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SELF STUDY REPORT

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PREFACE

It is a matter of proud privilege for Rajiv Gandhi Proudyogiki 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 Proudyogiki 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: 20 April 2017

Mrs. Kalpana Srivastava

Vice Chancellor
(Principal Secretary,
Department of Technical
Education & Skill Development,
Govt. of Madhya Pradesh, Bhopal)

NAAC Steering Committee

The Composition of Steering Committee is as follows:

- | | | | |
|----|--|---|-------------|
| 1. | Mrs. Kalpana Srivastava
Vice-Chancellor | : | Chairperson |
| 2. | Prof. Mukesh Pandey | : | Member |
| 3. | Prof. S. K. Jain | : | Member |
| 4. | Prof. A. K. Singh | : | Member |
| 5. | Prof. Aseem Tiwari | : | Member |
| 6. | Prof. Roopam Gupta | : | Member |
| 7. | Prof. Ranjeet Joshi | : | Member |
| 8. | Prof. S. C. Choube | : | Coordinator |

EXECUTIVE SUMMARY

CRITERION I - CURRICULAR ASPECTS

1.1 Curriculum Design and Development

Rajiv Gandhi Proudyogiki Vishwavidyalaya (RGPV) was established under the Rajiv Gandhi Proudyogiki 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, COUNSELLANCY 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 biodegradable 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 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

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 2020" 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.

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 Internal Quality Assurance Cell (IQAC) is established in the university and IQAC will ensure the conducts Academic and Administrative Audit of the departments after the 1st cycle of NAAC accreditation.

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 *Swach 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.

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.

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	Mrs. Kalpana Srivastava	O: 0755-2507801	9425012310	0755-2742002	vcoffice@rgtu.net
Pro Vice Chancellor	Prof. Mukesh Pandey	O: 0755-2678866	9425392415	-	mukeshrgtu@yahoo.co.in
Registrar	Prof. S.K. Jain	O: 0755-2734913 R: 0755-2678805	9425379097	0755-2742006	registrarrgpv@gmail.com
Steering Committee / IQAC Co-coordinator	Prof. S. C. Choube	O: 0755 2678805 R: 0755-2970704	9425125401 9630451212	-	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 cnetres?

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.

<input type="checkbox"/>	Auditorium/seminar complex with infrastructural facilities	Available	01+04
<input type="checkbox"/>	Sports facilities		
	* playground	Available	01
	* swimming pool	No	-
	* gymnasium	Available	01
	* Any other (please specify)	-	-
<input type="checkbox"/>	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
<input type="checkbox"/>	Residential facilities for faculty and non-teaching	Available	62
	Cafeteria	Available	01
<input type="checkbox"/>	Health centre – Nature of facilities available – inpatient, outpatient, ambulance, emergency care facility, etc	Available	01
<input type="checkbox"/>	Facilities like banking, post office, book shops, etc	Yes, multipurpose shop, post office, ATM is available on campus.	
<input type="checkbox"/>	Facilities for persons with disabilities:	Available	
<input type="checkbox"/>	Animal house	No	
<input type="checkbox"/>	Incinerator for laboratories	No	
<input type="checkbox"/>	Power house	Available	DG Sets 125 kVA x 3 50 kVA x 5
<input type="checkbox"/>	Waste management facility	No	

13. Number of institutions affiliated to the university

Type of colleges	Total	Permanent	Temporary
Engineering	187		187
Architecture	05		05
Pharmacy	69		69
MCA	49		49
MBA Integrated	04		04
MCA Integrated	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 Post Graduate Integrated PG Dual Degree - MAM Research Centers on the Campus	08 18 06 01 13	2267 212 380 60 106
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	15000
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
Any other (please specify) 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
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M.Sc. (2 years)

1	M.Sc. (Maths)
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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	<input checked="" type="checkbox"/>
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21. Does the university have a teaching department of Physical Education?

Yes		No	<input checked="" type="checkbox"/>
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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	<input checked="" type="checkbox"/>
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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	18	41	62
Yet to recruit	15	37	56	371
Number of persons working on contract basis:	111 (Teaching Staff) and 206 (Non-Teaching Staff)			

25. Qualifications of the teaching staff

Highest Qualification	Professor		Associate Professor		Assistant Professor		Total
	Male	Female	Male	Female	Male	Female	
Permanent Teachers	15	10	01	01	25	16	68
i) Ph.D.	15	10	-	-	8	4	37
ii) M.Tech.	-	-	1	-	17	12	30
iii) MCA	-	-	-	1	-	-	1
Temporary Teachers	-	-	-	-	76	35	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

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	<input checked="" type="checkbox"/>
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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.

Accreditation :	Cycle 1	✓	Cycle 2		Cycle 3		Cycle 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

(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).

