JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY
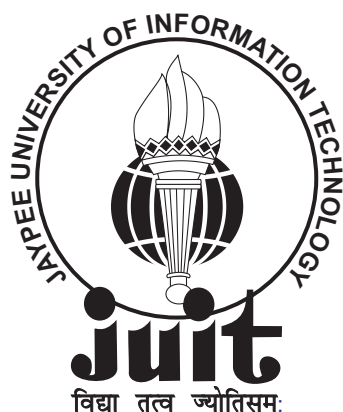
WAKNAGHAT
Himachal Pradesh

ANNUAL REPORT

2014 - 2015

CONTENTS

BASIC INFORMATION IN BRIEF

Name	:	**Jaypee University of Information Technology Waknaghat**
		(Established by H.P. State Legislature vide Act No. 14 of 2002 and approved by University Grants Commission vide its Notification No. F.9-10/2002(CPP-I) dated December 9, 2002)
Year of Establishment	:	July 2002
Status	:	State University, with effect from 23 May 2002
Location	:	Waknaghat, P.O. Waknaghat
		Tehsil – Kandaghat, Distt. Solan (H.P.)
Pin	:	173234
District	:	Solan
State	:	Himachal Pradesh

Officers of the Institute

Chancellor	:	Smt. Urmila Singh
		Governor of Himachal Pradesh
Pro-Chancellor	:	Sh. Manoj Gaur
		Executive Chairman, Jaiprakash Associates Ltd
Vice Chancellor	:	Prof. S.K. Kak (upto 28-04-2015)
		Prof. S.C. Saxena (Acting w.e.f. 29-04-2015)
Registrar	:	Brig. Balbir Singh (Retd.)

Tele/Fax/Website

Vice Chancellor	:	(O) 01792-239201
		(R) 01792-239279
Registrar	:	(O) 01792-245371/239203
		(R) 01792-245367/239272
EPBAX	:	01792-257999 (30 lines)
Fax	:	01792-245362
Website	:	www.juit.ac.in

INTRODUCTION

About Jaiprakash Sewa Sansthan (JSS)

The Jaypee Group of Companies has consistently displayed full awareness of its social responsibilities through the Jaiprakash Sewa Sansthan (JSS), a 'not for profit' Trust registered under the Income Tax Act, 1961.

Seventeen junior-middle-senior secondary schools are in place spanning Jaypeenagar (M.P.) to Guna (M.P.), Sholtu (H.P.) and Sewagram (Gujarat) with combined student strength of around 15,000.

Three Industrial Training Institutes at Jaypeenagar (M.P.), Joshimath (Uttarakhand) and Samirpur (H.P.) covering the vocational stream of education are presently operational.

Four higher technical education campuses have been established in the emerging areas of technology – the Jaypee Institute of Information Technology (JIIT), Noida [August 2001]; the Jaypee University of Information Technology (JUIT) at Waknaghat, Himachal Pradesh [July 2002]; the Jaypee University of Engineering & Technology (JUET) at Guna, Madhya Pradesh [July 2003] and finally Jaypee University, Anoopshahr.

Genesis

Set up by Act No. 14 of 2002 vide Extraordinary Gazette notification of Government of Himachal Pradesh dated May 23, 2002. Approved by the University Grants Commission under section 2(f) of the UGC Act. The sponsoring body of the University is Jaiprakash Sewa Sansthan (JSS).

The University commenced academic activities from July 2002 with undergraduate B.Tech. Degree programs in Electronics & Communication Engineering, Computer Science & Engineering, Information Technology, and Bioinformatics. Since then UG programs in Biotechnology, Civil Engineering, Information Technology have been added.

Vision

To become a Center of Excellence in the field of IT & related emerging areas of education, training and research comparable to the best in the world for producing professionals who shall be leaders in innovation, entrepreneurship, creativity and management.

Mission

- To develop as a benchmark University in emerging technologies
- To provide state-of-the-art teaching learning process and R&D environment and
- To harness human capital for sustainable competitive edge and social relevance

Objectives of the University

As provided for, in the JUIT Act, the objectives of the University shall be to disseminate, create and advance knowledge, wisdom and understanding, and to offer technical education of the highest standards by teaching, research, training and extension activities.

Location and Area of Land

Land measuring 114.01 bighas comprising Khasra No. 408/4 and 429/185 situated in Village Rachhiana, Tehsil Kandaghat, District Solan, H.P.

