff: Sanctioned and Filled:
Provided from the common pool

16. Research thrust areas recognized by funding agencies.

Discipline	Research thrust areas	Funding Agency
Electrical	Power Electronics and drives	AICTE
Electrical	Power system Optimisation	UGC

17. Name of faculty with ongoing projects from a) National b) International funding agencies and c) Total grants received. Give the names of the funding agencies and grants received project-wise...

S. No.	Title of the Project	Name of Principal Investigator	Name of the funding agency and year	Grant received (Rs. in Lakhs)
1	A high performance direct torque controlled induction motor drive	Dr Bhoopendra singh	AICTE	7.7
2	Application of soft computing in power system optimization	Dr K T Chaturvedi	UGC	10.41

18. Inter-institutional collaborative projects and grants received . :
NIL

Sl. No.	Title of the Inter-institutional collaborative project	Name of the Institution & Year	National / International	Amount (Rs. in Lakhs)
-	-	--	----	---

19. Departmental projects funded by DST-FIST; UGC-SAP/CAS, DPE; DBT, ICSSR, etc.; total grants received .. :NIL

Sl. No.	Title of Department project	Name of the funding agency and amount
-	-	-

20. Research facility / centre

- with State recognition
- National
- recognition
- International
- recognition

S. No.	Name of the research facility / Centre	Type of Recognition (State National / International)
1.	UIT RGPV	State recognition

21. Special research laboratories sponsored by / created by industry or corporate bodies .: NIL

Sl. No.	Name of the special laboratories sponsored	Sponsoring agency (Industry / Corporate Body)
-	-	-

22. PUBLICATIONS .:

a. Number of papers published in peer reviewed journals (National/International)

Year	No. of Publication
2011-12	18
2012-13	12
2013-14	03
2014-15	10
Total	43

b. Monographs, Chapters in Books, Edited Books, Books . with ISBN with detailsof publishers (include Hindi MediumBooks)-

Sl. No.	Name of the faculty member	Monographs authored	Chapters authored in Books	Books edited	Books authored with ISBN
-	-	-	-	-	-

c. Number listed in International Database (For e.g. Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.) Citation Index – range / average, SNIP, SJR, Impact Factor – range/ average, h-index- .

Sl. No.	Name of the faculty member	Number listed in Intl. database (Web of science, scopes science directory etc.		h-index (Since 2011)
		Web of science/ IEEE	Scopes	
1	Dr.S.C.Choube	-	184	8
2	Dr.K.T.Chaturvedi	150	263	5

3	Dr.Bhoopendra Singh	07	14	3
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d. Impact Factor and h-index year wise from 2011 to 2015

Sl. No.	Name of the faculty member	Citation index		Impact Factor (Range/ Avg.)*
6.	Dr.S.C.Choube	2011	18	
		2012	46	
		2013	53	
		2014	58	
		2015	56	
		(Range/ Avg.)*		
7.	Dr.K.T.Chatuvedi	2011	71	
		2012	78	
		2013	101	
		2014	99	
		2015	84	
		(Range/ Avg.)		
8.	Dr.Bhoopendra Singh	2011	Nil	Nil
		2012	11	
		2013	15	0.48-1.68
		2014	01	
		2015		
		(Range/ Avg.)		

23. Details of patents and income generated .:NIL

Sl. No.	Name of the faculty member	Patent received	Income generated in Rs.

24. Areas of consultancy and income generated .:NIL

Sl. No.	Name of the faculty member	Areas of consultancy carried out	Income generated (Rs. in Lakhs)

25. Faculty selected nationally/internationally to visit other laboratories in India and abroad .

Sl. No.	Name of the Faculty member	Name of the Lab visited in India	Name of the Lab visited abroad
1	Dr.K.T.Chatuevedi	CPRI,Bhopal	--

26. Faculty serving in various Committees:

S. No.	Name of the Faculty member	Details of National / International committee served	Details of Editorial Board served	Any other committee
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1	Prof. S. C. Choube	AICTE		<ul style="list-style-type: none"> • RGPV Executive council • RGPV Academic Council • SGSITS Academic Council • JEC, Jabalpur Academic Council • UEC, Ujjain Academic Council • MITS, Gwalior Academic Council • MITS, Gwalior BOS • RIT, Tekanpur Academic Council • RGPV BOS • SATI, Vidisha BOS • UFM and Result Committee, RGPV
1.	Dr.Seema Saxena			Member of flying Scott committee of RGPV university
2	Dr.Vinay Thapar			
3	Dr.K.T.Chaturvedi			Member of BOS of Electrical engineering , RGPV university
4	Dr.Bhoopendra Singh		Journal of Electronics and electrical Engg. bioinfo publication	Member of BOS of Electrical engineering , RGPV university
5	Mrs. Aakanksha Mercy Steele			Member of BOS of Electrical Engineering , RGPV university /Member of contractual selection
6	Mrs.Shobhna Jain			Member of BOS of Electrical engineering , RGPV university
7	Mrs.Deena I.Yadav			Member of BOS of Electrical engineering , RGPV university /Member of contractual selection

27. Faculty recharging strategies:

- Refresher courses
- Funding for attending national and international conferences in India and abroad.

- Training program STTP organized by different recognized academic institutions and research centers.
- Industrial visit

28. Student projects (.)

- └ Percentage of students who have done in-house projects including inter-departmental projects .
- Percentage of students doing projects in collaboration with other universities / industry/institute.- **Nil**

Sl. No.	Name of the Programme offered	Percentage of students who have done in-house projects including inter-departmental projects	Percentage of students who have done in-house projects in collaboration with other universities for industry / institute
1	B.E.	100%	nil
2	M.E.	100%	nil

29. (a) Awards / recognitions received at the National and International level by Faculty .:

Sl. No.	Name of the Faculty Member	Awards /recognition received	
		National	International
1	Dr.S.C.Choube	7*	nil

- Pandit Madan Mohan Malviya Memorial Price Medal by Institution of Engineers (India)
- Tata Medal Award
- Certificate of Merit

29 (b) Awards / recognitions received at the National and International level by Doctoral / post doctoral fellows .: Nil

Sl. No.	Name of the Doctoral / Post doctoral Fellow	Awards /recognition received	
		National	International

29 (c) Awards / recognitions received at the national and international level by Students .:

Sl. No.	Name of the Student	Programme	Awards/Recognition received	
			National	International
1	Harshal Garg Yash shandilya Sarthak singh bhagesh	Techno search at MANIT Bhopal	I st prize in chain reaction competition	
2	Sarthak Sinha Vipul sharma Rishabh dubey Pushpendra dangi	Srijan -2015	III rd prize for model competition	
3	Jagrati Divya Rohit kartik	Techno search at MANIT Bhopal	II nd prize in bridge competition	

30. Seminars/ Conferences/Workshops organized and the source of funding (national / international) with details of participants :-

S. No.	Name of the seminar / conference / workshop organized		Source of funding	Details of participants
	National	International		
01	National conference on “Application of Evolutionary computing techniques in Electrical Engineering. 16-17 Feb 2012.		UGC	30 participants (Faculties and P.G.Scholars of the same institute and other affiliated institute)

31. Code of ethics for research followed by the departments:

- The department has an internal thesis assessment committee for the evaluation of M.E thesis before final submission
- The papers communicated to different journals and conferences are critically scrutinized for anti-plagiarism issues.

32. Student profile course-wise ::

Name of the Course	Applications received	Year	Selected		Pass percentage	
			Male	Female	Male	Female
B.E. Electrical and Electronics Engineering	By counselling	2011-12	48	12	85%	90%
		2012-13	45	17	80%	95%
		2013-14	43	18	87%	92%

		2014-15	41	16	89%	95%
M.E.Power System	50	2011-12	14	04	90%	95%
	58	2012-13	13	05	90%	95%
	65	2013-14	12	06	95%	100%
	78	2014-15	12	06	90%	95%
Ph.D Electrical		2011-12				
		2012-13	04	02		
		2013-14	02	01		
		2014-15	01	00		

33. Diversity of students .

Name of the Course	YEAR	% of students from the same university	% of students from other universities within the State	% of students from universities outside the State	% of students from other countries
M.E.Power System		80%	20%	20%	Nil

**

34. How many students have cleared Civil Services and Defence Services examinations, NET, SET, GATE and other competitive examinations? Give details category-wise. Provide details with proof like name of the student, email, appointment/selection letter etc...

Year 2011-2012

Sl. No.	Name of the competitive Examination	Number of students cleared
1.	Civil services	-
2.	Defense services	-
3.	NET	-
4.	SET	-
5.	GATE	10
6.	CAT	02

Year 2012-13

Sl. No.	Name of the competitive Examination	Number of students cleared
---------	-------------------------------------	----------------------------

1.	Civil services	-
2.	Defense services	01
3.	NET	-
4.	SET	-
5.	GATE	14
6.	Any other competitive examination.	04

Year 2013-14

Sl. No.	Name of the competitive Examination	Number of students cleared
1.	Civil services	-
2.	Defense services	02
3.	NET	-
4.	SET	-
5.	GATE	18
6.	CAT.	03

Year 2014-15

Sl. No.	Name of the competitive Examination	Number of students cleared
1.	Civil services	-
2.	Defense services	-
3.	NET	-
4.	SET	-
5.	GATE	23
6.	CAT	02

35. Student progression .:

Student progression	Percentage against enrolled			
	2011-12	2012-13	2013-14	2014-15
UG to PG	02	02	04	05
PG to M.Phil.				
PG to Ph.D.		01		
Ph.D. to Post-Doctoral				
Employed				
Campus selection UG				
PG				
Other than campus				
Recruitment				
UG				
PG				
Entrepreneurs				

36. Diversity of staff .:

Percentage of faculty who are graduates	PG	Ph.D.
of the same university	Nil	12.5%
from other universities within the State	Nil	25%
from universities from other States	Nil	Nil
from universities outside the country	Nil	Nil

37. Number of faculty who were awarded Ph.D., D.Sc. and D.Litt. during the assessment period .:

Year	Number of Faculty awarded Ph.D / D.Sc., D.Litt
2011-12	Nil
2012-13	02 Ph.d
2013-14	01 Ph.d
2014-15	Nil

38. Present details of infrastructural facilities with regard to Library, Internet facilities for staff and students, Total number of class rooms, Class rooms with ICT facility, Students' laboratories, Research laboratories ..

Sl. No.	Name of the Infrastructural Facility	Quantity / Details	
1.	Library	Approx 5000 titles	
2.	Internet for staff	LAN connection	1 gbps
3.	Internet for students	WIFI	
4.	Number of class rooms	06	
5.	Classrooms with ICT facility	01	
6.	Research Labs	02	

39. List of Doctoral, Post-Doctoral students and Research Associates from the Host University, from other Universities . : Nil

Sl. No.	Name of the Student	Category Post-doctoral / Doctoral / Research associate	Name of the University (Host / other University)

40. Number of post graduate students getting financial assistance from the university. *GATE, Scholarship, Rajiv Gandhi Scholarship etc. received through University*

Program	Number of students getting financial assistance from the University			
	2011-12	2012-13	2013-14	2014-15
<i>GATE stipend</i>	12	17	18	18

41. Was any need assessment exercise undertaken before the development of new Programme(s)? If so, highlight the methodology.

Since the modern era in electrical engineering Technology is of power electronics and drives as well as maximum job opportunities till date are available in the area of power electronic applications in power system, energy and motion control etc. Hence, it was proposed to run a PG programme in power electronics and drives.

42. Does the department obtain feedback . from-

(d) Faculty on curriculum as well as teaching-learning-evaluation? If yes, how does the department utilize the feedback?

It is a regular practice that during the periodic Board of Studies Meeting of EE, that the faculty members of Department, as well as other institutions are invited to share the views, suggestions for syllabus and scheme design.

(e) Students on staff, curriculum and teaching-learning-evaluation and how does the department utilize the feedback?

The head of department encourages the students of UG & PG program to send their feedback about classes, course content and curriculum design etc., keeping in view, the need of different PSUs; and competitive examinations.

(f) Alumni and employers on the programmes offered and how does the department utilize the feedback?

The Department has a practice of continuous interaction with the alumni placed in reputed companies and research organizations for syllabus revision and employability skill enhancement as per the need of the present scenario.

43. List the distinguished alumni of the department (maximum 10):

S. No.	Name of the distinguished Alumni	Details of occupation
1.	Kishore Vishwakarma	Divisional Railway Manager (DRM) Railway, Bhopal
2.	Shailesh Jaiswal	Scientist, Bhabha Atomic Research Centre (BARC)

44. Give details of student enrichment programmes . (Special Lectures / Workshops / Seminar) involving external experts:

Sl. No.	Title of the Special Lecture / Workshop / Seminar organized	Details of the External Expert
1.	Expert Lecture on DC- DC Converters	Dr. Anmol Ratan Saxena, NSIT, New Delhi
2.	Renewable Energy	Dr. Sukumar Mishra, Professor, IIT, Delhi
3.	Recent Trends in Electric Drives	Dr. Sanjeet Dwivedi Research Scientist, Danfoss Power Electronics, Denmark
4.	Reliability Engineering	Dr. L. D. Arya Professor, SGSITS, Indore

45. List the teaching methods adopted by the faculty for different programmes.

List of teaching methodology adopted are as follows:

- Interactive & multimedia based teaching tools.
- E-library facility including of e-lecture series of NPTEL, edX.
- Explanation of complex and conceptual contents of syllabus through animated medium.

46. How does the department ensure that programme objectives are constantly met and learning outcomes are monitored?

- A close and continuous interaction with students through Mentor- Mentee system with 1:30 ratio.
- Tutorial sessions are conducted as per subject to solve the design related problem of students.
- A strong evaluation system for Lab. Assignments through Quiz and internal viva-voice.

47. Highlight the participation of students and faculty in extension activities .-

Many students of department associated with NGOs like SWAN for mentoring the students of Slum/Rural areas for preparation of examinations of NAVODAYA School, Student are also participating in activities addressing environmental issues on behalf of Green Army, A student Club, Blood Donation camp in collaboration with BHMRC, Bhopal has been organized by the students of Electrical Department.

48. Give details of “beyond syllabus scholarly activities” of the department ..

(a) List of Awards . :NIL

S.No	Name of the Student	Program	Award Name
1.			

(ii). List of conference papers by students .

Program	No. of conference papers by students				
	2011-12	2012-13	2013-14	2014-15	
M.E. Power System	02	03	03	02	

49. State whether the programme/ department is accredited/ graded by other agencies? If yes, give details ..

Accreditation Status of UG & PG Programme: No

Sl. No.	Name of the Student	Date of Accreditation	Date of Expiry
1.	B.E.		
2.	M.E.		

50. Briefly highlight the contributions of the department in generating new Knowledge, Basic or Applied.

The department of Electrical Engineering has an active participation and contribution in framing the choice based credit system by introducing no. of specialized subjects which will develop expert manpower.

51. Future plans of the department.

The department has identified the following thrust areas to be focused as future strategies.

1. To establish a consultancy center for the nearby industries such as BHEL, Crompton Greaves etc. in the area of high voltage equipment testing.
2. A state of art research center equipped with latest Hardware in LOOP controllers and real time controllers for prototype development of power electronics and drive control technology.

52. Detail any five Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department.

Strength:

1. The Department has strong faculty pace who are highly qualified and experienced, where average experience of the regular faculty is approximately 17.5 years.
2. Being an allied institute of state technical university, department has well developed laboratories and has direct access to different resources.
3. A strong networking with the other affiliated institutions of the university.
4. The members of the department are also the part of executive decision making committees such as executive council of university, Dean of faculty and member board of studies etc.

Weakness:-

1. Lack of an active alumnae association.
1. Lack of an effective student mentor program
2. Shortage of supporting staff and technical assistance
3. Interaction of the department with industries and research centers not up to the mark.

Opportunities:-

1. Since the department has well equipped laboratories and software's that can help to establish the department as a center of research consultancy in the area of power electronics and drives and high voltage engineering.
2. The department can be established as a center of excellence that could cater the research demands of nearby industries such as BHEL and Crompton grieves etc

Challenge:-

1. Industrial consultancy resource generation.
2. IPR and Patents.
3. International collaboration with recognized center.
4. Research projects and funding.

Weakness:-

1. Alumni Engagement is not up to the mark.
2. Efforts are required for Research & Development collaboration.
3. Recognition to the departmental laboratories.

7. DEPARTMENT OF CIVIL ENGINEERING

1. **Name of the Department** : Civil Engineering

2. **Year of establishment** : 2004

3. Is the Department part of a School/Faculty of the University?:
Yes

4. Names of Programmes / Courses offered
(UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.) :

Sl. No.	Name of the Programme offered	Remarks (UG/PG/M.Phil/Ph.D)
1	B.E. Civil Engineering	UG
2	M.E. Structural Engineering	PG
3	Doctorate in Civil Engineering	Ph.D.

5. Interdisciplinary courses and departments involved:

Sl. No.	Interdisciplinary courses offered	Names of the Departments involved
1.	Engineering Mathematics for all UG & PG Programmes	Department of Mathematics
2.	Engineering Physics for all UG Programmes	Department of Physics
3.	Engineering Chemistry for all UG Programmes	Department of Chemistry
4.	Language Lab for all UG Programmes	Department of Humanities
5.	Fundamentals of Computing & Computer related Labs for UG	Department of Computer Science and Engineering
6.	Workshop practice for all UG Programmes	Department of Mechanical Engineering
8.	Principles of Management for all UG Programmes	Department of Management Studies

6. **Courses in collaboration with other universities, industries, foreign institutions etc.:**

Sl. No.	Collaborative courses offered .	Remarks (with other Universities / Industries / Foreign Institutions)
	NIL	

7. Details of programmes / courses discontinued, if any, with reasons:

Sl. No.	Name of the Programme discontinued	Reason
	NIL	

8. Annual/ Semester/Choice Based Credit System:

Semester/ choice based credit system with grading

9. Participation of the department in the courses offered by other departments:

Sl. No.	Name of the courses engaged for other departments	Name of the other department
1	Engineering Mechanics	All Branches of BE (UG, First Year)
2	Basic Civil and Engineering Mechanics	Dual Degree Ist Year all Branches
3.	All Subjects	Dual Degree III sem to X sem (civil engineering)

**10. Number of Teaching posts sanctioned and filled
(Professors/Associate Professors/ Assistant Professors):**

Sl. No.	Name of the teaching post	Sanctioned	Filled
1	Professor	1	1+1*
2	Associate Professor	3	1
3	Assistant Professor	6	6 + 8**
Total		10	17

*One under CAS

** Contract Appointment

11. Faculty profile with name, qualification, designation and specialisation (D.Sc./D.Litt./ Ph.D./M.Phil.,etc.)

S. No.	Name	Qualification	Designation	Specialization n D.Sc., D.Litt., Ph.D., M.Phil, M.E.	No. of Yearsof Experience	No. of Ph.D. students guided
1.	Prof. Sudhir Singh Bhaduria	PhD, MTech	Professor	Structural Engineering	29 years	05
2.	Dr. Suresh.Singh Kushwah	PhD, ME	Associate Professor	Construction Technology and Management	27 years (teaching) 05 years (industrial)	NIL
3.	Prof. Saleem. Akhtar	PhD, MTech	Professor	Structural Engineering	26 years (teaching) 03 years (industrial)	02
4.	Shri Satish Jain	M Tech	Assistant Professor	Geo-Technical Engineering	16 years (teaching)	NIL
5.	Dr. Amit Vishwakarma	PhD, MTech	Assistant Professor	Environmental Engineering	13 years (teaching)	NIL
6.	Prof. Geeta Batham	M Tech	Assistant Professor	Structural Engineering	10 years (teaching)	NIL
7.	Prof. Santosh Kumar Kharole	M Tech	Assistant Professor	Environmental Engineering	13 years (teaching) 02 years (industrial)	NIL
8.	Prof. Aruna Rawat	M Tech	Assistant Professor	Structural Engineering	14 years (teaching) 0.5 years (consultant)	NIL
9.	Prof. Aslam Hussain	M E	Assistant Professor	Construction Technology and Management	04 years (teaching) 03 years (industrial)	NIL
10.	Prof. Arun Patel	M.E	Assistant Professor	Construction Technology and Management	03 years (teaching) 06 years (industrial)	NIL

11.	Prof. Anupam Sharma	M.E	Assistant Professor	Structural Engineering	4 years	NIL
12.	Prof. Premit Patil	M Tech	Assistant Professor	Transportation Engineering	1.5 years	NIL
13.	Prof. Punit Dashore	M.E	Assistant Professor	Water Resource and Engineering	2 years	NIL
14.	Prof. Sapna Verma	M.E	Assistant Professor	Construction Technology and Management	2 years	NIL
15.	Prof. Rashmi Rajput	M Tech	Assistant Professor	Water Resource and Engineering	1.5 years	NIL
16.	Prof. Devansh Jain	M.E., PGPPM	Assistant Professor	Construction Technology and	2 years	NIL
17.	Prof. Shikha Kanerkar	M.E.	Assistant Professor	Water Resource and Engineering	3 years	NIL

12. List of senior Visiting Fellows, faculty, adjunct faculty, emeritus professors

Sl. No.	Name of the Faculty Member	Designation (Visiting fellow, visiting Faculty, adjunct faculty, Emeritus Professors)
1.	Dr. R.K Shrivasthava	Professor, SGSITS, Indore
2.	Dr. J.S Chauchan	Professor, SATI, Vidisha

13. Percentage of classes taken by temporary faculty (Guest faculty) – Programme-wise Information.

Sl. No.	Name of the Programme	% of classes taken by temporary Faculty members
UG programmes		
1.	BE	NIL
PG programmes		
2.	ME	10%

14. Programme-wise Student Teacher Ratio

Sl. No.	Name of the Programme	Student-Teacher ratio
UG programmes		
1.	B.E	1:15
PG programmes		
2.	M.E	1:12

15. Number of academic support staff (technical) and administrative staff: Sanctioned and Filled:

Provided from common pool of the University

16. Research thrust areas recognized by funding agencies.

Discipline	Research thrust areas	Funding Agency
Civil Engineering	Alternative Building Material	MPCOST, Bhopal

17. Name of faculty with ongoing projects from a) National b) International funding agencies and c) Total grants received. Give the names of the funding agencies and grants received project-wise...

Sl. No.	Title of the Project	Name of Principal Investigator	Name of the funding agency and year	Grant received (Rs. in Lakhs)
	NIL			

18. Inter-institutional collaborative projects and grants received .

Sl. No.	Title of the Inter-institutional collaborative project	Name of the Institution & Year	National / International	Amount (Rs. in Lakhs)
	NIL			

19. Departmental projects funded by DST-FIST; UGC-SAP/CAS, DPE; DBT, ICSSR, etc.; total grants received ..

Sl. No.	Title of Department project	Name of the funding agency and amount
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	NIL	
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20. Research facility / center

- with Staterecognition
- National
- recognition
- International
- recognition

Sl. No.	Name of the research facility / Centre	Type of Recognition (State National / International)
1.	Material Testing Lab.	State

21. Special research laboratories sponsored by / created by industry or corporate bodies .:

Sl. No.	Name of the special laboratories sponsored	Sponsoring agency (Industry / Corporate Body)
	NIL	

22. PUBLICATIONS .:

a. Number of papers published in peer reviewed journals (National/International)

Year	No. of Publication
2011-12	19
2012-13	21
2013-14	35
2014-15	100
Total	175

b. Monographs, Chapters in Books, Edited Books, Books . with ISBN with details of publishers (include Hindi Medium Books)-

Sl. No.	Name of the faculty member	Monographs authored	Chapters authored in Books	Books edited	Books authored with ISBN
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1	Aruna Rawat		Coupled acoustic-structure interaction in cylindrical liquid storage tank subjected to bi-directional excitation, Chapter no. 90, 978-81-322-2192-0		
2	Dr. Amit Vishwakarma				Efficiency Evaluation Of Urban Water Supply & 978-3-8484-9110-0 Year – 2012

- c. Number listed in International Database (For e.g. Web of Science, Scopus, Humanities International Complete, Dare Database – International Social Sciences Directory, EBSCO host, etc.) Citation Index – range / average, SNIP, SJR, Impact Factor – range/ average, h-index– .

Sl. No.	Name of the faculty member	Number listed in Intl. database (Web of science, scopus science directory etc.	h-index (Since 2011)
1.	Dr. Sudhir Singh Bhadauria	Web of Science – 04 Scoups – 06 Google Scholar – 12	
2.	Dr. Suresh Singh Kushwah	Google Scholar – 31	
2.	Dr. Saleem Akhtar	Web of Science – 04 Scoups – 06 Google Scholar – 103	
3.	Dr. Amit Vishwakarma	Web of Science – 01 Scoups – 03 Google Scholar – 08	03
4.	Prof. Satish Jain	Google Scholar – 01	
5.	Prof. Santosh Kumar Kharole	Google Scholar – 02	
6.	Geeta Batham	Google Scholar – 06	
7.	Prof. Aruna Rawat	Scoups – 03 Google Scholar – 07	
8.	Prof. Aslam Husaain	Google Scholar – 11	

9.	Prof. Devansh Jain	Google Scholar - 07	
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d. Impact Factor and h-index year wise from 2011 to 2015

S. No.	Name of the faculty member	Citation index		Impact Factor (Range/Avg.)*
7.		2011		
		2012		
		2013		
		2014		
		2015		
		(Range/Avg.)*		
8.		2011		
		2012		
		2013		
		2014		
		2015		
		(Range/Avg.)		

23. Details of patents and income generated .:

Sl. No.	Name of the faculty member	Patent received	Income generated in Rs.
		NIL	

24. Areas of consultancy and income generated .:

Total Income generated: Rs. 16256466 (One Crore sixty two lacs fifty Six thousand four hundred & Sixty Six only)

Sl. No.	Name of the faculty member	Areas of consultancy carried out	Income generated (Rs. In Lakhs)

1.	Dr. Suresh Singh Kushwah	Water Supply Scheme and Construction Management	22,17000/-
2.	Dr. Saleem Akhtar	Water Supply Scheme and Material Testing	23,58987/-
3.	Prof. Satish Jain	Water Supply Scheme and Material Testing	53999/-
4.	Prof. Santosh Kharole	Water Supply Scheme and Material Testing	121850/-
5.	Dr. Amit Vishwakarma	Water Supply Scheme and Material Testing	106850/-
6.	Prof. Geeta Batham	Water Supply Scheme and Material Testing	593750/-
7.	Prof. Aruna Rawat	Water Supply Scheme and Material Testing	564815/-
8.	Prof. Aslam Hussain	Water Supply Scheme and Material Testing	561050/-

25. Faculty selected nationally/internationally to visit other laboratories in India and abroad .

Sl. No.	Name of the Faculty member	Name of the Lab visited in India	Name of the Lab visited abroad
1.	Dr. Sudhir Singh Bhadauria	ICAR, Bhopal AMPRI, Bhopal	
2.	Dr. Suresh Singh Kushwah	ICAR, Bhopal AMPRI, Bhopal	Construction ENGINEERING & Management Lab, AIT, Bangkok
3.	Dr. Saleem Akhtar	ICAR, Bhopal AMPRI, Bhopal	

26. Faculty serving in various Committees .:

Sl. No.	Name of the Faculty member	Details of National / International committee served	Details of Editorial Board served	Any other committee
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1.	Dr. Sudhir Singh Bhadauria			Member, board of studies, RGPV, Bhopal
2.	Dr. Suresh Singh Kushwah			<ul style="list-style-type: none"> • NAAC PEER Committee, • AICTE Expert Visiting Committee • STPI Monitoring Committee • Member, board of studies, RGPV, Bhopal. • BOG member of IES college of technology Bhopal. • BOG member of VNS college, Bhopal
3.	Dr. Saleem Akhtar		Journal of Modeling and Simulation in design and manufacturing, India	Member, board of studies, RGPV, Bhopal
4.	Santosh Kumar Kharole	National, Member, Indian water works association		Member, board of studies, RGPV, Bhopal
5.	Dr. Vishwakarma Amit			Member, board of studies, RGPV, Bhopal
6.	Prof. Satish Jain			Member, board of studies, RGPV, Bhopal
7.	Prof. Geeta Batham			Member, board of studies, RGPV, Bhopal

8.	Prof. Aruna Rawat			Member, board of studies, RGPV, Bhopal
9.	Prof. Aslam Hussain			Member, board of studies, RGPV, Bhopal
10.	Devansh Jain		Reviewer in editorial board of Global Research and Development Journals (GRD Journals), ISSN (online) : 2455-5703.	

27. Faculty recharging strategies:

The following recharging strategies are adapted by the University to refresh the knowledge and provide exposure to latest developments in the areas of interest of the Faculty members:

- Opportunities for attending summer and winter schools organized by leading institutions and research institutes.
- Sponsoring faculties for higher studies in institutes of national importance like IITs and NITs.
- Sponsoring the faculties to attend National and International Conferences as well as to visit research laboratories within India and abroad.

28. Student projects (.)

- Percentage of students who have done in-house projects including inter-departmental projects
- Percentage of students doing projects in collaboration with other universities / industry/institute

Sl. No.	Name of the Programme offered	Percentage of students who have done in-house projects including inter-departmental projects	Percentage of students who have done in-house projects in collaboration with other universities for industry / institute
1	B.E.	100%	NIL
2	M.E.	100%	NIL

29. (a) Awards / recognitions received at the National and International level by Faculty .:

Sl. No.	Name of the Faculty Member	Awards /recognition received	
		National	International
	NIL		

29 (b) Awards / recognitions received at the National and International level by Doctoral / post doctoral fellows .:

Sl. No.	Name of the Doctoral / Post doctoral Fellow	Awards /recognition received	
		National	International
	NIL		

29 (c) Awards / recognitions received at the national and international level by Students .:

S. No.	Name of the Student	Programme	Awards/Recognition received	
			National	International
1.	Prachi Sharma		<ul style="list-style-type: none"> Represented National and selected in National Camp held by SAI (All India Women's National Level Competition) and stood fourth in 400m in January 2014. Won Gold Medals in 100m and long jump respectively in sports events held by Corporate College in February 2014. Won Gold Medal and Cash Prize in 100m run in Sports events held by Oriental Group of Institutions, Bhopal in March 2014. 	

2.	Khushboo Vishwakarma		<ul style="list-style-type: none"> • Won a silver and a Gold Medal in the events Discus Throw and Shotput respectively in sports events held by Corporate Group of Institutions, Bhopal in February 2014 	
3.	Archana Markam		<ul style="list-style-type: none"> • Won 2 Silver medals in 100m and long jump in sports events held by Corporate Group of Institution, Bhopal in February 2014. • Stood second in 100m run in sports events held by Oriental Group of Institutions, Bhopal in March 2014. 	
4.	Animesh Mishra		<ul style="list-style-type: none"> • First prize in Collapsible structure at tech fest organized at Trinity college Bhopal 	
5.	Aarti Prajapati		<ul style="list-style-type: none"> • First prize in relay 2014 Mahasangram • Second in 200 meter run 2014 Mahasangram and Nodal • Third in 100 meter run 2014 Mahasangram and Nodal 	
6.	Madhuri Paikra		<ul style="list-style-type: none"> • First in relay in 2014 Mahasangram • First in Kho-kho in 2014 Mahasangram 	

30. Seminars/ Conferences/Workshops organized and the source of funding (national / international) with details of participants --

S. No.	Name of the seminar / conference / workshop organized		Source of funding	Details of participants
	National	International		
1	Advances in Civil Engineering, Refresher Course (Academic Staff College RGPV Bhopal), 28 June – 2 July, 2011		RGPV	Post Graduate students, Research Scholars and Faculty members
2	Engineering Mechanics, National Mission on Education through ICT (MHRD, Govt. of India), 26 Nov-06 Dec 2013		MHRD	Post Graduate students, Research Scholars and Faculty members

3	STAAD PRO., Short Term Course, 24-26 April,2013		RGPV	Post Graduate students, Research Scholars and Faculty members
4	Geotechnical Engineering: Practices & Advancements , Staff Development Programme (TEQIP-II), 28 April – 3 May,2014		TEQIP-II	Research Scholars and Faculty members
5	Disaster Management, Refresher Workshop (TEQIP-II), 19 May – 23 May 2015		TEQIP-II	Post Graduate students, Research Scholars and Faculty members

31. Code of ethics for research followed by the departments

The following codes of ethics are followed:

- Thesis is accepted only if it is certified by the research supervisor that the research work reported does not form part of any other thesis or dissertation on the basis of which a degree or award was conferred on an earlier occasion of this or any other scholar.
- It is also certified by the research supervisor that the corrections and suggestions pointed by the examiners are incorporated in the thesis submitted. This certification is required when thesis is to be corrected/ modified after evaluation.
- Plagiarism is strictly viewed and any scholar found indulged in such activities, his/her registration will be cancelled and debarred to register for any other programme in the University.
- The System is very transparent and information pertaining to date of dispatch of thesis to the examiners, status of evaluation, receipt of report etc. will be posted in the website.
- Strict confidentiality is maintained regarding panel of examiners. The Vice-Chancellor nominates examiner from independent panel of examiners recommended by the Examination Committee.