Nil

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 Proudyogiki 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 Proudyogiki 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 Progammes (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. Although 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 Twining 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)

DDI-PG	DDI-PG-Civil Engineering
DDI-PG	DDI-PG-Computer Science & Engineering
DDI-PG	DDI-PG-Electrical Engineering
DDI-PG	DDI-PG-Electronics & Communication Engineering
DDI-PG	DDI-PG-Information Technology
DDI-PG	DDI-PG-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 Integrated Post Graduate Program (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 Dual Degree Programmes: The students of DDI-PG 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 are 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.		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
2011-12	1376	645	2021	117	45	162	11	19	30	35	25	60	18	11	29
2012-13	1531	744	2275	133	34	167	15	12	27	35	25	60	8	4	12
2013-14	1525	759	2284	151	55	206	11	17	28	26	28	54	3	4	7
2014-15	1407	665	2068	119	61	180	8	13	21	12	11	33	1	7	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	0.22
Civil	290	18	0.06
EEE	50	18	0.36
Energy	340	17	0.05
Mathematics	4	4	1
MCA	60	60	1
Mechanical	200	18	0.09
Nanotechnolog	230	18	0.07
Pharmacy	400	30	0.075
SOIT	856	31	0.036

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

Departments	Number of applications	Number of students admitted	Demand Ratio
Biotechnology	61	14	0.22
Civil	98	18	0.18
ECE	273	18	0.06
EEE	58	18	0.31
Energy	364	17	0.04
Mathematics	7	0	0
MCA	60	60	1
Mechanical	189	18	0.09
Nanotechnology	298	18	0.06
Pharmacy	190	27	0.14
SOIT	374	33	0.088

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

Departments	Number of applications	Number of students admitted	Demand Ratio
Biotechnology	48	14	0.29
Civil	207	18	0.08
ECE	876	18	0.02

EEE	65	18	0.27
Energy	225	18	0.08
Mathematics	10	4	0.4
MCA	54	54	1
Mechanical	289	18	0.06
Nanotechnology	198	18	0.09
Pharmacy	92	28	0.30
SOIT	1008	67	0.07

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

Departments	Number of applications	Number of students admitted	Demand Ratio
Biotechnology	21	10	0.47
Civil	686	18	0.02
ECE	339	18	0.05
EEE	78	18	0.23
Energy	160	18	0.11
Mathematics	4	1	0.25
MCA	23	23	1
Mechanical	220	18	0.15
Nanotechnology	164	18	0.10
Pharmacy	118	21	0.17
SOIT	711	50	0.07

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 Exibition	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

S.No.	Name of the Activity	Nature of Students Participation	Date of Event
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
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	
Permanent Teachers	15	10	01	01	25	16	68
i) Ph.D.	15	10	-	-	8	4	37
ii) M.Tech.	-	-	1	-	17	12	30
iii) MCA	-	-	-	1	-	-	1
Temporary Teachers	-	-	-	-	76	35	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 Shrivastava	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 Netwark	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 interdisciplinary 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 Programme (TEQIP-II)	Civil Engineering	28 April – 3 May, 2014	Completed
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 a 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						
•	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 Conference on “Recent Advances in Mathematical Sciences and Applications”	22-12-2013 to 24-12-2013 (03 Days)	Applied Mathematics	G.S. Pandey, 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	Dr. Vijay Gupta
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	Authorizatio n
1.	Prof. Piyush 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	Application No.	Indian Patent

	Archana Tiwari, Piyush Trivedi, Lalit Chander Garg.	vaccine against ϵ -toxin of <i>Clostridium perfringens</i>	1464/DEL/ 2012.	
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)
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/RPS/POICY-3/2013-14 dated 17/12/2013	Quantitative Determination of ActivePharmaceutical Ingredients in Pharmaceutical Formulations by FTIR/Near IR Spectroscopy	AICTE	17.55
4	Dr. Suman Ramteke. School of Pharmaceutical Sciences	2013	8-143/RIFD/RPS/ 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. Bhaduria	April 2012-Decem ber 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 indispensible 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	<p>Shikha Agrawal, Uzma Khan and Sanjay Silakari “<i>A Detailed Survey on Misbehavior Node Detection Techniques in Vehicular Ad Hoc Networks</i>”, 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>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-(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 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>
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		<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-(Print),</p>
4	Dr Piyush Kumar Shukla	Piyush Kumar Shukla, Sanjay Silakari, Bhavana Butani, "An Outline of Threats and Sensor Cloud Infrastructure in Wireless Sensor Network" under publication In Handbook 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 2015organized 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	Nati-onal	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 formers 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.	<ol style="list-style-type: none"> 1. Eco-sanitation Toilet at Rural areas in 2014 2. Health monitoring of Structures of “Taj-ul-Masjid” 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).
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 arylidine-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

Sr. No	Institutions	National Research Publications
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).
8.	INMAS, New Delhi	N. Dubey, R. Varshney, J. Shukla, A. Ganeshpurkar, P. P. Hazari, G. P. Bandopadhyaya, 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. Karunagaran, 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

Sr. No	Institutions	National Research Publications
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
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, AtulKoshti, 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

Sr. No	Institutions	National Research Publications
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
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
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
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 Management.
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	Completed
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	
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	30/08/2014	

				centre Skill Development Centre		
18	Transit Hostel	300	RGPV	For Research scholars	30/08/2014	Ongoing
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	
1.	Universal Testing Machine
2.	Flexural Testing Machine
3.	Torsion Testing Machine
4.	Brinell's Hardness Testing Machine
5.	Rockwell Hardness Testing Machine
6.	BOD Incubator
7.	Karl -Fisehet-Titranion (Digital)
8.	Universal Sheker (Test Shakerly Cromix)
9.	Weather Monitoring Station Model
10.	Box Shear Test apparatus
11.	Triaxial test apparatus
12.	Unconfined shear strength test apparatus
13.	CBR test apparatus
14.	Permeability test apparatus
15.	Relative density test apparatus
16.	Liquid limit test apparatus
17.	Compaction test apparatus
18.	Consolidation test apparatus
19.	Torsion balance for MC determination
Department of Computer Science & Engineering	
20.	Fiber Optics Kit
21.	Wireless Network Trainer Kit
Department of Electrical and Electronics Engineering	
22.	High-Voltage Insulation Tester
23.	Primary Current Injection Test System
24.	Digital Power Analyzer
25.	Transformer-Oil Testing Kit With Automatic Sphere-Gap Adjustment.
26.	Igbt Based 4 Quadrant Chopper Driver Along With Protection And Other Circuitry
27.	Tms 3201 & 2407a Based Dsp Trainee Kit (Micro 2407a)