SALIENT FEATURES – INFRASTRUCTURE

JUIT has been developed as a modern world class campus, with intellectually vibrant ambience in a serene and lush green environment, with a state-of-the-art campus covering a total built up area of around 80,000 Sq. m. Comprising smart buildings with internet, with Wi-Fi connectivity, including environmentally conditioned Academic Block, Annapurna (Mess), well-equipped modern laboratories, Learning Resource Centre, Faculty and student residences provide a pleasant and intellectually stimulating ambience for students in an eco-friendly environment. The details of the Infrastructure are attached as Appendix-A.

ACADEMIC PROFILE

The Academic Philosophy

- Student centric learning
- Encouragement to self learning
- Periodic review of Curricula to keep pace with changing technology
- Regular updating of Electives in the Curricula
- Emphasis on Project, Design and Laboratory skills
- Development of communication Skills and Leadership quality
- Emphasis on fundamentals, concepts, understanding and analytical & problem solving skills
- Enhancement of Scientific reasoning ability;
- Integration of human values and professionalism.

5TH CONVOCATION

The University held its *5th Convocation* on 24th November 2014 within the University Campus for the 2011, 2012 2013 and 2014 graduated Batches. H.E. Smt. Urmila Singh, Honorable Governor of Himachal Pradesh and Chancellor of JUIT presided over the function, and Shri Virbhadra Singh, Honorable Chief Minister of Himachal Pradesh was the "Chief Guest". Also Sajjan Jindal, CMD, JSW Steel Limited was as the "Guest of Honour" during the 5th Convocation. More than 500 students of the graduated postgraduated and Ph.D. attended the ceremony and received their degrees from the Vice Chancellor under the esteemed presence of the Chancellor, Chief Guest, Sh. Sajjan Jindal, Guest of Honour, Shri Jaiprakash Gaur - Founder Pro-Chancellor, Shri Manoj Gaur - Pro-Chancellor, and other distinguished members of the Governing and Academic Councils of the University.

A total of 1953 students were awarded degrees as under:

a) **B. Tech**

Computer Science & Engineering	531
Electronics & Communication Engineering	488
Information Technology	184
Civil Engineering	205
Bioinformatics	065
Biotechnology	071
Pharmacy	041

b) **M. Tech**

Computer Science & Engineering	072
Electronics & Communciation Engineering	059
Construction Management	011
Computational Biology	013
Structural Engineering	003
Dual Degree (B.Tech-M.Tech) Biotechnology	091
Nano Technology	003

c) **M. Pharmacy**

Medicinal Chemistry	011
Pharmacology	015
Pharmaceutics	014

d)   **Ph.D.**

Electronics & Communciation Engineering	008
Computer Science & Engineering	008
Bioinformatics	004
Biotechnology	015
Physics	006
Mathematics	002
Pharmacy	004
Humanities & Social Sciences	002

The Convocation ceremony was preceded by a Kavi Sammelan on the evening of 23rd November at the University Campus.

KAVI SAMMELAN

5Th CONVOCATION
24 NOV. 2014

5Th CONVOCATION
24 NOV. 2014

Accreditation

1. The following undergraduate programmes of the University are accredited by National Board of Accreditation (NBA) under Washington Accord:

Sr. No.	Name of Program(s)	Period of Validity (w.e.f. 01-07-2014)
1.	Computer Science & Engg.	2 Years
2.	Electronics & Communication Engg.	2 Years
3.	Biotechnology	2 Years
4.	Civil Engineering	2 Years
5.	Information Technology	2 Years

2. The University have been accredited by the National Assessment and Accreditation Council (**NAAC)** Peer team for five years w.e.f. 16/9/2011.

3. The University is also approved by University Grants Commission under Section 2(f) of UGC Act 1956.

NBA TEAM AT JUIT

EDUCATION SYSTEM

- At JUIT, special emphasis has been placed on developing an environment highly conducive to building a solid foundation of knowledge, personality development, confidence building, pursuit of excellence, self-discipline and enhancement of creativity through motivation and drive, which helps to produce professionals who are well trained for the rigors of professional and social life. All students are encouraged to make life outside the classroom vibrant and enjoyable by engaging themselves in multiple extracurricular areas. Fun creativity, competition, distinction, establishing relationships with fellow students and others in the community and ultimately enhancing the value of their educational experience, is at the heart of all extracurricular activities.

- The academic year consists of basically two semesters. The education system is organized around credit system which ensures continuous evaluation of students' performance and provides flexibility to choose courses of interest and to progress at an optimum pace suited to student's ability or convenience. Each course is assigned certain number of credits depending upon the class contact hours. A specified number of credits and CGPA are to be completed satisfactorily in order to qualify for a degree. The medium of instruction is English.