32. Student profile course-wise .:

Name of the Course	Applications received	Year	Selected		Pass percentage	
			Male	Female	Male	Female
B.E	S.L.C. (DTE)	2011-12	61		96.72	
		2012-13	67		97.01	
		2013-14	50	21	84	80.95

		2014-15	47	20	97.8	95
M.E	790	2011-12	15	03	40	NIL
	98	2012-13	15	03	13.3	33.33
	207	2013-14	13	03	43.33	NIL
	686	2014-15	17	01	NIL	NIL

33. Diversity of students .

Name of the Course	YEAR	% of students from the same university	% of students from other universities within the State	% of students from universities outside the State	% of students from other countries
B.E. (Civil Engineering)	2011-2015	98%	NIL	02%	NIL
M.E. (Structural Engineering)	2011-2015	95%	03%	02%	NIL

**

34. How many students have cleared Civil Services and Defence Services examinations, NET, SET, GATE and other competitive examinations? Give details category-wise. Provide details with proof like name of the student, email, appointment/selection letter etc. ..

Sl. No.	Name of the competitive Examination	Number of students cleared
1.	Civil services	NIL
2.	Defense services	02
3.	NET	NIL
4.	SET	NIL
5.	GATE	71
6.	Any other competitive examination.	46

35. Student progression .:

Student progression	Percentage against enrolled			
	2011-12	2012-13	2013-14	2014-15
UG to PG	28%	42%	54%	50%
PG to M.Phil.	NIL	NIL	NIL	NIL
PG to Ph.D.	02%	05%	01%	06%
Ph.D. to Post-Doctoral	NIL	NIL	NIL	NIL
Employed				

Campus selection UG	28%	25%	33%	41%
PG	NIL	NIL	NIL	NIL
Other than campus recruitment				
UG	20%	30%	30%	30%
PG	NIL	NIL	NIL	NIL
Entrepreneurs	2%	3%	2%	2%

36. Diversity of staff .:

Percentage of faculty who are graduates	PG	Ph.D.
of the same university	41.17%	11.17%
from other universities within the State	41.17%	11.17%
from universities from other States	11.76%	Nil
from universities outside the country	NIL	Nil

37. Number of faculty who were awarded Ph.D., D.Sc. and D.Litt. during the assessment period .:

Year	Number of Faculty awarded Ph.D / D.Sc., D.Litt
2011-12	01 (Ph.D)
2012-13	01 (Ph.D)
2013-14	
2014-2015	

38. Present details of infrastructural facilities with regard to Library, Internet facilities for staff and students, Total number of class rooms, Class rooms with ICT facility, Students' laboratories, Research laboratories ..

Sl. No.	Name of the Infrastructural Facility	Quantity / Details	
1.	Library	01	Departmental Library
2.	Internet for staff		In Cabins
3.	Internet for students		CAD Lab
4.	Number of class rooms	07	
5.	Classrooms with ICT facility	01	

6.	Research Labs	09	7. Material Testing 8. Transportation 9. Fluid Mechanics 10. Soil Mechanics 11. Environmental Engineering 12. Engineering Geology 13. Engineering Mechanics 14. CAD 15. Surveying
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39. List of Doctoral, Post-Doctoral students and Research Associates from the Host University, from other Universities .

Sl. No.	Name of the Student	Category Post-doctoral / Doctoral / Research associate	Name of the University (Host / other University)
1	Suresh Singh Kushwah	Doctoral	RGPV
2	A.K Dwivedi	Doctoral	RGPV
3	Rajiv jain	Doctoral	RGPV
4	Mukesh Pandey	Doctoral	RGPV
5	Sanjeev Verma	Doctoral	RGPV
6	Geeta Batham	Doctoral	RGPV
7	Vedant Shrivastava	Doctoral	RGPV
8	Hemank Jain	Doctoral	RGPV
9	Mr. Rajesh Katyal	Doctoral	RGPV
10	Mr. Sanjeev Verma	Doctoral	RGPV
11	Mr. Pradeep Purohit	Doctoral	RGPV
12	Mr. Rajesh Bhargava	Doctoral	RGPV
13	Mr. A.K. Jha	Doctoral	RGPV
14	Mr. Sanjay Verma	Doctoral	RGPV

15	Mrs. Rashmi Sakale	Doctoral	RGPV
16	Mrs. Geeta Batham	Doctoral	RGPV
17	Mr. Satyendra Singh Narwaviya	Doctoral	RGPV
18	Mr. Rakesh Tiwari	Doctoral	RGPV
19	Mrs. Rinki Tiwari	Doctoral	RGPV
20	Mr. Aslam Hussain	Doctoral	RGPV
21	Mr. Waseem Khan	Doctoral	RGPV
22	Mr. J.P. Gupta	Doctoral	RGPV

- 40. Number of post graduate students getting financial assistance from the university. *GATE, Scholarship, Rajiv Gandhi Scholarship etc. received through University***

Programme	Number of students getting financial assistance from the University			
	2011-12	2012-13	2013 -14	2014-15
<i>GATE stipend</i> M.E. Structural Engineering	1	8	18	17

- 41. Was any need assessment exercise undertaken before the development of new Programme(s)? If so, highlight the methodology.**

NIL

- 42. Does the department obtain feedback . from–**

- (j) Faculty on curriculum as well as teaching-learning-evaluation? If yes, how does the department utilize the feedback?**

Yes,

The feedback obtained from the faculty is used, if required to modify the Curriculum/Syllabus. Based on the suggestions, new courses related to research area and need based courses are introduced as special electives with the approval of the Board of Studies.

(k) Students on staff, curriculum and teaching-learning-evaluation and how does the department utilize the feedback?

Yes,

The evaluation by staff is obtained from students of the class at the end of each semester for the courses taught by the faculties. the areas of improvement if indicated by students are conveyed to the faculty by HOD.

(l) Alumni and employers on the programmes offered and how does the department utilize the feedback?

Yes,

Alumni of the departments and prospective employers of our students are made members of curriculum committee, Board of studies etc. They are invited to Department for sharing their experience and delivering special lectures. The requirement of the industry and performance of students employed in their organizations reviewed. Their suggestions are incorporated in scheme and syllabus.

43. List the distinguished alumni of the department (maximum 10):

Sl. No.	Name of the distinguished Alumni	Details of occupation
1.	Digvijay Singh Rathore	Indian Army
2.	Aman Konak Modi	GAIL
3	Danish Siddiqui	Reliance Infra
4	Rishabh Fouzdar	IOCL
5	Chandresh Agrawal	Civil Services
6	OM Aditya Verma	IIT Roorkee
7	Alok Dubey	Satluj River Project

44. Give details of student enrichment programmes . (Special Lectures / Workshops / Seminar) involving external experts:

Sl. No.	Title of the Special Lecture / Workshop / Seminar organized	Details of the External Expert
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1.	Water Resources Engineering	R.K Shrivasthava (Professor SGSITS Indore)
2.	Rigid Pavement	R.K Mehra (Chief Engineer PWD)
3.	Flexible Pavement	P.K Bigoria (E.E. MP PWD)
4.	Architect aspect at building	Ar. Nandi (Architect)
5.	cost effective construction	Dr. J.S. Chauchan (Professor SATI Vidisha)

45. List the teaching methods adopted by the faculty for different programmes.

- Lecture by Teacher
- Lecture-demonstration by invited speakers
- Presentation by students (individual/group)
- Group Discussion among student
- Assignments to student
- Case study presentation
- Teaching supported by LCD projector, Interactive Board, PowerPoint, Video.
- Demonstration in the Laboratory
- Thesis/Project work at the final semesters in case of UG courses and 3rd and 4th semester in case of PG Courses.
- Exclusive laboratory training for certain theory course
- Industrial visits by individual course instructor for each course and expose the students to actual field environment.

46. How does the department ensure that programme objectives are constantly met and learning outcomes are monitored?

Teaching Methods adopted are:

The system adopted by the department to meet the objectives of programme and monitoring learning is as follows:

- Schedule of teaching, Assessment and End Semester examination for each programme communicated to the students and faculty.
- HOD nominates Class advisor (UG Programmes) / Faculty incharge (PG Programme) from course instructors of respective classes, who advise students in deciding courses and classworks.
- The course instructors maintain a record of class work and it is reviewed by the HOD at the end of each assessment period. Any laps in class work (teaching) are brought to the attention of course instructor and advice is conveyed suitably to rectify or improve his/her performance.

- The learning outcome of students is assessed continuously by conducting three assessments and one end semester examination. The internal assessment and end semester carry 30:70 weightage. The performance of students in each assessment is displayed. The students are awarded grades based on their performance. Student feedback.
- Performance of course teacher is evaluated by the students at the end of each semester and taken into account by advising appropriately the faculty, if needed.

47. Highlight the participation of students and faculty in extension activities-

Apart from class room teaching and learning, and students themselves in following extension activities.

- Each UG programme has academic society in which faculty and students are members. The activity of the society is monitored by office bearers consisting of student members nominated by HOD. Two hours in a week is exclusively allotted in time table such society activities. Students arrange weekly seminars, competition among the themselves, training for developing soft skills and communication skills etc. They also arrange two mega events. One for search of talent among themselves (intra college activity) and the other is inter college competition covering different states.
- Students are encouraged to participate in state and national level seminars and conferences.
- Students are encouraged and funded to present their contributions in international forum.
- Students are provided financial support for innovative projects.
- Faculty members are encouraged to do funded research projects and consultancy services. The students are involved in research and consultancy projects of faculty and their support/involvement are rewarded suitably. Best consultant and researcher are identified and awarded every year.
- Faculties are encouraged to publish their research works and contributions in international forums by providing financial support.
- Faculties are involved in running and monitoring student hostels of the campus. In monitoring hostels, student representatives (mess representative, wing representative, Environment representative etc.,) play major role.

48. Highlight the participation of students and faculty in extension activities .-

Sr. No.	Name of the Activity	Nature of students participation	Duration
1.	PAHAL 2012	Institute Level	5 Days
2.	PAHAL 2013	Institute Level	2 Days
3.	PAHAL 2014	Institute Level	2 Days
4.	Swach Bharat Abhiyaan 2014	Departmental Level	1 Day
5.	PAHAL 2015	Institute Level	2 Days

49. Give details of “beyond syllabus scholarly activities” of the department ..

Sr. No.	Name of the Activity	Nature of students participation	Duration
1.	Visit of Water Treatment Plant at Shahganj.	Institute Level	1 Days
2.	Visit of Stay Cable Bridge at Kamla Park Bhopal	Institute Level	1 Days
3.	Visit of ROB Bhopal	Institute Level	1 Days

(a) List of Awards .

(ii). List of conference papers by students .

Programme	No. of conference papers by students			
	2011-12	2012-13	2013-14	2014-15

Paper Published				<ol style="list-style-type: none"> 1. Deepak Gargate, Deepali Verma, Manuraj Singh Aharwal, Rajeshwari Dhurve, Devansh Jain, S.S.Kushwaha; Evolution Of Concrete By Partially Replacing All The Ingredient Of Concrete; Vol.3, Issue 3, 2015; pp.367-372; International Journal of Engineering Research-Online, ISSN: 2321-7758. 2. Chandrakant Sharma, Digvijay Singh Rathore, Kanchan Atram, Megha Kunjam, Devansh Jain , S.S.Kushwaha;hybrid concrete by partial replacement of all ingredients of concrete; Vol.3, Issue 3, 2015; pp.377-383; International Journal of Engineering Research-Online, ISSN: 2321-7758.
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50. State whether the programme/ department is accredited/ graded by other agencies? If yes, givedetails ..

Accreditation Status of UG & PG Programme:

Sl. No.	Name of the Student	Date of Accreditation	Date of Expiry
1.	B.E.	NIL	
2.	M.E.	NIL	

51. Briefly highlight the contributions of the department in generating new Knowledge, Basic orApplied.

The department has contributed in the area of study of performance of constructed civil infrastructure facilities. Research study in the area of deterioration mechanisms , Durability assessment ,Condition monitoring and service life evaluation modelling through in-situ NDT testing and condition surveying of existing concrete structures .Methods for modelling of durability and service life of concrete structures have been evolved and an approach for service life and durability studies have been initiated.

Study in the area of performance evaluation and its sustainable maintenance has been done and an framework for composite sustainable management Index has been proposed to evolve a new approach for design for scaling up level of services and

sustainable management of rural water supply scheme .

52. Future plans of the department.

- New PG programs in infrastructure engineering and management
- Modernization of various laboratories.
- Development of new specialized research laboratories.
- Enhancement of consultancy and sponsored project for industry and industrial intercalation.

53. Detail any five Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department.

Strength

The department of civil engineering is located in Bhopal, which is in the heart of India and can attract students from all over India because of its locational advantage. The institute has been the preferred choice of Talented students. Being an university institute of technology, it has huge campus with complete infrastructure, well equipped laboratories and qualified and experienced faculty. Consultancy and Testing activities of the department provides adequate industrial exposure. Availability of adequate infrastructure and financial resources is also strength of the department.

Weaknesses

Development of sufficient Institute – Industry interaction to cater needs of vocational and professional training and orientation of students and faculty, Establishment laboratories and Centres for specialised areas of Civil Engineering is needed, SPONSORED AND FUNDED RESEARCH PROjects and activities needs to be enhanced.

Opportunities

Being department of university institute of technology, it has an opportunity to play a leading role in FORMULATION AND IMPLEMENTATION OF various schemes and projects of Govt of M.P. for various government. The input of talent students and faculty and availability of ample resources can enhance research activities.

Challenges

Development of specialised areas of research in the department, making industry oriented curriculum and creating skilled and smart civil engineering professionals is the imminent challenge.

8.COMPUTER SCIENCE AND ENGINEERING

1. **Name of the Department** :COMPUTER SCIENCE AND ENGINEERING

2. **Year of establishment** :1986

3. Is the Department part of a School/Faculty of the University?: Faculty

4. Names of Programmes / Courses offered
(UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.) :

Sl. No.	Name of the Programme offered	Remarks (UG/PG/M.Phil/Ph.D
1	UG	BE (CSE)
2	PG	ME(CSE)
3	Ph.D	CSE

5. Interdisciplinary courses and departments involved:

Sl. No.	Interdisciplinary courses offered	Names of the Departments involved
1.	Mathematics	Deptt. of Applied Science
2.	Communication	Deptt. of Humanities
3.	Energy ,Environment & Science	Deptt. of Chemistry
4.	Basic Civil Engineering	Deptt. of Civil Engg.
5.	Basic Mechanical Engg & Workshop	Deptt. of mechanical Engineering
6.	Basic Electronics & Electrical Engg	Deptt. of Electrical Engg
7	Electronic Devices & Circuits	Deptt. of Electronics & Comm. Engg

6. Courses in collaboration with other universities, industries, foreign institutions etc.:

Sl. No.	Collaborative courses offered .	Remarks (with other Universities / Industries / Foreign Institutions)
	-	-

7. Details of programmes / courses discontinued, if any, with reasons:

Sl. No.	Name of the Programme discontinued	Reason
	-	-

8. Annual/ Semester/Choice Based Credit System: Credit Based System is already implemented in our Institute.

9. Participation of the department in the courses offered by other departments:

Sl. No.	Name of the courses engaged for other departments	Name of the other department
1.	Basic Computer Engineering	All Departments

**10. Number of Teaching posts sanctioned and filled .
(Professors/Associate Professors/ Assistant Professors):**

Sl. No.	Name of the teaching post	Sanctioned	Filled
1	Professor	1	1
2	Associate Professor	3	-
3	Assistant Professor	6	6
Total			

11. Faculty profile with name, qualification, designation and specialisation (D.Sc./D.Litt./ Ph.D./M.Phil.,etc.)

Name	Qual ifi- cati on	Designation	Specialization D.Sc., D.Litt., Ph.D., M.Phil, M.E.	No.of Yearsof Experience	No.of Ph.D. students guided.
Dr.Sanjay Silakari	Ph.D	Professor	Ph.D	24	08
Dr.Mahesh Motwani	Ph.D	Associate professor	Ph.D	23	07
Prof.Uday Chourasia	M.Tech	Assistant Professor	M.Tech	9	-
Prof.Manish K.Ahirwar	M.Tech	Assistant Professor	M.Tech	9	-
Dr.Shikha Agrawal	Ph.D	Assistant Professor	Ph.D	11	-
Prof.Raju Baraskar	M.Tech	Assistant Professor	M.Tech	9	-
Dr.Piyush K Shukla	Ph.D	Assistant Professor	Ph.D	9	-
Dr.Rajeev Pandey	Ph.D	Assistant Professor	Ph.D	9	-
Prof.Anjna Deen	M.Tech	Assistant Professor	M.Tech	19	-
Prof.Mukesh Dhariwal	M.Tech	Assistant Professor	M.Tech	4.6	-
Prof.Shailendra Tiwari	M.Tech	Assistant Professor	M.Tech	3	-
Prof.Sanjay Tehariya	M.Tech	Assistant Professor	M.Tech	3	-
Prof.Muktesh gupta	M.Tech	Assistant Professor	M.Tech	0.9	-
Prof.Mahendra Ahirwar	M.Tech	Assistant Professor	M.Tech	1	-
Prof.Santosh Shakya	M.Tech	Assistant Professor	M.Tech	2.5	-
Prof.Amit Anand Soni	M.Tech	Assistant Professor	M.Tech	2	-
Prof.Chandan Kumar	M.Tech	Assistant Professor	M.Tech	0.9	-
Prof.Pallav Sharma	M.Tech	Assistant Professor	M.Tech	0.2	-
Prof.Rohit Agrawal	M.Tech	Assistant Professor	M.Tech	2.9	-

Prof.Isha Sood	M.Tech	Assistant Professor	M.Tech	3.5	-
Prof.Roopal Rawat	M.Tech	Assistant Professor	M.Tech	0.9	-
Prof.Priyanka Dixit	M.Tech	Assistant Professor	M.Tech	3	-
Prof.Priyanka Sharma	M.Tech	Assistant Professor	M.Tech	0.9	-
Prof.Anuja Shridhar	M.Tech	Assistant Professor	M.Tech	1.8	-
Prof.Devanshu Tiwari	M.Tech	Assistant Professor	M.Tech	0.9	-

12. List of senior Visiting Fellows, faculty, adjunct faculty, emeritus professors

Sl. No.	Name of the Faculty Member	Designation (Visiting fellow, visiting Faculty, adjunct faculty, Emeritus Professors)
1	Dr Shailendra Singh	Adjunct faculty
2	Dr Aditya Trivedi	Adjunct faculty
3	Dr Manish Dixit	Adjunct faculty
4	Dr Rajesh Shukla	Adjunct faculty
5	Dr Deepak Tomar	Adjunct faculty
6	Dr Sunil Jain	Adjunct faculty
7	Dr J L Rana	Adjunct faculty
8	Dr Manish Maheshwari	Adjunct faculty
9	Prof Ujjwal Nigam	Adjunct faculty
10	Dr R. K. Pateria	Adjunct faculty

13. Percentage of classes taken by temporary faculty (Guest faculty) – Programme-wise Information.

Sl. No.	Name of the Programme	% of classes taken by temporary Faculty members
	UG programmes	
1.	BE	45%

	PG programmes	
2.	M.E	Nil

14. Programme-wise Student Teacher Ratio

Sl. No.	Name of the Programme	Student-Teacher ratio
	UG programmes	
1.	BE	15:1
	PG programmes	
2.	ME	4:1

- 15. Number of academic support staff (technical) and administrative staff: Sanctioned and Filled:**
Provided from the common pool

16. Research thrust areas recognized by funding agencies.

Discipline	Research thrust areas	Funding Agency

- 17. Name of faculty with ongoing projects from a) National b) International funding agencies and c) Total grants received. Give the names of the funding agencies and grants received project-wise...**

Sl. No.	Title of the Project	Name of Principal Investigator	Name of the funding agency and year	Grant received (Rs. in Lakhs)
1	Analysis and Design of Distributed Intrusion Detection System using Soft computing	Dr Sanjay Silakari & Dr Shikha Agrawal	MPCST	2.85Lakh

18. Inter-institutional collaborative projects and grants received .

Sl. No.	Title of the Inter-institutional collaborative project	Name of the Institution & Year	National / International	Amount (Rs. in Lakhs)
	-			

19. Departmental projects funded by DST-FIST; UGC-SAP/CAS, DPE; DBT, ICSSR, etc.; total grants received ..

Sl. No.	Title of Department project	Name of the funding agency and amount
	-	

20. Research facility / centre

- with State recognition
- National
- recognition
- International
- recognition

Sl. No.	Name of the research facility / Centre	Type of Recognition (State National / International)
	-	

21. Special research laboratories sponsored by / created by industry or corporate bodies .:

Sl. No.	Name of the special laboratories sponsored	Sponsoring agency (Industry / Corporate Body)
	-	

22. PUBLICATIONS .:

- a. Number of papers published in peer reviewed journals

(National/International)

Year	No. of Publication
2011-12	18
2012-13	18
2013-14	40
2014-15	69
Total	145

**b. Monographs, Chapters in Books, Edited Books, Books . with ISBN
with detailsof publishers (include Hindi MediumBooks)-**

Sl. No.	Name of the faculty member	Monographs authored	Chapters authored in Books	Books edited	Books authored with ISBN
1.	Dr. Sanjay Silakari		2		1.Basic Computer Engineering,2ed.: ISBN 9788126543359 2. Editor of Proceeding of CICN
2.	Dr. Sanjay Silakari & Dr.Shikha Agrawal		1		Handbook of Advances in Intelligent Systems and Computing Series, Information Systems Design and Intelligent Applications, Springer-Verlag, Berlin Heidelberg, Vol-339, ISBN: 978-81-322-2250-7_2, pp.11-19, 2015.
3.	Dr. Sanjay Silakari & Dr.Shikha Agrawal		1		Handbook of Advances in Intelligent Systems and Computing Series, Springer-Verlag, Berlin Heidelberg, Vol-199, ISBN: 978-3-642-35314-7 (online), ISBN: 978-3-642-35313-(Print), pp.441-452, 2012.

4.	Dr.Shikha Agrawal		1		Handbook of Smart Innovation, Systems and Technologies, Springer-Verlag, Berlin Heidelberg, Vol-43, ISSN: 2190-3018, pp., 2015.
5.	Dr.Shikha Agrawal		2		Handbook of Advances in Intelligent Systems and Computing Series, Springer-Verlag, Berlin Heidelberg, Vol-330, ISBN: 978-3-319-08422-0 (online), ISBN: 978-3-319-08421-3 (Print), pp.741-746, 2014.
6.	Dr.Shikha Agrawal		2		Handbook of Advances in Intelligent Systems and Computing Series, Springer-Verlag, Berlin Heidelberg, Vol-258, ISBN: 978-3-642-35314-7 (online), ISBN: 978-81-322-1770-1 (Print), pp.709-720, 2014
7.	Dr.Shikha Agrawal		3		Handbook of Advances in Intelligent Systems and Computing Series, Springer-Verlag, Berlin Heidelberg, Vol-199, ISBN: 978-3-642-35314-7 (online), ISBN: 978-3-642-35313-0(Print), pp.405-414, 2012

c. Number listed in International Database (For e.g. Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.) Citation Index – range / average, SNIP, SJR, Impact Factor – range/ average, h-index- .

Sl. No.	Name of the faculty member	Number listed in Intl. database (Web of science, scopes science directory etc.	h-index (Since 2011)
1.	Dr.Sanjay Silakari	75	12

2.	Dr.Mahesh Motwani	09	
3.	Dr.Shikha Agrawal	36	4
4.	Dr.Piyush Shukla	18	3
5.	Dr.Rajeev Pandey	09	2
6.	Prof.Uday Chourasia	05	1
7.	Prof. Raju Baraskar	13	
8.	Prof. Anjna Deen	07	1
9.	Prof. Manish Ahirwar	06	

d. Impact Factor and h-index year wise from 2011 to 2015

Sl. No.	Name of the faculty member	Citation index		Impact Factor (Range/ Avg.)*
9.	Dr.Sanjay Silakari	2011	89	1.32-2.639
		2012	63	
		2013	25	
		2014	22	
		2015	12	
		(Range/ Avg.)*		1.9795
10.	Dr.Mahesh Motwani	2011	02	
		2012	13	
		2013	03	
		2014	02	
		2015	00	
		(Range/ Avg.)		

11.	Dr.Shikha Agrawal	2011	00	1.32-2.639
		2012	13	
		2013	18	
		2014	11	
		2015	20	
		(Range/ Avg.)		1.9795
12.	Dr.Piyush Shukla	2011	03	0.762-1.502
		2012	12	
		2013	02	
		2014	04	
		2015	02	
		(Range/ Avg.)		1.132
13.	Dr.Rajeev Pandey	2011	00	
		2012	05	
		2013	13	
		2014	02	
		2015	01	
		(Range/ Avg.)		
14.	Prof Anjana Deen	2011	01	
		2012	00	
		2013	01	
		2014	01	
		2015	01	
		(Range/ Avg.)		
15.	Prof.Manish Ahirwar	2011	00	

		2012	00	
		2013	00	
		2014	00	
		2015	01	
		(Range/ Avg.)		
16.	Prof.Raju Baraskar	2011	00	
		2012	03	
		2013	06	
		2014	12	
		2015	00	
		(Range/ Avg.)		
17.	Prof.Uday Chourasia	2011	00	
		2012	00	
		2013	00	
		2014	01	
		2015	00	
		(Range/ Avg.)		

23. Details of patents and income generated .:

Sl. No.	Name of the faculty member	Patent received	Income generated in Rs.
	-		

24. Areas of consultancy and income generated .:

Sl. No.	Name of the faculty member	Areas of consultancy carried out	Income generated (Rs. in Lakhs)
	-		

25. Faculty selected nationally/internationally to visit other laboratories in India and abroad .

Sl. No.	Name of the Faculty member	Name of the Lab visited in India	Name of the Lab visited abroad
	-		

26. Faculty serving in various Committees .:

Sl. No.	Name of the Faculty member	Details of National / International committee served	Details of Editorial Board served	Any other committee
1.	Dr.Sanjay Silakari	Conference Chair	Int. Conf. on CICN	Member of ISTE,CSI
2.	Dr.Piyush Shukla	Editorial board member .	1.International Journal of Network Security, Bioinformatics Publication 2. IJSCE	Member of IACSIT,IAENG
3.	Dr.Mahesh Motwani			Member of ISTE,CSI

4.	Dr.Shikha Agrawal	Member of reviewer committee	International Journal of Computer Science and Information Security, USA	1. IEEE International Conference on Computational Intelligence and Communication Networks (CICN-2015), 04-06 April 2015 organized by Machine Intelligence research Labs, Gwalior and Sponsored by Shri Ram Group of Institutes, Gwalior 2. Member of ISTE, CSI, IEEE, IAENG
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27. Faculty recharging strategies:

1. Sponsoring faculties to attend various faculty development programs and workshops.
2. Opportunities for attending summer and winter schools organized by leading institutions and research institutes.
3. Sponsoring the faculties to attend National and International Conferences within India and abroad.
4. Taking part in Ph.D Defense Presentations.

28. Student projects (.)

- ▣ Percentage of students who have done in-house projects including inter-departmental projects
- Percentage of students doing projects in collaboration with other universities / industry/institute

Sl. No.	Name of the Programme offered	Percentage of students who have done in-house projects including inter-departmental projects	Percentage of students who have done in-house projects in collaboration with other universities for industry / institute
1	B.E.	100%	NIL

29. (a) Awards / recognitions received at the National and International level by Faculty .:

Sl. No.	Name of the Faculty Member	Awards /recognition received	
		Nation	International
1.	Dr.Shikha Agrawal		Sr.Member of IEEE

29 (b) Awards / recognitions received at the National and International level by Doctoral / post doctoral fellows .:

Sl. No.	Name of the Doctoral / Post doctoral Fellow	Awards /recognition received	
		National	International
1.	Dr.Shikha Agrawal	Young Scientist Award	
2.	Dr.Shikha Agrawal	ICT Rising Star of the Year	

29 (c) Awards / recognitions received at the national and international level by Students .:

Sl. No.	Name of the Student	Programme	Awards/Recognition received	
			National	International
1.	Suyash Bakshi & Shubham Vaishnav	SAVISHKAR IFAST-2015	5th Position in Open source Technology	
2.	Abhijeet Soni, Ankit Tiwari & Akshay Jain	SRIJAN-2014	Ist Prize on Innovative Ideas	

30. Seminars/ Conferences/Workshops organized and the source of funding (national / international) with details of participants ..-

S. No.	Name of the seminar / conference / workshop organized		Source funding	Details of participants
	National	International		
1.	Advanced Computer Architecture & Embedded Systems		TEQIP-II	110Participants
2.	Wireless Networking Optical Fiber & Digital Communication		RGPV	50Participants (Students)
3.	Artificial Intelligence & Soft Computing		TEQIP-II	50 Participants
4.	Cloud Computing and Aneka Platform		RGPV	250 Participants

31. Code of ethics for research followed by the departments:

The Department is very particular about discouraging plagiarism. It encourages department members to be honest and realistic in stating claims or estimates based on available data. Also it encourages to improve the understanding of technology & its appropriate application, and potential consequences. The researchers of department try to seek, accept, and offer honest criticism of technical work, to acknowledge and correct errors, and to credit properly the contributions of others.

32. Student profilecourse-wise .:

Name of the Course	Applications received	Year	Selected		Pass percentage	
			Male	Female	Male	Female
BE		2011-12	93	30	88.2	92.6
		2012-13	82	41	91	89.7
		2013-14	84	34	85.9	96.7
		2014-15	78	38	92.5	88
ME		2011-12	13	3	95.5	98.3
		2012-13	14	4	93.4	97.4
		2013-14	13	5	94	96.2
		2014-15	9	9	93	98.7

33. Diversity of students .

Name of the Course	YEAR	% of students from the same university	% of students from other universities within the State	% of students from universities outside the State	% of students from other countries
B.E.		-	-	-	-
M.E.	2011-15	100%	-	-	-

**

34. How many students have cleared Civil Services and Defence Services examinations, NET, SET, GATE and other competitive examinations? Give details category-wise. Provide details with proof like name of the student, email, appointment/selection letter etc. ..

Sl. No.	Name of the competitive Examination	Number of students cleared
1.	Civil services	-
2.	Defense services	-
3.	NET	-
4.	SET	-
5.	GATE	58
6.	Any other competitive examination(GRE)	12

35. Student progression . ((To Be Provided by Acad.Deptt))

Student progression	Percentage against enrolled			
	2011-12	2012-13	2013-14	2014-15
UG to PG	-	-	03	-
PG to M.Phil.	-	-	-	-
PG to Ph.D.	-	-	-	-
Ph.D. to Post-Doctoral	-	-	-	-
Employed				
Campus selection UG	29	52	64	62
PG	0	0	0	02
Other than campus recruitment				
UG				
PG				

Entrepreneurs				
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36.Diversity of staff .:

Percentage of faculty who are graduates	PG	Ph.D.
of the same university	91.6	50
from other universities within the State	0	16.67
from universities from other States	8.40	33.33
from universities outside the country	-	-

37.Number of faculty who were awarded Ph.D., D.Sc. and D.Litt. during the assessmentperiod .:

Year	Number of Faculty awarded Ph.D / D.Sc., D.Litt
2011-12	-
2012-13	-
2013-14	01
2014-15	01

38. Present details of infrastructural facilities with regard to Library, Internet facilities for staff and students, Total number of class rooms, Class rooms with ICT facility, Students' laboratories, Researchlaboratories ..

Sl. No.	Name of the Infrastructural Facility	Quantity / Details	
1.	Library	01	306 Reference & Text Books
2.	Internet for staff	Yes	
3.	Internet for students	Yes	
4.	Number of class rooms	07	
5.	Classrooms with ICT facility	01	
6.	Research Labs	04	

Note: 24 hours / 7 days campus Wi-Fi connectivity is available for students and faculties.

38. List of Doctoral, Post-Doctoral students and Research Associates from the Host University, from other Universities .

Sl. No.	Name of the Student	Category Post-doctoral / Doctoral / Research associate	Name of the University (Host / other University)
	-		

40. Number of post graduate students getting financial assistance from the university. GATE, Scholarship, Rajiv Gandhi Scholarship etc. received through University

Programme	Number of students getting financial assistance from the University			
	2011-12	2012-13	2013 -14	2014-15
<i>GATE stipend</i>	16	18	18	07

41. Was any need assessment exercise undertaken before the development of new Programme(s)? If so, highlight the methodology. NA

42. Does the department obtain feedback . from-

(m) Faculty on curriculum as well as teaching-learning-evaluation? If yes, how does the department utilize the feedback? Yes , By discussing in B.O.S

(n) Students on staff, curriculum and teaching-learning-evaluation and how does the department utilize the feedback? Yes , By informal methods

(o) Alumni and employers on the programmes offered and how does the department utilize the feedback? Yes , By informal methods

43. List the distinguished alumni of the department (maximum 10):

Sl. No.	Name of the distinguished Alumni	Details of occupation
1.	Shri Sanjak Kumar Samuel	Joint Director ,MPCST
2.	Prof. Shailendra Singh	Professor at NITTR Bhopal
3.	Shri Rajesh Patre	Sr. Mgr(IT & Commn.) SJVN
4.	Shri Pankaj Gupta	Software professional, Boston USA
5.	Shri Anil Manik Rao	GM(System) CWC, New Delhi

6.	Mr. Vinod Yadav	Chairman, Millennium Group of institution, Bhopal
7.	Mr. Shailesh Mishra	Bell Labs, Singapore
8.	Shri Ajay Kr Gupta	SDM Global Delivery Head, Noida
9.	Shri Safeer Azam	IT & Lifestyle Business,EROS ,Dubai
10.	Mr. Mukesh Dixit	GM, Reliance

44. Give details of student enrichment programmes . (Special Lectures / Workshops / Seminar) involving external experts:

Sl. No.	Title of the Special Lecture / Workshop/Seminar organized	Details of the External Expert
1.	Special Lecture on Cloud Computing	Dr Rajkumar Buyaa, University of Melborne, Australia
2.	Two day workshop on Advanced Computer Architecture & Embedded Systems	1.Dr.Jatin Deka IIT Guwahati 2.Prof.Prakash W Dandekar ,Academician and Industry Expert

45.List the teaching methods adopted by the faculty for different programmes.