28.	Tms 320f2812 Dsp Traineer Kit (Micro 2812)
29.	3- ph Igbt Based Pwm Inverter And V/F Control Traineer
30.	Thyristorised Dc Motor Chopper Drive
31.	Igbt Based Power Module For Sr Motor (Pechv16hsrm)
32.	Cycloconvertor (Hv)
33.	Vector Controlled Software
34.	Power Electronics Traineer Kits
35.	D-Space Kit
36.	(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
37.	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
38.	Microprocessor Trainer Kit 8086, Make: United Electro Technologies
39.	3-Ø Converter Firing Unit
40.	Electrical Power Distribution Panel.
41.	Generator Protection-Simulation Study.
42.	Electrical Power Transmission Line Training System With Var-Compensator Unit.
43.	Feeder Protection Simulation Study Unit.
44.	Transformer Protection Simulation Study Unit.
45.	Motor Protection Simulation Study Unit.
46.	Mi-Power
Department of Mechanical Engineering	
47.	CAD Software

48.	4 complete working set ups of Engines with all measuring equipments
49.	10 set ups of various heat transfer lab set ups
50.	6 set ups of lab equipments
51.	Robotic arm set up , CNC milling machine

School of Biotechnology

52.	HPLC
53.	GC
54.	RTPCR
55.	Micro Plate Washer Elisa
56.	Micro Scope
57.	Cyclo Mixer / Vortex Mixer
58.	Biodiesel Reactor
59.	Water Purification System
60.	Cooling Gradient Palm Cycler Pcr Machine -Pcr
61.	U.V. Transilluminater
62.	Uv Visible Spectrophotometer
63.	Colony Counter
64.	Biosafety Cabinet
65.	Trinocular Inverted Tissue Culture Microscope
66.	Gel Documentation System
67.	Plant Tissue Culture Racks
68.	Co ₂ Incubator
69.	Vertical Deep Freezer (-20 ⁰ c)
70.	Fermenter (Lark)
71.	Probe Sonicator (Lark)
72.	Uv-Cross Linker
73.	Trinocular Phase Contrast Microscope With Digital Camera
74.	Elisa Reader
75.	Speedvac (Savant Dna 120)
76.	Kingfisher Mi Thermo (Nucleic Acid Detector)

School of Energy & Environment Management

77.	Wind Mill For Water Pumping
78.	BIOMASS GASIFIER WITH DG SET 10 Kw
79.	HYBRID CAR (Solar & Bio-Diesel)
80.	Carbon Mono Oxide Convertor

81.	Wind Farmer Software
82.	Global Positioning System (Gps)
83.	Hydrogen Producer
84.	Solar Experimental Kit
85.	Oil Expellor Unit
86.	Solar Pump For Thin Film Plant
87.	Solar Power Conditioning Unit
88.	Pelton Wheel Turbine- Test Rig
89.	Kaplan Wheel Turbine- Test Rig
90.	Francies Wheel Turbine- Test Rig
91.	Combustion Gas Analyser (Data Acquisition System)
92.	Solar Educational Kit
93.	Ss Mono Block Pump With 10hp Motor
94.	Power Lifting Machine
95.	Thermometer –Mercury
96.	Dual Rotor Wind Turbine
97.	Distilation App.(Wall Pattern)
98.	Weather Monitoring Station (Watchdog)
99.	Combustion Gase Analyser

School Of Pharmaceutical Sciences

100.	Differential Scanning Calorimeter
101.	Electrophoresis
102.	Elemental Analyzer CHN
103.	Elisa Reader
104.	Friability Tester
105.	FT-IR Spectrophotometer
106.	Flash Chromatography
107.	Gas Chromatography
108.	HPLC
109.	LC-MASS
110.	Lyophilizer
111.	Nitrogen Evaporator Turbo Vap LV
112.	Partical Size Analyzer
113.	Refrigerated Centrifuge
114.	Schrodinger Software
115.	Spectrofluorimeter
116.	Tablet Section

117.	Tablet Dissolution Test Apparatus TDL -08L
118.	Texture Analyzer
119.	UPLC
120.	Ultracentrifuge
Electronics and Communication Engineering	
121.	Microwave Bench
122.	C. Band Trainer
123.	Antenna System Trainer
124.	Antenna Training Lab
125.	Doppler Radar Trainer
126.	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.

