



**The National Law Institute University, Bhopal**

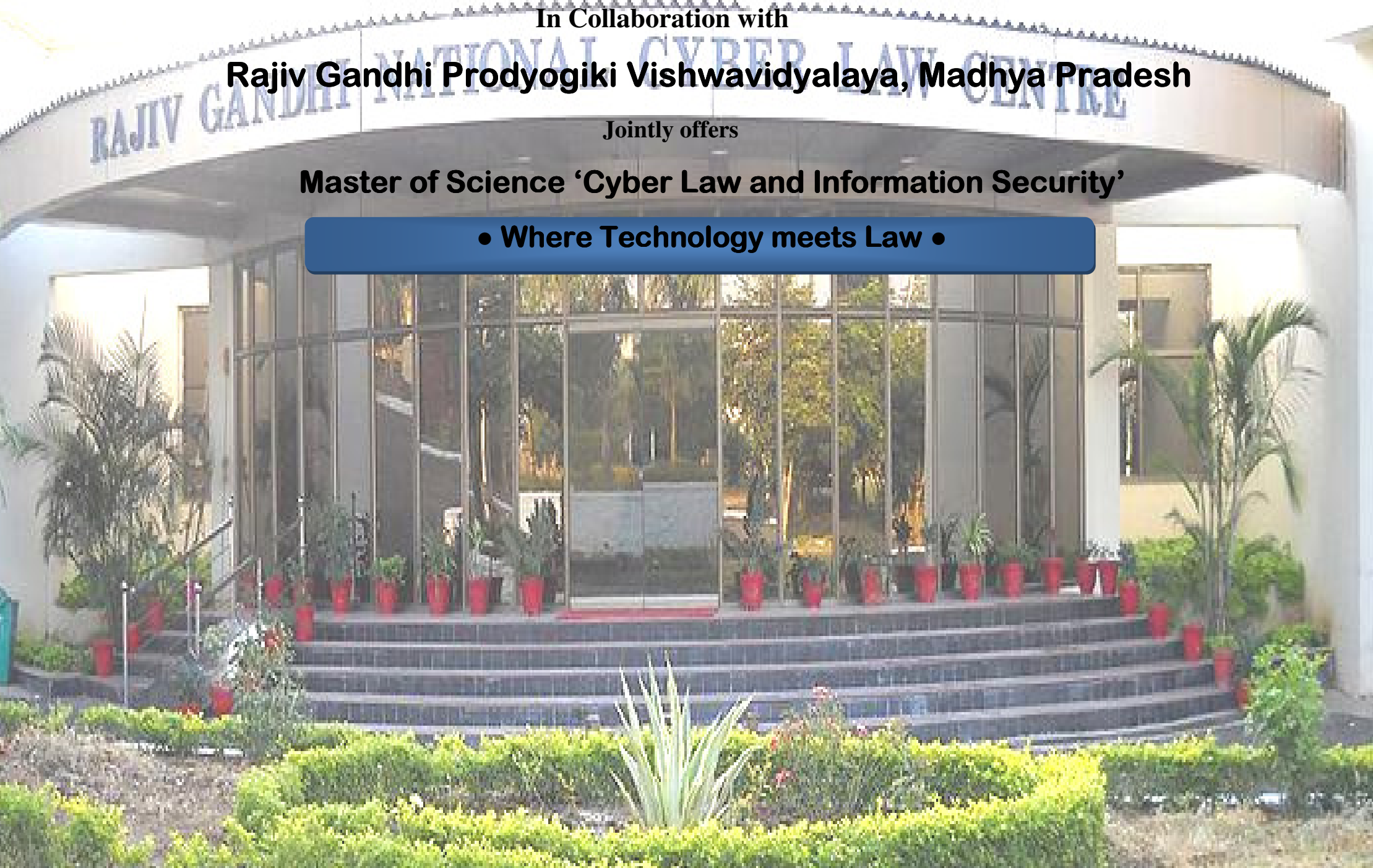
In Collaboration with

**Rajiv Gandhi Prodyogiki Vishwavidyalaya, Madhya Pradesh**

Jointly offers

**Master of Science 'Cyber Law and Information Security'**

• Where Technology meets Law •





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## About NLIU

The National Law Institute University was established by the Act No. 41 of the State Legislature of Madhya Pradesh in 1997. The National Law Institute University has earned a front line status of an institution imparting quality legal education, conducting research in cutting edge areas of law and organizing workshops, seminars and training programs. In its brief journey of about a decade, it has been able to carve out a niche for itself in academic excellence and placement of its students. The University now stands as one of the most reputed legal institutions and has been rated consistently as one of the best law Universities in the country.