1. Lecture method: Teaching through lectures by using black board as well as LCD projectors.
2. Interactive method: Teaching through conducting tutorials, assignments and group discussions on the topics related to the subject handling.
3. Project based learning: Analyzing, designing, implementing and documenting skills of the students are improved by assigning mini-projects, major projects.
4. Computer assisted learning: Quizzes are conducted through LMS(Learning Management System)
5. Experimental learning: The students are trained to do programming through lab experiments.
6. Seminars: The students are encouraged to take technical seminars which are used to improve the presentation skills of the students.

46. Howdoes the department ensure that programme objectives are constantly met and learning outcomes aremonitored?

The Department obtains feedback from the Alumni of the department and the employers of the alumni of the University on the curriculum, and the syllabi they have studied and the caliber and the performance of the candidates respectively. Advice is also taken from faculties from different universities and institutes. This feedback and advice is used to evaluate the mapping of the Programme Educational Objectives and the Programme Outcome of the course. Every year curriculum and syllabi are looked at in detail and

based on the necessity arising to make the syllabi on par with the industry standards. The course feed backs are collected from teaching staff, alumni, industrialist and academicians and incorporated in the subsequent curriculum development exercises continuously. Course syllabi are reviewed and recent developments in the subject areas are incorporated in the syllabi. Recently published text books/reference books are used for preparing the syllabus.

47. Highlight the participation of students and faculty in extension activities .-

Our students go to various schools in rural areas to teach students about computers, recent technologies and outcomes.

48. Give details of “beyond syllabus scholarly activities” of the department ..

1. The department organizes several cultural and sports events in which the students get a chance to show their talent.
2. Personality development programs are organized to groom the students for their placements and interviews of various companies.
3. Bright and motivated students have a provision to register for industry certified add on courses.
4. Technical and subject-wise quizzes are conducted through LMS for quality assessment of the students

(a) List of Awards . NIL

S.No	Name of the Student	Programme	Award Name
1.	-		

(b). List of conference papers by students .

Programme	No. of conference papers by students				
	2011-12	2012-13	2013-14	2014-15	
	-	-	-	-	

49. State whether the programme/ department is accredited/ graded by other agencies? If yes, give details ..

Accreditation Status of UG & PG Programme:

Sl. No.	Name of the Student	Date of Accreditation	Date of Expiry
1.	B.E.	Applied	-
2.	M.E.	-	-

50. Briefly highlight the contributions of the department in generating new Knowledge, Basic or Applied.

The Department of Computer Science & Engineering of UIT, RGPV impart quality and state of art education in the emerging field of Computer Science & Engineering. The department generates quality manpower to cater requirements of industry with good placement records. The department strives not only to generate quality manpower but also to develop core technologies via a vibrant research culture, to support India's rapidly growing knowledge economy.

51. Detail any five Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department.

Strength:

1. Being one of the oldest colleges in this part of the country, the department has the name & trust among the people in and around.
2. Well qualified & experienced teaching faculty.
3. Most faculties are engaged in research work and published papers in reputed journals.
4. Excellent teaching learning environment.
5. Department has good number of placement record.
6. Department organizes Conferences, Workshops for knowledge upliftment of faculties and students.
7. Demand for the course in market
8. Motivated faculty members

Weakness:

1. Less number of certification courses
2. Lack of funded projects;
3. Volatility in Market demand; and
4. MoU with Industry

Opportunities:

1. Incorporating technology into courses (video, pod cast, smart classes etc.)
2. Collaboration with universities in India and Abroad
3. Industry tie-ups and joint research
4. Financial autonomy

Challenges:

1. To deepen the knowledge and skills of the students on the basic concepts, theories and practical that will equip them in their professional

work involving analysis, systems implementation, operation and maintenance of the various applications in the field of Computer science and Engineering

2. Constant changes to technology- Computer Technology is changing fast so the department has to update itself continuously.

3. To generate income for department from other sources.

4. Quality focus, result & goal orientation in a group situation

5. Competition from other universities and college are very high

6. Getting funded projects

7. Training students beyond academics

8. Fluctuating demand in Industry

9. Getting faculty with experience

52. Future plans of the department.

The Department has a major role to play in providing academic excellence in computer science and Engineering. The Department has great potential for expansion in the upcoming years. Future plans include:

1. To setup state-of-the-art Research Centre in Mobile Computing, Robotics and Cloud Computing
2. To start Part-Time M.Tech programme in CSE/IT
3. Recruiting and retaining well-qualified faculty
4. Enhancement of research activities through MoU with Premier National and International Institutes
5. Consolidate infrastructure and facilities
6. Strengthening Institute-Industry Interaction
7. Imparting training programmes related to new advancements in the field of computer science and information technology.

9. DEPARTMENT OF INFORMATION TECHNOLOGY

1. Name of the Department: **DEPARTMENT OF INFORMATION TECHNOLOGY**
2. Year of establishment: **2000**
3. **Is the Department part of a School/Faculty of the University? : Yes, Department of Information Technology is part of RGPV Bhopal.**
4. Names of Programmes / Courses offered
(UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.) :

S. No.	Name of the Programme offered	Remarks (UG/PG/M.Phil/Ph.D.)
1	B.E. Information Technology	UG
2	Integrated PG program	PG

5. Interdisciplinary courses and departments involved:

S. No.	Interdisciplinary Courses Offered	Names of the Departments involved
1	Engineering Mathematics	Department of Mathematics
2	Engineering Physics	Department of Physics
3	-Engineering Chemistry -Energy Environment Ecology and Science	Department of Chemistry
4	Languages Lab	Department of Humanities
5	Workshop practice	Department of Mechanical Engineering
6	-Fundamental of Electronics Engineering -Analog Communication	Department of Electronics and Communication
7	Fundamental of Mechanical Engineering	Department of Mechanical Engineering.
8	Basic Civil Engineering and Engineering Mechanics	Department of Civil Engineering.
9	Principles of Management	Department of Management Studies

6. **Courses in collaboration with other universities, industries, foreign institutions etc. :**

S. No.	Collaborative courses offered .	Year	Remarks (with other Universities / Industries / Foreign Institutions)
1	Cloud Computing	2014 2015	EMC ² academic associate examination
2	Information Storage management	2014 2015	EMC ² academic associate examination
3	Data Science	2014 2015	EMC ²

7. Details of programmes / courses discontinued, if any, with reasons:

S. No.	Name of the Programme discontinued	Reason
	-NIL-	

8. Annual/ Semester/Choice Based Credit System: Choice Based Credit System and Semester Based Credit System for UG Programmes.

9. Participation of the department in the courses offered by other departments:

S. No.	Name of the courses engaged for other departments	Name of the other department
1	Basic Computer Engineering	<ul style="list-style-type: none"> Department of Electronics & Communication Department of Petrochemical Engineering
2	Computer Programming Lab	<ul style="list-style-type: none"> Department of Electronics & Communication Department of Petrochemical Engineering
3	.NET Lab	Department of Civil Engineering
4	Operating System	Department of Electronics & Communication
5	Management of Information Studies	Department of Applied Management

10. Number of Teaching posts sanctioned and filled (Professors/Associate Professors/ Assistant Professors):

Sl. No.	Name of the teaching post	Sanctioned	Filled
1	Professor	01	-
2	Associate Professor	03	02
3	Assistant Professor	06	04
	Total	10	06

11. Faculty profile with name, qualification, designation and specialisation (D.Sc./D.Litt./ Ph.D./M.Phil.,etc.)

S. No.	Name	Qualification	Designation	Specialization D.Sc., D.Litt., Ph.D., M.Phil, M.E.	No.of Years of Experience	No.of Ph.D. students guided .
1	Dr. Roopam Gupta	Ph.D	Associate Professor	Digital Communication, Networking	23 years	04
2	Dr. Asmita Moghe	Ph.D	Associate Professor	Image Processing Digital Communication	18 years	
3	Dr.Anjana Pandey,	Ph.D	Assistant Professor	Data Mining	12 years	
4	Dr.Sachin Goyal	Ph.D	Assistant Professor	Digital Watermarking	10 years	
5	Dr. Ratish Agrawal	Ph.D	Assistant Professor	Digital Communication	4.5 years Industry 9 years Teaching	
6	Dr. Mahesh Pawar	Ph.D	Assistant Professor	Software Engineering	15 years	
7	Mr. Dhananjay Bisen	M.Tech, Ph.D*	Assistant Professor	Mobile Ad-hoc Networks	06 years	

	(Contract Faculty)					
8	Mr. Vikas Rohit (Contract Faculty)	M.Tech	Assistant Professor	Image Processing	05 years	
9	Ms. Neera Lal (Contract Faculty)	M.Tech	Assistant Professor	Image Processing	02 years 04 months	
10.	Ms. Ruby Jain (Contract Faculty)	M.Tech	Assistant Professor	Network Security	02 years	
11.	Mr. Rahul Mishra (Contract Faculty)	M.Tech	Assistant Professor	Web Mining	3 months	

*PhD Pursuing

12. List of senior Visiting Fellows, faculty, adjunct faculty, emeritus professors

S. No.	Name of the Faculty Member	Designation (Visiting fellow, visiting Faculty, adjunct faculty, Emeritus Professors)
1.	---NIL--	

13. Percentage of classes taken by temporary faculty (Guest faculty) – Programme-wise Information.

S. No.	Name of the Programme	% of classes taken by temporary Faculty members
1.	UG programmes (B.E.)	45%
2.	Integrated PG program	48%

14. Programme-wise Student Teacher Ratio

S. No.	Name of the Programme	Student-Teacher ratio
	UG programmes	
1.	BE. Information Technology	15:1
2.	Integrated PG program	1.5:1

15. Number of academic support staff (technical) and administrative staff: Sanctioned and Filled:

Provided from common pool of the University

16. Research thrust areas recognized by funding agencies.

S.No.	Research thrust areas
1	Wireless networks
2	Mobile Ad-hoc network
3	Network security and cryptography
4	Image processing
5	Data mining
6	Web mining
7	Cloud computing
8	Software Engineering
9	Big Data/Hadoop
10	Wireless sensor network
11	Vehicular adhoc network
12	Image security

17. Name of faculty with ongoing projects from a) National b) International funding agencies and c) Total grants received. Give the names of the funding agencies and grants received project-wise...

S.N.	Title of the Project	Name of Principal Investigator	Name of the funding agency and year	Grant received (Rs. in Lakhs)
1	-----NIL-----			

18. Inter-institutional collaborative projects and grants received .

S. No.	Title of the Inter-institutional collaborative project	Name of the Institution & Year	National / International	Amount (Rs. in Lakhs)
1	-----NIL-----			

19. Departmental projects funded by DST-FIST; UGC-SAP/CAS, DPE; DBT, ICSSR, etc.; total grants received ..

S. No.	Title of Department project	Name of the funding agency and amount
	-----NIL-----	

- 20. Research facility / centre with**
Staterecognition
National recognition
International recognition

Sl. No.	Name of the research facility / Centre	Type of Recognition (State National / International)
1	UIT,RGPV	State

- 21. Special research laboratories sponsored by / created by industry or corporate bodies .:**

Sl. No.	Name of the special laboratories sponsored	Sponsoring agency (Industry / Corporate Body)
	-----NIL-----	

22. PUBLICATIONS .:

- a. Number of papers published in peer reviewed journals (National/International)**

Year	No. of Publication
2011-12	19
2012-13	8
2013-14	12
2014-15	17
Total	56

- b. Monographs, Chapters in Books, Edited Books, Books . with ISBN with details of publishers (include Hindi Medium Books)-**

Sl. No.	Name of the faculty member	Monographs authored	Chapters authored in Books	Books edited	Books authored with ISBN
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1	Dr. Mahesh Pawar	-	-	Software Engineering	Rajesh Narang ISBN-13:978-93-392-2096-9
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c. Number listed in International Database (For e.g. Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.) Citation Index – range / average, SNIP, SJR, Impact Factor – range/ average, h-index- .

Sl. No.	Name of the faculty member	Number listed in Intl. database (Web of science, scopes science directory etc.	h-index (Since 2011)
1	Dr. Roopam Gupta	02-scopus	8
2	Dr. Asmita A. Moghe		-
3	Dr. Sachin Goyal		2
4	Dr. Ratish Agarwal	01-scopus	2
5	Dr. Mahesh Pawar		1
6	Dr. Anjana Pandey		2

d. Impact Factor and h-index year wise from 2011 to 2015

Sl. No.	Name of the faculty member	Citation index		Impact Factor (Range/ Avg.)*
1	Dr. Roopam Gupta	2011	14	(0.527-0.821)/0.674
		2012	40	
		2013	45	
		2014	68	
		2015	53	
		(Range/ Avg.)*		
1	Dr. Asmita A. Moghe	2011		
		2012		
		2013		
		2014		
		2015		
		(Range/ Avg.)		

3.	Dr. Sachin Goyal	2011	8	(0.763-0.821)/0.792
		2012	0	
		2013	0	
		2014	3	
		2015	0	
		(Range/ Avg.)		
4.	Dr. Ratish Agarwal	2011	15	
		2012	17	
		2013	32	
		2014	31	
		2015	41	(0.642 – 1.190) / 0.916
		(Range/ Avg.)		
5.	Dr. Mahesh Pawar	2011	-	-
		2012	01	-
		2013	-	-
		2014	-	-
		2015	-	-
		(Range/ Avg.)	-	-
6.	Dr. Anjana Pandey	2011	3	-
		2012	5	-
		2013	1	-
		2014	3	-
		2015	2	-
		(Range/ Avg.)	-	-

23. Details of patents and income generated .:

S.No	Name of the faculty member	Patent received	Income generated in Rs.
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	-----NIL-----		
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24. Areas of consultancy and income generated .:

Sl. No.	Name of the faculty member	Areas of consultancy carried out	Income generated (Rs. in Lakhs)
	-----NIL-----		

25. Faculty selected nationally/internationally to visit other laboratories in India and abroad .

Sl. No.	Name of the Faculty member	Name of the Lab visited in India	Name of the Lab visited abroad
1	Dr. Mahesh Pawar	Data center virtualization Lab Banglore 17-21 May 2014	NIL
2	Dr. Sachin Goyal	Data center virtualization Lab Banglore 17-21 May 2014	NIL
3	Dr. Mahesh Pawar	Open source Lab, IIT, Bombay, 6th to 10 th May 2013, ICT (MHRD), (Coordinator's workshop	NIL

26. Faculty serving in various Committees .:

S. No.	Name of the Faculty	Details of National / International	Details of Editorial	Any other committee
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1.	Dr. Roopam Gupta	<p>Member of organizing committee and reviewer of International Conference on Cloud ,big Data and trust “, Organized by of R.G.T.U. Bhopal (M.P.), held at Bhopal, NOv13-15-2013.</p> <p>-Co-coordinator of ”National Seminar on “Component based Software Engineering“ sponsored by AICTE</p>		<p>-Nodal officer academics, TEQIP-II since October 2014.</p> <p>-Member of enquiry committee regarding in disciplinary acts in other affiliated institutes of RGPV.</p> <p>-Member of inspection committee regarding affiliation of M.Tech/B.E (PG/UG) in RGPV affiliated institutes, M.P.</p>
2.	Dr. Asmita Moghe			-Board of Studies, RGPV, Bhopal
3.	Dr. Sachin Goyal	<p>Editorial work on theory of computation CENGAGE learning</p> <p>-Session Chair of Sixth IEEE International Conference CICN-2014 at LNCT Bhopal on 8th Nov 2014.</p> <p>-Reviewer of International Journal of E--lectronics Taylor and Francis, Applied soft computing Elsevier, IEEE conference.</p>		<p>-Board of Studies, RGPV, Bhopal</p> <p>-As a deputy organizer at valuation center of UIT RGPV</p>
4.	Dr Mahesh Pawar	Reviewer of IEEE Conference ICCCA-2015.		Board of Studies, RGPV, Bhopal
5.	Dr Ratish Agarwal	<p>Book Reviewer of Tata McGraw Hills publications</p> <p>-Reviewer of International Journal of Electronics Taylor and Francis.</p> <p>-Reviewer of</p>		<p>-Board of Studies, RGPV, Bhopal</p> <p>-As a deputy organizer at valuation center of RGPV</p>

		International Journal of Wireless Information Networks, Springer science and media.		
		-Reviewer of International Journal of Communication Systems, Wiley.		

6.	Dr. Anjana Pandey	<p>Member of Organizing Committee "International Conference on Cloud ,big Data and trust ", Organized by of R.G.T.U. Bhopal (M.P.), held at Bhopal, NOv13-15-2013.</p> <p>Member of Organizing Committee of sponsored by AICTE Delhi" National Seminar on "Component based Software Engineering ", Organized by Deptt. of Information Technology of R.G.T.U. Bhopal (M.P.), held at Bhopal, July14-15-2011.</p> <p>Member of Organizing Committee of MANTHAN 2012"Redefining Academia – Industry Relationship "Organized by RGPV. April 10 – 12 ,2012.</p> <p>Member of organizing Committee of International conference of Computational and Integrative science "organized by MANIT Dec 11-14 2015.</p>		<p>-Board of Studies, RGPV, Bhopal.</p> <p>Member of Organizing Committee of Refresher Course on "Computer Network" for faculty member of Affiliated Colleges of RGPV, March 10-15 2012.</p>
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27. Faculty recharging strategies :

1. Faculties are motivated to attend national and international conferences within India and abroad.
2. For exposure to latest developments in the area of interest of the faculty members, faculties are nominated special training program.

3. They have opportunities to attend summer winter school, refresher course/orientation/FDP organized by reputed institutions.

28. Student projects (.)

- Percentage of students who have done in-house projects including inter-departmental projects
- Percentage of students doing projects in collaboration with other universities / industry/institute

Sl. No.	Name of the Programme offered	Percentage of students who have done in- house projects including inter-departmental projects	Percentage of students who have done in-house projects in collaboration with other universities for industry / institute
1	B.E.	100%	NIL

29. (a) Awards / recognitions received at the National and International level by Faculty .:

Sl. No.	Name of the Faculty Member	Awards /recognition received	
		National	International
1.	Dr. Anjana Pandey	Best teacher award on Web Technology (SRIJAN 2013)	

29 (b) Awards / recognitions received at the National and International level by Doctoral / post doctoral fellows .:

Sl. No.	Name of the Doctoral / Post doctoral Fellow	Awards /recognition received	
		National	International
	-----NIL----- -----		

29 (c) Awards / recognitions received at the national and international level by Students .:

S.N	Name	Event	Score/Percentile	Year
1	Subham Singhal	GATE	97 %ile	2015 - 2014
1	Nimish Amlathe	GRE	324/340	
2	Shriyansh Jain	Maryland University Certificate	-	
3	Akash Tripathi	Harward University	-	

		Certificate		
4	Shubham Jain	-Chancellor Scholarship -Certificate by Zeffy Ullman (Theory of computation)	-	
5	Nimish Amlathe	-Stanford University Certificate -Co-Founder of NGO (C-SEEDO)	-	
6	Chetanya Saxena	High Score in Bloomberg Aptitude Test	75%ile	
7	Surbhi Goyal	GATE	99.94 %ile	
8	Ankit Jain	GATE	94.02 %ile	
9	Vasundhra Vyas	GATE	94 %ile	
10	Shubham Singhal	Chancellor Scholarship		
11	Ankita Baraskar	Microsoft Certified		
12	Nidhi Ratnaparkhe	Oracle Certified SQL Expert	96 %	
		Oracle Certified Professional Java 6 Programmer	98%	
13	Anuj Jain	-Harward Certificate -Stanford Certificate -UCBerkely Certificate -MITBoston Certificate	-	2014 - 2013
14	Deepak Singh	Android Application Development Contest	1 st Prize	
15	Bhavna Sultana			
16	Narendra Katariya			
17	Yogesh Barania	-UCBerkeley Certificate -Stanford Certificate	-	
18	Harsh Jain	-UCBerkeley Certificate -Stanford Certificate	-	
19	Shubham Jain	Stanford Certificate	-	
20	Garima Panwar	CAT	93 %ile	
21	Surbhi Goyal	Cloud Computing Contest (Organized by EMC ²)	1st Prize	
22	Deeksha Goswani	Cloud Computing Contest (Organized by EMC ²)	1st Prize	
23	Ankit Jain	Cloud Computing Contest (Organized by EMC ²)	1st Prize	
24	Nawal Ali	Cloud Computing Contest (Organized by EMC ²)	1st Prize	2012-2011
25	Ankit Jain	EMC ² Internship	-	
26	Nidhi Ratnaparkhe	Chancellor Scholarship	-	
27	Vivek Yadav	GECSpark	Ist in Codecian & Face Painting	
28	Ankit Jain	Chancellor Scholarship	-	

30. Seminars/ Conferences/Workshops organized and the source of funding (national / international) with details of participants ..-

S. No.	Name of the seminar / conference / workshop organized		Source of funding	Details of participants
	National	International		
1	Refresher course on Soft computing Techniques 18-22 Feb, 2014		RGPV Bhopal	Faculty/ Student
2	Orientation Session on Mobility , 30 Nov. 2013		RGPV Bhopal	Faculty/ Student
3	Workshop on MATLAB with Image Processing & Robotics 2 March 2013		RGPV Bhopal	Faculty/ Student
4	Refresher Course on Computer Networks 31 Jan – 04 Feb 2012		RGPV Bhopal	Faculty/ Student
5	Refresher Course on Data Base Management System 07-12 February 2011		RGPV Bhopal	Faculty/ Student
6	Component Based Software Engineering & Testing Seminar Sponsored by AICTE, 14 th to 15 th July 2011		AICTE	Faculty/ Student
7	IBM DB2 Academic Excellence Program (For Students and Faculty), 3 rd to 5 th May 2011		RGPV Bhopal	Faculty/ Student
8	IBM DB2 Academic Excellence Program (Departmental training to CSE Deptt.), 12 th -14 th October 2011		RGPV Bhopal	Faculty/ Student
9	EMC ² academic associate examination of ISM and Cloud 10 March 2014		EMC ²	Faculty/ Student
10	EMC ² academic associate examination of ISM and Cloud 28 and 30 April 2015		EMC ²	Faculty/ Student

31. Code of ethics for research followed by the departments:

The Department has established a procedure for ethical clearance of all UG/PG projects and dissertations submitted.

1. Students are encouraged to publish at least one research paper for their contributions to the field of research. Plagiarism is checked by the supervisor/ co-supervisor before the submission and if the paper is not up to the mark the submission is withheld & students have to modify the work accordingly.
2. Internal committee review the research work submitted by the student for dissertation and recommends for final submission.
3. In BE 4YDC offered by department at most three or four students are allowed to participate in a group for major/minor projects. The groups are assigned one supervisor and co-supervisor who have specialization in the relevant fields.
4. Students are strictly monitored while understanding major/ minor projects to ensure the originality of work. At different status of their work review is done and suggestions are required to be incorporated.

32. Student profile course-wise .:

Name of the Course	Applications received	Year	Selected		Pass percentage	
			Male	Female	Male	Female
B.E. Information Technology		2011-12	37	27		
		2012-13	38	23		
		2013-14	41	17		
		2014-15	26	32		

33. Diversity of students .

Name of the Course	YEAR	% of students from the same university	% of students from other universities within the State	% of students from universities outside the State	% of students from other countries
B.E.	-	-	-	-	NIL

34. How many students have cleared Civil Services and Defence Services examinations, NET, SET, GATE and other competitive examinations? Give details category-wise. Provide details with proof like name of the student, email, appointment/selection letter etc. ..

Sl. No.	Name of the competitive Examination	Number of students cleared
1.	Civil services	-
2.	Defense services	-
3.	NET	-
4.	SET	-
5.	GATE	04
6.	GRE	01

35. Student progression .:

Student progression	Percentage against enrolled			
	2011-12	2012-13	2013-14	2014-15
UG to PG				
PG to M.Phil.				
PG to Ph.D.				
Ph.D. to Post-Doctoral				
Employed Campus selection UG	45%	26%	44%	47%
Other than campus Recruitment UG PG				
Entrepreneurs				

36. Diversity of staff .:

Percentage of faculty who are graduates	PG	Ph.D.
of the same university	16%	50%
from other universities within the State	50%	50%
from universities from other States	33%	-
from universities outside the country	-	-

37. Number of faculty who were awarded Ph.D., D.Sc. and D.Litt. during the assessment period .:

Year	Number of Faculty awarded Ph.D / D.Sc., D.Litt
2011-12	1
2012-13	1
2013-14	1
2014-15	2 (July and August 2015)

38. Present details of infrastructural facilities with regard to Library, Internet facilities for staff and students, Total number of class rooms, Class rooms

with ICT facility, Students' laboratories, Research laboratories ..

S.No.	Name of the Infrastructural Facility	Quantity / Details	
1.	Library	01	
2.	Internet for staff	20	
3.	Internet for students	105	
4.	Number of class rooms	03	
5.	Classrooms with ICT facility	01	
6.	Research Labs	02 Labs	

Note: 24 hours / 7 days campus Wi-Fi connectivity is available for students and faculties.

39. List of Doctoral, Post-Doctoral students and Research Associates from the Host University, from other Universities .

Sl. No.	Name of the Student	Category Post-doctoral /Doctoral /Research associate	Name of the University (Host / other University)
	-----NIL-----		

40. Number of post graduate students getting financial assistance from the university. *GATE, Scholarship, Rajiv Gandhi Scholarship etc. received through University*

Programme	Number of students getting financial assistance from the University			
	2011-12	2012-13	2013 - 14	2014-15
<i>GATE stipend</i>	---NIL----			

41. Was any need assessment exercise undertaken before the development of new Programme(s)? If so, highlight the methodology.

42. Does the department obtain feedback . from-

(p) Faculty on curriculum as well as teaching-learning-evaluation? If yes, how does the department utilize the feedback?

Yes, the department receives feedback members to make improvements in the teaching and learning system to ensure the overall development of its students. Suggestions based on feedback are put forth before board of studies. Based on teaching-learning evaluation, feedback only the department is updating the curriculum based on Choice Based Credit System.

(q) Students on staff, curriculum and teaching-learning-evaluation and how does the department utilize the feedback?

Yes, feedback is obtained from students on courses offered, courses desired and on modifications of curriculum. Students feedback are also used as a yardstick for the assessment of the performance of faculty. Practicable suggestions by students, Group discussions, Presentations and Seminar etc. on latest technology are incorporated.

(r) Alumni and employers on the programmes offered and how does the department utilize the feedback?

Former students participate in academic decision-making. Alumnus offer counsel about syllabi revision in the context of contemporary needs of students in industry. Most of the alumni, who participate in academic decision-making, hold high positions in industry. The feedback is forwarded to the BOS for syllabus review and updation.

43. List the distinguished alumni of the department (maximum 10):

S.no	Name of Distinguished Alumni	Details of Occupation	Year
1	Amit Kumar Sharma	Product Manager at Walt Disney Studios	2005
2	Ashish Pateria	System Consultant at Victoria University , Information Technology Services , Wellington , New Zealand	2005
3	Vinod Kotiya	Manager at NTPC	2005
4	Nishant Bilaiya	Senior Consultant at Capgemini	2005
5	Ashhad Khan	Oracle DBA , Compu Com	2007
6	Vidhatanand Sharma	CEO & Founder at VocabMonk	2008
7	Rishabh Foujdaar	Junior engineer at HPCL	2013
8	Manoj Ahirwar	Junior Engineer at Delhi Metro Railway Corporation	2013
9	Sumit Dutta	Data Scientist at Scienaptic	2013

44. Give details of student enrichment programmes . (Special Lectures / Workshops / Seminar) involving external experts:

S. No.	Title of the Special Lecture / Workshop / Seminar organized	Details of the External Expert
1	Orientation Session on Mobility, 30 Nov. 2013	
2	Workshop on MATLAB with Image Processing & Robotics 2 March 2013	
3	IBM DB2 Academic Excellence Program (For Students and Faculty), 3 rd to 5 th May 2011	

4	IBM DB2 Academic Excellence Program (Departmental training to CSE Deptt.), 12 th -14 th October 2011	
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45. List the teaching methods adopted by the faculty for different programmes.

Faculty adopts PPTs, Chalk-Talk and White Board for teaching. Department conduct group discussion/Seminar session where students present their views about any topic related to recent technologies.

Departments provide industrial visits, trainings, internships and field experience to students. The students form teams and work on projects which creates excellent academic environment outside. Apart from classroom interaction the students are encouraged to participate in different technical conferences, seminars and other co-curricular events those are held on campus or other departments or outside campus.

46. How does the department ensure that programme objectives are constantly met and learning outcomes are monitored?

Learning outcomes are monitored on a continuous assessment scheme of the department with due credits for theory exam, mid-sem exam, Quiz, lab work, GD seminar, Industrial training and projects.

1. Regular interaction with students and teachers to monitor the student activities.
2. Assignments are given to assess their writing and learning abilities.
3. Tutorials are provided for improving indepth knowledge of the subjects.
4. Three Mid-sem examination during the semester to assess the students after completion of desired amount of syllabus.
5. Major Project (Three level assessment + External Practical Exam) -
 - First level: Students come up with their possible projects and HOD finalizes the project after evaluation along with all faculty members and provides for respective guides.
 - Second level: Presentation of synopsis and report the progress of the project work.
 - Third level: Presentation of implementation of project and outline of the project.

47. Highlight the participation of students and faculty in extension activities .-

1. Students periodically participate in the cultural and technical activities conducted by the University as well as by other colleges within the state.
2. Faculty participates and organizes workshop/ conferences /Seminar for improving our

knowledge.

3. Faculties are the member of reviewer committee of conferences and journals. They are members of various professional societies like ISTE, IETE, CSI, AICSIT etc.

48. Give details of “beyond syllabus scholarly activities” of the department ..

a. List of Awards .

S.N	Name of student	Programme	Award Name
1	Shubham Jain	Chancellor Scholarship	
2	Shubham Singhal	Chancellor Scholarship	
3	Deepak Singh	Android Application Development Contest	1 st Prize
4	Bhavna Sultana		
5	Narendra Katariya		
6	Surbhi Goyal	Cloud Computing Contest (Organized by EMC ²)	1 st Prize
7	Deeksha Goswani	Cloud Computing Contest (Organized by EMC ²)	1 st Prize
8	Ankit Jain	Cloud Computing Contest (Organized by EMC ²)	1 st Prize
9	Nawal Ali	Cloud Computing Contest (Organized by EMC ²)	1 st Prize
10	Nidhi Ratnaparkhe	Chancellor Scholarship	
11	Vivek Yadav	GECSpark	1 st Prize
12	Ankit Jain	Chancellor Scholarship	

(ii). List of conference papers by students .

Programme	No. of conference papers by students			
	2011-12	2012-13	2013-14	2014-15
BE	-	-	-	-
MTech	-	-	-	-
PhD	04	01	02	-

49. State whether the programme/ department is accredited/ graded by other agencies? If yes, give details ..

Accreditation Status of UG & PG Programme:

S.N.	Name of the Student	Date of Accreditation	Date of Expiry
1.	B.E.	----NIL-----	

50. Briefly highlight the contributions of the department in generating new Knowledge, Basic or Applied.

1. Department promotes all faculty, staff and students to indulge in IT enabled activities.
2. IT forum is initiated for departmental updates for students and faculties.
3. Students are encouraged for applied projects.
4. Departmental students give online Quiz which was a project venture of IT department students.

51. Future plans of the department.

1. Enhance research activities by adding more research labs & obtaining research grant from funding agencies.
2. Proposed M.Tech program in Information and Communication Technology.
3. To have real time live projects for UG/ Integrated PG students.
4. Live training for student and faculty on latest technology.
5. To have strong association with industries and make industry-institute collaboration vibrant.
6. To refine value system in rapidly growing technology.
7. Improving the infrastructure of department laboratories.

52. Detail any five Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department.

Strengths

1. Faculty Quality: Department of Information Technology has highly qualified faculty including six with doctorate degree. We are giving students benchmarked quality teaching with a good faculty-student ratio.
2. Department is given academic autonomy in which we can design our own curriculum to fulfill the rapid changing needs of the industry.
3. Department regularly organize expert lectures from persons from other institute of repute and persons from industrial background.
4. Being a part of university all the faculties of this department are involved in curriculum design. Teaching-learning techniques using choice based credit system is being adapted by the department.
5. To enhance the knowledge of the faculty, department periodically organize refresher courses for in-house as well as faculty of affiliated institutes.
6. To make teaching-learning more effective faculties make use of chalk board, LCD projector and interactive board. we have adequate LCD projectors, interactive white boards and proper networking etc.

Weaknesses

1. Comparatively young department of the institution. The first batch passed out in _____. Alumni networks can be further strengthened that can immensely help in placements, fund-raising, outreach activities.

2. Inadequacy of laboratory facilities for research including specific hardware and software needed for research.
3. Consultancy services hard to be started.
4. Industries -Institute interaction may be further improved.
5. Extra efforts are required for research project grants from various nationalized agencies.
6. Motivation for filing patents is required for faculty as well as students.