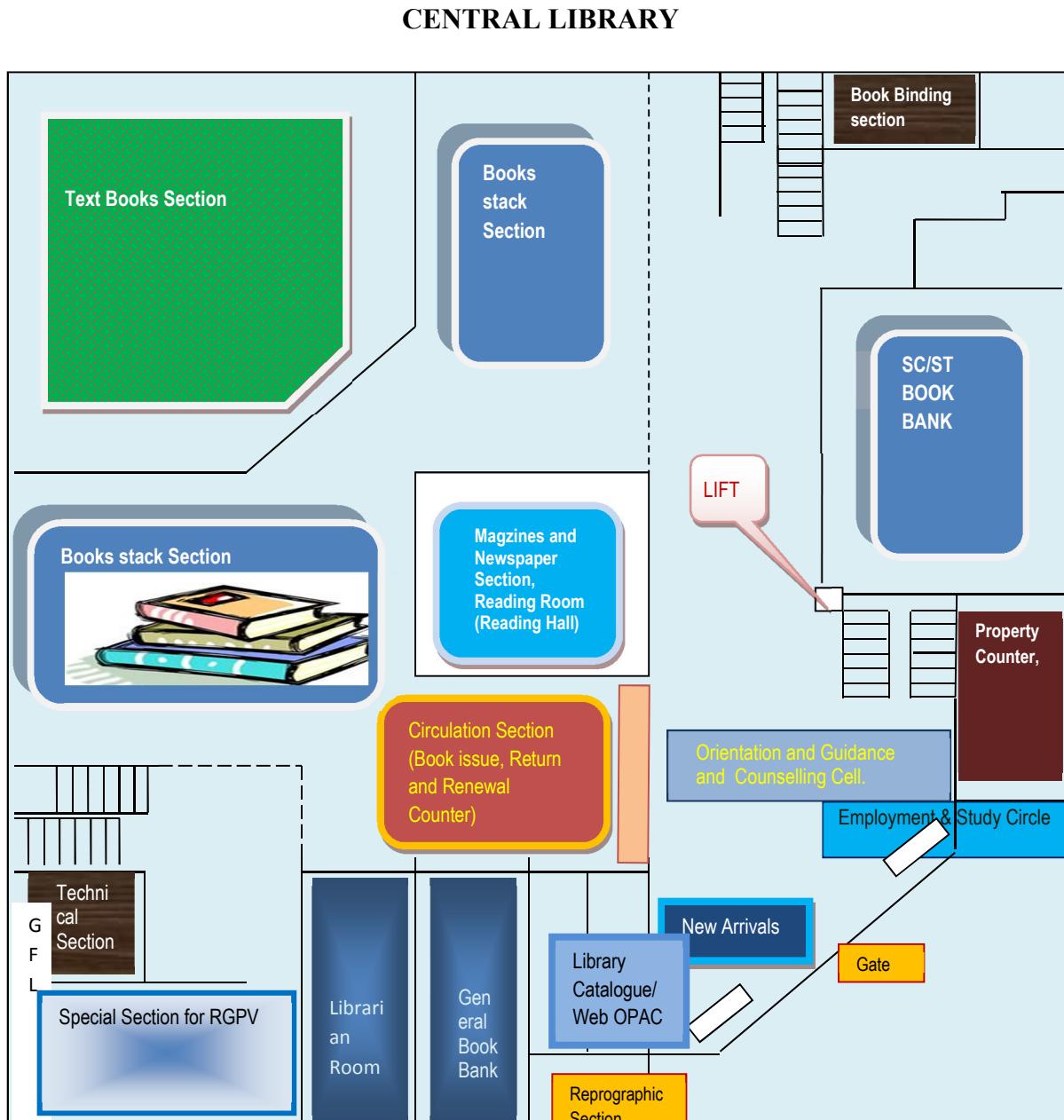
- Procurement of books for central library and departmental libraries, Procurement of e-books, e-journals, Print journals, library equipments, Furniture and computer.
- Implementation of RFID system which facilitates the library to function more user friendly in terms of automated circulation, books 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

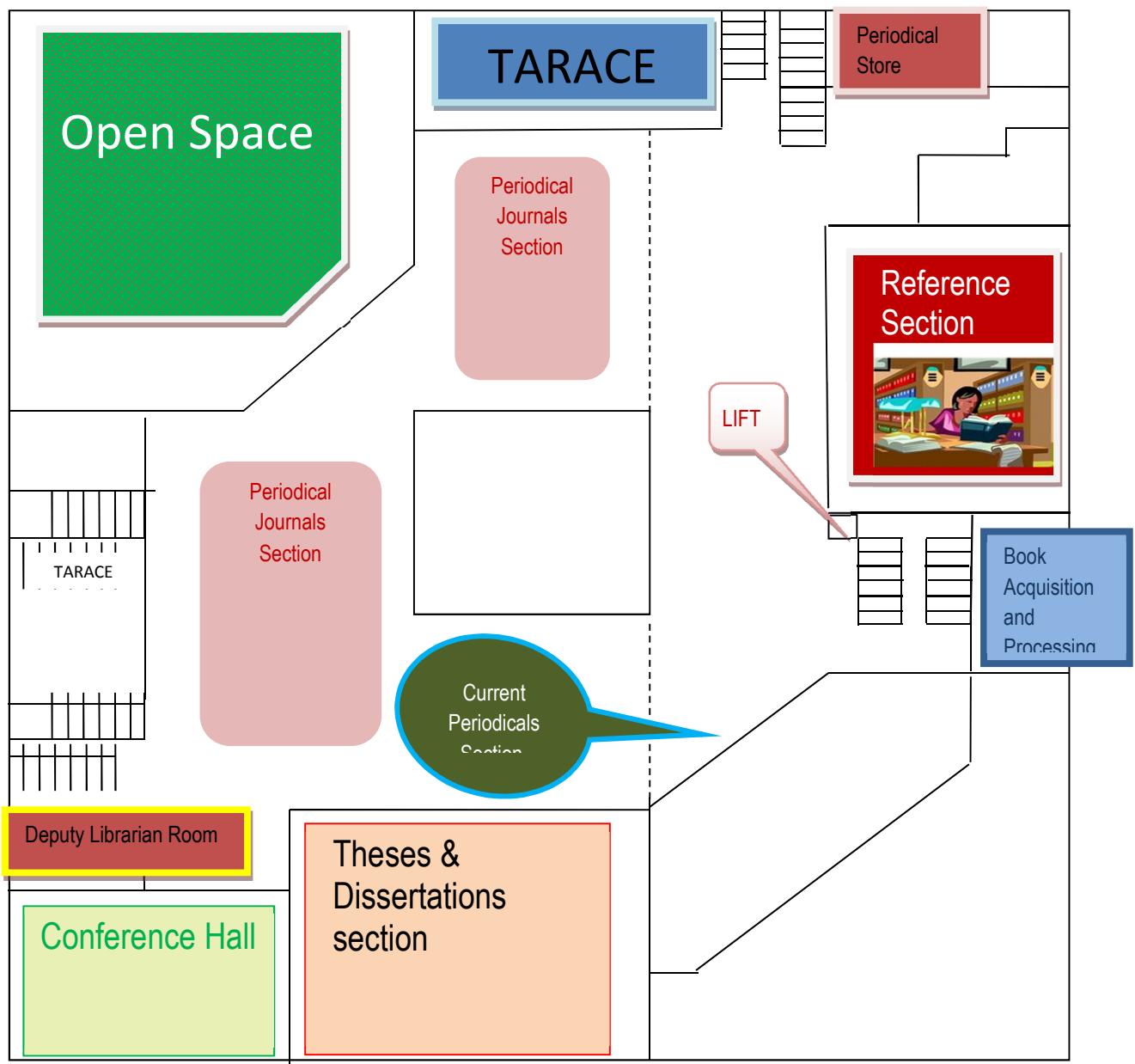
- Layout of the library (individual reading carrels, lounge area for browsing and relaxed reading, IT zone for accessing e-resources)