PROGRAMS OFFERED

- **UG PROGRAMS**

  In the pursuit of its objectives, the JUIT has gradually endeavored to increase the scope of programs, leading to the degree of Bachelor of Technology in (i) Electronics & Communication Engineering (ii) Computer Science & Engineering (iii) Information Technology (iv) Bioinformatics (v) Biotechnology (vi) Civil Engineering and (vii) Pharmacy.

  The programs of study emphasize strongly on conceptual understanding and practical skills in their respective areas of specialization. All students are provided with a sound foundation in basic sciences, coupled with courses in the Humanities and Social Sciences.

  Industry internship after 6th Semester is an integral part of the academic program leading to overall development of the student through exposure to practical skills in real life situations.

  Education Methodology comprises multiple learning stages, specific Lectures, Self-study, Tutorials, Laboratory Work, Assignments, Projects, Research, Internships, Guest Lectures, Seminars, Continuous Evaluation, Examinations and Personality Development programs.

- **DUAL DEGREE PROGRAM OR M. TECH PROGRAMS**

  - **5 Year Dual Degree Program B. Tech-M. Tech (Bio Technology)**

    The program has been offered for students admitted in B. Tech 2002, in their 7th Semester, as per merit drawn based CGPA. Since academic session 2006, the students for this program are being admitted in the 1st Semester itself. The program includes courses related to Biotechnology including Bioprocess Engineering, Genetic and Molecular biology, Genetic Engineering, IPR Biosafety and Bioethics, Advanced Bioinformatics leading to both Bachelor's as well as Master's degrees having provided strong fundamentals and extensive training at the B.Tech level through various compulsory & elective subjects and extensive project and thesis work in the final year.

  - **5 Year Dual Degree Program B. Tech-M. Tech (CSE)**

    The program has been offered for students admitted to 1st semester B. Tech. with effect from 2014 as per the merit. The program includes courses related to CSE including data structures, algorithms, theory of computation, compiler design, operating systems, data base systems, Object oriented programming and computer networks, having provided strong fundamentals and extensive training through various compulsory & elective subjects and extensive project and thesis work in the final year.

- **5 Year Dual Degree Program B. Tech-M. Tech (ECE)**

  The department offers 5-year dual degree program in Electronics and Communication Engineering in which the students are trained in core as well as advanced topics. Detailed emphasis and coverage is given to topics such as advanced mobile and wireless communications, advanced signal processing, statistical signal processing, bio-medical signal processing and VLSI. The program also focuses on developing analytical skills to

- **Post Graduate Program**

  JUIT has been successfully running M.Tech programs in Electronics & Communication Engineering (ECE), Computer Science and Engineering (CSE), Construction Management (CM) with effect from Academic Session 2008-09, Nanotechnology & Structural Engineering from Academic Session 2010-11 and Biotechnology & Environmental Engineering from the session 2014-15.

  The objective of the M. Tech program is to prepare professionals with advanced knowledge of their respective fields who can serve industry, R&D organizations and can take up a career in academics, including further studies in a relevant Ph.D. program. The 2-year M. Tech programs are spread over four semesters.

  All M. Tech Programs are designed to cover core/compulsory as well as elective subjects to advance knowledge, ability and skills of the students in their chosen area. Students can take the desired electives from the set of subjects offered from time to time to enable them to cater to their interests and to specialize in a particular field. Project and Thesis work are spread over the last two semesters, which provide ample opportunity to the student to carry out intensive work on a chosen topic resulting in an innovative and research oriented output. Seminars are included in the program to develop presentation skills in the students.

  M.Tech (Electronics and Communication Engineering)

  The program covers a number of areas like Mobile, Wireless, Satellite, Optical and Computer Communication Systems and Networks; Signal Processing, Spread Spectrum Communication and error control coding techniques; Microelectronics and VLSI Design and Information and Communication Theory through suitable core/compulsory and elective subjects and extensive project and thesis work. The program also focuses on developing analytical skills to enable fluent use mathematical techniques as to tool for engineering research..