Opportunities

1. Being a constituent institute of state technical university, we have fast access to the updated information regarding curriculum updates.
2. Utilize the professional networks of the academic staff, national and international. Maximize the resources of the library and the research centers.
3. Collaborate with other departments for developing more inter-disciplinary research projects and teaching activities.
4. With the existing infrastructure an M.Tech course in ICT may be started which can strengthen the research.

Challenges

1. The biggest challenge of this department is to attract the students who are giving least preference to Information technology branch.
2. To contribute for the development of Inter-University collaborations in India to enhance research and teaching.
3. To cope up with the fast-growing, rapid changing and more sophisticated technological advances in the field of information technology.
4. More efforts are required for getting research project grants from various nationalized agencies.
5. Motivate students as well as faculty for IPR and filing of patents.

10. Department of Mechanical Engineering

1. Name of the Department :Department of Mechanical Engineering

2. Year of establishment :2008

3. Is the Department part of a School/Faculty of the University?:

Yes, Department of Mechanical Engineering is part of faculty of RGPV Bhopal .

4. Names of Programmes / Courses offered
(UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.) :

Sl. No.	Name of the Programme offered	Remarks (UG/PG/M.Phil/Ph.D.)
1	B.E. Mechanical Engineering	UG
6	M.E. Heat Power Engineering	PG
19	Doctorate in Mechanical Engineering	Ph.D.

5. Interdisciplinary courses and departments involved:

Sl. No.	Interdisciplinary courses offered	Names of the Departments involved
1.	Fundamentals of Mechanical Engineering	Department of Electrical & Electronics Engineering
2.	Engineering Graphics	All the departments
3.	Thermodynamics	All the departments
4.	Fluid Mechanics	All the departments
5.	Heat & Mass Transfer	All the departments
6.	Workshop practice for all UG Programmers	All the departments
7	Strength of Material	All the departments
8	Theory of Machines	All the departments
9	Refrigeration and Air-Conditioning	All the departments
10	Mechatronics	Department of Electronics & Communication Engineering
11	Power Plant Engineering	All the departments

12	Operation Research	All the departments
13	Operations Management	All the departments
14	Supply Chain Management	All the departments
15	Internal Combustion Engines	All the departments
16	Non Conventional Energy Sources	All the departments
17	Energy Audit & Energy Management	All the departments
18	Computer Integrated Manufacturing	All the departments
19	Computer Aided drafting & design	All the departments
20	Engineering Design	All the departments
21	Alternate Automotive fuels	All the departments
22	Cryogenics	All the departments
23	Design of Heat Exchanging Equipments	All the departments
24	Mechanical Vibrations & Noise Control	All the departments
25	Computational Fluid Dynamics	All the departments

6. Courses in collaboration with other universities, industries, foreign institutions etc.:

Sl. No.	Collaborative courses offered	Remarks (with other Universities / Industries / Foreign Institutions)
1.	Computer Aided Design & drafting	D' Auto Ltd , Bhopal

7. Details of programmes / courses discontinued, if any, with reasons:

Sl. No.	Name of the Programme discontinued	Reason
	- NIL -	

8. Annual/ Semester/Choice Based CreditSystem:

Semester /CBCS and Semester Based Credit System for all UG and PG Programmes.

9. Participation of the department in the courses offered by other departments:

Sl. No.	Name of the courses handled for other departments	Name of the other department
1	Strength of Materials	Civil Engineering Department
2	Material Science laboratory	Civil Engineering Department
3	Strength of Materials Laboratory	Civil Engineering Department
4	Fluid Mechanics	Civil Engineering Department
5	Fluid Mechanics Laboratory	Civil Engineering Department
6	Engineering Mechanics	Civil Engineering Department
7	Fundamentals of Electrical Engineering	Electrical & Electronics Engineering department
8	Fundamentals of Civil Engineering	Civil Engineering Department
9	Fundamentals of Electronics & Communication Engineering	Electronics & communication Engineering department
10	Computer Programming	Computer Science Engineering department
11	Physics , Chemistry ,Mathematics & English	Physics , Chemistry ,Mathematics & English departments

10. Number of Teaching posts sanctioned and filled (Professors/Associate Professors/ AssistantProfessors):

Sl. No.	Name of the teaching post	Sanctioned	Filled
1	Professor	1	1 + 2
2	Associate Professor	3	1
3	Assistant Professor	6	2
Total		10	6

11. Faculty profile with name, qualification, designation and specialisation (D.Sc./D.Litt./ Ph.D./M.Phil.,etc.)

Name	Qualification	Designation	Specialization D.Sc., D.Litt., Ph.D., M.Phil, M.E.	No. of Yearsof Experience	No. of Ph.D. students guidedforthe last4years
Dr A C Tiwari	BE , M Tech, PhD	Professor	Thermal & Fluid , I C Engines , Alternate Automotive fuels	29	5
Dr Alka Agarwal	BE , M Tech, PhD	Professor	Thermal Engg . Refrigeration & Air Conditioning	26	5
Dr S N Varma	BE , M E PhD	Professor	Operation Research, Supply Chain Management	29	8
Dr Nitin Shrivastava	BE , M Tech, PhD	Assistant Professor	Production Engg Alternate Automotive fuels	13	-
Shri Ravindra Randa	BE , M Tech	Assistant Professor	Tribology & maintenance , bio	13	-
Shri Prashant Shamra	BE , M Tech	Associate Professor (contract)	Material Science	13	-
Shri Sandeep choudhary	BE , M Tech	Assistant Professor (contract)	Industrial Engineering and Management	3	
Shri Rajendra Ahirwar	BE,MTECH	Assistant Professor (contract)	PRODUCTION ENGINEERING	4	-
Shri Brajesh Singh	BE,ME	Assistant Professor (contract)	Heat Power Engineering	01	-
Shri Gangaram mourya	BE, ME	Assistant Professor (contract)	Design Thermal Engg.	04	
Shri Rahul Jain	BE, ME	Assistant Professor (contract)	Tribology and Maintenance	01	-

Shri Piyush Singh	BE, ME	Assistant Professor (contract)	Heat Power Engineering	0.5	-
Abhishek Agrawal	BE,MTECH	Assistant Professor (contract)	Computer Integrated Mfg.	6	-
Ajay Vardhan	BE, ME	Assistant Professor (contract)	Heat Power Engineering	1.5	
Shri Amitesh Dubey	BE, ME	Assistant Professor (contract)	CIM	05	
Rahul Raghuwanshi	BE , MTech	Assistant Professor (contract)	Stress & vibration analysis	05	-
Pratiksha shrivastava	BE , MTech	Assistant Professor (contract)	Thermal	05	

12. List of senior Visiting Fellows, faculty, adjunct faculty, emeritus professors

Sl. No.	Name of the Faculty Member	Designation (Visiting fellow, visiting Faculty, adjunct faculty, Emeritus Professors)
1.	Prof S C Jain	Professor Mechanical Engineering SATI Vidisha , Visiting faculty
2.	Prof M L Jain	Professor Mechanical Engineering SGSITS Indore , Visiting faculty
3.	Prof Smita Mane patil	Professor Mechanical Engineering SGSITS Indore , Visiting faculty
4.	Prof D A Hindolia	Professor Mechanical Engineering UEC Ujjain , Visiting faculty

13. Percentage of classes taken by temporary faculty (Guest faculty) – Programme-wise Information:

Sl. No.	Name of the Programme	% of classes taken by temporary Faculty members
	UG programmes	
1.	B.E. Mechanical Engineering	65%
	PG programmes	
2.	M.E. Heat Power Engineering	15%
Dual Degree BE /M Tech Program		
	BE /M Tech Program	60%

14. Programme-wise Student Teacher Ratio

Sl. No.	Name of the Programme	Student-Teacher ratio
	UG programmes	
1.	B.E. Mechanical Engineering	13.3: 1
	PG programmes	
2.	M.E. Heat Power Engineering	6:1

15. Number of academic support staff (technical) and administrative staff: Sanctioned and Filled: UIT RGPV Bhopal

Provided from common pool of the University

16. Research thrust areas recognized by funding agencies

Internal Combustion Engines	<ul style="list-style-type: none"> • Alternate fuels , • Automotive Bio diesels , • Dual fuel Engines
Refrigeration & Air Conditioning	<ul style="list-style-type: none"> • Eco friendly refrigerants

17. Name of faculty with ongoing projects from a) National b) International funding agencies and c) Total grants received. Give the names of the funding agencies and grants received project-wise.-

Sl. No.	Title of the Project	Name of Principal Investigator	Name of the funding agency and year	Grant received (Rs. in Lakhs)
1	Experimental Analysis of performance of Automotive Engines with prolonged Services with Biomass based Alternate fuels	Dr A C Tiwari	AICTE New Delhi	8 Lkajs

18. Inter-institutional collaborative projects and grants received
a. All India collaboration b)International

Sl. No.	Title of the Inter-institutional collaborative project	Name of the Institution & Year	National / International	Amount (Rs. in Lakhs)
1	NIL	NIL	NIL	NIL

19. Departmental projects funded by DST-FIST; UGC-SAP/CAS, DPE; DBT, ICSSR, etc.; total grants received.

Sl. No.	Title of Department project	Name of the funding agency and amount
1	Experimental Analysis of performance of Automotive Engines with prolonged Services with Biomass based Alternate fuels	AICTE , 8 Lakhs

20. Research facility /
• centre with State
• National
• recognition
International
recognition

Sl. No.	Name of the research facility / Centre	Type of Recognition (State National / International)
1	Department of Mechanical Engineering	Sate Level Research Centre for Doctoral research work recognized by RGPV Bhopal

21. Special research laboratories sponsored by / created by industry or corporate bodies:

Sl. No.	Name of the special laboratories sponsored	Sponsoring agency (Industry / Corporate Body)
	NIL	NIL

22. PUBLICATIONS:

a. Number of papers published in peer reviewed journals (National/International)

Year	No. of Publication
2011-12	14
2012-13	26
2013-14	27
2014-15	16
Total	83

b. Monographs, Chapters in Books, Edited Books, Books with ISBN with detailsof publishers (include Hindi MediumBooks)-

Sl. No.	Name of the faculty member	Monographs authored	Chapters authored in Books	Books edited	Books authored with ISBN
1					

c. Number listed in International Database (For e.g. Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.) Citation Index – range / average, SNIP, SJR, Impact Factor – range/ average, h-index-

Sl. No.	Name of the faculty member	Number listed in Intl. database (Web of science, scopes science directory etc.	Citation index	h-index
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1	Dr A C Tiwari	Listed in Google scholar - 23 Listed in Scopus –2 Listed in web of Science- 2	45	4
2	Dr S N Varma	Listed in Google scholar - Listed in Scopus – Listed in web of Science-	-	-
3	Dr Alka Agarwal	Listed in Google scholar - 24 Listed in Scopus –02 Listed in web of Science- 02	12	02
4	Dr Nitin Shrivastava	Listed in Google scholar -24 Listed in Scopus –02 Listed in web of Science- 02	24	03
5	Shri Prashant Sharma	Listed in Google scholar - 09 Listed in Scopus –NIL Listed in web of Science- NIL	-	-
6	Shri Ravindra Randa	Listed in Google scholar - 06 Listed in Scopus –NIL Listed in web of Science- NIL	-	01

23. Details of patents and income generated:

Sl. No.	Name of the faculty member	Patent received	Income generated in Rs.
1.	NIL	NIL	Nil

24. Areas of consultancy and income generated:

Sl. No.	Name of the faculty member	Areas of consultancy carried out	Income generated (Rs. in Lakhs)
1 2 3	Dr A C Tiwari Dr Nitin Shrivastava Shri Ravindra Randa	Checking of Specifications of Indian Post office furniture	0.25 Lakhs
1 2	Dr A C Tiwari Dr Alka Agarwal	Checking of Specifications of Indian Post office furniture	0.25 Lakhs

25. Faculty selected nationally/internationally to visit other laboratories in India and abroad

Sl. No.	Name of the Faculty member	Name of the Lab visited in India	Name of the Lab visited abroad
	NIL	NIL	Nil

26. Faculty serving in various Committees:

Sl. No.	Name of the Faculty member	Details of National / International committee served	Details of Editorial Board served	Any other committee
1.	Dr A C Tiwari	National/International	Member of Editorial Board , International Research Journal Published by RGI Group of institutions Bhopal	1. Member, Board of Studies (Faculty of Mechanical Engineering), RGPV Bhopal 2. Member, Board of Governors SV College of Engineering Indore 3. Member, Board of Governors S D College of Engineering Khandwa 4. Member, Board of Studies Mechanical & Industrial Production Engineering departments of Jabalpur Engineering College Jabalpur 5. Member, Board of Studies of Mechanical Engineering department MITS Gwalior . 6 Member and Chairman Board of Studies of UIT ,RGPV Bhopal
2	Dr S N Varma	National/International		1 Dean & Member, Board of Studies (Faculty of Mechanical Engineering), RGPV 2 Member of Executive council of RGPV Bhopal 3 Member of Academics Committee and standing committee of RGPV Bhopal
3	Dr Alka	National/International		1. Member, Board of Studies (Faculty of

4	<p>Agarwal</p> <p>Dr Nitin Shrivastava</p>	National/International	<p>Member editorial board of International Journal of Emerging Technology & Advanced Engg</p>	<p>Industrial Production Engineering), RGPV Bhopal</p> <p>2 Member Board of Studies of UIT ,RGPV Bhopal</p> <p>Reviewer</p> <ol style="list-style-type: none"> 1. Taylor and Fransis-International Journal of green energy, UK 2. Taylor and Fransis-International Journal of Sustainable Engineering, UK 3. International journal of renewable energy research 4. World Journal of Engineering and Physical Sciences, USA 5. International Journal of Emerging Technology & Advanced Engg 6. 17th international conference on interactive collaborative learning 2014, world education forum Dubai, 03-06 december 2014 (IEEE conference) 7. IEEE global humanitarian technology conference (GHTC 2014), California USA. 8. Americal chemical science Journal 9. World academy of science engineering and research, USA 10. Member, Board of Studies (Faculty of
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				<p>Mechanical Engineering), RGPV</p> <p>11. Member BOS of Mechanical Engineering department of UIT RGPV Bhopal.</p> <p>12. Member BOS of Mechanical Engineering department of Sri satya sai university sehare.</p>
5	Ravindra Randa	National/International		<p>1 Member, Board of Studies (Faculty of Mechanical Engineering), RGPV</p> <p>2 Member BOS of Mechanical Engineering department of UIT</p>
6	Prashant Sharma	National/International		<p>1 Member, Board of Studies (Faculty of Mechanical Engineering), RGPV</p> <p>2 Member BOS of Mechanical Engineering department of UIT</p>

27. Faculty recharging strategies:

The following recharging strategies are adapted by the Department to refresh the knowledge and provide exposure to latest developments in the areas of interest:

- In house Refresher courses and orientation programmers organized under Academic Staff College of RGPV.
- Sponsoring faculties to attend National and International Conferences /Workshops, seminars, short term and long term FDPs and MDPs etc.

- Permitting faculty visits to important research laboratories within India and abroad.
- Reimbursement of registration fee for membership of the professional bodies
- Permitting industry interaction of faculty as needed.

28. Student projects (last five years)

Sl. No.	Name of the Programme offered	Percentage of students who have done in-house projects including inter-departmental projects	Percentage of students who have done in-house projects in collaboration with other universities for industry / institute
1	B.E. Mechanical Engineering	95	5
2	M E Heat Power Engineering	90	10

29. (a) Awards / recognitions received at the National and International level by Faculty: NIL

Sl. No.	Name of the Faculty Member	Awards / recognition received	
		National	International
1	NIL		

29 (b) Awards / recognitions received at the National and International level by Doctoral / post doctoral fellows: NIL

Sl. No.	Name of the Doctoral / Post doctoral Fellow	Awards / recognition received	
		National	International
1.			

29 (c) Awards / recognitions received at the national and international level by Students: Nil

Sl. No.	Name of the Student	Programme	Awards/Recognition received	
			National	International
1.				

30. Seminars/ Conferences/Workshops organized and the source of funding (national / international) with details of participants.-

S. No.	Name of the seminar / conference / workshop organized		Source of funding	Details of participants
	National	International		
1	National Seminar on Alternate Automotive fuels 2013	-	RGPV Bhopal	30
2	National Conference of Recent trends in Refrigeration and Air Conditioning 2014	-	RGPV Bhopal	30

31. Code of ethics for research followed by the departments:

The department makes every effort to guide its research scholars to avoid piracy, to fulfill equitable sharing of benefits.

- Orientation programme to sensitize the Code of Ethics for Research to the fresh students enrolled in the departments is organized before the commencement of the of the course
- Each candidate is required to submit a certificate that no work contained in the thesis has been used beyond the prescribed limit and the source of the data and other related information pertaining to the research have been duly acknowledged. The certificate should be signed by the candidate.
- Plagiarism is strictly viewed and any scholar found indulged in such activities, his/her registration is cancelled and debarred to register for any other programme .on line Plagiarism checking of the soft copy of the report is being done .
- Strict confidentiality is maintained regarding panel of examiners. The Vice-Chancellor nominates examiners from the panel proposed by examination Committee.

32. Student profile course-wise:

Name of the Course (refer to question no. 4)	Applications received	Year	Selected		Pass percentage	
			Male	Female	Male	Female
B.E. Mechanical Engineering	Admission counseling by	2011-12	48	21	95%	100%
		2012-13	48	20	95%	100%

	MP Government Technical Education deptt	2013-14	48	21	95%	100%
		2014-15	48	21	95%	100%
M.E. Heat Power Engineering	200	2011-12	16	02	90%	100%
	189	2012-13	18	00	95%	-
	289	2013-14	17	01	100%	100%
	220	2014-15	17	01	100%	100%

33. Diversity of students

Name of the Course (refer to question no. 4)	YEAR	% of students from the same university	% of students from other universities within the State	% of students from universities outside the State	% of students from other countries
B.E. Mechanical . **	--	--	--	--	--
M.E. Heat Power Engineering	2011-15	100%	0%	0%	0%

** Majority of students are from State of MP

34. How many students have cleared Civil Services and Defence Services examinations, NET, SET, GATE and other competitive examinations? Give details category-wise. Provide details with proof like name of the student, email, appointment/selection letter etc.

Sl. No.	Name of the competitive Examination	Number of students cleared
1.	Civil services	Nil
2.	Defense services	Nil
3.	NET	-
4.	SET	-
5.	GATE	70
6.	Any other competitive examination.	-

35. Student Progression:

Student progression	Percentage against enrolled				
	2011-12 **	2012-13	2013-14	2014-15	
UG to PG	5%	10%	9%	9%	
PG to M.Phil.	-	-	-	-	

PG to Ph.D.	-	-	-		
Ph.D. to Post-Doctoral	-	-	-	-	
Employed Campus selection UG PG	40% Nil	32% Nil	30% Nil	42% Nil	
Other than campus recruitment UG PG	60% 100%	60% 100%	66% 100%	45% 100%	
Entrepreneurs	-	1.6 %	-	-	

36. Diversity of staff:

Percentage of faculty who are graduates	PG	Ph.D.
of the same university	50%	33%
from other universities within the State	33.3%	16 %
from universities from other States	16.6 %	16 %
from universities outside the country	Nil	Nil

37. Number of faculty who were awarded Ph.D., D.Sc. and D.Litt. during the assessment period:

Year	Number of Faculty awarded Ph.D / D.Sc., D.Litt
2011-12	Nil
2012-13	1
2013-14	Nil
2014-15	Nil

38. Present details of infrastructural facilities with regard to Library, Internet facilities for staff and students, Total number of class rooms, Class rooms with ICT facility, Students' laboratories, Research laboratories

Sl. No.	Name of the Infrastructural Facility	Quantity / Details
1.	Library	425
2.	Internet for staff	Internet facility for all the staff members is available in the department
3.	Internet for students	Internet facility for all the students members is available in the department inside the CAD lab of the department The entire campus is Wi-Fi
4.	Number of class rooms	6
5.	Classrooms with ICT facility	1
6.	Research Labs	4

Note: 24 hours / 7 days campus Wi-Fi connectivity is available for students and

faculties.

39. List of Doctoral, Post-Doctoral students and Research Associates from the Host University, from other Universities NIL

Sl. No.	Name of the Student	Category Post-doctoral / Doctoral / Research associate	Name of the University (Host / other University)

40. Number of post graduate students getting financial assistance from the university. GATE, Scholarship, Rajiv Gandhi Scholarship etc. received through University

Programme	Number of students getting financial assistance from the University			
	2011-12	2012-13	2013-14	2014-15
<i>GATE stipend</i>	18	18	18	18

41. Was any need assessment exercise undertaken before the development of new Programme(s)? If so, highlight the methodology.

- Whenever there is new development in terms of infrastructure, laboratory, students' field trip or an awareness workshop, a consultative meeting is convened to discuss the matter with students, technical staff and faculty members, alumnae along with experts from Industry are also called up for their inputs .
- Academic programmes are taken up at the Board of Studies, and Academic Council meetings after due consultation at departmental level with external experts decisions are taken up .
- A short survey is conducted in the industrial area of Bhopal region and employment need of the industry is chalked out , on the basis of this data new programs are started .

42. Does the department obtain feedback from-

(d) Faculty on curriculum as well as teaching-learning-evaluation? If yes, how does the department utilize the feedback?

Yes,

The feedback obtained from the faculties is used if required to modify the Curriculum/Syllabus. Based on the suggestions, new courses related to research area and need based courses are introduced as special electives with the approval of the Board of

Studies.

(e) Students on staff, curriculum and teaching-learning-evaluation and how does the department utilize the feedback?

Yes,

The evaluation (anonymous) on staff is obtained from student of the class at the end of each semester for the courses taught by the faculties. It is valued by the head of the department, the areas of improvement if indicated by students are conveyed to the faculty in a one to one meeting.

The students are part of syllabus subcommittee. The students view on curriculum and teaching – learning – evaluation is obtained during the meetings. The views if genuine are incorporated suitably.

(f) Alumni and employers on the programmes offered and how does the department utilize the feedback?

Yes,

Alumni of the departments and prospective employers of our students are made members of Board of studies. During their visit to the department for sharing their experience their feedback is taken up. The requirement of the industry and performance of students employed in their organizations are heard. Their suggestions are given due importance and placed in Board of Studies meetings.

43. List the distinguished alumni of the department (maximum 10):

Sl. No.	Name of the distinguished Alumni	Details of occupation
1.	Tushar Saxena	Bharat Petro Chemical Ltd Mumbai
2	Vikas Sengar	Hindustan Aeronautics Ltd Bangalore
3	Lokesh Mogre	Bhilai Steel Plant Bhilai
4	Nitesh Phul mali	Bharat Petro Chemical Ltd Mumbai
5	Prashant Dabhade	Bharat Petro Chemical Ltd Mumbai
6	Gourav Dubey	ONGC Baroda
7	Shubham Panpaliya	ONGC Dehradun
8	Mayank Sharma	IOCL New Delhi

9	MayanK Jain	NTPC Singrouli
10	Shreya Jain	ONGC Channai

44. Give details of student enrichment programmes (Special Lectures / Workshops / Seminar) involving external experts:

Sl. No.	Title of the Special Lecture / Workshop / Seminar organized	Details of the External Expert
1.	Work shop by D 'Auto Industries Ltd .	Shri Vikas Pandey C M D of the D 'Auto Industries conducts the workshop with his assistants connected to Design for manufacturing
2.	Work shop by D 'Auto Industries Ltd . Connected to Introduction of KATIA design software	Shri Vikas Pandey C M D of the D 'Auto Industries conducts the workshop with his assistants connected to Design for manufacturing
3	National Seminar on Alternate Automotive fuels	Experts from IITs were called up to enlighten the students
4	National Conference of Recent trends in Refrigeration and Air Conditioning	Experts from IITs were called up to enlighten the students

45. List the teaching methods adopted by the faculty for different programmes.

- Lecture by Teacher
- Lecture-demonstration by external experts
- Presentation by students (individual/group) by invitation
- Groups discussions conducted by the faculty.
- Assignments (Text books, supplementary books and supplementary reading)
- Teaching supported by OHP, LCD projector Interactive Boards, PowerPoint presentations and NPTEL videos
- Demonstration in the Laboratory
- Design projects
- Thesis/Project work at the final semesters in the case of UG courses and 3rd and 4th semester in the case of PG Courses.
- Industrial visits are arranged by individual faculty members for each course so that the students are exposed to actual field environment and opportunities are made to learn from theory to practice.

46. How does the department ensure that programme objectives are constantly met and learning outcomes are monitored?

Objectives of the program :

- To mould the student into a Mechanical Engineer useful for industry & society.
- To impart latest knowledge of Mechanical Engineering stream to the student
- Providing quality Practical education through rigorous laboratory work
- To transform the energy of the student towards more creative project works useful for the industry & society
- Creating a mechanical Engineer with potential of global employability

Objectives are met by

- Updating the syllabus regularly
- Including more practical components
- Conducting class seminars, quiz, group discussions etc
- Encouraging students to participate in research projects
- More Interaction with industry

Objectives are monitored by

- Adopting mentorship concept
 - Assessment of performance of students in class seminars and group discussions
 - Analyzing the feedback from the students
-
- The Faculty maintains a record of class work and it will be reviewed by the HOD at the end of each assessment period. Any laps in the class work (teaching) will be brought to the attention of faculty and advised suitably to rectify or improve his/her performance.
 - The learning outcome of students is assessed continuously by conducting three mid semester tests and one end semester examination. The performance of students in each assessment is displayed. The students are awarded grades based on their performance and they must earn minimum 31 marks out of 100 marks to obtain pass grade.
 - Performance of the faculty is evaluated by the students at the end of each semester. This performance is finally evaluated by the university.

47. Highlight the participation of students and faculty in extension activities-

Apart from class room teaching and learning, students participate in the following extension activities.

- Dr Alka Agarwal Professor of Mechanical Engineering department and Rotary Club of Bhopal jointly organized blood donation camp in side the campus in 2014 .
- Students are provided financial support for innovative projects for physically challenged persons .Effi Cycle project was award winning project by students for physically challenged persons.

- This department has opened the student chapter of Society of Automotive Engineers. Students and faculty members of the department are members of this Society. It organizes activities for common men, like awareness regarding proper tuning of vehicle for better fuel economy and less harmful emission.
- Students of the department visit near by villages for participating adult literacy mission and also participate in awareness programs for villagers connected to environmental issues and Cleanliness Drives etc.

48. Give details of “beyond syllabus scholarly activities” of the department.

- Conference papers by students and Research Scholars.
- Students organize seminars, training programmes, design competition, special Lectures etc through their societies (Society of Automotive Engineers, SAE). This society is run by the students with the support of faculties.
- Students publish their contributions in International and National journals and conferences.
- Students obtained awards for their scholarly research work.

(a) List of Awards :

S. No	Name of the	Programme	Award Name
1.	Yatish Khare Vikas Sengar Arjun Dubey Sanjeet Marghade	Effici Cycle Cycle rickshaw for physically challenged people	TCS Best Project Award 2013
2.	Sameer Alam , Ashish Mor, Shaleen Pateria	Quiz competition Quiz –o- Logic	First Prize 2014
3	Rahul Kumar	Quiz Competition	First Prize at IIT Kanpur 2015
4	Keshav Singh	Agribida Project organized by AISEC (Student organization) in Dabao Philippines	Third price in rain water harvesting project in Philippines 2014

(ii). List of conference papers by students

Programme	No. of conference papers by students			
	2011-12	2012-13	2013-14	2014-15
M.E. Heat Power Engg.	06	03	00	01

49. State whether the programme/ department is accredited/ graded by other agencies? If yes, give details.

Accreditation Status of UG & PG Programme: Not Accredited .

Sl. No.	Name of the Student	Date of Accreditation	Date of Expiry

50. Briefly highlight the contributions of the department in generating new Knowledge, Basic or Applied.

Contributions of the department in generating new Knowledge, Basic or Applied is as below:

- In the field of Alternate Automotive fuels : Research projects and contribution of faculty and students is broadly focused in this area .Evaluation of performance of the C I Engine parameters using neat biodiesel with prolonged service was established .Performance analysis of CI and SI Engines in dual fuel mode was established .
- In the field of Eco Friendly Refrigerants: Feasibility of using Eco Friendly Refrigerants with vapor compression refrigeration system was established and performance of Vapor Compression Refrigeration System was analyzed and corresponding data generated .
- Computational Fluid Dynamics: With the help of CFD software the design of Air Curtains done and its commercial viability is being explored .
- Renewable Energy Sources: In coordination with Energy Technology department of the university faculty is involved in Cross Linear Concentrated Solar Power project, a innovative project supported by MNRE, RGPV , Burgan Industry and MP Government.
- Modified and Developed Two stroke single cylinder SI Engine to make it working with neat biogas.

51. Future plans of the department.

- The department has expertise in alternate automotive fuels so its planned to further augment the IC Engine lab with most sophisticated facilities and establish a new fuel lab to explore the possibility of eliminating fossil fuels in the exiting engines.
- To Establish a Centre of Advanced Design for Manufacturing, which will also be

useful in skill impartment .

- Starting a new PG Course in Automotive Mechatronics
- Starting the service, research and training centre of corporate houses from Automobile sector under corporate school activity of university.
- To further strengthen and modernize the exiting laboratories of the department to keep pace with the changing technological world.

52. Detail any five Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department.

Strength:

- The department has expertise in Thermal Engineering with keen interest of faculty in Design & Production as well, it is very rare to see a department like this among the institutions of higher learning in India.
- Excellent environment and facility available for carrying out research in interdisciplinary areas .
- Well equipped laboratories especially in Thermal Engineering with latest equipments and computing facilities. Qualified faculty with 50 % of regular faculty posses doctoral degree and rest are in pipe line
- Attracts the best students of theState.
- The department enjoys the academic autonomy, which enables timely upgrading and modernizing the syllabus .
- Open & transparent examination system.

Weakness:

- Comparatively less interaction of faculty with industry
- Poor communication skills among students
- Lack of Technically Qualified Supporting staff.
- Interdisciplinary research need to be strengthened.

Opportunities

- Department provides financial support to present contributions of faculty in international forum, which motivates the faculty to involve in research. Students are also encouraged to present their contributions.
- Department Encourages to take of consultancy projects independently even by new faculty members.
- Good environment to pursue research in inter/multi disciplinary areas.

In the present scenario of state and country has a whole, there is a good scope for Devising courses related to infrastructure to satisfy the human resources requirement of country and in state particular.

- Faculty and student exchange programmes through MOUs with Foreign

Universities provide international exposure to students and faculties.

- Good scope for establishing centre of excellence in the following areas (i). Alternate Automotive fuels , (ii) Eco Friendly refrigerants (iii)Micro and Pico Hydro Power Generation

Challenges:

- The department is doing good at state level but it has to compete with the departments of national level institutions like IITs and NITs to attract students for Post Graduate studies and research.
- Day by day level of funding for higher education particularly state level institutions is limited; hence it is necessary to plan for generating resources required for research.
- In the present scenario of globalization of education, internationally well known Universities are taking steps to establish their institutions in India, since there is a very big task before the department to develop and maintain the standards of teaching and learning at par with those institutions.
- Training the students to meet the global challenges of 21st century and International standards so that they are employable globally.
- Training the trainers as well as students in the direction of re-engineering, which is the greatest challenge of the future.
- Enhancing Global Employment opportunity by quality improvement of the students.

11. DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

1. **Name of the Department** : **DEPARTMENT OF ELECTRONICS & COMMUNICATIONENGINEERING**
2. **Year of establishment** : **1987**
3. **Is the Department part of a School/Faculty of the University?:**
Yes, Department of Electronics and Communication Engineering is part of RGPV, Bhopal
4. **Names of Programmes / Courses offered**
(UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.) :

Sl. No.	Name of the Programme offered	Remarks (UG/PG/M.Phil/Ph.D
1	B.E. Electronics and Communication Engineering	UG
6	M.E. Digital Communication	PG
19	Doctorate in Electronics and Communication Engineering	Ph.D.

5. **Interdisciplinary courses and department involved:**

Sl. No.	Interdisciplinary courses offered	Names of the Departments involved
1.	Engineering Mathematics for all UG & PG Programmes	Department of Mathematics
2.	Engineering Physics for all UG Programmes	Department of Physics
3.	Engineering Chemistry and EEES for all UG Programmes	Department of Chemistry
4.	Communication Skills for all UG Programmes	Department of Humanities
5.	Fundamentals of Computing & Computer related Labs for UG	Department of Computer Science and Engineering
6.	Workshop practice for all UG Programmes,	Department of Workshop
7.	Principles of Management for all UG Programmes	Department of Management Studies
8.	Basic Mechanical Engineering and Engineering Graphics	Department of Mechanical Engineering.

9.	Engineering Mechanics and Basic Civil Engineering	Department of Civil Engineering.
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6. Courses in collaboration with other universities, industries, foreign institutions etc.:

NIL

Sl. No.	Collaborative courses offered	Remarks (with other Universities / Industries / Foreign Institutions)
1.		

7. Details of programmes / courses discontinued, if any, with reasons: NIL

Sl. No.	Name of the Programme discontinued	Reason

8. Annual/ Semester/Choice Based Credit System:

CBCS and Semester Based Credit System.