Layout of the library:



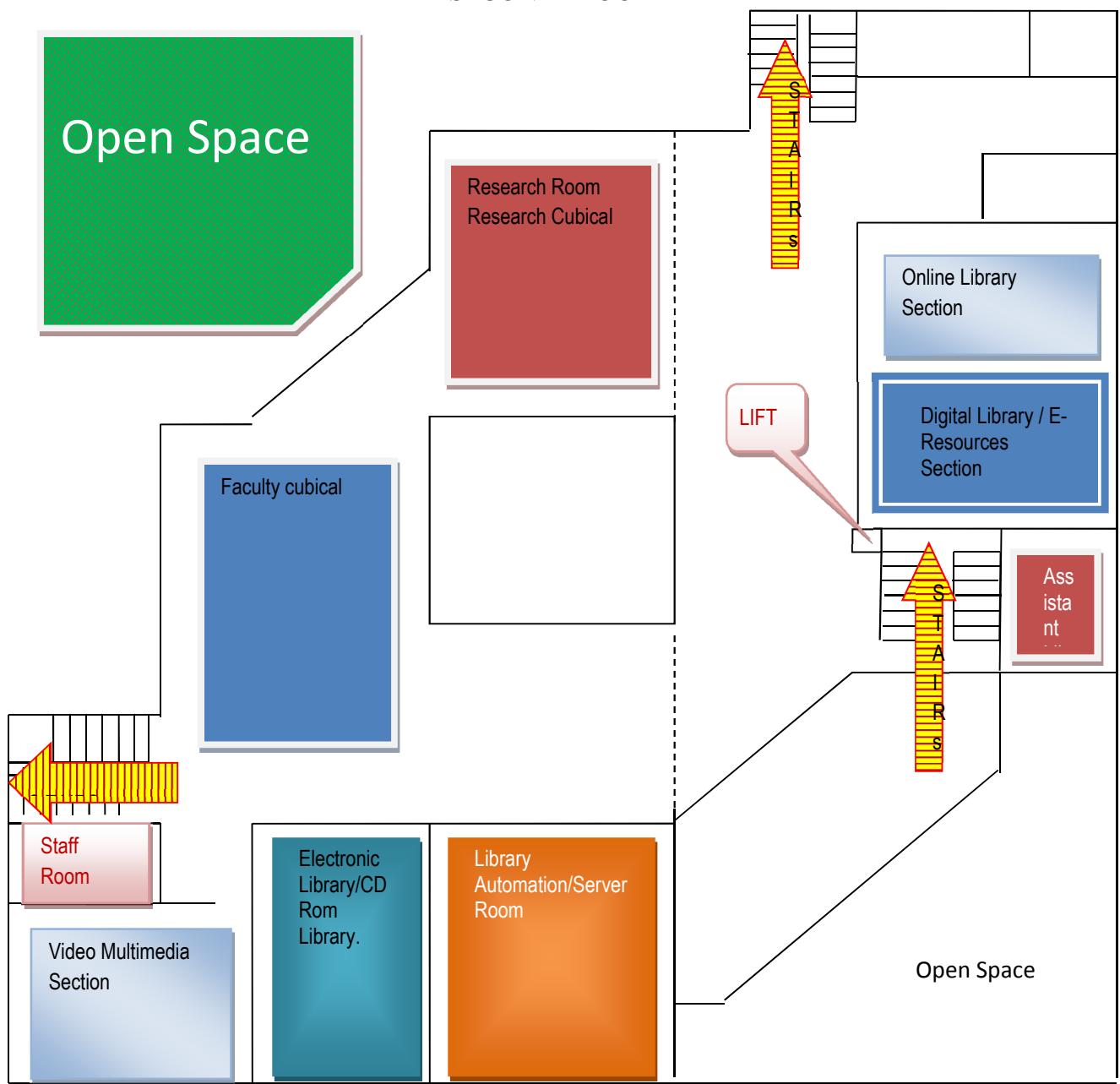
GFI	SC/ST book bank
GFJ	General Book Bank
GFK	Reprographic Section
GFL	Books stack Section
GFM	Book Binding section
GFN	Employment & Study Circle
GFO	Orientation and Guidance and Counselling Cell.
GFP	Technical Section
GFR	Text Books Section