Situated in the sylvan surroundings in the beautiful city of Bhopal, the National Law Institute University is a key milestone for legal education and research in India. The key objectives of the University are:

To advance and disseminate learning and knowledge of law and legal processes and their role in national development,

To develop in the students and research scholars a sense of responsibility to serve society in the field of law by developing skills in regard to advocacy, legal services, legislation and reforms in the existing laws, and

To organize lectures, seminars, symposia and conferences to promote legal knowledge and to make law and legal processes efficient instruments of social development.

NLIU has an excellent state of the art infrastructure, a dedicated and competent group of members of faculty and a beautiful green campus.

## **About RGPV**

**The Rajiv Gandhi Prodyogiki Vishwavidyalaya was established in the year 1998, by Madhya Pradesh Vidhan Sabha Act 13, 1998. Over a sprawling Campus of about 247 acres, the Rajiv Gandhi Proudtyogiki Vishwavidyalaya is marching towards development into a centre of excellence in the arena of Technical Education, Research and Innovations. Under its umbrella there are 05 UTD's, 217 affiliated Engineering Colleges, 95 Pharmacy Colleges, 88 MCA Colleges and 04 Architecture Colleges imparting Graduate level instructions running around 17 under graduate level courses, 85 Polytechnic institutions offering diploma courses in emerging and conventional disciplines. Situated amidst an aesthetic and hilly surrounding, the University is now offering Ph Ds and 11 posts.**

**Rajiv Gandhi Technical University is truly a picture of modernization. With an extensive presence on the internet, Rajiv Gandhi Technical University has courses which can suit anyone. Courses offered Rajiv Gandhi Technical University offers undergraduate and postgraduate full time and online courses. They specialize in fields like Management, Forensic Science, Fashion, Engineering, Space Sciences, Social Work, Nanotechnology, Communication and Pharmacy.**

## **Rajiv Gandhi National Cyber Law Centre:**

**Rajiv Gandhi National Cyber Law Centre, a Centre of Excellence in Cyber Law (Established by Ministry of HRD, Govt. of India, New Delhi at NLIU, Bhopal). The Centre is constituted and craft with the ambitious objectives to develop professional expertise and skilled manpower to match with contemporary challenges emerging in relevance with Cyber law & Cyber Security. This will enable the law and IT professionals to exploit and capture efficiently opportunities and meet economic challenges being posed by the rapid global Information Technology revolution, which is influencing virtually every area of development and social activity.**

### **Vision:**

**As we know information technology is a vast area and is one of the most rapidly growing domain. The growth brings with it advantages as well as disadvantages that need to be dealt with carefully in order to achieve a sound framework. In today's advancing world there is a utmost need to keep pace with the ever changing technology. Aim is to achieve a sound knowledge in the area of cyberspace and its issues. To set up a platform providing constant efforts in the understanding, implementation, legalization, propagation, creation in the information technology & cyber law domain. To inculcate sound knowledge in the students to help them in becoming the shining leaders of information technology. Further to train students to face and stand the challenges of the practical world.**

## Director's Message:



Welcome to the Rajiv Gandhi National Cyber Law Centre (RGNCLC). The centre is committed in providing contributions in the field of cyber law & information security and other cyberspace technologies and issues. We in addition to training the students to transform into distinguished IT consultants, legal advisers, IT experts, technology managers, researchers etc. also create and enhance a sense of global awareness with the technological world.

We further accredit that the centre would advance and progress in accommodating rich knowledge in the area of information security and to achieve universal distinction. It comes to me immense gladness to introduce this vital and vivacious centre.

**Prof. (Dr.) S.S. Singh**  
Director (NLIU, Bhopal)

## Vice Chancellor's Message (RGPV):



We are prepared and firmly committed to excel MP in technical education and research and are fully aware of the challenges of the future knowledge age. In this century of mind we have a highly important role to play to strengthen the nation's knowledge economy and empower the inspired youth in the Cyber law and information security domain running in Rajiv Gandhi National Cyber Law Centre at NLIU. Further it is important that we capitalize on the rich talent pool of students. We wish to make continuous and focused attempts in achieving techno-legal expertise in the domain.