9. Participation of the department in the courses offered by other departments:

Sl. No.	Name of the courses handled for other departments	Name of the other department
1.	Analog and Digital Communication, Electronic devices and Circuits	Department of Computer Science and Engineering
2	Digital Signal Processing, Electronic devices and Circuits-I and II, Communication Engineering,	Department of Electrical Engineering.
3	Analog Communication	Department of Information Technology
4	Fundamentals of Electronics Engineering	All Departments

10. Number of Teaching posts sanctioned and filled (Professors/Associate Professors/ Assistant Professors):

Sl. No.	Name of the teaching post	Sanctioned	Filled
1	Professor	1	0
2	Associate Professor	3	3
3	Assistant Professor	6	5
Total		10	8

11. Faculty profile with name, qualification, designation and specialisation (D.Sc./D.Litt./ Ph.D./M.Phil.,etc.)

Name	Qualification	Designation	Specialization D.Sc., D.Litt., Ph.D., M.Phil,	No.of Yearsof Experience	No.of Ph.D. students guidedforthe last4years
Dr. R K Singhai	PhD	Associate Professor	Signal Processing	25Y	—
Mr. R K Chidar	M. Tech	Associate Professor	Communication	22Y	—
Dr. Vineeta Nigam	PhD	Associate Professor	Communication	22 Y	—
Dr. Anubhuti Khare	PhD	Associate Professor	Communication	21Y	02
Mrs. Aparna Singh Kushwah	M. Tech	Assistant Professor	Microprocessor	11Y 10 M	—
Ms. Prasansha Francis	M. Tech	Assistant Professor	Microwave	11Y	—
Mr. Avinash Rai	M. Tech	Assistant Professor	VLSI	5 Y	—
Mr. Sanjay Sharma	M. Tech	Assistant Professor	Instrumentation and Control	19Y	—
Mr. Binod Soni	M. Tech	Assistant Professor(Contract)	Communication, Control	12 Y	—
Ms, Savita Baraskar	M. Tech	Assistant Professor(Contract)	Communication	1 Y 3 M	—
Mr. Lalit Gathre	M. Tech	Assistant Professor(Contract)	Microwave	3Y	—
Ms. Rupali Sharma	M. Tech	Assistant Professor(Contract)	Communication	1Y 6M	—
Mr. Pankaj Singh Yadav	M. Tech	Assistant Professor(Contract)	Microelectronics	2Y 6M	—

Mr. Aashish Parihar	M. Tech	Assistant Professor(Contract)	VLSI	3Y 7M	—
Mr. Vikas Vaidya	M. Tech	Assistant Professor(Contract)	Digital Communication	6Y	—
Ms. Deepika Pandey	M. Tech	Assistant Professor(Contract)	Digital Communication	10Y 3M	—
Mr. Manoj Kumar Malhare	M. Tech	Assistant Professor(Contract)	Communication	7 Y	—
Mr. Pushpendra Singh	M. Tech	Assistant Professor(Contract)	VLSI	0Y 3M	—
Mr. Arvind Kumar Sahu	M. Tech	Assistant Professor(Contract)	Communication	0 Y 6 M	—
Mr. Aditya Vikram Singh	M. Tech	Assistant Professor(Contract)	Communication	03 M	—
Mr. Valmik Tilwari	M. Tech	Assistant Professor(Contract)	Digital Communication	03 M	—
Mrs Ankita Shivhare	M. Tech	Assistant Professor(Contract)	Digital Communication	2 Y 3M	—
Ms Ghata Chauhan	M. Tech	Assistant Professor(Contract)	VLSI	0Y 3M	—

12. List of senior Visiting Fellows, faculty, adjunct faculty, emeritus professors
NIL

Sl. No.	Name of the Faculty Member	Designation (Visiting fellow, visiting Faculty, adjunct faculty, Emeritus Professors)
1.		

13. Percentage of classes taken by temporary faculty (Guest faculty) – Programme-wise Information:

Sl. No.	Name of the Programme	% of classes taken by temporary Faculty members
	UG programmes	
1.	B.E. Electronics and Communication Engineering	69%
	PG programmes	
2.	M.E. Digital Communication	10%

14. Programme-wise Student Teacher Ratio

Sl. No.	Name of the Programme	Student-Teacher ratio
	UG programmes	
1.	B.E. Electronics and Communication Engineering	18:1
	PG programmes	
2.	M.E. Digital Communication	12:1

15. Number of academic support staff (technical) and administrative staff: Sanctioned and Filled:

Provided from common pool of the University

*** Research thrust areas recognized by funding agencies**

- **Optical Communication**
- **Cellular and Mobile Communication**
- **VLSI**
- **Microwave communication**
- **Antenna Analysis and Design**

16. Name of faculty with ongoing projects from a) National b) International funding agencies and c) Total grants received. Give the names of the funding agencies and grants received project-wise.- **NIL**

Sl. No.	Title of the Project	Name of Principal Investigator	Name of the funding agency and year	Grant received (Rs. in Lakhs)

17. Inter-institutional collaborative projects and grants received
a. All India collaboration b) International **NIL**

Sl. No.	Title of the Inter-institutional collaborative project	Name of the Institution & Year	National / Internatio	Amount (Rs. in Lakhs)
1				

18. Departmental projects funded by DST-FIST; UGC-SAP/CAS, DPE; DBT, ICSSR, etc.; total grants received. **NIL**

Sl. No.	Title of Department project	Name of the funding agency and amount
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1		
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19. Research facility / centre with Staterecognition /National recognition / International recognition **NIL**

Sl. No.	Name of the research facility / Centre	Type of Recognition (State National / International)
1		

20. Special research laboratories sponsored by / created by industry or corporate bodies:

Sl. No.	Name of the special laboratories sponsored	Sponsoring agency (Industry / Corporate Body)
1.	TI Centre of Excellence	Texas Instruments, India

21. PUBLICATIONS:

a. Number of papers published in peer reviewed journals (National/International)

Year	No. of Publication
2011-12	10
2012-13	13
2013-14	08
2014-15	11
Total	42

b. Monographs, Chapters in Books, Edited Books, Books with ISBN with detailsof publishers (include Hindi MediumBooks)-

Sl. No.	Name of the faculty member	Monographs authored	Chapters authored in Books	Books edited	Books authored with ISBN
1	Dr. Anubhuti khare	Customized For RGPV	—	Basic electrical and electronics engineering	ISBN:978813176706, Pearson Education Publication House

c. Number listed in International Database (For e.g. Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.) Citation Index – range / average, SNIP, SJR, Impact Factor – range/ average, h-index-

Sl. No.	Name of the faculty member	Number listed in Intl. database (Web of science, scopes science directory etc.	Citation index	h-index
1	Dr. Vineeta Saxena Nigam	Google Scholar	20	1
2	Mr. Sanjay K. Sharma	Google Scholar	20	3

22. Details of patents and income generated: NIL

Sl. No.	Name of the faculty member	Patent received	Income generated in Rs.
1.			--

23. Areas of consultancy and income generated: NIL

Sl. No.	Name of the faculty member	Areas of consultancy carried out	Income generated (Rs. in Lakhs)
1			

24. Faculty selected nationally/internationally to visit other laboratories in India and abroad NIL

Sl. No.	Name of the Faculty member	Name of the Lab visited in India	Name of the Lab visited abroad
1.		--	

25. Faculty serving in various Committees:

Sl. No.	Name of the Faculty member	Details of National / International committee served	Details of Editorial Board served	Any other committee

26. Faculty recharging strategies:

The following recharging strategies are adapted to refresh the knowledge and provide exposure to latest developments in the areas of interest of the Faculty members:

- Opportunities for attending summer and winter schools organized by leading institutions and research institutes.
 - Nominating the faculty for special training programmes organized by CSIR laboratories and other R&D institutes.
- ▮ Sponsoring the faculties to attend National and International Conferences as well as to visit research laboratories within India and abroad.

27. Student projects (last five years)

- Percentage of students who have done in-house projects including inter-departmental projects
- Percentage of students doing projects in collaboration with other universities / industry/institute

Sl. No.	Name of the Programme offered	Percentage of students who have done in- house projects including inter- departmental projects	Percentage of students who have done in-house projects in collaboration with other universities for industry / institute
1	B.E. Electronics and Communication Engineering	100	0
2	M. E. Digital Communication	100	0

28. (a) Awards / recognitions received at the National and International level by Faculty: NIL

Sl. No.	Name of the Faculty Member	Awards /recognition received	
		National	International

29 (b) Awards / recognitions received at the National and International level by Doctoral / post doctoral fellows: NIL

Sl. No.	Name of the Doctoral / Post doctoral Fellow	Awards /recognition received	
		National	International
1.			--

29 (c) Awards / recognitions received at the national and international level by Students:

Sl. No.	Name of the Student	Programme	Awards/Recognition received	
			National	International

1.				
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29. Seminars/ Conferences/Workshops organized and the source of funding (national / international) with details of participants.-

S. No.	Name of the seminar / conference / workshop organized		Source of funding	Details of participants
	National	International		
1	Digital Signal Processing and its Applications		RGPV, Bhopal	Post Graduate students, Research Scholars and Faculty members(22)
2	Wireless Digital Communication		World Bank under TEQUIP II	Post Graduate students, Research Scholars and Faculty Members(49)
3	One week STTP on Wireless Digital Communication		World Bank under TEQUIP II	Research Scholars and Faculty members (35)
4	Two Week ISTE Workshop on Signals & Systems		MHRD, Govt. of India	Research Scholars and Faculty members (36)
5	One Week Workshop on Simulation & Its Applications in Electronics and Communication Engg.		World Bank under TEQUIP II	Research Scholars and Faculty members (36)
6	Two-week ISTE workshop on Control Systems		MHRD, Govt. of India	Faculty members(20)
7	Two Week ISTE Workshop on Analog Electronics		MHRD, Govt. of India	Faculty members
8	FDP By Texas Instruments		Texas Instruments India	Faculty Members (20)

30. Code of ethics for research followed by the departments:

- The department makes every effort to guide its research scholars to avoid piracy, to fulfill equitable sharing of benefits.
- Orientation programme to sensitize the Code of Ethics for Research to the fresh

students enrolled in the departments is organized before the commencement of the course.

- Each candidate is required to submit a certificate that no work contained in the thesis has been used beyond the prescribed limit and the source of the data and other related information pertaining to the research have been duly acknowledged. The certificate should be signed by the candidate.
- Plagiarism is strictly viewed and any scholar found indulged in such activities, his/her registration is cancelled and debarred to register for any other programme .on line Plagiarism checking of the soft copy of the report is being done .
- Strict confidentiality is maintained regarding panel of examiners. The Vice-Chancellor nominates examiners from the panel proposed by examination Committee.

32. Student profilecourse-wise:

Name of the Course (refer to question no. 4)	Applications received	Year	Selected		Pass percentage	
			Male	Female	Male	Female
B.E. Electronics and Communication Engineering		2011-12	83	39	100%	95%
		2012-13	90	33	100%	94%
		2013-14	87	34	97%	100%
		2014-15	78	35	95%	98%
M.E. Digital Communication		2011-12	14	01	70%	100%
		2012-13	13	03	73%	66%
		2013-14	13	05	69%	60%
		2014-15	14	02	75%	50%

33. Diversity of students

Name of the Course (refer to question no. 4)	YEAR	% of students from the same university	% of students from other universities within the State	% of students from universities outside the State	% of students from other countries
B.E. Electronics and Communication	-	-	-	-	-

M.E. Digital Communication	-	-	-	-	-
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34. How many students have cleared Civil Services and Defence Services examinations, NET, SET, GATE and other competitive examinations? Give details category-wise. Provide details with proof like name of the student, email, appointment/selection letter etc.

Sl. No.	Name of the competitive Examination	Number of students cleared
1.	Civil services	
2.	Defense services	
3.	NET	
4.	SET	
5.	GATE	73
6.	Any other competitive examination.	20

35. Student progression:

Student progression	2011-12	2012-13	2013-14	2014-15
UG to PG				
PG to M.Phil.				
PG to Ph.D.				
Ph.D. to Post-Doctoral				
Employed Campus selection UG PG				
Other than campus recruitment UG PG				
Entrepreneurs				

36. Diversity of staff:

Percentage of faculty who are graduates	PG	Ph.D.
of the same university	50%	66.66%
from other universities within the State	85%	0%
from universities from other States	15%	33.33%
from universities outside the country	0%	0%

37. Number of faculty who were awarded Ph.D., D.Sc. and D.Litt. during the assessment period:

Year	Number of Faculty awarded Ph.D / D.Sc., D.Litt
2011-12	1 (Ph.D.)
2012-13	NIL
2013-14	NIL
2014-15	NIL

38. Present details of infrastructural facilities with regard to Library, Internet facilities for staff and students, Total number of class rooms, Class rooms with ICT facility, Students' laboratories, Research laboratories

Sl. No.	Name of the Infrastructural Facility	Quantity / Details	
1.	Library Departmental	882 Books	
2.	Internet for staff	30 Access Points	
3.	Internet for students	120 Access Points	
4.	Number of class rooms	9	
5.	Classrooms with ICT facility	1	
6.	Research Labs	1	

Note: 24 hours X 7 days campus Wi-Fi connectivity is available for students and faculties.
YES

39. List of Doctoral, Post-Doctoral students and Research Associates from the Host University, from other Universities NIL

Sl. No.	Name of the Student	Category Post-doctoral / Doctoral / Research associate	Name of the University (Host / other University)

40. Number of post graduate students getting financial assistance from the university. *GATE, Scholarship, Rajiv Gandhi Scholarship etc. received through University*

Programme	Number of students getting financial assistance from the University			
	2011-12	2012-13	2013-14	2014-15
GATE stipend	17	34	36	36

41. Was any need assessment exercise undertaken before the development of new Programme(s)? If so, highlight the methodology.

- Whenever there is new development in terms of infrastructure, laboratory, students' field trip or an awareness workshop, a meeting is convened to discuss the matter with students, technical staff and faculty members, along with experts from Industry for their inputs.
- A generalized survey is conducted to assess employment need of the industries, on the basis of result of survey new programs are started .
- New thrust areas are explored through discussion, visits, and study of technical literature.

42. Does the department obtain feedback from-

(s) Faculty on curriculum as well as teaching-learning-evaluation? If yes, how does the department utilize the feedback?

Yes,

The feedback obtained from the faculties is used if required to modify the Curriculum/Syllabus. Based on the suggestions, new courses related to research area and need based courses are introduced as special electives with the approval of the Board of Studies.

(t) Students on staff, curriculum and teaching-learning-evaluation and how does the department utilize the feedback?

Yes,

The evaluation (anonymous) on staff is obtained from each student of the class at the end of each semester for the courses taught by the faculties. It is been evaluated, the areas of improvement if indicated by students are conveyed to the faculty by HOD.

The students are part of syllabus subcommittee. The students view on curriculum and teaching – learning – evaluation is obtained during the class committee meetings and syllabus subcommittee meetings. The views if genuine are incorporated suitably.

(u) Alumni and employers on the programmes offered and how does the department utilize the feedback?

Yes,

Alumni of the departments and prospective employers of our students are made members of syllabus committee, Board of studies etc. They have also been invited to the

Department for sharing their experience and delivering special lectures. The requirement of the industry and performance of students employed in their organizations are heard. Their suggestions are given due importance and implemented.

43. List the distinguished alumni of the department (maximum 10):

Sl. No.	Name of the distinguished Alumni	Details of occupation
1.	Mr. Subodh Pandey	Deputy Director, Technical Education, Bhopal
2	Dr. Anubhuti Khare	Associate Professor, UIT-RGPV Bhopal
3.	Mr. Prateek Bajpayee	Associate Professor, Women's Polytechnic , Bhopal
4	Mr. Manish Nigam	General Manager, BSNL Bhopal
5	Ms Surbhi Gautam	Indian Railways, New Delhi

44. Give details of student enrichment programmes (Special Lectures / Workshops / Seminar) involving external experts:

Sl. No.	Title of the Special Lecture / Workshop / Seminar organized	Details of the External Expert
-	-	-

45. List the teaching methods adopted by the faculty for different programmes.

- Lecture by Teacher
- Presentation by students (individual/group) by invitation
- Discussion groups conducted by class teacher
- Assignments (Text books, supplementary books, Journals and supplementary reading)
- Case study presentation
- Teaching supported by LCD projector, OHP, Interactive Board, PowerPoint, Video.
- Demonstration in the Laboratory
- In plant training
- Mini Projects
- Design projects
- Thesis/Project work at the final semesters in the case of UG courses and 3rd and 4th semester in the case of PG Courses.
- Exclusive laboratory training for certain theory courses.

46. How does the department ensure that programme objectives are constantly met and learning outcomes are monitored?

Objectives of the program

- To make the student learn Electronics Engineering and make them useful for the industry need and society.
- To impart latest knowledge of Electronics Engineering stream to the student
- Providing good quality Practical education through rigorous laboratory work
- To enhance technical capabilities of the students so that they get inclined towards more creative project works useful for the industry and society
- Creating a Electronics Engineer with fair degree of potential of employability

Objectives are met by

- Updating the syllabus regularly
- Including more practical components
- Conducting group discussions ,classroom presentations, seminars, quizzes, etc
- Encouraging students to go through good quality research papers, to write papers, to attend seminars and conferences, attend lectures delivered online by external experts, to participate in research projects
- More Interaction with industry

Objectives are monitored by

- Adopting mentorship concept
- Continuous Assessment of performance of students in class seminars and group discussions
- Analyzing the feedback from the students
- The Faculty maintains a record of class work and it is frequently be reviewed by the HOD during academic session. Any laps in the class work (teaching) is brought to the notice of faculty members and they are advised suitably to rectify or improve his/her performance.
- The learning outcome of students is assessed continuously by conducting three mid semester tests and one end semester examination. The performance of students in each assessment is displayed. The students are awarded grades based on their performance
- Performance of the faculty is evaluated by the students at the end of each semester. This performance is analyzed by the HOD first and finally evaluated by the university.

47. Highlight the participation of students and faculty in extensionactivities-

Apart from class room teaching and learning, students participated in the following extension activities.

- Students are provided financial support for innovative projects for physically challenged persons ..
- Students of the department visit near by villages and slum area of Bhopal for participating adult literacy mission and also participate in awareness programs for villagers connected to environmental issues and Cleanliness Drives etc.
- Faculty members and students visitsnear by villages and slum area of Bhopal to teach children and illiterate persons . They also encourage residents of these areas

to do plantation, water harvesting water recharging etc.

- Students also organize Nukkad Nataks to propagate awareness regarding literacy, child marriage, environment conservation etc.

48. Give details of “beyond syllabus scholarly activities” of the department.

- Conference papers by students and Ph.D scholars.
- Students organize seminars, training programmes, design competition, special lectures etc through various societies (which they have formed themselves and managing). These societies are run by the students with the support of faculties.
- Participate state level technical competitions to show case their talents.
- Students publish their contributions in International and National journals and conferences.
- Student participates in various sports and cultural activities organized by various institutes all over India.

(a) List of Awards

S.No	Name of the Student	Programme	Award Name
	-	-	-

(ii). List of conference papers by students

Programme	No. of conference papers by students			
	2011-12	2012-13	2013-14	2014-15
M.E. Digital Communication	-	-	-	-

49. State whether the programme/ department is accredited/ graded by other agencies? If yes, give details.

Accreditation Status of UG & PG Programme: NIL

Sl. No.	Name of the Course	Date of Accreditation	Date of Expiry
1.			

50. Briefly highlight the contributions of the department in generating new Knowledge, Basic or Applied.

Various areas of New Knowledge are as follows:

Department has been working hard to find out new areas of engineering knowledge. Students of the department had been guided to do their thesis and research work in the latest areas of technologies. Some of these are mobile AD-HOC network's, MIMO-OFDM system, Mitigation of Noise in OFDM, Cognitive Radio Network, Image Processing, Energy Detection and Cooperative Spectrum Sensing, SDR (System Defined Radio), VLSI, Wideband Microstrip and Patch Antennas, Cellular and Mobile Communication etc.

51. Future plans of the department.

The department has expertise in Digital Communication, VLSI, Optical Communication and Wireless Communication. There is a lot of expectations and need for development in the field electronics and digital era in the country and state MP in particular. The experience of department, computational capability of faculties and well equipped laboratories could be utilized for digital development of state.

Many Electronic projects are of multi-disciplinary nature and need a team comprising of inter disciplinary knowledge. The Department of Electronics and Communication Engineering of RGPV is one such rare Department possessing all the expertise needed.

There is a need to expose the students to the latest electronic developments involving different fields of expertise such as digital communication, VLSI, DSP and Mobile Communication. Therefore it is planned to start a Centre for Excellence in VLSI, Centre for Mobile Radiation Measurement, setting up a dedicated Research and Development Lab, Centre for EMI/EMC testing facilities, a Calibration Lab and also has a plan to start PG Course in VLSI and Embedded Systems. There is a plan to have paperless communication within the department.

52. Detail any five Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department.

Strength:

- Excellent environment and facility available for carrying out research in interdisciplinary areas
- Well equipped laboratories with latest equipments and computing facilities.
- Well qualified and well experienced faculties.
- Attracts the best students of the State.
- Students are working on projects which will be used in different sections of UIT and RGPV

Weakness:

- Comparatively less interaction of faculty with industry
- Poor communication skills amongst students
- Lack of Technically Qualified Supporting staff.
- Interdisciplinary research need to be strengthened.

Opportunities

- University provides financial support to present contributions of faculty in international forum, which motivates the faculty to involve in research. Students are also encouraged to present their contributions.
- Good environment to pursue research in inter/multi disciplinary areas.
- In the present scenario of state and country as a whole, there is a good scope for devising courses related to infrastructure to satisfy the human resources requirement of country and in state particular (knowledgeable and trained personals) for implementing the projects.
- Faculty and student exchange programmes through MOU's.
- Good scope for establishing centre of excellence in the following areas (i). VLSI (ii) EMI/EMC (iii) DSP (iv) Wireless Communication (v) Calibration Lab

Challenges:

- Though Electronics and Communication engineering department is one of the best in the state, it has to compete with the departments of national level institutions like IIT's , IISC and NIT's to attract students for Post Graduate studies and research.
- Day by day level of funding for higher education particularly state level institutions is limited; hence it is necessary to plan for generating resources required for research.
- To develop and maintain the standards of teaching and learning at par with institutions like IIT's , IISC and NIT's
- Training the students to meet the global challenges of 21st century and International standards so that they are employable globally.

12. DEPARTMENT OF PETROCHEMICAL ENGINEERING

1. **Name of the Department** : Petrochemical Engineering

2. **Year of establishment** : 2012

3. Is the Department part of a School/Faculty of the University?:

Yes, Department of Petrochemical Engineering is part of RGPV ,Bhopal

4. Names of Programmes / Courses offered
(UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.) :

Sl. No.	Name of the Programme offered	Remarks (UG/PG/M.Phil/Ph.D
1	B.E. Petrochemical Engineering	UG

5. Interdisciplinary courses and departmentsinvolved:

Sl. No.	Interdisciplinary courses offered	Names of the Departments involved
1.	Engineering Mathematics for UG Programme	Department of Mathematics
2.	Engineering Physics for UG Programme	Department of Physics
3.	Engineering Chemistry for UG Programme	Department of Chemistry
4.	Languages for all UG Programme	Department of Humanities
5.	Fundamentals of Computing & Computer related Labs for UG Programme	Department of Computer Science and Engineering
6.	Workshop practice for UG Programme	Department of Mechanical Engineering
7.	Fundamental of Electrical Engineering	Department of Electrical engineering
8.	Engineering graphics	Department of Mechanical Engineering.
9.	Basic Mechanical Engineering	Department of Mechanical Engineering.
10.	Basic civil & EM	Department of Civil Engineering.

6. Courses in collaboration with other universities, industries, foreign institutionsetc.:

Sl. No.	Collaborative courses offered during 2011-12 to 2014-15	Remarks (with other Universities / Industries / Foreign Institutions)
	NIL	

7. Details of programmes / courses discontinued, if any, with reasons:

Sl. No.	Name of the Programme discontinued	Reason
	NIL	

8. Annual/ Semester/Choice Based Credit System:

Semester with Choice Based Credit System (CBCS) for UG Programme.

9. Participation of the department in the courses offered by other departments:NIL

Sl. No.	Name of the courses engaged for other departments	Name of the other department

10. Number of Teaching posts sanctioned and filled during 2011-12 to 2014-15 (Professors/Associate Professors/ AssistantProfessors):

Sl. No.	Name of the teaching post	Sanctioned	Filled
1	Professor	01	NIL
2	Associate Professor	01	NIL
3	Assistant Professor	03	NIL
Total		05	NIL

11. Faculty profile with name, qualification, designation and specialisation (D.Sc./D.Litt./ Ph.D./M.Phil.,etc.)

Name	Qualification	Designation	Specialization D.Sc., D.Litt., Ph.D., M.Phil, M.E.	No.of Yearsof Experience	No.of Ph.D. students guidedduring 2011-12 to 2014-15
Mr. P. K. Burnwal	M. Tech	Assistant Professor (Contract Basis)	M. Tech	04	NA
Mr. Harendra Rathore	M. Tech	Assistant Professor (Contract Basis)	M. Tech	03	NA
Mr. Bablu Alawa	M. Tech	Assistant Professor (Contract Basis)	M. Tech	02	NA
Mr. Mehtab Singh Chouhan	M. Tech	Assistant Professor (Contract Basis)	M. Tech	01	NA
Mr. Imran Mohammad	M. Tech	Assistant Professor (Contract Basis)	M. Tech	03	NA
Mr. Pushpendra Kushwaha	M. Tech	Assistant Professor (Contract Basis)	M. Tech	01	NA

12. List of senior Visiting Fellows, faculty, adjunct faculty, emeritus professors

Sl. No.	Name of the Faculty Member	Designation (Visiting fellow, visiting Faculty, adjunctfaculty, EmeritusProfessors)
1.	Mr. P. R. Kapse	BPPCL, Assam (Session June2013- July 2015)
2.	Mr. Wajid Ali Khan	Ex-Head, IPSHEM, ONGC, Goa. (Session June 2013- Dec 2013)

13. Percentage of classes taken by temporary faculty (Guest faculty) – Programme-wise Information.

Sl. No.	Name of the Programme	% of classes taken by temporary Faculty members
	UG programme	
1.	BE Petrochemical Engineering	100

14. Programme-wise Student Teacher Ratio

Sl. No.	Name of the Programme	Student-Teacher ratio
	UG programme	
1.	B.E petrochemical Engineering	40:1

15. Number of academic support staff (technical) and administrative staff: Sanctioned and Filled:

Provided from common pool of the University

16. Research thrust areas recognized by funding agencies. NIL

Discipline	Research thrust areas	Funding Agency
-	-	-

17. Name of faculty with ongoing projects from a) National b) International funding agencies and c) Total grants received. Give the names of the funding agencies and grants received project-wise during 2011-12 to 2014-15.

NIL

Sl. No.	Title of the Project	Name of Principal Investigator	Name of the funding agency and year	Grant received (Rs. in Lakhs)
1	NIL			

18. Inter-institutional collaborative projects and grants received during 2011-12 to

2014-15

Sl. No.	Title of the Inter-institutional collaborative project	Name of the Institution & Year	National / International	Amount (Rs. in Lakhs)
1	NIL			

19. Departmental projects funded by DST-FIST; UGC-SAP/CAS, DPE; DBT, ICSSR, etc.; total grants received during 2011-12 to 2014-15.

Sl. No.	Title of Department project	Name of the funding agency and amount
	NIL	

20. Research facility / centre

- with State recognition
- National
- recognition
- International
- recognition

Sl. No.	Name of the research facility / Centre	Type of Recognition (State National /
	NIL	

21. Special research laboratories sponsored by / created by industry or corporate bodies during 2011-12 to 2014-15:

Sl. No.	Name of the special laboratories sponsored	Sponsoring agency (Industry / Corporate Body)
	NIL	

22. PUBLICATIONS during 2011-12 to 2014-15:

a. Number of papers published in peer reviewed journal (National/International)

Year	No. of Publication
------	--------------------

2011-12	-
2012-13	01
2013-14	05
2014-15	05
Total	11

- b. Monographs, Chapters in Books, Edited Books, Books during 2011-12 to 2014-15 with ISBN with details of publishers (include Hindi Medium Books)- NIL**

Sl. No.	Name of the faculty member	Monographs authored	Chapters authored in Books	Books edited	Books authored with ISBN
	NIL	NIL	NIL	NIL	NIL

- c. Number listed in International Database (For e.g. Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.) Citation Index – range / average, SNIP, SJR, Impact Factor – range/ average, h-index- during 2011-12 to 2014-15**

Sl. No.	Name of the faculty member	Number listed in Intl. database (Web of science, scopes science directory etc.	h-index (Since 2011)
	NIL		

- d. Impact Factor and h-index year wise from 2011 to 2015**

Sl. No.	Name of the faculty member	Citation index		Impact Factor (Range/ Avg.)*
20	Pappu Kumar Burnwal	2011		-
		2012		-
		2013		-
		2014		0.76
		2015		-

		(Range/ Avg.)*		0.19
2.	Bablu Alawa	2011		-
		2012		-
		2013		-
		2014		2.4
		2015		0.56
		(Range/ Avg.)		0.74
2.	Pushpendra Kushwaha	2011		-
		2012		-
		2013		-
		2014		2.4
		2015		1.52
		(Range/ Avg.)		0.98
4.	Mehtab Singh Chouhan	2011		-
		2012		-
		2013		-
		2014		-
		2015		2.53
		(Range/ Avg.)		0.63
5.	Harendra Rathore	2011		-
		2012		-
		2013		-
		2014		-
		2015		-
		(Range/ Avg.)		-
6.	Imran Mohammad	2011		-

		2012		-
		2013		-
		2014		-
		2015		-
		(Range/ Avg.)		-

23. Details of patents and income generated during 2011-12 to 2014-15:

Sl. No.	Name of the faculty member	Patent received	Income generated in Rs.
	NIL		

24. Areas of consultancy and income generated during 2011-12 to 2014-15:

Sl. No.	Name of the faculty member	Areas of consultancy carried out	Income generated (Rs. in Lakhs)
	NIL	NIL	NIL

25. Faculty selected nationally/internationally to visit other laboratories in India and abroad during 2011-12 to 2014-15

Sl. No.	Name of the Faculty member	Name of the Lab visited in India	Name of the Lab visited abroad
	NIL	NIL	NIL

26. Faculty serving in various Committees during 2011-12 to 2014-15:

Sl. No.	Name of the Faculty member	Details of National / International committee served	Details of Editorial Board served	Any other committee
	NIL			

27. Faculty recharging strategies :

- Department allows the faculties to participate in national and international conferences and seminars.
- The faculties interact with industry and academic experts through industrial and institutional visits.

28. Student projects (during 2011-12 to 2014-15)

- Percentage of students who have done in-house projects including inter-departmental projects
- Percentage of students doing projects in collaboration with other universities / industry/institute

Sl. No.	Name of the Programme offered	Percentage of students who have done in- house projects including inter- departmental projects	Percentage of students who have done in-house projects in collaboration with other universities for industry / institute
1	B.E.	100	-

29. (a) Awards / recognitions received at the National and International level by Faculty during 2011-12 to 2014-15:

Sl. No.	Name of the Faculty Member	Awards /recognition received	
		National	International
	NIL		

29 (b) Awards / recognitions received at the National and International level by Doctoral / post doctoral fellows during 2011-12 to 2014-15:

Sl. No.	Name of the Doctoral / Post doctoral Fellow	Awards /recognition received	
		National	International
	NIL		

29 (c) Awards / recognitions received at the national and international level by Students during 2011-12 to 2014-15:

Sl. No.	Name of the Student	Programme	Awards/Recognition received	
			National	International
1.	Shobit Shukla	UG	Chancellor Award	-
2.	Satyam Bohare	UG	Chancellor Award	-
3.	Yash Malviya	UG	Second Runner up at Azeotropy IIT Bombay, 2015	-
4.	Sheetal Malviya	UG	Second Runner up at Azeotropy IIT Bombay, 2015	-
5.	Aadarsh Sahu	UG	Second Runner up at Azeotropy IIT Bombay, 2015	-
6.	Md. Azam	UG	Second Runner up at Azeotropy IIT Bombay, 2015	-
7.	Ayushi Sharma	UG	SRIJAN, 2015	-
8.	Sumedha Jain	UG	SRIJAN, 2015	-
9.	Harsha Malviya	UG	SRIJAN, 2015	-
10.	Ashutosh Nema	UG	SRIJAN, 2015	-

30. Seminars/ Conferences/Workshops organized and the source of funding (national / international) with details of participants during 2011-12 to 2014-15.-

S. No.	Name of the seminar / conference / workshop organized		Source of funding	Details of participants
	National	International		
1.	Recent Trends in Refining and Petrochemical Industries	-	TEQIP-II	65 Participants (Enclosed)

31. Code of ethics for research followed by the departments:

The following codes of ethics are followed:

1. The department appreciates interdisciplinary research work and so allows the students to work with other departments for their major and minor Projects.
2. Work of students in the form of reports is thoroughly scrutinized before final submission to avoid plagiarism and copying of previous work done.
3. The Topics of major projects are allotted with keeping in view the recent advancement and trends in the petrochemical areas which will act as a foundation for the student in their future research work.