CENTRAL LIBRARY (RGPV)



- 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

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/ retuned: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 Proudyogiki 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 Proudyogiki Vishwavidyalaya, Bhopal	11-08-2009
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 Proudyogiki Vishwavidyalaya, Bhopal	20-08-2009

S No	Title	Sponsored / Organized by	Date
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 Proudyogiki 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 Proudyogiki 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 Proudyogiki 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 Proudyogiki Vishwavidyalaya, Bhopal	27-10-2009
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 Proudyogiki Vishwavidyalaya, Bhopal	29-01-2010

S No	Title	Sponsored / Organized by	Date
9	Awareness program on E-journals/e-books	M/S Balani InfoTech India Pvt. Ltd, New Delhi & Central Library Rajiv Gandhi Proudyogiki 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 Proudyogiki Vishwavidyalaya, Bhopal	18-02-2010
11	Digital Library : e-journals/e-books / e- database	M/S Springer/online, New Delhi & Central Library Rajiv Gandhi Proudyogiki Vishwavidyalaya, Bhopal	27-04-2010
12	Electronic Library	M/S Cambridge University press, New Delhi & Central Library Rajiv Gandhi Proudyogiki Vishwavidyalaya, Bhopal	15-06-2010
13	e-journals/e-books / e-database	M/S Proquest Dissertation & Theses, New Delhi & Central Library Rajiv Gandhi Proudyogiki Vishwavidyalaya, Bhopal	15-06-2010

S No	Title	Sponsored / Organized by	Date
14	Workshop on IEEE Electronic Library/On-line e-resources Library/On-line e-resources	IEEE New Delhi & Central Library Rajiv Gandhi Proudyogiki 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 Proudyogiki Vishwavidyalaya, Bhopal	12-11-2010
16	Radio frequency Identification Device & (Library Software)	M/S Rapid Radio Solutions, Ahmadabad & Central Library Rajiv Gandhi Proudyogiki Vishwavidyalaya, Bhopal	04-08-2011
17	e-Journals & Online Resources	M/S IEEE (INDEST), New Delhi & Central Library Rajiv Gandhi Proudyogiki Vishwavidyalaya, Bhopal	27-09-2011
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 Proudyogiki Vishwavidyalaya, Bhopal	16-11-2011

S No	Title	Sponsored / Organized by	Date
20	Library Automation Software	M/S Soft link Asia Pvt. Ltd. Faridabad- LIBERTY, M/S Algorithmus Pvt. Ltd. Pune-SLIM, ILMS M/SOSSLABS Bangalore- KOHA,NIC- Granthalaya & Central Library Rajiv Gandhi Proudyogiki Vishwavidyalaya, Bhopal	13-12-2011
21	AICTE Mandatory Online Journals	M/S Globe Publication Pvt. Ltd., New Delhi & Central Library Rajiv Gandhi Proudyogiki 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 Proudyogiki Vishwavidyalaya, Bhopal	2008
23	Engineering on-line Journals/ e-books	M/S Springer Pvt. Ltd. New Delhi & Central Library Rajiv Gandhi Proudyogiki 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	0.115
RFID/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	0.11
e-journals	50	0.23
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 illustration 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, conductive 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	
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

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 undergone 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 Convene r	No. of Participant s	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	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
Basketba ll (M&W)	14/10/11	Athletics (M&W)	19/11/12	Athletics (M&W)	20/11/13	Athletics (M&W)	23/11/14
Volleyba ll (M&W)	21/10/11	Taekwond o (M&W)	18/09/12	Taekwondo (M&W)	16/11/13	Taekwon do (M&W)	12/05/14
Air pistol shooting (M&W)	13/10/11	Fencing (M&W)	18/09/12	Fencing (M&W)	08/07/1 3	Fencing (M&W)	26/08/1 4
Hockey (M&W)	03/12/11	Football (W)	08/07/12	Football (W)	09/11/1 3	Football (W)	26/08/1 4
Swimmi ng (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*)	16/09/1 3	Wrestlin g (M&W*)	23/11/1 4	
	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)	12/07/1 4	
	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)	11/10/1 3	Yoga (M&W)	12/07/1 4	
	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 5.12: 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 5.13: 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 5.14: 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 5.15:

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 5.16

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 5.17: 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 5.18: 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 2.Expert Lecture on “Communication Systems” under IETE Student Chapter TRUBA.	7 th Feb 2012 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	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. Ernest 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	9 February 2013 26 February 2013 16 February 2013. 13 February 2013 09 Sep, 2012 19 Oct, 2012
Workshops	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 & Kyriion 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” &	2 nd to 14 th June 2012 18 th -19 th Jan 2013 17- 30 June 2013