I wish RGNCLC all the best for their destined aim and would stand by as a support.

**Professor Piyush Trivedi**  
Vice Chancellor (RGPV, Bhopal)

## Message from Course Coordinators:



While captivating an inspiring catchphrase from the message of our Director, in fact Information Technology has been revolutionary towards rapid development all across as a resultant touching invariably all sections of society, at

this stage it also becomes imperative to focus on several implications arising out and the aim is to stay on protected from all such misleads. At our centre we are indulged to articulate a framework which would armor the beneficiaries at all the junctures a step ahead.

As a matter of fact, one has to adopt the technological changes taking place in the world to grow further at the same time more responsibly remain unaffected with malevolent developments. We would be delighted to be a contributing partner by adding adept professionals in this field through excellence of our collective efforts.

Let us be always a part of every success....!

**Mr. Atul Kumar Pandey**  
Asst. Prof. and Course Coordinator MS CLIS (NLIU Bhopal)

We strive to offer students with the best possible assistance in achieving academic success by providing specific needs of the competent students thereby imparting high quality technical education to meet the industry

challenges. We believe in maintaining and meeting the high technical standards and incorporating the same in our students. I wish Rajiv Gandhi Cyber Law Centre a great learning experience and our continued support.



**Dr. Sanjeev Sharma**  
Head of Deptt., School of IT (RGPV Bhopal)

## **COURSE OFFERED:**

### **MS CYBERLAW AND INFORMATION SECURITY:**

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(In collaboration with Rajiv Gandhi Prodhogiki Vishwavidhyalaya)

#### **Objective:**

Recent advancements in Information Technology have revolutionized almost all the arenas of human endeavor. Cyber world has delimited entire world in the form of a globalised information hub. Consequently information security issues and regulatory mechanism has developed a complex system. To understand the dynamics of information security and cyber law matrix, techno-legal professionals with the blended skill

#### **Teaching Learning Methodology:**

Teaching Learning methodology includes case analysis, assignments, presentations, project-writing, lectures, discussions, practical sessions, experts from academia, industry and law enforcement agencies with the objective of fostering necessary abilities in students to handle real-time cyber-crime and Information Security related challenges. At the end of every semester, End Term Examination will be held at the NLIU for all the four papers corresponding to that semester. This course aims to develop the skills to imbibe the information security issues at technological ground and then relate it to complex cyber world legal problems. It gives a detailed understanding of national and international regulatory paradigms and its mechanics regarding Cyber Law and Information security.



**Intake:** Sixty students shall enroll for the MS-CLIS course.

**Seats Distribution:**

All Reservations for various categories as per the rules of the NLIU apply. In case application of some other reservation has to be brought in force and likewise seats have to be adjusted, it may then be incorporated. (For details visit: <http://www.nliu.ac.in/courses/msclis/msclis-main.html>)

**Eligibility:**

Minimum eligibility for MS-CLIS shall be Graduates in any discipline with working knowledge of computers, from an Indian or foreign University, with minimum 50% marks in aggregate or equivalent grade in the graduate examination. Students whose results are awaited may also apply subject to the condition that by the time of interview for selection, the candidates should be able produce marks sheet of the qualifying examination, along with pass certificate.

**Admission:**

Candidates will be admitted through written test (Objective-type) and 'Personal Interview' to this program based on the above referred eligibility criteria. Personal interview shall be conducted at NLIU, Bhopal.

Prospectus-cum-Application forms are available online in the websites of the NLIU and RGPV, Bhopal as well as it can also be obtained from the office of the Registrar, NLIU, Bhopal during office hours (university shall remain closed on every Sunday and Monday). Filled application

forms shall be submitted (along with demand draft of Rs. 1000/- in favour of Director, NLIU Cyber Law, Bhopal) to the **Registrar, National Law Institute University, Kerwa Dam Road, Bhopal-462044 (M.P.)**. Filled application forms are to be submitted in person or through '**Speed Post**' only.