32. Student profilecourse-wise during 2011-12 to 2014-15:

Name of the Course	Applications received	Year	Selected		Pass percentage	
			Male	Female	Male	Female
	Admission done centrally through online counseling	2011-12				
		2012-13	45	15		
		2013-14	41	18		
		2014-15	38	19		

33. Diversity of students during 2011-12 to 2014-15

Name of the Course	YEAR	% of students from the same university	% of students from other universities within the State	% of students from universities outside the State	% of students from other countries
B.E.	-	-	-	-	-

**

- 34. How many students have cleared Civil Services and Defence Services examinations, NET, SET, GATE and other competitive examinations? Give details category-wise. Provide details with proof like name of the student, email, appointment/selection letter etc. during 2011-12 to 2014-15.**

Sl. No.	Name of the competitive Examination	Number of students cleared
1.	Civil services	NA
2.	Defense services	Nil
3.	NET	NA
4.	SET	NA
5.	GATE	NA
6.	Any other competitive examination.	NA

35. Student progression during 2011-12 to 2014-15: NA (First batch will pass out in June 2016)

Student progression	Percentage against enrolled			
	2011-12	2012-13	2013-14	2014-15
UG to PG				
PG to M.Phil.				
PG to Ph.D.				
Ph.D. to Post-Doctoral				
Employed				
Campus selection UG				
Other than campus recruitment UG				
Entrepreneurs				

36. Diversity of staff during 2011-12 to 2014-15:

Percentage of faculty who are graduates	PG	Ph.D.
of the same university	50	-
from other universities within the State	00	-
from universities from other States	50	-
from universities outside the country	00	-

37. Number of faculty who were awarded Ph.D., D.Sc. and D.Litt. during the assessment period during 2011-12 to 2014-15: NIL

Year	Number of Faculty awarded Ph.D / D.Sc., D.Litt
2011-12	Nil
2012-13	Nil
2013-14	Nil
2014-15	Nil

38. Present details of infrastructural facilities with regard to Library, Internet facilities for staff and students, Total number of class rooms, Class rooms with ICT facility, Students' laboratories, Research laboratories during 2011-12 to 2014-15.

Sl. No.	Name of the Infrastructural Facility	Quantity / Details	
1.	Library	NIL	
2.	Internet for staff	NIL	
3.	Internet for students	NIL	

4.	Number of class rooms	03	Mechanical Block 2
5.	Classrooms with ICT facility	NIL	
6.	Research Labs	01	Analytical Lab

Note: 24 hours / 7 days campus Wi-Fi connectivity is available for students and faculties.

39. List of Doctoral, Post-Doctoral students and Research Associates from the Host University, from other Universities during 2011-12 to 2014-15

Sl. No.	Name of the Student	Category Post-doctoral / Doctoral / Research associate	Name of the University (Host / other University)
	NIL		

40. Number of post graduate students getting financial assistance from the university. GATE, Scholarship, Rajiv Gandhi Scholarship etc. received through University

Programme	Number of students getting financial assistance from the University			
	2011-12	2012-13	2013 -14	2014-15
GATE stipend	NA	NA	NA	NA

41. Was any need assessment exercise undertaken before the development of new Programme(s)? If so, highlight the methodology.

No new programme has been introduced.

42. Does the department obtain feedback during 2011-12 to 2014-15 from-

(g) Faculty on curriculum as well as teaching-learning-evaluation? If yes, how does the department utilize the feedback?

Yes,

Modifications of the curriculum are done after obtaining the feedback from the faculty, industrial experts and after due discussion in BOS meetings. Suggestions are incorporated in the curriculum and new courses based on research area are introduced as electives with the approval of the Board of Studies.

(h) Students on staff, curriculum and teaching-learning-evaluation and how does the department utilize the feedback?

Yes,

The anonymous evaluation is obtained from students of the class at the end of each semester of the courses taught by the faculties. After Evaluation of feedbacks the suggestions for improvement is conveyed to the faculty by HOD.

(i) Alumni and employers on the programmes offered and how does the department utilize the feedback?

First batch will graduate in 2016 so no feedback from alumni and employer is available.

43. List the distinguished alumni of the department (maximum 10):

Sl. No.	Name of the distinguished Alumni	Details of occupation
1.	NIL	

44. Give details of student enrichment programmes during 2011-12 to 2014-15 (Special Lectures / Workshops / Seminar) involving external experts:

Sl. No.	Title of the Special Lecture / Workshop / Seminar organized	Details of the External Expert
1.	Overview of Refining and Petrochemical Industry	Dr. Kiran D Patil Professor, Department of Petrochemical Engineering, MIT, Pune (M.H.)
2.	Petrochemical and Petrochemical Products	Dr. Manoj Datar Head, Department of Chemical and Petrochemical Engineering, SATI, Vidisha (M.P.)

45. List the teaching methods adopted by the faculty for different programmes.

- Lecture by Teacher
- Lecture-demonstration by special speaker
- Presentation by students
- Assignments
- Mini Projects
- Major Project work at the final semesters in the case of UG courses
- Industrial visits.
- GD and Seminar.

46. How does the department ensure that programme objectives are constantly met and learning outcomes are monitored?

The following points are considered for monitoring of programme objectives and learning outcomes –

1. Student assessment based on mid-semester examination, Assignments, seminars and quizzes.
2. By feedback of students.
3. Allotment of subject is done after discussion among the faculties and review of feedback obtained from the students.
4. Tutor Guardians are nominated for UG programme who advise the students in deciding open electives and coarse based curriculum activities.

47. Highlight the participation of students and faculty in extensionactivities during 2011-12 to 2014-15-

- Faculty participation in Swacha Bharat Abhiyan in the university on Republic day.
- Participation of Faculty and students in National Yoga Day organized by Govt of M. P. at “Lal parade maidan Bhopal”.

48. Give details of “beyond syllabus scholarly activities” of thedepartment during 2011-12 to 2014-15.

(a) List of Awards during 2011-12 to 2014-15

S.No	Name of the	Programme	Award Name
1.	Mrinal Khare	UG	II position in Science-O-Mania held in UIT-RGPV.
2.	Vaishnavi Tuli	UG	II position in Science-O-Mania held in UIT-RGPV.
3.	Deepti Patel	UG	II position in Science-O-Mania held in UIT-RGPV.

(ii). List of conference papers by students during 2011-12 to 2014-15

Programme	No. of conference papers by students			
	2011-12	2012-13	2013-14	2014-15
UG	-	-	-	03

49. State whether the programme/ department is accredited/ graded by other agencies? If yes, give details during 2011-12 to 2014-15.

Sl. No.	Name of the Program	Date of Accreditation	Date of Expiry
1.	B.E Petrochemical Engineering	-	-

50. Briefly highlight the contributions of the department in generating new Knowledge, Basic or Applied.

1. Development of virtual learning through the use of web based resources.
2. Designing of chemical process through the use of dedicated softwares like ASPEN Plus, MATLAB, LabVIEW etc.
3. Simulation on various existing chemical process and their comparison with the results from the published research papers for verification and implementation of the generated results.

51. Future plans of the department

1. Expansion of current laboratories facilities.
2. MOU with organization and industries contributing in the field of petrochemicals.
3. Development of virtual laboratory.
4. Developing practical's based on offshore and onshore related activity (eg: hydrate forming condition)
5. Development of crude quality analysis laboratory based on ASTM D-2860, D-1600 .

52. Detail any five Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department.

Strength:

- Academic autonomous status of the institute makes possible for the department to modify the curriculum easily and quickly as per the changing need of the time.
- The department invites various experts and industrial persons who contribute by their invaluable knowledge in the development of technical knowledge of the students which is very useful to carry their career in various sectors which are concerned to Petrochemical field.

- The department has high quality research equipments like Gas Chromatograph which is very helpful for students and faculties to do project works in the field related to environment and petrochemical.
- The diversities in the area of specialization of the faculties helps in covering the wider areas related to the branch and development of knowledge of students in different area of research.
- Excellent environment for study in interdisciplinary areas.
- Well qualified, hard working faculties.

Weakness:

- Limited infrastructural facilities
- Lack of focused research due to unavailability of specialized lab in specific areas.
- Lack of collaborative work with renowned industry and academic institute
- Unavailability of Regular/ Contract Non-Teaching and Office Staff.
- Lack of permanent faculty in the department.

Opportunities:

- Student's interactions with industry through the route of industry visits have helped in creating awareness among the industries about the existence of the industry oriented course on petrochemical engineering which creates chances for placements of students.
- Excellent atmosphere to pursue research in inter/multi disciplinary areas.
- Internship in industries and national level colleges to enhance their knowledge and skills in related field.
- Development of virtual learning and software lab.
- Encouraged to take problems related to process encountered in industry as major projects for the students.

Challenges:

- However the department is the rising Petrochemical engineering department in the state, it has to compete with the departments of national level institutions.
- Funding for the establishment of specialized lab related to petroleum and petrochemicals for the testing and evaluation of crude quality and catalyst

performance for petrochemical generation.

- Placement of students in petrochemical and refining sector.
- Training the students to meet the global challenges of 21st century and International standards so that they are employable worldwide.
- Timely Modification of the curriculum to meet the current industrial requirement.

13. DEPARTMENT OF AUTOMOBILE ENGINEERING

1. Name of the Department : Automobile Engineering

2. Year of establishment : 2012

3. Is the Department part of a School/Faculty of the University?:

Yes, Department of Automobile Engineering is part of RGPV, Bhopal

4. Names of Programmes / Courses offered
(UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.) :

Sl. No.	Name of the Programme offered	Remarks (UG/PG/M.Phil/Ph.D)
1	B.E. Automobile Engineering	UG

5. Interdisciplinary courses and departments involved:

Sl. No.	Interdisciplinary courses offered	Names of the Departments involved
1.	Engineering Mathematics for UG Programme	Department of Mathematics
2.	Engineering Physics for UG Programme	Department of Physics
3.	Engineering Chemistry for UG Programme	Department of Chemistry
4.	Languages for all UG Programme	Department of Humanities
5.	Fundamentals of Computing & Computer related Labs for UG Programme	Department of Computer Science and Engineering
6.	Workshop practice for UG Programme	Department of Mechanical Engineering
7.	Fundamental of Electrical Engineering	Department of Electrical engineering
8.	Engineering graphics	Department of Mechanical Engineering.
9.	Basic Mechanical Engineering	Department of Mechanical Engineering.
10.	Basic civil & EM	Department of Civil Engineering.

6. Courses in collaboration with other universities, industries, foreign institutions etc.:

Sl. No.	Collaborative courses offered during 2011-12 to 2014-15	Remarks (with other Universities / Industries / Foreign Institutions)
	NIL	

7. Details of programmes / courses discontinued, if any, with reasons:

Sl. No.	Name of the Programme discontinued	Reason
	NIL	

8. Annual/ Semester/Choice Based Credit System:

Semester with Choice Based Credit System (CBCS) for UG Programme.

9. Participation of the department in the courses offered by other departments: NIL

Sl. No.	Name of the courses engaged for other departments	Name of the other department

10. Number of Teaching posts sanctioned and filled during 2011-12 to 2014-15 (Professors/Associate Professors/ Assistant Professors):

Sl. No.	Name of the teaching post	Sanctioned	Filled
1	Professor	01	-
2	Associate Professor	01	
3	Assistant Professor	03	03 (Temporary)
Total		05	-

14. DEPARTMENT OF COMPUTER APPLICATIONS

1. Name of the Department : **DEPARTMENT OF COMPUTER APPLICATIONS**

2. Year of establishment : **2003**

3. Is the Department part of a School/Faculty of the University?:

Yes, Department of Computer Applications is part of RGPV Bhopal

4. Names of Programmes / Courses offered
(UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.) :

Sl. No.	Name of the Programme offered	Remarks (UG/PG/M.Phil/Ph.D.)
1.	Masters in Computer Applications (MCA)	PG
2.	Doctorate in Computer Applications	Ph.D.

5. Interdisciplinary courses and departments involved:

Sl. No.	Interdisciplinary courses offered	Names of the Departments involved
1.	Mathematical Foundation of Computer Science (MA-1022)	Department of Mathematics
2.	Communication Skills (HN-1025)	Department of Humanities
3.	Computer Oriented Numerical & Statistical methods (MA-1054)	Department of Mathematics
4.	Accounting & Management Control (HN-1055)	Department of Management
5.	Computer Oriented Optimization Techniques (MA-2021)	Department of Mathematics

6. Courses in collaboration with other universities, industries, foreign institutions etc.: **NIL**

Sl. No.	Collaborative courses offered	Remarks (with other Universities / Industries / Foreign Institutions)
--	--	--

7. Details of programmes / courses discontinued, if any, with reasons: NIL

Sl.No.	Name of the Programme discontinued	Reason
--	--	--

8. Annual/ Semester/Choice Based Credit System:

Semester Based Credit System for MCA Programme.

9. Participation of the department in the courses offered by other departments:

Sl. No.	Name of the courses handled for other departments	Name of the other department
1	Basic Computer Engineering	Department of Civil
2	Basic Computer Engineering	Department of Mechanical
3	Basic Computer Engineering	Department of Electrical & Electronics
4	Fundamentals of Computing & Computer related Labs for UG	Department of Civil
5	Information Technology	Department of Management
6	Management Information System (MIS)	Department of Management

10. Number of Teaching posts sanctioned and filled (Professors/Associate Professors/ Assistant Professors):

Sl. No.	Name of the teaching post	Sanctioned	Filled
1	Professor	01	-
2	Associate Professor	02	02
3	Assistant Professor	06	-
Total		09	02

11. Faculty profile with name, qualification, designation and specialization (D.Sc./D.Litt./ Ph.D./M.Phil.,etc.)

Name	Qualification	Designation	Specialization D.Sc., D.Litt., Ph.D., M.Phil, M.E.	No. of Year of Experience	No. of Ph.D. students guided for the last 4 years
Dr. Ravindra Patel	M.Sc, MCA, Ph.D	Associate Professor & Head of Department	Ph.D	14	5

Mrs. Neelu Nihalani	MCA, Ph.D (Pursuing) Thesis Submitted	Associate Professor	--	22	--
Mr. Kapil Chaturvedi	MCA, Ph.D	Assistant Professor (On Contract)	Ph.D	7	--
Mr. Brijesh Bakariya	MCA, Ph.D (Thesis Submitted)	Assistant Professor (On Contract)	--	5	--
Mr. Jayant Mishra	MCA, M.Tech	Assistant Professor (On Contract)	--	5	--
Mr. Mukesh Bhangre	MCA	Assistant Professor (On Contract)	--	6	--
Mrs. Aparna Verma	MCA	Assistant Professor (On Contract)	--	3	--
Mrs. Dipti Chauhan	MCA, M.Tech, Ph.D (Thesis Submitted)	Assistant Professor (On Contract)	--	10	--
Mr. Rajesh Kumar Bunkar	MCA, Ph.D (Thesis Submitted)	Assistant Professor (On Contract)	--	7	--

12. List of senior Visiting Fellows, faculty, adjunct faculty, emeritus professors:

Sl. No.	Name of the Faculty Member	Designation (Visiting fellow, visiting Faculty, adjunct faculty, Emeritus Professors)
1.	Dr. N.S.Choudhary	Visiting Faculty
2.	Dr. Sanjay Agarwal	Visiting Faculty
3.	Dr. Shailendra Singh	Visiting Faculty
4.	Dr. Ugrasen Suman	Visiting Faculty

13. Percentage of classes taken by temporary faculty (Guest faculty) – Programme-wise Information:

Sl. No.	Name of the Programme	% of classes taken by temporary Faculty members
	PG programmes	
1.	Masters in Computer Applications (MCA)	40%

14. Programme-wise Student Teacher Ratio

Sl. No.	Name of the Programme	Student-Teacher ratio
	PG programmes	
1.	Masters in Computer Applications (MCA)	22:1

15. Number of academic support staff (technical) and administrative staff: Sanctioned and Filled:

Provided from common pool of the University

16. Research thrust areas recognized by funding agencies: NIL

17. Name of faculty with ongoing projects from a) National b) International funding agencies and c) Total grants received. Give the names of the funding agencies and grants received project-wise.- NIL

Sl. No.	Title of the Project	Name of Principal Investigator	Name of the funding agency and year	Grant received (Rs. in Lakhs)
--	--	--	--	--

**18. Inter-institutional collaborative projects and grants received
a) All India collaboration b) International : NIL**

Sl. No.	Title of the Inter-institutional collaborative project	Name of the Institution & Year	National / International	Amount (Rs. in Lakhs)
--	--	--	--	--

19. Departmental projects funded by DST-FIST; UGC-SAP/CAS, DPE; DBT,

ICSSR, etc.; total grants received.: NIL

Sl. No.	Title of Department project	Name of the funding agency and amount
--	--	--

20. Research facility / centre

- with State recognition
- National recognition
- International recognition:

Sl. No.	Name of the research facility / Centre	Type of Recognition (State National / International)
1.	Department of Computer Applications- Project Lab	State

21. Special research laboratories sponsored by / created by industry or corporate bodies: NIL

Sl. No.	Name of the special laboratories sponsored	Sponsoring agency (Industry / Corporate Body)
--	--	--

22. PUBLICATIONS

a) Number of papers published in peer reviewed journals (National/International)

Year	No. of Publication
2011-12	14
2012-13	12
2013-14	11
2014-15	12
Total	49

b) Monographs, Chapters in Books, Edited Books, Books with ISBN with details of publishers (include Hindi Medium Books)-

Sl. No.	Name of the faculty member	Monographs authored	Chapters authored in Books	Books edited	Books authored with ISBN
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1	Dr. Ravindra Patel		To Study the Architectural Designs of a Proposed Comprehensive Software Extractor for Reengineering Tool: A Literature Survey, Authors: Rashmi Yadav , Abhay Kothari, Ravindra Patel, Published in: Intelligent Computing, Networking, and Informatics, Publisher Springer India, Volume 243 of the series Advances in Intelligent Systems and Computing pp 91-99, 2013		ISBN-No: 978-81-322-1664-3
2.	Dr. Ravindra Patel		Link Score: A Novel Method for Time Aware Link Prediction in Social Network Authors: Pankaj Chaudhary, Nishchol Mishra, Sanjeev Sharma, Ravindra Patel,		Published in: Data Mining and Warehousing, Author K. R. Venugopal, L.M. Patnaik, Deepa Shenoy, pp. 111-118, Elsevier Publication

c) Number listed in International Database (For e.g. Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.) Citation Index – range / average, SNIP, SJR, Impact Factor – range/ average, h-index-

Sl. No.	Name of the faculty member	Number listed in Intl. database (Web of science, scopes science directory etc.	Citation index	h-index
1.	Dr. Ravindra Patel	04	91	6
2.	Mrs. Neelu Nihalani	01	12	3
3.	Dr. Kapil Chaturvedi	01	9	1
4.	Mrs. Dipti Chauhan	01	7	1
5.	Mr. Rajesh Bunkar	--	1	1

23. Details of patents and income generated: NIL

Sl. No.	Name of the faculty member	Patent received	Income generated in Rs.
--	--	--	--

24. Areas of consultancy and income generated: NIL

Sl. No.	Name of the faculty member	Areas of consultancy carried out	Income generated (Rs. in Lakhs)
--	--	--	--

25. Faculty selected nationally/internationally to visit other laboratories in India and abroad: NIL

Sl. No.	Name of the Faculty member	Name of the Lab visited in India	Name of the Lab visited abroad
--	--	--	--

26. Faculty serving in various Committees:

Sl. No.	Name of the Faculty member	Details of National / International committee served	Details of Editorial Board served	Any other committee
1.	Dr. Ravindra Patel			Member Board of Management of Jaypee University of Engineering & Technology, Raghogarh, Guna (M.P.), Nominated by Govt. of Madhya Pradesh(2010-2014)
2	Dr. Ravindra Patel			Member Board of Management AISECT University, Bhopal(M.P.), Nominated by Govt. of Madhya Pradesh(2010-2014)
3	Dr. Ravindra Patel	Expert member Evaluation committee National Board Accreditation, New Delhi		

4	Dr. Ravindra Patel	Expert member of Inspection committee of AICTE, New Delhi		
5	Dr. Ravindra Patel			Member board of studies in faculty of Computer Applications, Rajiv Gandhi Proudhyogiki Vishwavidyalaya, Bhopal (M.P.)
6	Dr. Ravindra Patel			Member board of studies in faculty of Computer Applications, SATI(an autonomous Engg. College), Vidisha (M.P.).
7	Dr. Ravindra Patel			Member board of studies in faculty of Computer Applications, MITS (an autonomous Engg. College), Gwalior (M.P.)

27. Faculty recharging strategies:

The following recharging strategies are adapted by the Department of Computer Applications for faculties to refresh the knowledge and provide exposure to latest developments in the areas of interest:

1. Faculties of the Department are encouraged to visit labs of premium technical institutions like: IITs, IISCs, NITs etc.
2. Department is providing opportunities for faculties to attend Faculty Development Program (FDP), summer and winter schools organized by leading institutions and research institutes.
3. Opportunities are also provided to attend national/international Seminars/Workshops by the faculty in premium technical institutions.
4. Faculties are also delivering the expert lectures in other institutions.

28. Student projects (last five years)

- Percentage of students who have done in-house projects including inter-departmental projects.
- Percentage of students doing projects in collaboration with other universities / industry/ institute.

Sl. No.	Name of the Programme offered	Percentage of students who have done in-house projects including inter- departmental projects	Percentage of students who have done in-house projects in collaboration with other universities for industry / institute
1	Masters in Computer Applications (MCA)	-	100%

29. (a) Awards / recognitions received at the National and International level

by Faculty: NIL

Sl. No.	Name of the Faculty Member	Awards /recognition received	
		National	International
		--	--

29 (b) Awards / recognitions received at the National and International level by Doctoral / post doctoral fellows: NIL

Sl. No.	Name of the Doctoral / Post doctoral Fellow	Awards /recognition received	
		National	International
--	--	-	--

29 (c) Awards / recognitions received at the national and international level by Students: NIL

Sl. No.	Name of the Student	Programme	Awards/Recognition received	
			National	International
--	--	-	--	--

30. Seminars/ Conferences/Workshops organized and the source of funding (national / international) with details of participants.-

S. No.	Name of the seminar / conference / workshop organized		Source of funding	Details of participants
	National	International		
1	Workshop on Cloud Computing	--	RGPV	Post Graduate students, Research Scholars and Faculty members

31. Code of ethics for research followed by the departments:
(As per university norms)

The following codes of ethics are followed by the Department of MCA:

1. All Ph.D. Scholars has to undergo course work.
2. Literature survey is carried out by the research scholar to identify the research objectives. For this they are advised to visit library/e-library to read research papers and also survey the industry for the same.
3. Plagiarism is strictly viewed and any scholar/student found indulged in such activities, his/her registration will be cancelled and debarred to register for any other programme in the University. Also the supervisor recognition of the concerned faculty will be withdrawn for a period of 5 years and debarred from guiding the scholar in the University for the debarred period.
4. Phase Wise evaluation of Project Report is done on the basis of which we accept the project or suggest necessary changes.
5. Before the final submission of the major project, a Presubmission Presentation

of the project is carried out in the presence of all the faculty members.

6. Final viva is conducted for project evaluation, for this an external expert is called for the viva-voce.

32. Student profile course-wise:

Name of the Course (refer to question no. 4)	Applications received	Year	Selected		Pass percentage	
			Mal	Female	Male	Female
Masters in Computer Applications (MCA)		2011-12	35	25	97	100
		2012-13	35	25	100	100
		2013-14	26	28	100	100
		2014-15	12	11	100	100
Doctorate in Computer Applications (Ph.D)		2011-12	--	--	01	--
		2012-13	--	--	--	--
		2013-14	--	--	01	--
		2014-15	--	--	01	01

33. Diversity of students

Name of the Course (refer to question no. 4)	YEAR	% of students from the same university	% of students from other universities within the State	% of students from universities outside the State	% of students from other countries
Master of Computer Application (MCA)	2011-15	--	98%	2%	--
Ph.D.in Computer Application	2011-15	75%	25%	--	--

** Majority of students are from State of MP

34. How many students have cleared Civil Services and Defence Services examinations, NET, SET, GATE and other competitive examinations? Give details category-wise. Provide details with proof like name of the student, email, appointment/selection letter etc.

Sl. No.	Name of the competitive Examination	Number of students cleared
1.	Civil services	-

2.	Defense services	-
3.	NET	02
4.	SET	-
5.	GATE	01
6.	Any other competitive examination.	05

35. Student progression .:

Student progression	Percentage against enrolled			
	2011-12	2012-13	2013-14	2014-15
UG to PG	--	--	--	--
PG to M.Phil.	--	--	--	--
PG to Ph.D.	--	--	1%	1%
Ph.D. to Post-Doctoral	--	--	--	--
Employed				
Campus selection UG	--	--	--	--
PG	8.33%	11.29%	7.40%	35%
Other than campus Recruitment				
UG	--	--	--	--
PG	88%	84%	88%	60%
Entrepreneurs	3%	4%	4%	5%

36. Diversity of staff:

Percentage of faculty who are graduates	PG	Ph.D.
of the same university	33%	50%
from other universities within the State	67%	50%
from universities from other States	0%	0%
from universities outside the country	0%	0%

37. Number of faculty who were awarded Ph.D., D.Sc. and D.Litt. during the assessment period:

Year	Number of Faculty awarded Ph.D / D.Sc., D.Litt
2007-08	--
2008-09	--
2009-10	--
2010-11	--
2011-12	--

38. Present details of infrastructural facilities with regard to Library, Internet facilities for staff and students, Total number of class rooms, Class rooms with ICT facility, Students' laboratories, Research laboratories

Sl. No.	Name of the Infrastructural Facility	Quantity / Details	
1.	Library	1	Central Library
2.	Internet for staff	--	100 MBPS Wired Line

3.	Internet for students	--	100 MBPS Wired Line
4.	Number of class rooms	03	Classroom cum Lab
5.	Classrooms with ICT facility	02	LCD projector/LCD TV
6.	Research Labs	01	Project Lab

Note: 24 hours / 7 days campus Wi-Fi connectivity is available for students and faculties.

39. List of Doctoral, Post-Doctoral students and Research Associates from the Host University, from other Universities:

Sl. No.	Name of the Student	Category Post-doctoral / Doctoral / Research associate	Name of the University (Host / other University)
1.	Mr. Vijendra Singh Bhadouria	Doctoral	RGPV
2.	Mr. Mayank Pathak	Doctoral	RGPV
3.	Ms. Rashmi Yadav	Doctoral	RGPV
4.	Ms. Ajita Satheesh	Doctoral	RGPV

40. Number of post graduate students getting financial assistance from the university. GATE, Scholarship, Rajiv Gandhi Scholarship etc. received through University: NIL

Programme	Number of students getting financial assistance from the University				
	2007-08	2008-09	2009-10	2010-11	2011-12
MCA	--	--	--	--	--

41. Was any need assessment exercise undertaken before the development of new Programme(s)? If so, highlight the methodology.: NA

42. Does the department obtain feedback from–

(g) Faculty on curriculum as well as teaching-learning-evaluation? If yes, how does the department utilize the feedback?

Yes,

Feedback is taken from the faculties of the Department and on the basis of this Curriculum/Syllabus is changed or modified accordingly. New Subjects are introduced as per the need as special electives with the approval of the Board of Studies.

(h) Students on staff, curriculum and teaching-learning-evaluation and how does the department utilize the feedback?

Yes,

At the end of each semester a feed back is obtained from each student for the concerned faculty in a predefined format. Feedback form is evaluated by the Head of Department. Improvement if indicated by the students is conveyed to the faculty by HOD.

(i) Alumni and employers on the programmes offered and how does the department utilize the feedback?

Yes,

Alumni of the departments are invited to the Department for sharing their experience and delivering special lectures. They also aware the students about the industry requirements and the latest trends about the technology.

43. List the distinguished alumni of the department (maximum 10):

Sl. No.	Name of the distinguished Alumni	Details of occupation
1.	Mr. Vijendra Shrivastava	Project Leader, HCL Company, Chicago USA
2.	Mr. Sanjay Ingole	Project Manager, Head Storm, California USA
3.	Mr. Manish Jain	Senior Developer, CTS, Chicago USA
4.	Mr. Pavan Devgan	Quality Auditor & CMMi SEPG-Lead, Crisp Software Division Bhopal
5.	Mrs. Sonal Raizada	Entrepreneur, Director at Sonal's Academy Pune.
6.	Ms. Neelam Santani	Vodafone, Pune
7.	Ms. Sana Naaz Khan	System Engineer, TCS, Pune.
8.	Mr. Tinu Tennyson	Software Developer, TCS, Pune
9.	Mr. Rahul Malviya	Team Lead, L & T Infotech, Mumbai
10	Mrs. Dhara Saxena	Punjab National Bank, Vidisha
11	Ms. Pooja Sisodia	IT Manager, M.P. East Division Discom Jabalpur

44. Give details of student enrichment programmes (Special Lectures / Workshops / Seminar) involving external experts:

Sl. No.	Title of the Special Lecture / Workshop/Seminar	Details of the External Expert
1	Special Lecture on "Latest Trend in Big data (05/06/2014)"	Mrs. Sweta Pawar Ideal IT Techno Pvt. Ltd., Sundram complex, Bhawarkuan main road, Tower squire, Indore, Madhya Pradesh 452001

2.	One Workshop on Cloud Computing (02/11/2015)	Mr. Hemraj Chouhan, Bhupendra Singh ITEI Institute for Technical Education), 131/13, 2 nd floor, Zone-II, MP Nagar Bhopal
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45. List the teaching methods adopted by the faculty for different programmes.

The following teaching methods are adopted:

- a) Audio Visual
- b) Power Point
- c) Assigning projects to students.
- d) Case study and presentation.
- e) Laboratory Assignments
- f) Quiz
- g) Teaching supported by LCD projector, PowerPoint etc.
- h) Major Project training in Industry.
- i) Encouraging meaningful classroom interaction by students.

46. How does the department ensure that programme objectives are constantly met and learning outcomes are monitored?

The following are the heads under which the department ensures that programme objectives are constantly met and learning outcomes are monitored:

1. Through regular class tests and assignments on regular basis.
2. Conducting seminars and workshops.
3. Through internal examination and mid semester examination.
4. Sessionals and Tutorials.
5. Through class tests, seminars and sessionals.
6. Monitoring of attendance of students on regular basis. In case student is having short attendance then a letter informing about the short attendance is sent to their parents.
7. The learning outcome of students is assessed by conducting end semester examination and grades are awarded based on their performance.

47. Highlight the participation of students and faculty in extension activities-

Following are the extension activities adopted by the department:

1. Students and faculties participate in inter college academic activities.
2. Students and faculties are encouraged to participate in state and national level seminars and conferences.
3. Students attend the training at data science center at RGPV University, where training is provided.
4. Students are encouraged to work on research oriented projects.

5. Faculty members are encouraged to do funded research projects and consultancy services.

48. Give details of “beyond syllabus scholarly activities” of the department.

1. Students publish their contributions in International and National journals and conferences.
2. Participation in state level technical competitions to show case their talents.
3. Participation in inter college activities like Dance, Debate, Poster Presentation, Face Painting, Software Competition etc.
4. Motivational videos of persons like: Mr. Obama, Swami Vivekananda etc. are shown to the students for inspirational thoughts.
5. Motivational Seminars are conducted by the university for the students and faculties to inspire their thought process.

(a) List of Awards:

S.No	Name of the Student	Programme	Award Name
1.	Mr. Nitin Sharma	Annual Programme, M.K.Ponda College of Business & Management.	Manager of the year 2015
2.	Mr. Nitin Sharma	Cultural Programme at Gyan Ganga College.	Awarded for group performance with Band.

(ii). List of conference papers by students: NIL

Programme	No. of conference papers by students				
	2007-08	2008-09	2009-10	2010-11	2011-12
	--	--	--	--	--

49. State whether the programme/ department is accredited/ graded by other agencies? If yes, give details. NIL

Accreditation Status of UG & PG Programme:

Sl. No.	Name of the Student	Date of Accreditation	Date of Expiry
--	--	-	--

**** Steps begin taken to obtain Accreditation.**

50. Briefly highlight the contributions of the department in generating new Knowledge, Basic or Applied.: NIL

51. Future plans of the department.

1. To develop Center of Excellence of Data Analytics & Data Mining with State-of-the-art facilities.
2. Department is working to take a step to start a project with National/International Funding and research agencies.
3. To start a dual degree program leading to BCA+MCA
4. To create an educational and research environment by updating the laboratory facility.
5. To organize Workshops/Short Term Training Programmes (STTP)/ Seminars etc on latest trends in computing and applications.
6. To establish collaboration with universities, research organization in India and abroad.
7. To invite professionals, expert from the Universities, Research Organization, Industries to deliver series of lectures and organize short term training programs at regular intervals.
8. To update the knowledge of faculty and staff by sending them to places of higher learning.
9. To organize a National/International Conferences.

52. Detail any five Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department.

Strength

1. The department has well qualified, motivated and experienced faculty to cater the need of MCA course.
2. Well established infrastructure and lab facilities in the Department.
3. Excellent environment and facility available for carrying out research in interdisciplinary areas. The department faculties have also published number of research papers in International and National Journals of repute.
4. We are producing very highly skilled I.T. professionals and competing researchers. The students have been well accepted in industry in India and abroad and are placed in good positions.
5. A much disciplined work culture. All lectures/laboratories/tutorials are held and students are advised to attend the same. All the students have given personal attention, and special attention is given to weak students. Work ends and begins in time.