	<p>“ORACLE admin” in association with ORACLE WDP organized by department of computer science & engineering.</p> <p>4. Two Weeks Training on “Computer Aided engineering using ANSYS tool” organized by department mechanical engineering.</p>	14 -28 June 2013
Industrial Visit	Department of Electronics and Communication organized a one day industrial visit to AI Automation, Govindpura, Bhopal for final year students.	20 October 2012
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	Rangmarch 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	<p>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.</p> <p>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.</p> <p>3. Department of Information & Technology has organized an Expert lecture on "PHP" by Mr. Nishant Shukla, a PHP Developer.</p> <p>4. Department of Information & Technology has organized an Expert lecture on "Android Application Development" by Mr. Vikas Dishoria, an Android Application developer.</p>	August 2013 27 August 2013 13 th Feb 2014 19 th Feb 2014
Workshops	<p>1. Department of Electronic & communication Engineering organized a two day workshop on “Embedded and VLSI system design” .on, under the IETE student chapter.</p> <p>2. Department of Electronic & Communication Engineering has organized a workshop on “Identification and testing of electronic components with their applications”</p> <p>3. Department Mechanical Engineering has organized a two week vocational training on “CAE Using ANSYS” .</p> <p>4. A Bentley certified workshop on “STADD PRO software”, was organized by department of civil engineering.</p> <p>5. Department of Computer Science & Engineering has organized a ten day’s training program on “Java Programming Language, Java SE 6” for students in</p>	20 th -21 st Feb 2014 15 Feb 2014 14 th -28 th Jun 2014 16-31October 2013

	<p>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 & & 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>20th - 30th Jun 2014</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 Rallies	To commemorate the birth anniversary of 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.	02 December 13
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	Rangmarch	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 Competition	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 Soluation	B.E. UIT Students	17/4/2015
32	Extempore	B.E. UIT Students	17/4/2015
33	Science Exibition	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.n o.	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.

		<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<ul 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	<ul style="list-style-type: none"> 1. First prize in Collapsible structure at tech fest organized at Trinity college Bhopal
5.	Aarti Prajapati	<ul 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	<ul 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 Proudyogiki 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.

No

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 Proudyogiki 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 2020" covering teaching-learning, research and extension activities along with the academic and administrative perspective.

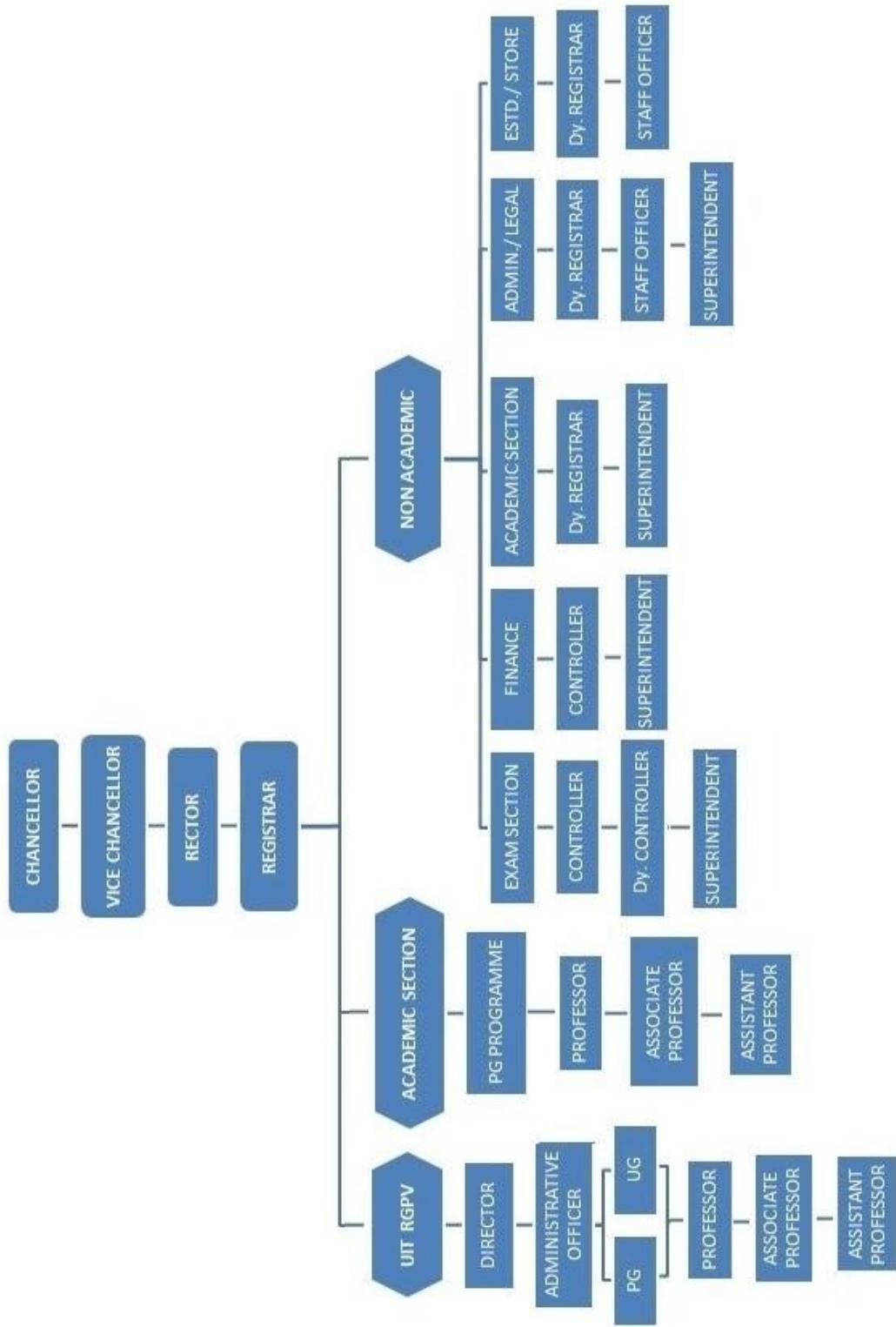
The salient features of Vision document are:

1. RGPV Service Portal
2. Vibrant e-library facilities
3. Synergistic partnership with leading industries
4. Research Scholarships
5. Smart & intelligent buildings

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 as approved by Executive Council (EC) in its 85th meeting.