**Syllabus for Written Examination:**

Aptitude Test, General Awareness, English (Basic Proficiency), and Basics of Computer

**Duration:**

It is a full time on campus two years' Master Degree Programme (4 Semesters). Each semester is of 6 months approximately and shall be conducted in regular fulltime education mode. The candidate shall complete all the papers in 4 years maximum.

**Fees (per student):**

1. Prospectus & Application Form Fees: 1000/-
2. Fees per semester (including Examination Fees): 35,000/-

## **COURSE STRUCTURE\***

This two year course Master of Science in Cyber Law and Information Security (Hereinafter referred to as MS-CLIS) is spreaded in four Semesters, detail of each, **but not limited to**, is mentioned below:

### **Semester I**

#### **Paper I: Cyber Jurisprudence and Introduction to Cyber Law**

The aim is to give an idea of Cyber law, jurisprudence of Indian cyber law and evolution of key terms and concepts including cyber-crimes. This includes to the Overview of Cyberspace, General Laws and International Conventions, The Information Technology Act, 2000. An outline of the Internet Governance by focusing on the topics- Infrastructure and standardization basket, the legal , economic, development and socio-culture basket with respect to Internet Governance and the management of domain name system. Also, covers Convergence of Technologies, Emergence of Internet as a super media, Legal Challenges and Convergence Bill.

#### **Paper II: Overview of General Laws and Procedures in India**

The objective of this subject is to give a brief understanding of all the legal aspects of the Indian Judicial System and includes- Broad Framework of the Constitution of India, Interpretation of Statues, Law Relating to Arbitration and Conciliation, Law relating to Limitation, Law relating to Transfer of Property, Code of Civil

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\* Course curriculum may be revised as per requirement.

Procedure, Criminal Code Procedure, Law of Evidence, Law of torts. Law relating to Contract Law relating to Specific Relief- an overview, Law relating to Partnership and LLP Act 2008- an overview ,Law relating to Sale of Goods- an overview ,Law relating to Negotiable Instruments- overview, Elements of Company Law.

### **Paper III: Introduction to Hardware, Networks, the Internet and Programming**

In depth study to TCP/IP & OSI Model with detailed functioning at each layers, Networking Fundamentals , Network Hardware and software , Network Operating Systems, overview of Network Security , IEEE Standards ,wired and Wireless Networks , Internetworking Devices, Distributed systems, Data transmission, Network models and topologies, Transmission Media, Protocols and standards, Frame relay, ATM and VPN, web architectures.

### **Paper IV: Telecommunications and Network Security**

This Subject covers several topics that are required to develop a strong understanding and grip of the domain.

Mentioned below are key areas focused upon:

System, Network, Internet & Enterprise Security, Mobile computing, Advanced computer networks, cryptography, steganography, biometric security, security threats, Securing the network infrastructure, Mobile communication security, monitoring and control activities. E-mail, web and communication security, Digital signatures, authentication protocols,

## **Semester II**

### **Paper I: Law Relating to Cyber Crime**

It gives an introduction to the crime, ingredients and challenges of crime, crime in context of Internet. It includes unauthorized access, Cyber-terrorism and cyber warfare, Cyber stalking, Defamation, spamming, Breach of Privacy, phishing, impersonation, Cyber corporate frauds, Frauds facilitating features of the online environment, Internet frauds and financial crimes, cyber-smearing, Interception of communication and theft of commercial data. Study of Indian legal framework (IT Act, IPC, Indian Telegraph Act, Law of Tort etc), International legal scenario( OECD guidelines, International conventions, treaties etc), Jurisdictional issues.

### **Paper II: Intellectual Property Issues in Digital Environment**

Computer Software and Intellectual Property-Objective, Copyright Protection, Reproducing, Defences, Patent Protection, Database and Data Protection-Objective, Need for Protection, , US Safe Harbor Principle, Enforcement, Domain Name Protection-Objectives, domain name and Intellectual Property, Registration of domain, names, disputes under Intellectual Property Rights, Jurisdictional Issues, International Perspective. Role of International Institutions: World Intellectual Property Organization (WIPO), Function of WIPO, Membership of WIPO, Agreement between the WIPO and the WTO, Dispute Settlement- New Treaties.