Weakness

1. Lack of Regular Class III and Class IV employees for daily routine work.
2. Lack of Regular Permanent teaching staff and hence administrative responsibilities are more for faculty members.
3. Lack of campus recruitments in companies.
4. Lack of quality students opting MCA course.
5. Lack of student industry interaction

Opportunities

1. The faculty and staff knowledge is updated by sending them to places of higher learning.
2. By doing this course (MCA) students are eligible for appearing in various areas of public and private sectors.
3. The Department also provides Good environment to pursue research in inter/multi disciplinary areas.
4. Faculty and student exchange programmes through MOU's with Multinational Companies like TCS, EMC Corporation etc.
5. University provides financial support to present contributions of faculty in international forum, which motivates the faculty to involve in research. Students are also encouraged to present their contributions.

Challenges

1. The qualities of students that are taking admission in the course are not very good in English or belong to rural areas. The department prepares them to meet the challenges posed by the industry and to become accustomed to the changes.
2. Most of the bright students are opting Engineering after higher secondary. So the students we are getting are not very intelligent. To deal with these students is a challenging issue.
3. Job prospects in I.T. Companies is limited for MCA students as Companies prefer BE/B.TECH over MCA course.
4. Training the students to meet the global challenges of 21st century and International standards so that they are employable globally.
5. It is very necessary to maintain the perfect balance between the educational technology and human stature.

15. DEPARTMENT OF APPLIED MATHEMATICS

1. **Name of the Department:** DEPARTMENT OF APPLIED MATHEMATICS

2. **Year of establishment:** 1987

3. **Is the Department part of a School/Faculty of the University?:**

Yes, Department of Applied Mathematics is part of RGPV, Bhopal

4. **Names of Programmes/Courses offered**

(Two Years PG Programme (M.Sc.) in Applied Mathematics and Ph.D.) :

S.No.	Name of the Programme offered	Remarks (UG/PG/M.Phil/Ph.D)
1	M. Sc. (Applied Mathematics)	PG
2	Doctorate in Mathematics	Ph.D.

5. **Interdisciplinary courses and departments involved:**

S. No.	Interdisciplinary courses offered	Names of the Departments involved
1.	Programming Language in C, Theory of Computation & Computer LAB	Department of Computer Application

6. **Courses in collaboration with other universities, industries, foreign institutions etc.:**

S. No.	Collaborative courses offered	Remarks (with other Universities / Industries / Foreign Institutions)
1.	-NIL-	-NIL-

7. **Details of programmes / courses discontinued, if any, with reasons:**

Sl. No.	Name of the Programme discontinued	Reason
	- NIL -	

8. **Annual/ Semester/Choice Based Credit System:**

Semester Based Credit System for two years/four semester M.Sc. (Applied

Mathematics) PG Programme.

9. Participation of the department in the courses offered by other departments:

S. No	Name of the courses handled for other departments	Name of the other department
1	Engineering Mathematics-I (B.E.)	Common for all Engineering Departments EC, CS, IT, EX, CE, ME, AU, PC for BE I Sem.
2	Engineering Mathematics-II (B.E.)	Common for all Engineering Departments EC, CS, IT, ME, PC, EX, CE, AU, PC for BE II Sem.
3	Engineering Mathematics-III (B.E.)	Common for all Engineering Departments EC, CS, IT, PC, ME, EX, CE, AU, PC for BE III& IV Sem.
4	Engineering Mathematics-I (DDIPG I Sem.)	Common for all Engineering Departments EC, CS, IT, ME, EX, CE for DDIPG I Sem.
5	Engineering Mathematics-II (DDIPG II Sem.)	Common for all Engineering Departments EC, CS, IT, ME, EX, CE for DDIPG II Sem.
6	Engineering Mathematics-III (DDIPG III Sem.)	Common for all Engineering Departments EC, CS, IT, PC, ME, EX, CE for DDIPG III Sem.
7	Advanced Mathematics (Master of Engineering I Sem.)	Department of EX, ME, EC, CS, CE for the Courses PS, HP, DC, CS, SE
8	Mathematics for M.Tech. I Sem.	Deptt. BioTech., & NanoTech
9	Mathematical Foundation of CS (MCA I Sem)	Department of MCA
10	Computer Oriented Numerical Analysis (CONA) (MCA II Sem.)	Department of MCA
11	Computer Oriented Optimization Techniques (MCA III Sem.)	Department of MCA
12	Advanced Mathematics for DDIPG IX Sem.	Department Electrical Engineering
13	Advanced Mathematics for M.Tech. I Sem.	School of Energy & Environment Management

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10. Number of Teaching posts sanctioned and filled (Professors/Associate Professors/ AssistantProfessors):

S.No.	Name of the teaching post	Sanctioned	Filled
1	Professor	01	01
2	Associate Professor	01	01
3	Assistant Professor	02	01
Total		04	03

11. Faculty profile with name, qualification, designation and specialisation (D.Sc./D.Litt./ Ph.D./M.Phil.,etc.)

Name	Qualification	Designation	Specialization D.Sc., D.Litt., Ph.D., M.Phil, M.E.	No. of Years of Experience	No. of Ph.D. students guided for the last 4 years
Dr. Anil Goyal	M.Sc., Ph.D	Professor & Dean	-	25 Years	04 Awarded, 02 ongoing
Dr. Vijay Gupta	M.Sc., M. Phil., Ph.D.	Associate Professor & HOD	-	18 Years	01 Awarded, 02 Submitted, 02 Cleared RDC
Dr. Manoj Kumar Pandey	M.Sc., Ph.D	Assistant Professor	-	11 Years	Nil
Dr. Rashmi Nigam	M.Sc., Ph.D	Assistant Professor (Contractual)	-	10 Years	Nil
Dr. Santosh Verma	M.Sc., Ph.D	Assistant Professor (Contractual)	-	9 Years	Nil
Dr. Shivkant Tiwari	M.Sc., Ph.D	Assistant Professor (Contractual)	-	4 Years	Nil
Dr. Babita Kumari	M.Sc., Ph.D	Assistant Professor (Contractual)	-	1 Year	Nil

12. List of senior Visiting Fellows, faculty, adjunct faculty, emeritus professors

Sl. No.	Name of the Faculty Member	Designation (Visiting fellow, visiting Faculty, adjunct faculty, Emeritus Professors)
1.	-NIL-	

13. Percentage of classes taken by temporary faculty (Guest faculty) – Programme- wise Information:

Sl. No.	Name of the Programme	% of classes taken by temporary Faculty members
UG programmes		
1.	B.E. (I, II, III & IV Semester) All Branches	71%
PG programmes		
2.	M.E./M.Tech./MCA/M.Sc. (Applied Mathematics)	73%

14. Programme-wise Student Teacher Ratio:

Sl. No.	Name of the Programme	Student-Teacher ratio
UG programmes		
1.	B.E. All Branches	NA
PG programmes		
2.	M.E./M.Tech./M.Sc. (Applied Mathematics)	NA

15. Number of academic support staff (technical) and administrative staff: Sanctioned and Filled:

Provided from common pool of the University

16. Research thrust areas recognized by funding agencies: NIL

17. Name of faculty with ongoing projects from a) National b) International funding agencies and c) Total grants received. Give the names of the funding agencies and grants received project-wise.-

S. No.	Title of the Project	Name of Principal Investigator	Name of the funding agency and year	Grant received (Rs. in Lakhs)
1	-NIL-	-	-	-

18. Inter-institutional collaborative projects and grants received
a. All India collaboration b)International

S. No.	Title of the Inter-institutional collaborative project	Name of the Institution & Year	National / International	Amount (Rs. in Lakhs)
1	-NIL-	-	-	-

19. Departmental projects funded by DST-FIST; UGC-SAP/CAS, DPE; DBT, ICSSR, etc.; total grants received.

S. No.	Title of Department project	Name of the funding agency and amount
1	-NIL-	-

20. Research facility / centre

- with State recognition
- National
- recognition
- International recognition

Sl. No.	Name of the research facility / Centre	Type of Recognition (State National / International)
1	-NIL-	-

21. Special research laboratories sponsored by / created by industry or corporate bodies:

Sl. No.	Name of the special laboratories sponsored	Sponsoring agency (Industry / Corporate Body)
2.	-NIL-	-

22. PUBLICATIONS:

a. Number of papers published in peer reviewed journals (National/International)

Year	No. of Publication
2011-12	13
2012-13	18
2013-14	16
2014-15	20
Total	67

b. Monographs, Chapters in Books, Edited Books, Books with ISBN with details of publishers (include Hindi Medium Books)-

S.	Name of the Faculty	Monograph Authored	Chapters Authored in Books	Books edited	Books Authored with ISBN
1	Prof. Anil Goyal				Engineering Mathematics-I 978-81-7800-318-4, Engineering Mathematics-II 978-81-910618-8-8, Advanced Engineering Mathematics, 978-93-83635-93-1 Engineering Mathematics-II 978-81-265-5993-0
2	Dr. Vijay Gupta			Engineering Mathematics I,(2012) ISBN:978-81-317-6416-9 Engineering Mathematics II,(2012) ISBN:978-81-317-6417-6 Engineering Mathematics III(2013) ISBN:978-81-317-70368 Pearson Education	Engg. Mathematics-I (2004) & Engg. Mathematics- III (2005) By DepakPrakashan Gwalior

- c. Number listed in International Database (For e.g. Web of Science, Scopus, Google Scholar, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.) Citation Index – range / average, SNIP, SJR, Impact Factor – range/ average, h-index-

Sl. No.	Name of the faculty member	Number listed in Intl. database (Web of science, Google Scholar, scopes science directory etc.	Citation index (Google Scholar)	h-index (Google Scholar)
1	Dr. Anil Goyal	19	03	
2	Dr. Vijay Gupta	25	23	03
3	Dr. Manoj Pandey	07	03	

23. Details of patents and income generated:

Sl. No.	Name of the faculty member	Patent received	Income generated in Rs.
1.	-NIL-	-NIL-	

24. Areas of consultancy and income generated:

Sl. No.	Name of the faculty member	Areas of consultancy carried out	Income generated (Rs. in Lakhs)
1	-NIL-	-NIL-	-NIL-

25. Faculty selected nationally/internationally to visit other laboratories in India and abroad

Sl. No.	Name of the Faculty member	Name of the Lab visited in India	Name of the Lab visited abroad
1.	-NIL-	-NIL-	-NIL-

26. Faculty serving in various Committees:

Sl. No.	Name of the Faculty member	Details of National / International committee served	Details of Editorial Board served	Any other committee
1.	Dr. Anil Goyal	-		Chairman, Board of Studies (Applied Maths), RGPV
2	Dr. Vijay Gupta	-		1. Member, Board of Studies UIT-RGPV 2. Member, Board of Studies RGPV 3. Member, Board of Studies (Applied Maths), SATI Vidisha

27. Faculty recharging strategies:

The following recharging strategies are adapted by the University to refresh the knowledge and provide exposure to latest developments in the areas of interest of the Faculty members:

- Opportunities for attending summer and winter schools organized by leading institutions and research institutes.
- Nominating the faculty for special training programmes organized by CSIR, MHRD, laboratories and other R&D Institutes.
- Sponsoring the faculties to attend National and International Conferences as well as to visit research laboratories within India and abroad.

28. Student projects (last five years)

- Percentage of students who have done in-house projects including inter-departmental projects
- Percentage of students doing projects in collaboration with other universities / industry/institute

S. No.	Name of the Programme offered	Percentage of students who have done in- house projects including inter-departmental projects	Percentage of students who have done in-house projects in collaboration with other universities for industry / institute
1	M.Sc. Applied Mathematics	11	-NIL-

29. (a) Awards / recognitions received at the National and International level by Faculty:

Sl. No.	Name of the Faculty Member	Awards /recognition received	
		National	International
1	-NIL-	-	-

29 (b) Awards / recognitions received at the National and International level by Doctoral / post doctoral fellows:

Sl. No.	Name of the Doctoral / Post doctoral Fellow	Awards /recognition received	
		National	International
1.	-NIL-	-	-

29 (c) Awards / recognitions received at the national and international level by Students:

Sl. No.	Name of the Student	Programme	Awards/Recognition received	
			National	International
1.	-NIL-	-NIL-	-	-

30. Seminars/ Conferences/Workshops organized and the source of funding (national / international) with details of participants.-

S. No.	Name of the seminar / conference / workshop organized		Source of funding	Details of participants
	National	International		
1	Refresher Course-I (27/12/2010-01/01/2011)		RGPV	Faculty members from affiliated engineering Colleges
2	Refresher Course-II (31/01/2012-04/01/2012)		RGPV	Faculty members from affiliated engineering Colleges
3	Refresher Course-III (02/02/2015-06/02/2015)		RGPV	Faculty members from affiliated engineering Colleges
4	Staff Development Programme (10/12/2012-22/12/2012)		AICTE	Faculty members from various colleges
5	Seminar (26/03/2013)		MPCOST	Faculty members and PG students and Research Scholars from affiliated engineering Colleges

6		International Conference on "Recent Advances in Mathematical Sciences and Applications (22/12/2013-24/12/2013)	RGPV, MPCOST & DRDO	Faculty Members , Research Scholars from India and Abroad
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31. Code of ethics for research followed by the departments:

The following codes of ethics are followed:

- Thesis is accepted only if it is certified by the research supervisor that the research work reported does not form part of any other thesis or dissertation on the basis of which a degree or award was conferred on an earlier occasion of this or any other scholar.
- It is also certified by the research supervisor that the corrections and suggestions pointed by the Indian and Foreign examiners are incorporated in the thesis submitted. This certification is required when thesis is to be corrected/ modified after evaluation.
- Plagiarism is strictly viewed and any scholar found indulged in such activities, his/her registration will be cancelled and debarred to register for any other programme in the University. Also the supervisor recognition of the concerned faculty will be withdrawn for a period of 5 years and debarred from guiding the scholar in the University for the debarred period.
- The System is very transparent and information pertaining to date of dispatch of thesis to the examiners, status of evaluation, receipt of report etc. will be posted in the website.
- Strict confidentiality will be maintained regarding panel of examiners. The Vice- Chancellor nominate one Indian and one Foreign among the two independent panel of examiners (Indian and Foreigner) recommended by the Doctoral Committee, which is the body monitoring the progress of the candidate.

32. Student profile course-wise:

Name of the Course (refer to question no. 4)	Applications received	Year	Selected		Pass percentage	
			Male	Female	Male	Female
M.Sc. (Applied Mathematics)	4	2011-12	3	1	3	1
	7	2012-13	0	0	0	0
	10	2013-14	1	3	1	3
	4	2014-15	1	0	1	0

33. Diversity of students

Name of the Course (refer to question no. 4)	YEAR	% of students from the same university	% of students from other universities within the State	% of students from universities outside the State	% of students from other countries
M.Sc. (Applied Mathematics)	2011-15	0%	100%	0.22%	0%

** Majority of students are from State of MP

34. How many students have cleared Civil Services and Defence Services examinations, NET, SET, GATE and other competitive examinations? Give details category-wise. Provide details with proof like name of the student, email, appointment/selection letter etc.

Sl. No.	Name of the competitive Examination	Number of students cleared
1.	Civil services	-NIL-
2.	Defense services	-NIL-
3.	NET	-NIL-
4.	SET	-NIL-
5.	GATE	-NIL-
6.	Any other competitive examination.	-NIL-

35. Student progression:

Student progression	Percentage against enrolled				
	2010-11	2011-12	2012-13	2013-14	2014-15
UG to PG	NA	NA	NA	NA	NA
PG to M.Phil.	NA	NA	NA	NA	NA
PG to Ph.D.	NIL	NIL	NIL	NIL	NIL
Ph.D. to Post-Doctoral	NIL	NIL	NIL	NIL	NIL
Employed PG	-	-	02	-	-
Campus selection UG	-	-	-	-	-
	-	-	-	-	-
Other than campus recruitment	-	-	-	-	-
	-	-	-	-	-
UG	-	-	-	-	-
PG	-	02	-	02	02
Entrepreneurs	-	-	-	-	-

36. Diversity of staff:

Percentage of faculty who are graduates	PG	Ph.D.
of the same university	0%	14%
from other universities within the State	100%	71%
from universities from other States	0%	14
from universities outside the country	0%	0%

37. Number of faculty who were awarded Ph.D., D.Sc. and D.Litt. during the assessment period:

Year	Number of Faculty awarded Ph.D / D.Sc., D.Litt
2010-11	-
2011-12	-
2012-13	1 (Ph.D.)
2013-14	1 (Ph.D.)
2014-15	-

38. Present details of infrastructural facilities with regard to Library, Internet facilities for staff and students, Total number of class rooms, Class rooms with ICT facility, Students' laboratories, Research laboratories

S. No.	Name of the Infrastructural Facility	Quantity / Details	
1.	Library	Yes	
2.	Internet for staff	Yes	
3.	Internet for students	Yes	
4.	Number of class rooms	01	
5.	Classrooms with ICT facility	NIL	
6.	Research Labs	NIL	

Note: 24 hours / 7 days campus Wi-Fi connectivity is available for students and faculties.

39. List of Doctoral, Post-Doctoral students and Research Associates from the Host University, from other Universities

Sl. No.	Name of the Student	Category Post-doctoral / Doctoral / Research associate	Name of the University (Host / other University)
1.	-NIL-	-NIL-	-NIL-

40. Number of post graduate students getting financial assistance from the university. GATE, Scholarship, Rajiv Gandhi Scholarship etc. received through University

Programme	Number of students getting financial assistance from the University				
	2010-11	2011-12	2012-13	2013-14	2014-15
<i>GATE stipend</i>	NIL	NIL	NIL	NIL	NIL
Any other	NIL	NIL	NIL	NIL	NIL

41. Was any need assessment exercise undertaken before the development of new Programme(s)? If so, highlight the methodology.

It was felt that there was some gap between the mathematics curricula at school level and the mathematics syllabus taught in engineering courses. It observation was also supported by the result of engineering students who failed in mathematics. So, the department has bridged the gap between the two edges; thus making the student to proceed from earlier known topics to unfamiliar ones.

42. Does the department obtain feedback from-

(j) Faculty on curriculum as well as teaching-learning-evaluation? If yes, how does the department utilize the feedback?

Yes, the department regularly calls feedback from faculty members of the department and others also. The feedback obtained from the faculty members and other sources is used to modify the Curriculum/Syllabus. Based on the suggestions, new courses related to BE, M.Tech, M.Sc. programmes, research area and need based courses are introduced as special electives with the approval of the Board of Studies.

(k) Students on staff, curriculum and teaching-learning-evaluation and how does the department utilize the feedback?

Yes, feedback from students on staff, curriculum and teaching learning-evaluation is also sought. Usually, feedback is obtained from each student of the class at the end of each semester for the courses taught by the faculty members and facilities provided by the department and the university. The areas requiring improvement, if indicated by students, are conveyed to the concerned faculty and the department.

The students are essential part of syllabus subcommittee in Board of Studies in Applied Mathematics (Also in each subject). The student's suggestions on curriculum and teaching – learning – evaluation are obtained during the class committee meetings and syllabus subcommittee meetings. The views, if genuine, are incorporated suitably.

(I) Alumni and employers on the programmes offered and how does the department utilize the feedback?

No, not yet.

43. List the distinguished alumni of the department (maximum 10):

Sl. No.	Name of the distinguished Alumni	Details of occupation
1.	-NIL-	

44. Give details of student enrichment programmes (Special Lectures / Workshops / Seminar) involving external experts:

Sl. No.	Title of the Special Lecture / Workshop / Seminar organized	Details of the External Expert
1.	Invited talk on “Mathematics Before & After Ramanujan”	Dr. G.P. Pandey, Ex Prof. & Head, Deptt. of Mathematics, Vikram University Ujjain & President of Indian Council of Historical Mathematics, President, Indian Council of Historical Mathematics
2.	Invited talk on “Lead Normal Life with Monumental Results”	Brahmarshi Subhash Patri Ji , (Founder of Pyramid Spiritual Societies Movement
3	Invited Talk on “Fundamental of Mathematical Modelling and Its Applications in Engineering”	Prof. V. K. Katiyar IIT, Roorkee

45. List the teaching methods adopted by the faculty for different programmes.

- Lecture by Teacher
- Lecture-demonstration by special speaker
- Discussion groups conducted by class teacher
- Assignments (Text books, supplementary books, Journals and supplementary reading)
- Teaching supported by LCD projector, # D Interactive Board, PowerPoint, Video.
- Demonstration in the Laboratory
- Dissertation work at the final semesters in the case of M.Sc. course

46. How does the department ensure that programme objectives are constantly met and learning outcomes are monitored?

Teaching Methods adopted are:

The system adopted by the department to meet the objectives of programme and monitoring learning is as follows:

- The Dean of Academic affairs prepares an academic calendar which includes schedule of teaching, assessment and proposes dates for End Semester examinations for each programme and communicates to the students and faculties through Head of Department.
- ▮ HOD consults his subordinates and entire team to deploy class instructors for various UG/PG programmes
- There is a class committee for each programme consisting of class committee chairperson nominated by HOD, faculty members offering the courses including class advisor and two student representatives of that class. This committee meets within a week of commencement of the semester and decides academic activity, finalizes the courses, time table and mode of assessment. This committee monitors teaching and learning of each course by meeting at the end of each assessment period. The committee meets at least twice before the end semester examination. The shortcomings if any in teaching, progress of each student, etc are communicated along with list of weaker students to the HOD. HOD takes appropriate steps to sort out the problems if any. He counsels and motivates the poor students to perform well. There is a SC/ST cell which provides additional coaching for weaker students.
- The course instructors maintain a record of class work which is reviewed by the HOD at the end of each assessment period. Any laps in the class work (teaching) will be brought to the attention of course instructor and advised suitably to rectify or improve his/her performance.
- The learning outcome of students is assessed continuously by conducting three assessments (Mid semester examination) and one end semester examination. The internal assessment and end semester carry equal weightage (50:50). The performance of students in each assessment is displayed. The students are awarded grades based on their performance and they must earn minimum 50 marks (both internal assessment and end semester examination) out of 100 marks to obtain pass grade.
- ▮ Performance of course teacher is evaluated by the students at the end of each semester. Any teacher gets less than 3 points in the 5 point scale is advised and motivated by the university authorities to improve his/her performance.

47. Highlight the participation of students and faculty in extension activities-

Apart from class room teaching and learning, and students participate themselves in the following extension activities.

- Students are encouraged to participate in state and national level seminars and conferences.
- Students are encouraged and funded to present their contributions in international forum. Students are provided financial support for innovative projects.

- Faculty members are encouraged to do funded research projects and consultancy services.
- Young faculties are supported financially for carrying out innovative projects. Faculties are encouraged to publish their research works and contributions in international forums by providing financial support.

48. Give details of “beyond syllabus scholarly activities” of the department.

- Conference papers by students and Ph.D scholars.
- The department organizes seminars, training programmes, special lectures etc.
- Students publish their contributions in International and National journals and conferences.

(a) List of Awards

S.No	Name of the Student	Programme	Award Name
1.	-NIL-	-NIL-	-NIL-

(ii). List of conference papers by students

Programme	No. of conference papers by students				
	2010-11	2011-12	2012-13	2013-14	2014-15
M.Sc.	-	-	-	-	-
Ph.D.				02	02

49. State whether the programme/ department is accredited/ graded by other agencies? If yes, give details.

Accreditation Status of UG & PG Programme: NIL

Sl. No.	Name of the Student	Date of Accreditation	Date of Expiry
1.	M.Sc.	NiL	NIL

** Steps begin taken to obtain Accreditation for the courses which are due as on date.

50. Briefly highlight the contributions of the department in generating new Knowledge, Basic or Applied.

-NIL-

51. Future plans of the department.

The department is planning to set up a computer lab with at least 30 systems, so as to

enable students to learn mathematical softwares and a departmental library of its own comprised of books and mathematical periodicals and journals.

52. Detail any five Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department.

Strength:

1. Devoted and highly qualified faculty
2. The presence of an excellent infrastructure and engineering college.
3. Availability of interdisciplinary programs suitable platform for research in applied areas of Mathematics
4. Size and scope of the graduate program; diversity in modes of undergraduate instruction
5. Many faculty members have strengths in areas of interest to industrial and financial organizations and professions

Weakness:

1. Shortage of senior faculty and chaired positions relative to peer institutions.
2. Relative ineffectiveness of recruiting.
3. Insufficient interdisciplinary programs, especially at graduate level.
4. An ad hoc, rather than broad institutional, focus on engagement/service.
5. Faculty resources limited and stretched by education and research.

Opportunities

1. Many interdisciplinary opportunities to attract strong applied mathematicians (especially
2. Given the strengths to Engineering and Science departments on campus
3. Untapped links with other parts of campus, and interdisciplinary degree initiatives.
4. Shared online courses and other innovations exploiting internet technology.
5. Frequent seminars co-sponsored with regional insurance and financial organizations.

Challenges:

1. There are many new directions in research, and especially in applied research. We may be left behind if we do not move in some of these directions.
2. Decline in faculty size and impact of this decline on number of courses offered.
3. Could be shut out of opportunities for interaction with industrial and financial organizations by consulting firms and other universities if quick action is not taken.
4. Loss of faculty with consulting experience.
5. Possible inability to retain or attract good faculty and graduate students with skills relevant to industrial and financial organizations.

16. DEPARTMENT OF HUMANITIES

1. Name of the Department : Department of Humanities
2. Year of establishment : 1996
3. Is the Department part of a School/Faculty of the University?: Yes, Department of Humanities is part of UIT-RGPV, Bhopal.
4. Names of Programmes / Courses offered
(UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.) :

S. No.	Name of the Programme offered	Remarks (UG/PG/M.Phil/Ph.
	The Department does not offer independent program or degree.	

5. Interdisciplinary courses and departments involved:

Sl. No.	Interdisciplinary courses offered	Names of the Departments involved
1.	English	UG (CE,CS, EC, PC, ME, IT & AU)
2.	Communication Skills	MCA
3.	Business Communication I & II	MAM
4.	Language Lab	UG (CE,CS, EC, PC, ME, IT & AU)
5.	Communication Skills and Language Lab	DDIPG
6.	Communication	UG (CE,CS, EC, PC, ME, IT & AU)

6. Courses in collaboration with other universities, industries, foreign institutions etc.:

Sl. No.	Collaborative courses offered .	Remarks (with other Universities / Industries / Foreign Institutions)
	NIL	

7. Details of programmes / courses discontinued, if any, with reasons:

Sl. No.	Name of the Programme discontinued	Reason
	NIL	

8. Annual/ Semester/Choice Based Credit System:

9. Participation of the department in the courses offered by other departments:

Sl. No.	Name of the courses engaged for other departments	Name of the other department
1.	English	UG (CE,CS, EC, PC, ME, IT & AU)
2.	Communication Skills	MCA
3.	Business Communication I & II	MAM
4.	Language Lab	UG (CE,CS, EC, PC, ME, IT & AU)
5.	Communication Skills and	DDIPG
6.	Communication	UG (CE,CS, EC, PC, ME, IT & AU)

10. Number of Teaching posts sanctioned and filled (Professors/Associate Professors/ Assistant Professors):

Sl. No.	Name of the teaching post	Sanctioned	Filled
1	Professor	-	-
2	Associate Professor	1	1
3	Assistant Professor	2	1+1
Total		3	3

11. Faculty profile with name, qualification, designation and specialization (D.Sc./D.Litt./ Ph.D./M.Phil.,etc.)

Name	Qualification	Designation	Specialization D.Sc., D.Litt., Ph.D., M.Phil, M.E.	No. of Year of Experience	No. of Ph.D. students guided.
Dr Bhasha Shukla Sharma	M.A., Ph.D	Associate Professor	English Literature	19	01

Dr Vinita Bhatnagar	M.A. , Ph.D	Associate Professor	English Literature	22	Nil
Dr Noeen Khaliq	M.A., M Phil, Ph.D	Assistant Professor	English Literature and Comparative Linguistics	18	Nil
Dr ruchu Midha	M.A , Ph.D	Assistant Professor	English Literature	05	Nil
Rohit Thakur	M.A.	Assistant Professor	English Literature	02	Nil

12. List of senior Visiting Fellows, faculty, adjunct faculty, emeritus professors

Sl. No.	Name of the Faculty Member	Designation (Visiting fellow, visiting Faculty, adjunct faculty, Emeritus Professors)
1.	NIL	

13. Percentage of classes taken by temporary faculty (Guest faculty) – Programme-wise Information.

Sl. No.	Name of the Programme	% of classes taken by temporary Faculty members
	UG programmes	
1.	BE	40%
	PG programmes	
2.		

14. Programme-wise Student Teacher Ratio

Sl. No.	Name of the Programme	Student-Teacher ratio
	UG programmes	
1.	Theory Practical	60:1 15:1
	PG programmes	
2.		

15. Number of academic support staff (technical) and administrative staff: Sanctioned and Filled:

Provided from common pool of the University

16. Research thrust areas recognized by funding agencies.

Discipline	Research thrust areas	Funding Agency
NIL		

17. Name of faculty with ongoing projects from a) National b) International funding agencies and c) Total grants received. Give the names of the funding agencies and grants received project-wise...

Sl. No.	Title of the Project	Name of Principal Investigator	Name of the funding agency and year	Grant received (Rs. in Lakhs)
1	NIL			

18. Inter-institutional collaborative projects and grants received .

Sl. No.	Title of the Inter-institutional collaborative project	Name of the Institution & Year	National / International	Amount (Rs. in Lakhs)
1	NIL			

19. Departmental projects funded by DST-FIST; UGC-SAP/CAS, DPE; DBT, ICSSR, etc.; total grants received ..

Sl. No.	Title of Department project	Name of the funding agency and amount
	NIL	

20. Research facility / centre

- with State recognition
- National
- recognition
- International
- recognition

Sl. No.	Name of the research facility / Centre	Type of Recognition (State National /
	NOT APPLICABLE	

21. Special research laboratories sponsored by / created by industry or corporate bodies .:

Sl. No.	Name of the special laboratories sponsored	Sponsoring agency (Industry / Corporate Body)
	NOT APPLICABLE	

22. PUBLICATIONS .:

a. Number of papers published in peer reviewed journals (National/International)

Year	No. of Publication
2011-12	1
2012-13	-
2013-14	3
2014-15	4
Total	8

b. Monographs, Chapters in Books, Edited Books, Books . with ISBN with detailsof publishers (include Hindi MediumBooks)-

Sl. No.	Name of the faculty member	Monographs authored	Chapters authored in Books	Books edited	Books authored with ISBN
1	Dr Bhasha Shukla Sharma		1) Representation of woman in Amitav Ghosh's Select novels in ' Critical essays on Indian Diaspora' 2) Narratology in post colonial fiction in world English literature.		ISBN 978-81-7273-966-9 ISBN 978-81-7273-705-4
2	Dr Vinita Bhatnagar		1) Reading comprehension and composition in Longman Pearson.		

- c. Number listed in International Database (For e.g. Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.) Citation Index – range / average, SNIP, SJR, Impact Factor – range/ average, h-index- .

Sl. No.	Name of the faculty member	Number listed in Intl. database (Web of science, scopes science directory etc.	h-index (Since 2011)
	NIL		

- d. Impact Factor and h-index year wise from 2011 to 2015

Sl. No.	Name of the faculty member	Citation index		Impact Factor (Range/ Avg.)*
1		2011		
		2012		
		2013		
		2014		
		2015		
		(Range/ Avg.)*		
2		2011		
		2012		
		2013		
		2014		
		2015		
		(Range/ Avg.)		

23. Details of patents and income generated :

Sl. No.	Name of the faculty member	Patent received	Income generated in Rs.
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	NIL		
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24. Areas of consultancy and income generated .:

Sl. No.	Name of the faculty member	Areas of consultancy carried out	Income generated (Rs. in Lakhs)
	NIL		

25. Faculty selected nationally/internationally to visit other laboratories in India and abroad .

Sl. No.	Name of the Faculty member	Name of the Lab visited in India	Name of the Lab visited abroad
	NIL		

26. Faculty serving in various Committees .:

Sl. No.	Name of the Faculty member	Details of National / International committee served	Details of Editorial Board served	Any other committee
1	Dr Bhasha Shukla Sharma	National		Member, Board of Studies (Faculty of Humanities) RGPV
2	Dr Vinita Bhatnagar			Member , Academic Council (Faculty of Humanities) RGPV

Faculty recharging strategies :

- Opportunities for attending summer and winter schools organized by leading institutions and research institutes.
- Nominating the faculty for special training programmes organized by National Institutions.
- Sponsoring the faculties to attend National and International Conferences and Seminars within India.

27. Student projects (.)

- ▣ Percentage of students who have done in-house projects including inter-departmental projects
- Percentage of students doing projects in collaboration with other universities /

industry/institute

Sl. No.	Name of the Programme offered	Percentage of students who have done in-house projects including inter- departmental projects	Percentage of students who have done in-house projects in collaboration with other universities for industry / institute
1	NIL		

28. (a) Awards / recognitions received at the National and International level by Faculty .:

Sl. No.	Name of the Faculty Member	Awards /recognition received	
		National	International
1	Dr. Vinita Bhatnagar	Gaura Jan Uthaan	---

29 (b) Awards / recognitions received at the National and International level by Doctoral / post doctoral fellows .:

Sl. No.	Name of the Doctoral / Post doctoral Fellow	Awards /recognition received	
		National	International
	NIL		

29 (c) Awards / recognitions received at the national and international level by Students .:

Sl. No.	Name of the Student	Programme	Awards/Recognition received	
			National	International
	NOT APPLICABLE			

30. Seminars/ Conferences/Workshops organized and the source of funding (national / international) with details of participants ..-

S. No.	Name of the seminar / conference / workshop organized		Source of funding	Details of participants
	National	International		
	NIL			

31. Code of ethics for research followed by the departments:(NOT APPLICABLE)

32. Student profile course-wise .: (NOT APPLICABLE)

Name of the Course	Applications received	Year	Selected		Pass percentage	
			Male	Female	Male	Female
		2011-12				
		2012-13				
		2013-14				
		2014-15				
		2011-12				
		2012-13				
		2013-14				
		2014-15				

33. Diversity of students . (NOT APPLICABLE)

Name of the Course	YEAR	% of students from the same university	% of students from other universities within the State	% of students from universities outside the State	% of students from other countries
B.E.					
M.E. Structural Engineering					

**

34. How many students have cleared Civil Services and Defence Services examinations, NET, SET, GATE and other competitive examinations? Give details category-wise. Provide details with proof like name of the student, email, appointment/selection letteretc. .. (NA)

Sl. No.	Name of the competitive Examination	Number of students cleared
1.	Civil services	
2.	Defense services	
3.	NET	
4.	SET	
5.	GATE	
6.	Any other competitive examination.	