Composition of IQAC

1.	Mrs. Kalpana Srivastava Vice-Chancellor, RGPV	- Chairperson
2.	Prof. Mukesh Pandey, Rector, RGPV	- Member
3.	Prof. S. K. Jain, Registrar, RGPV	- Member
4.	Prof. R. S. Rajput, Director, UIT	- member
5.	Prof. R. K. Singhai, Professor, Electronics & Communication Engg. Dept., UIT - RGPV	- Member
6.	Prof. Sanjeev Sharma, Professor, School of Information Technology, RGPV	- Member
7.	Prof. Vinay Thapar, Professor, Electrical Engg. Dept. UIT-RGPV	- Member
8.	Prof. Deepti Jain, School of Pharmaceutical Sciences, RGPV	- Member
9.	Prof. Archna Tiwari, Professor, School of Biotechnology, RGPV	- Member
10.	Prof. Anil Kothari, Training & Placement officer, RGPV	- Member
11.	Prof. S. S. Kushwaha, Professor, Civil Engg. Dept. UIT RGPV	- Member
12.	Prof. Mahesh Motwani, Professor, Computer Science Engg. Dept., UIT- RGPV	- Member
13.	Prof. R. K. Saxena, Director, SGSITS	- Member
14.	Prof. N. K. Jain, Emeritus Professor, School of pharmaceutical Science, RGPV	- Member
15.	Smt. Paridhi Saxena,TCS Representative	- Member
16.	Shri Vijay Jain, DGM, HR, BHEL	- Member
17.	Shri S. K. Mishra, Chief CSR & training, Coal India Ltd.	- Member
18.	Shri Sanjay Tiwari, Plant Head, Sun Pharma, Dewas	- Member
19.	Prof. Sukumar Mishra, Professor, IIT Delhi	- Member
20.	Prof. S. C. Choube, Professor, Electrical Engg. Dept. UIT RGPV	- Coordinator

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 shall be assessed by Academic and Administrative Audit (AAA) Committee.

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

S. No	Year	Unfair means		Total
		No. of Candidates	No. of Students	
		March/April	October/November	
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) will ensure the 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 deputes expert teams for regular and surprising visits for monitoring the development of the affiliated colleges and to ensure the compliance as required in the statue 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?

University supports the affiliated colleges academically by organizing refresher course, orientation program and Faculty Development Programs for their faculty and many more steps have been taken for quality upgradation.

- 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.
- **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.

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 conductive 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 performa 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 access 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

6.3.6. Does the University conduct any gender sensitization programs for its faculty?

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. A 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.

University has established IQAC and the IQAC has initiated the process of applying LoI for NAAC accreditation of the university. The university will conduct academic audit of its departments adopting the following procedures after the 1st cycle of NAAC accreditation.

- 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 consolation 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?

Specific measures will be taken on the basis of the recommendations of the academic audit.

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?

As such there is no central body within the university but deans and head of the institutions continuously review the teaching learning process. Some of the 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.

6.5.4 How has IQAC contributed to institutionalizing quality assurance strategies and processes?

The IQAC is established in the university which will ensure significant contribution for institutionalizing quality assurance strategies and processes after the 1st cycle of NAAC accreditation.

6.5.5 How many decisions of the IQAC have been placed before the

statutory authorities of the University for Implementation?

University has established IQAC and on the recommendations of IQAC, the University has gone for 1st cycle of NAAC accreditation.

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 will be involved in the study after the 1st cycle of NAAC accreditation.

6.5.8 What policies are in place for the periodic review of administrative and academic departments, subject areas, research centers, etc.?

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 will monitor 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 “Swach 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 for safe disposals. Municipal Corporation Bhopal collect the e-waste for disposal as per the directives of Environmental planning and coordination organisatoion (EPCO)

- **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. Wind-solar-biomass hybrid system is developed by the energy department.
- ii. Solar-biodiesel hybrid is developed by energy department.
- iii. Automation in examination system is totally computerized.
- iv. Digilocker to securely store the academic records of the student.
- v. Introduction of Choice Based Credit System.
- vi. Office automation and paperless office system are adopted.

- vii. RGPV web portal is developed
- viii. Personality Development Programs
- ix. Faculty Development Programs
- x. MoU Signed with industries and academia
- xi. Model Solutions
- xii. Incubation centre
- xiii. Soft Skills and Aptitude classes
- xiv. 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. Best research paper award and Best engineering project award.
- viii. Finish School activity.
- ix. Scholarship for weaker section students of society
- x. Creation of Research fund
- xi. Creation of venture fund
- xii. Establishment of e-cell
- xiii. Automation of Library & modern RFID system in library
- xiv. Conduction of on line practical examinations.
- xv. Publication of monthly Newsletter.
- xvi. Insurance
- xvii. Teachers Welfare fund (TWF)

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: 22-04-2017

Signature of the Head of the Institution

with seal

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
DDI-PG	: Dual Degree 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 And 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