### **Paper III: Information Security and Compliance (SOX, HIPPA, ISO-27001)**

Information Security: Security Goals, Vulnerabilities, Operating security, Database security, Attacks: Threats, Vulnerabilities, Viruses and other malicious code and controls. The kind of problems- Interception, Interruption,

**Modification, Fabrication. Computer Criminals, Methods of Defense: Control, Hardware Controls, Software Controls, Effectiveness of Controls. Operating System Security, File protection mechanism, Database Security, Risk management, Information security awareness, Identity and access management, Authentication guidelines, Security management and requirements, security standards, Security policies, Audit, assurance. Legal, Privacy, and Ethical Issues in Computer Security, Standards for compliance viz SOX, GLBA, HIPAA, ISO27001, COBIT, FISMA, FIPS, COSO. Data protection, IT asset management.**

#### **Paper IV: Business Continuity Planning and Disaster Recovery Planning**

**Introduction to Business Continuity Planning, furthermore subject dives into: Asset Identification and valuation, Threat and Vulnerability Analysis, Risk Management, Business Impact Analysis. Disaster Classification, Forming the Disaster Recovery Team, Disaster Planning Functions, Contingency Planning considerations, Resumption and Restoration Phase, Facing Keys Challenges. BCP Policy and Team Involvement, BCP Plan Development, Developing a backup plan, Training and Communication to the resources. Maintaining, evaluating and updating BCP Plan, conducting simulation exercises.**

## **Semester III**

### **Paper I: e-Commerce**

Introduction to E-commerce, various conventions on E-Commerce ,OECD guidelines , UNCITRAL Model law, WTO Convention, Electronic Contracts, rules of E-Commerce, Impact of IT Act on E-Commerce, Software Licensing Agreements, Risks Involve in E Commerce, Evidentiary value of E-transactions , Online Consumer protection , Alternative Dispute Resolution and E-Commerce, Online Dispute Resolution.

### **Paper II: Electronic surveillance and legal issues**

Focuses on the surveillance procedures, methods of surveillance, various legislations, frameworks, guidelines for electronic surveillance in Indian provisions of IT Act, and other related issues are covered under this subject. Legislation of other countries like USA, EU and other countries are also discussed to take light.

### **Paper III: Security Architecture and Models**

Introduction ,design goals, role and security architecture relationship to information security, Trusted computing base, protection measures of trusted computing base, system security assurance concepts, confidentiality and integrity models, security risk management process, data classification, regulatory requirements, web services etc.

### **Paper IV: Application and Systems Development Security**

Introduction, Security in Software Development Life Cycle, IT Infrastructure and Management of Security Policies, Business Security, E-mail Security, System Security, Database Security, Security Management System Architecture, Operations security, Physical and environmental Security, Security plan for implementation, Security Management, , Access Control Structure, Malicious Software, System Security Assurance Concepts, IT Infrastructure Requirement, IT System Management Process.

## **Semester IV**

### **Paper I: Computer Forensics & Electronic Evidence**

Introduction, Computer Crimes and Criminals, Chain of custody, Collecting and Preserving and Recording Digital Evidence, Investigate, Modify, Access, Create file behavior, Disk cloning using various tools, Computer Forensics Tools, Recovering Image Files, E-Mail Investigations ,Access Data – Password Recovery Tool Kit Software Password Recovery Issues, Investigations, Steganography explanation and usages to Computer Forensics.

### **Paper II: Computer Operations Security**

It provides insight to the computer security, principles of computer security, security protocols, Elementary encryption, making secure encryption , Encryption standards, Encryption algorithm, program security , preventions from malicious codes, Controls against program threats, protections in general purpose operating



systems, Designing of trusted operating systems, Legal, privacy and Ethical issues involved in computer security.

**Paper III: Dissertation**

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**IMPORTANT DATES and Venue**

<b>Last date of receipt of completed application</b>	<b>June 15, 2013</b>
<b>The written examination</b>	<b>June 21, 2013 at 10:00 a.m.</b>
<b>Personal Interview</b>	<b>June 21, 2013 from 02:30 p.m. onwards and June 22, 2013 from 10:00 a.m. onwards</b>
<b>Venue</b>	<b>The National Law Institute University, Kerwa Dam, Bhopal</b>

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**NOTE: Only those candidates who appear in written exam will be eligible to appear in Personal Interview.**

For details please visit [www.nliu.ac.in](http://www.nliu.ac.in) or [www.rgpv.ac.in](http://www.rgpv.ac.in)

**Contact details:**

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