35. Student progression .: (NA)

Student progression	Percentage against enrolled			
	2011-12	2012-13	2013-14	2014-15
UG to PG				
PG to M.Phil.				
PG to Ph.D.				
Ph.D. to Post-Doctoral				
Employed				
Campus selection UG				
PG				
Other than campus recruitment				
UG				
PG				
Entrepreneurs				

36. Diversity of staff .:

Percentage of faculty who are graduates	PG	Ph.D.
of the same university	-	-
from other universities within the State	80%	80%
from universities from other States	20%	20.55%
from universities outside the country	-	-

37. Number of faculty who were awarded Ph.D., D.Sc. and D.Litt. during the assessment period .:

Year	Number of Faculty awarded Ph.D / D.Sc., D.Litt
2007-08	--
2008-09	--
2009-10	--
2010-11	--
2011-12	--
2013-14	01

38. Present details of infrastructural facilities with regard to Library, Internet facilities for staff and students, Total number of class rooms, Class rooms with ICT facility, Students' laboratories, Research laboratories .. (NOT APPLICABLE)

Sl. No.	Name of the Infrastructural Facility	Quantity / Details	
1.	Library		
2.	Internet for staff		
3.	Internet for students		
4.	Number of class rooms		
5.	Classrooms with ICT facility		

6.	Research Labs	02	Language Laboratory
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Note: 24 hours / 7 days campus Wi-Fi connectivity is available for students and faculties.

39. List of Doctoral, Post-Doctoral students and Research Associates from the Host University, from other Universities .

S. No.	Name of the Student	Category Post-doctoral /Doctoral / Research associate	Name of the University (Host / other University)
	NOT APPLICABLE		

40. Number of post graduate students getting financial assistance from the university. *GATE, Scholarship, Rajiv Gandhi Scholarship etc. received through University*(NOT APPLICABLE)

Programme	Number of students getting financial assistance from the University			
	2011-12	2012-13	2013 -14	2014-15
<i>GATE stipend</i>				
M.E. Structural Engineering				

41. Was any need assessment exercise undertaken before the development of new Programme(s)? If so, highlight the methodology.

42. Does the department obtain feedback . from-

(a) Faculty on curriculum as well as teaching-learning-evaluation? If yes, how does the department utilize the feedback?

Yes,

The feedback obtained from the faculties is used if required to modify the curriculum/syllabus. Based on the suggestions, new courses related to research area and need based courses are introduced as special electives with the approval of the Board of Studies.

(b) Students on staff, curriculum and teaching-learning-evaluation and how does the department utilize the feedback?

Yes,

The evaluation of staff is obtained from each student of the class at the end of each semester for the courses taught by the faculties. It is been evaluated, the areas of improvement if indicated by students are conveyed to the faculty by HOD.

(c) Alumni and employers on the programmes offered and how does the department utilize the feedback? (NOT APPLICABLE)

43. List the distinguished alumni of the department (maximum10):

Sl. No.	Name of the distinguished Alumni	Details of occupation
1.	NOT APPLICABLE	

44. Give details of student enrichment programmes . (Special Lectures / Workshops / Seminar) involving external experts:

Sl. No.	Title of the Special Lecture / Workshop / Seminar organized	Details of the External Expert
1.	NOT APPLICABLE	

45. List the teaching methods adopted by the faculty for different programmes.

- Presentations by students (individual/group)by invitation
- Group Discussions conducted by class teacher
- Extempore
- Assignments (Test books, supplementary books, Journals and supplementary reading)
- Book reading and book review
- Case study presentations
- Lecture demonstrations by special speaker
- Teaching supported by LCD
- Role Plays
- Debates
- Teaching supported by LCD projector , Interactive Board , Powerpoint , Video

46. How does the department ensure that programme objectives are constantly met and learning outcomes aremonitored?

The system adopted by the department to meet the objectives of programme and monitoring learning is as follows:

- The Director of Academic courses prepares schedule of teaching, Assessment schedule and Date for End Semester examination for each programme and communicate to the students and faculties through Head of Department,
- The learning outcome of students is assessed continuously by conducting three assessments and one end semester examination. The internal assessment and end semester carry equal weightage (50:50). The performance of students is assessed and minimum 50 marks (both internal assessment and end semester examination) out of 100 marks are required to obtain pass grade.

47. Highlight the participation of students and faculty in extension activities .

- Students are encouraged to participate in state and national level seminars and conferences.
- Faculties are encouraged to publish their research works and contributions in various forums.

48. Give details of “beyond syllabus scholarly activities” of the department ..

(NOT APPLICABLE)

(a) List of Awards .

(NOT APPLICABLE)

S.No	Name of the Student	Programme	Award Name
1.			

(ii). List of conference papers by students .

(NOT APPLICABLE)

Programme	No. of conference papers by students				
	2007-08	2008-09	2009-10	2010-11	2011-12

49. State whether the programme/ department is accredited/ graded by other agencies? If yes, give details ..

Accreditation Status of UG & PG Programme: (NOT APPLICABLE)

Sl. No.	Name of the Student	Date of Accreditation	Date of Expiry
1.	B.E.		
2.	M.E.		

50. Briefly highlight the contributions of the department in generating new Knowledge, Basic or Applied.

The Department of Humanities has a distinctive function and responsibility in a technological University. Through its academic inputs it empowers the student to systematically understand and reflect on social, political, cultural, economic structures and endeavors to expand their professional vision. The department aims

to incorporate linguistic, humanistic, social and behavioral understanding along with the knowledge of science and technology. The department possesses a well equipped Language Laboratory and a communicative laboratory. The Language Laboratory is used for language tutorials, where students are exposed to a variety of listening, speaking, reading and writing drills including pronunciation, vocabulary and grammar. This aims at confidence building for public speaking and interviews. The communicative laboratory includes fluency theory and practice and is dedicated to spoken English. Extemporaneous speaking, debates, role-plays, quizzes and presentations form vital components of this Laboratory. All these practices make language lab the most important practice ground for development of soft skills of the students' practical preparation for placements. It offers courses in English at the undergraduate level i.e B.Tech, Dual Degree Program, Polytechnic and Ph.D level. The teaching emphasis is on developing advanced communication skills in our students.

The Humanities department contributes by providing a comprehensive coverage of all the four dimensions of communication skills, namely , listening , speaking , reading and writing. The academic needs of students at the preparatory stage are catered for more effective inculcation of communication skills in the wake of globalization of economy and emergence of new and growing demands of the present day professional world. The department focuses on enabling the student to face the challenges in communication primarily in a technical milieu as communicating formal and technical messages is essential for both as students as well as professionals. This is accomplished by focusing on the relevance of both oral and written communication in myriad situations. A number of strategies are provided to enhance the efficiency and effectiveness of communication in various situations. The key strategies are substantiated with examples from workplace situations. By the amalgamation of theory and practice and practice in the curriculum, it is tried to bring forward the real communication situation in the classroom thereby enriching students' employability, personality and confidence

51. Future plans of the department.

- The Department intends to introduce employability related courses in the final year of graduation (resume writing, personal interviews, group discussion) to help students prepare for the rigorous recruitment and selection process.
- Personality development and advanced Communication skills (such as Effective Negotiation tactics and strategy), Economics, Ethics, Psychology, Sociology, Literature, woman's studies will also be taught as subject electives.

52. Detail any five Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department.

Strength:

Innovative pedagogic practices have been adopted in the Department in order to enable learners to learn at their own pace. The Teaching- Learning process is based

on reflective practices as well as peer learning and peer Assessment. Testing is used as a tool of teaching as well as assessment. Debates, drama, discussions, speeches, role plays etc are just some of the techniques employed to enhance fluency and spoken English

Weakness:

The department is challenged by the perception of students that the subject is not very important in Comparison to the other Engineering subject. Orientation and constant tutoring help to dispel this notion.

Opportunities:

A Globalized work force demands employees with advanced communication skills. This creates an opportunity for the department to contribute toward enhancing the employability skills of students. Effective Communication skills have been identified as critical to the employability of Engineers.

Challenges:

Currently Communication is taught at the entry level in the first year. This reduces the departmental effectiveness in addressing the challenges and needs of our learners.

Inclusion and prioritization of this subject through out the four years of graduation will considerably lessen the problem.

ANNEXURES

UNIVERSITY GRANTS COMMISSION
BAHADUR SHAH ZAFAR MARG
NEW DELHI-110 002.

R 9-3/2000 (CPP-I)


October, 2000

OFFICE MEMORANDUM

27 OCT 2000

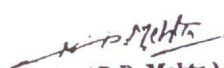
A new statutory University namely Rajiv Gandhi Proudyogiki Vishwavidyalaya, Bhopal has been established by an Act of (Act- 13 of 1998) Madhya Pradesh Government, State-Legislature and notified in State Government Gazette vide No. 509 dated 22nd August, 2000. The said University has been included in the list of Universities, maintained by the UGC, under Section-2 (D) of the UGC Act, 1956.

The above University has, however, not been declared eligible to receive Central assistance in terms of Rules framed under Section 12 (B) of the UGC Act, 1956.


(Gurcharan Singh)
Deputy Secretary

Copy to:-

1. The Vice Chancellor, Rajiv Gandhi Proudyogiki Vishwavidyalaya, Airport Bypass, Gandhi Nagar, Bhopal-462 036 (M.P.).
2. The Secretary, Government of India, Ministry of Human Resource Development, Department of Education, T-14 Section, Shastri Bhawan, New Delhi-110 001.
3. The Secretary to the Government of Madhya Pradesh, Department of Technical Education and Manpower Planning, Bhopal, (Madhya Pradesh).
4. The Secretary General, Association of Indian Universities, 16, Kotla Marg, New Delhi-110 002.
5. The Additional Secretary (Universities) UGC, New Delhi.
6. The Joint Secretary, (SU), UGC, New Delhi.
7. The Senior Statistical Officer, UGC, 35, Ferozshah Road, New Delhi.
8. All Regional Offices of the UGC.
9. The Section Officer, Meeting Cell, UGC, with a request to include the name of Rajiv Gandhi Proudyogiki Vishwavidyalaya, Airport Bypass Gandhi Nagar, Bhopal-462 036 (M.P.), in the list of Universities maintained under Section-2(f) of the UGC Act, 1956. Prof. P.B. Sharma is the first Vice Chancellor of the University.
10. All Section of the UGC, New Delhi.
11. D.T.P. Cell, UGC, New Delhi.
12. Guard file.


(D.D. Mehta)
Under Secretary

Ph. 23236351, 23232701, 23237721, 23234116
23235733, 23232317, 23236735, 23239437



विश्वविद्यालय अनुदान आयोग
बहादुरशाह जफर मार्ग
नई दिल्ली-110 002
UNIVERSITY GRANTS COMMISSION
BAHADURSHAH ZAFAR MARG
NEW DELHI-110 002

F.9-2/2008 (CPP-I)

November, 2008

OFFICE MEMORANDUM

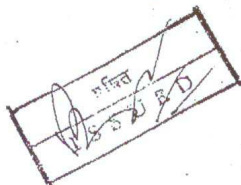
07 NOV 2008

Rajiv Gandhi Proudhyogiki Vishwavidyalaya, Bhopal was established by Government of Madhya Pradesh through an Act (No. 13 of 1998) by Madhya Pradesh State, and notified vide State Government Gazette No. 509 dated 22nd August, 2000. The said university was included under Section 2 (f) of the UGC Act, 1956 vide this Office Memorandum No. F. 9-3/2000 (CPP-I) dated 27th October, 2000. The University is now declared eligible to receive Central assistance in terms of the Rules framed under section 12 (B) of the UGC Act, 1956.

Copy to:-

1. The Registrar, Rajiv Gandhi Proudhyogiki Vishwavidyalaya, Airport, By Pass Road, Gandhi Nagar, Bhopal - 462 036, Madhya Pradesh.
2. The Secretary, Government of India, Ministry of Human Resource Development, (Department of Secondary & Higher Education), Shastri Bhavan, New Delhi-110 001.
3. The Secretary to the State Government of Madhya Pradesh, Department of Higher Education, Bhopal Madhya Pradesh.
4. The Secretary General, Association of Indian Universities, 16 Kotla Marg, New Delhi-110 002.
5. Director, (NAAC) National Assessment and Accreditation Council (NAAC), Bangalore-560 010.
6. The Joint Secretary, State Universities, UGC, New Delhi.
7. Senior Statistical Officer, UGC, 35, Ferozshah Road, New Delhi-110 001.
8. Publication Officer (web-site), UGC, New Delhi.
9. Section Officer (Meeting Section), UGC, New Delhi with intimation of action taken on item No. 5.08 of 451st meeting of UGC held on 10th September, 2008.
10. All Regional Offices, UGC.
11. The Financial Advisor, UGC.
12. D.T.P. Cell, UGC, New Delhi.
13. Guard file.

S2solwv
20/11/8
In UGC file



(Kundla Mahajan)
Section Officer

FD Diary No.172(FD-III)
Dated :18/7/2013

UNIVERSITY GRANTS COMMISSION
BAHADURSHAH ZAFAR MARG
NEW DELHI-110002

F.No.59-1/2012 (SU-I)

July, 2013

The Under Secretary (FD-III)
University Grants Commission,
BahadurShah Zafar Marg,
New Delhi-110 002.

23 JUL 2013

Subject: Release of Grant-in-aid to **Rajiv Gandhi Proudhyogiki Viswavidyalaya, M.P.** in respect of General Development Assistance Scheme under Plan Grant during XII Plan Period.

Sir,

I am directed to convey the sanction of the University Grants Commission for payment of an 'on account' grant of Rs 2,90,60,000/- (**Rupees two crore ninety lakh sixty thousand only**) towards General Development Assistance Scheme to **Rajiv Gandhi Proudhyogiki Viswavidyalaya, M.P.** for the plan expenditure to be incurred as per details given below:-

(in Rupees.)

Name of the item	XII Plan Allocation	Grant already sanctioned	Grant being sanctioned	Total grant
XII Plan General Development Scheme	1,03,90,000/-	1,25,00,000/-	2,90,60,000/-	4,15,60,000/-

The Component wise break-up is as under:-

	Component	Head of Account	BE/RE for 2013-14	Code 31 (30%) General	BE/RE for 2013-14	Code35 (70%) Assets
1.	General 77.5%	S-2A	155,01,00,000/- Block Grant to state university	67,56,450/-	385,03,00,000/- Block Grant to state university	1,57,65,050/-
2.	SC 15%	S.2D (i)	148,85,00,000/- (UGC Scheme)	13,07,700/-	325,29,00,000/- (UGC Scheme)	30,51,300/-
3.	ST 7.5%	S.2D (ii)	78,86,00,000/- (UGC Scheme)	6,53,850/-	162,65,00,000/- (UGC Scheme)	15,25,650/-
	Total			87,18,000/-		2,03,42,000/-

(Code 31 + Code 35= Rs. 2,90,60,000/-)

2. The payment is valid for the financial year 2013-2014 only.

3. The amount of the Grant shall be drawn by the Under Secretary (Drawing and Disbursing Officer) UGC on the Grants-in-aid bill and shall be disbursed to and credited to the **RGPV-UGC-GRANT** through Electronic mode as per the following details:

	Payment Details:	
(a)	Bank Name & Address of Branch	Union Bank of India
(b)	Account No.	586702050000003
(c)	Type of Account: SB/Current/Cash Credit	Savings Bank Account
(d)	IFSC Code	UBIN 0558672
(e)	MICR Code of Branch	462026016
(f)	Whether bank branch is RTGS or NEFT enabled: RTGS/NEFT/Both	Yes
(g)	Name and address of Account Holder	RGPV-UGC-GRANT, Airport Road, Gandhi Nagar Bhopal-462033(M.P)

4. The Grant is Subject to the adjustment on the basis of Utilization Certificate in the prescribed proforma submitted by the University/Institution.
5. The University/Institution shall maintain proper accounts of the expenditure out of the Grants which shall be utilized only on the approved items of expenditure.
6. The University/Institution may follow the General Financial Rules, 2005 and take urgent necessary action to amend their manuals of financial procedures to bring them in conformity with GFRs, 2005 and those don't have their own approved manuals on financial procedures may adopt the provisions of GFRs, 2005 and instruction/guideline there under from time to time.
7. The Utilization Certificate to the effect that the grant has been utilized for the purpose for which it has been sanctioned shall be furnished to UGC as early as possible after the close of current financial year.
8. The assets acquired wholly for substantially out of University Grants Commission's Grants shall not be disposed or encumbered or utilised for the purposes other than those for which the grants was given without proper sanction of the UGC and should at any time the University ceased to function, such assets shall revert to the University Grants Commission.
9. A Register of Assets acquired wholly or substantially out of the grants shall be maintained by the University in the prescribed proforma.
10. The grantee institution shall ensure the utilization of grants-in-aid for which it is being **sanctioned** / paid. In case of non-utilization/part utilization thereof, simple interest @ 10% per annum, as amended from time to time on the unutilized amount from the date of drawal to the date of refund as per provisions contained in General Financial Rules of Govt. of India, will be charged.

11. The University/Institution shall follow strictly the Government of India/ UGC's guidelines regarding implementation of the reservation policy [both vertical (for SC, ST and OBC) and horizontal (for persons with disability etc.)] in teaching and non-teaching posts.
12. The University/Institution shall fully implement the Official Language Policy of Union Government and comply with the Official Language Act, 1963 and Official Languages (Use for Official Purposes of the Union) Rules, 1976 etc.
13. The sanction is issued in exercise of the delegation of powers vide UGC Order No. 130/2013 [F. No. 10-11/12 (Admn. IA & B)] dated 28/5/2013.
14. The University/Institution shall strictly follow the UGC Regulations on curbing the menace of Ragging in Higher Education Institutions 2009.
15. The University/Institution shall take immediate action for its accreditation by National Assessment & Accreditation Council (NAAC).
16. The accounts of the University/Institution will be open for audit by the Comptroller & Auditor General of India in accordance with the provisions of General Financial Rules, 2005.
17. The annual accounts i.e balance sheet, income and expenditure statement and statement of receipts and payments are to be prepared strictly in accordance with the Uniform Format of Accounting prescribed by Government.
18. Funds to the extent are available under the scheme.
19. This issues with the concurrence of IFD vide Diary No. 1632(IFD) dated 08-07-2013
20. This issues with the approval of Vice-Chairman vide Diary No 76 dated 11-07-2013.
21. This will be first instalment of grant after adjusting adhoc grant already released.

Yours faithfully

(Mrs. Paramjeet)
Under Secretary

Copy forwarded for information and necessary action for: -

- ✓ 1. The RGPV-UGC-GRANT, Airport Road, Gandhi Nagar Bhopal-462033(M.P)
2. The Registrar, Airport Road, Gandhi Nagar Bhopal-462033(M.P)
3. Office of the Director General of Audit, Central Revenues, AGCR Building, I.P Estate, New Delhi.
4. Accountant General/the Examiner local fund Accounts, Govt. of M.P, Bhopal
5. Guard file.

(Kulvinder Kaur)
Section Officer



All India Council for Technical Education
(A Statutory body under Ministry of HRD, Govt. of India)
7th Floor, Chandralok Building, Janpath, New Delhi- 110 001
PHONE: 23724151/52/53/54/55/56/57 FAX: 011-23724183 www.aicte-india.org

F.No. Central/1-2812782746/2016/EOA

Date: 25-Apr-2016

To,

The Principal Secretary
(Technical Education) Vallabh Bhawan,
1st floor, R. No. 113 Mantralaya,
Bhopal-462004

Sub: Extension of approval for the academic year 2016-17

Ref: Application of the Institution for Extension of approval for the academic year 2016-17

Sir/Madam,

In terms of the provisions under the All India Council for Technical Education (Grant of Approvals for Technical Institutions) Regulations 2012 notified by the Council vide notification number F.No.37-3/Legal/2012 dated 27/09/2012 and norms standards, procedures and conditions prescribed by the Council from time to time, I am directed to convey the approval to

Regional Office	Central	Application Id	1-2812782746
Name of the Institute	UNIVERSITY INSTITUTE OF TECHNOLOGY, RGPV, BHOPAL	Permanent Id	1-10850721
Name of the Society/Trust	UNIVERSITY INSTITUTE OF TECHNOLOGY-RGPV	Institute Address	NARSINGHGARH BYPASS ROAD, GANDHI NAGAR BHOPAL, BHOPAL, BHOPAL, Madhya Pradesh, 462033
Institute Type	University Managed-Govt	Society/Trust Address	AIR PORT BYPASS ROAD, GANDHINAGAR, BHOPAL, BHOPAL, BHOPAL, Madhya Pradesh, 462033

Opted for change from Women to Co-ed and Vice versa	No	Opted for change of name	No	Opted for change of site	No
Change from Women to Co-ed approved and Vice versa	Not Applicable	Change of name Approved	Not Applicable	Change of site Approved	Not Applicable

To conduct following courses with the intake indicated below for the academic year 2016-17

Application Id: 1-2812782746			Course	Full/Part Time	Affiliating Body	Intake 2015-16	Intake Approved for 2016-17	NRI Approval status	PIO / FN / Gulf quota Approval status	Foreign Collaboration/Twinning Program Approval status
Program	Shift	Level								
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	BIOTECHNOLOGY	FULL TIME	Rajiv Gandhi Prodyogiki Vishwavidyalaya, Bhopal	18	18	NA	NA	NA



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GY		TE								
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	COMPUTER SCIENCE AND ENGINEERING	FULL TIME	Rajiv Gandhi Prodyogiki Vishwavidyalaya, Bhopal	18	18	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	COMPUTER TECHNOLOGY AND APPLICATIONS	FULL TIME	Rajiv Gandhi Prodyogiki Vishwavidyalaya, Bhopal	18	18	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	CYBER FORENSICS	FULL TIME	Rajiv Gandhi Prodyogiki Vishwavidyalaya, Bhopal	18	18	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	DIGITAL COMMUNICATIONS	FULL TIME	Rajiv Gandhi Prodyogiki Vishwavidyalaya, Bhopal	18	18	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	ENERGY TECHNOLOGY	FULL TIME	Rajiv Gandhi Prodyogiki Vishwavidyalaya, Bhopal	18	18	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	HEAT POWER ENGINEERING	FULL TIME	Rajiv Gandhi Prodyogiki Vishwavidyalaya, Bhopal	18	18	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	INFORMATION TECHNOLOGY	FULL TIME	Rajiv Gandhi Prodyogiki Vishwavidyalaya, Bhopal	18	18	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	NANO TECHNOLOGY	FULL TIME	Rajiv Gandhi Prodyogiki Vishwavidyalaya, Bhopal	18	18	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	POWER SYSTEMS	FULL TIME	Rajiv Gandhi Prodyogiki Vishwavidyalaya, Bhopal	18	18	NA	NA	NA
	1st	POST	STRUCTURAL	FULL	Rajiv Gandhi	18	18	NA	NA	NA



All India Council for Technical Education
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ENGINEERING AND TECHNOLOGY	Shift	TYPE OF DEGREE	ENGINEERING	TIME	Prodyogiki Vishwavidyalaya, Bhopal					
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	DATA SCIENCES	FULL TIME	Rajiv Gandhi Prodyogiki Vishwavidyalaya, Bhopal	18	18	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	AUTOMOBILE ENGINEERING	FULL TIME	Rajiv Gandhi Prodyogiki Vishwavidyalaya, Bhopal	60	60	No	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	CIVIL ENGINEERING	FULL TIME	Rajiv Gandhi Prodyogiki Vishwavidyalaya, Bhopal	60	60	No	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	COMPUTER SCIENCE AND ENGINEERING	FULL TIME	Rajiv Gandhi Prodyogiki Vishwavidyalaya, Bhopal	120	120	No	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	ELECTRICAL AND ELECTRONICS ENGINEERING	FULL TIME	Rajiv Gandhi Prodyogiki Vishwavidyalaya, Bhopal	60	60	No	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	ELECTRONICS & COMMUNICATION ENG	FULL TIME	Rajiv Gandhi Prodyogiki Vishwavidyalaya, Bhopal	120	120	No	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	INFORMATION TECHNOLOGY	FULL TIME	Rajiv Gandhi Prodyogiki Vishwavidyalaya, Bhopal	60	60	No	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	MECHANICAL ENGINEERING	FULL TIME	Rajiv Gandhi Prodyogiki Vishwavidyalaya, Bhopal	60	60	No	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	PETROCHEMICAL TECHNOLOGY	FULL TIME	Rajiv Gandhi Prodyogiki Vishwavidyalaya, Bhopal	60	60	No	NA	NA
MCA	1st	POST	MASTERS IN	FULL	Rajiv Gandhi	60	60	No	NA	NA



All India Council for Technical Education
(A Statutory body under Ministry of HRD, Govt. of India)

7th Floor, Chandralok Building, Janpath, New Delhi- 110 001
PHONE: 23724151/52/53/54/55/56/57 FAX: 011-23724183 www.aicte-india.org

	Shift	T GRA DUA TE	COMPUTER APPLICATIONS	TIME	Prodoyogiki Vishwavidyala ya, Bhopal						
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The above mentioned approval is subject to the condition that UNIVERSITY INSTITUTE OF TECHNOLOGY, RGPV, BHOPAL shall follow and adhere to the Regulations, guidelines and directions issued by AICTE from time to time and the undertaking / affidavit given by the institution along with the application submitted by the institution on portal.

In case of any differences in content in this Computer generated Extension of Approval Letter, the content/information as approved by the Executive Council / General Council as available on the record of AICTE shall be final and binding.

Strict compliance of Anti-Ragging Regulation:- Approval is subject to strict compliance of provisions made in AICTE Regulation notified vide F. No. 37-3/Legal/AICTE/2009 dated July 1, 2009 for Prevention and Prohibition of Ragging in Technical Institutions. In case Institution fails to take adequate steps to Prevent Ragging or fails to act in accordance with AICTE Regulation or fails to punish perpetrators or incidents of Ragging, it will be liable to take any action as defined under clause 9(4) of the said Regulation.

Note: Validity of the course details may be verified at www.aicte-india.org.

Dr. Avinash S Pant
Vice - Chairman, AICTE

Copy to:

1. **The Regional Officer,**
All India Council for Technical Education
Tagore Hostel-2, Shamlia Hills
Bhopal-462 002, Madhya Pradesh
2. **The Director Of Technical Education,**
Madhya Pradesh
3. **The Registrar,**
Rajiv Gandhi Prodoyogiki Vishwavidyalaya, Bhopal
4. **The Principal / Director,**
UNIVERSITY INSTITUTE OF TECHNOLOGY, RGPV, BHOPAL
NARSINGHARH BYPASS ROAD, GANDHI NAGAR BHOPAL,
BHOPAL, BHOPAL,
Madhya Pradesh, 462033
5. **The Secretary / Chairman,**
UNIVERSITY INSTITUTE OF TECHNOLOGY-RGPV
AIR PORT BYPASS ROAD , GANDHINAGAR, BHOPAL,
BHOPAL, BHOPAL,
Madhya Pradesh, 462033
6. **Guard File(AICTE)**



All India Council for Technical Education
(A Statutory body under Ministry of HRD, Govt. of India)

7th Floor, Chandralok Building, Janpath, New Delhi- 110 001
PHONE: 23724151/52/53/54/55/56/57 FAX: 011-23724183 www.aicte-India.org

F.No. Central/1-2453022406/2015/EOA

Date: 07-Apr-2015

To,
The Principal Secretary
(Technical Education) Vallabh Bhawan,
1st floor, R. No. 113 Mantralaya,
Bhopal-462004

Sub: Extension of approval for the academic year 2015-16

Ref: Application of the Institution for Extension of approval for the academic year 2015-16

Sir/Madam,

In terms of the provisions under the All India Council for Technical Education (Grant of Approvals for Technical Institutions) Regulations 2012 notified by the Council vide notification number F.No.37-3/Legal/2012 dated 27/09/2012 and norms standards, procedures and conditions prescribed by the Council from time to time, I am directed to convey the approval to

Regional Office	Central	Application Id	1-2453022406
		Permanent Id	1-14728541
Name of the Institute	SCHOOL OF PHARMACEUTICAL SCIENCES, RAJEEV GANDHI PRODYUOGIKI VISHWAVIDYALAYA, BHOPAL	Institute Address	RAJEEV GANDHI PRODYUOGIKI VISHWAVIDYALAYA, AIRPORT BYPASS ROAD, GANDHI NAGAR, BHOPAL, BHOPAL, Madhya Pradesh, 462033
Name of the Society/Trust	RAJIV GANDHI TECHNICAL UNIVERSITY, BHOPAL	Society/Trust Address	RAJIV GANDHI TECHNICAL UNIVERSITY, AIRPORT BYPASS ROAD, BHOPAL, M.P.,BHOPAL,BHOPAL, Madhya Pradesh,462033
Institute Type	Government		

Opted for change from Women to Co-ed	No	Opted for change of name	No	Opted for change of site	No
Change from Women to Co-ed approved	Not Applicable	Change of name Approved	Not Applicable	Change of site Approved	Not Applicable

To conduct following courses with the intake indicated below for the academic year 2015-16

Application Number: 1-2453022406*

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All India Council for Technical Education
(A Statutory body under Ministry of HRD, Govt. of India)

7th Floor, Chandralok Building, Janpath, New Delhi- 110 001
PHONE: 23724151/52/53/54/55/56/57 FAX: 011-23724183 www.aicte-india.org

Application Id: 1-2453022406			Course	Full/Part Time	Affiliating Body	Intake 2014-15	Intake Approved for 15-16	NRI Approval status	PIO Approval status	Foreign Collaboration Approval status
Program	Shift	Level								
PHARMACY	1st Shift	POST GRADUATE	PHARMACEUTICAL CHEMISTRY	FULL TIME	Rajiv Gandhi Prodyogiki Vishwavidyalaya, Bhopal	10	10	NA	NA	NA
PHARMACY	1st Shift	POST GRADUATE	PHARMACEUTICS	FULL TIME	Rajiv Gandhi Prodyogiki Vishwavidyalaya, Bhopal	10	10	NA	NA	NA
PHARMACY	1st Shift	POST GRADUATE	QUALITY ASSURANCE	FULL TIME	Rajiv Gandhi Prodyogiki Vishwavidyalaya, Bhopal	10	10	NA	NA	NA

Note: Validity of the course details may be verified at www.aicte-india.org/departments/approvals

The above mentioned approval is subject to the condition that SCHOOL OF PHARMACEUTICAL SCIENCES, RAJEEV GANDHI PRODYOGIKI VISHWAVIDYALAYA, BHOPAL shall follow and adhere to the Regulations, guidelines and directions issued by AICTE from time to time and the undertaking / affidavit given by the institution along with the application submitted by the institution on portal.

In case of any differences in content in this Computer generated Extension of Approval Letter, the content/information as approved by the Executive Council / General Council as available on the record of AICTE shall be final and binding.

Strict compliance of Anti-Ragging Regulation:- Approval is subject to strict compliance of provisions made in AICTE Regulation notified vide F. No. 37-3/Legal/AICTE/2009 dated July 1, 2009 for Prevention and Prohibition of Ragging in Technical Institutions. In case Institution fails to take adequate steps to Prevent Ragging or fails to act in accordance with AICTE Regulation or fails to punish perpetrators or incidents of Ragging, it will be liable to take any action as defined under clause 9(4) of the said Regulation.

Dr. Avinash S Pant
Actg Chairman, AICTE

Application Number: 1-2453022406*

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Copy to:

1. **The Regional Officer,**
All India Council for Technical Education
Tagore Hostel-2, Shamlu Hills
Bhopal-462 002, Madhya Pradesh
2. **The Director Of Technical Education,**
Madhya Pradesh
3. **The Registrar,**
Rajiv Gandhi Prodyogiki Vishwavidyalaya, Bhopal
4. **The Principal / Director,**
SCHOOL OF PHARMACEUTICAL SCIENCES, RAJEEV GANDHI PRODYUOGIKI VISHWAVIDYALAYA, BHOPAL
RAJEEV GANDHI PRODYUOGIKI VISHWAVIDYALAYA,
AIRPORT BYPASS ROAD,
GANDHI NAGAR, BHOPAL,
BHOPAL, BHOPAL,
Madhya Pradesh, 462033
5. **The Secretary / Chairman,**
RAJIV GANDHI TECHNICAL UNIVERSITY, BHOPAL
RAJIV GANDHI TECHNICAL UNIVERSITY, AIRPORT BYPASS ROAD, BHOPAL, M.P.,
BHOPAL, BHOPAL,
Madhya Pradesh, 462033
6. **Guard File(AICTE)**

Application Number: 1-2453022406*

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