  M.Tech (Computer Science & Engineering)

  This Program offers a balanced emphasis on theoretical computer science, computertechnology, software engineering, and applications of computing. The program provides advanced level education in areas like Algorithms and Data Structures, Software Engineering, Learning Sciences and Technology, High Performance Computer Architecture, Computer Networking, Network Security, Internet and Web Technologies, computer Graphics, Image Processing, Information Systems, Data Ware Housing & Mining, Data Base Management, Operating Systems, Computational Models, Cognitive Science, Soft Computing and Human Computer Interaction.
  M. Tech (Biotechnology)

The Master´s in Biotechnology is a broad program covering different aspects of life sciences such as gene technology, bioprocess technology, immune-technology, bio-separation, enzyme technology, protein engineering, metabolic engineering and process and plant design. The curriculum has been closely aligned to market needs. Admissions are open either through GATE score in B.Tech or through entrance test for candidates with a Masters in life sciences, 4 years professional degrees in B.Sc. (Agriculture/horticulture), B.VSc, B.Pharm, and MBBS.

M.Tech (Construction Management)

This 2-year program aims to impart the knowledge in areas like Construction Techniques, Equipments, Safety, Planning; Contracts, Financial Management, Sustainable Design; Human Resource Management, Affordable Housing, Value Engineering and Construction Information Systems through suitable core/compulsory & elective subjects and capstone projects and thesis work.

M.Tech (Environmental Engineering)

The department has started a new M.Tech programme in Environmental Engineering from the academic session 2014-2015. The main objective of the program is to develop competent professionals including consultants, scientists, technocrats in the field of environmental engineering having requisite skills to solve complicated and practical problems, develop effective communication skills and have the ability to work in multi-faceted and diverse groups. Beside elective subjects, The course has project work and thesis in the final year.

M.Tech (Structural Engineering)

This 2-year program has been designed to provide knowledge in the areas like Structural Dynamics. Design of Tall Buildings, Repair and Retrofitting of Structures, Modelling and Simulation, Bridge Engineering, Advance RCC and Steel Design, FEM, etc. through suitable core/compulsory & elective subjects, projects in two parts and thesis work in the final year. The main objective of the programme is to prepare the students for working in Structural Design teams and if they wish, carry out research in the relevant fields.

M.Tech (Nanotechnology)

This Program offers a balanced emphasis on experimental designs and synthesis of nanoparticles, thin films and other nanostructures. The academic programme gives more stress on the application based synthesis of nano structures. Advancedapplications like numerical modeling of nanostructured radiators of high frequency is also a part this curriculum.

M. Tech (Applied and Computational Mathematics)

The curriculum is designed to provide an in-depth exposure to mathematical analysis, modeling, and reasoning with high exposure to computer-based techniques. As a

result, students shall become adept at exploiting mathematical libraries for improved productivity and develop the ability to concentrate on core issues in problem solving rather than do the routine drudgery of performing calculations. The curriculum has been designed to provide students a range of computer-based skills for industrial use. Three specialization streams – Computer Applications, Business Applications, and Applied Mathematics with Statistics, are provided.

M. Pharmacy

M. Pharmacy (Medicinal Chemistry)

The course curriculum would introduce the students to the interface of organic chemistry and biology including drug design and discovery, chemical synthesis, natural products chemistry, pharmaceutical chemistry, computer aided drug design, advanced analytical and spectroscopic techniques. The biological interface would give students insight into chemical biology, biochemistry molecular biology, pharmacology, toxicology etc. to prepare them for this multidisciplinary science keeping in view the requirements of industry and   academia. The students would be exposed to research in areas relevant to Indian pharmaceutical industry.

M. Pharmacy (Pharmaceutics)

The curriculum would provide training to the students in different aspects of procedures involved in turning a new chemical entity (NCE) into a medication to be used safely and effectively by patients. The programme would expose students to the science of dosage form design, mechanistic drug delivery systems and drug targeting research on modulating activity and efficacy of drugs.

M. Pharmacy (Pharmacology)

The program would expose students to modern techniques in drug discovery and development, biological screening, preclinical pharmacology, *in vitro* drug screening and evaluation techniques, pharmacogenomics, personalized medicine and pharmacotherapeutics. The students would also be exposed to multi disciplinary environment to prepare them for careers in industry and academia.

- ## DOCTORAL PROGRAMS (PHD)

The award of PhD degree by the University is in recognition of high academic achievements demonstrated by independent research and application of knowledge to the solution of technical and scientific problems. Creative and productive inquiry is the basic requirement underlying research work. The academic program leading to the degree involves fulfilling course credit requirements, residential requirements and a thesis giving a critical account of the research carried out, in any of the areas listed below.

Electronics & Communication Engineering

The Department of ECE offers PhD program in **Electronics & Communication Engineering.**The Department promotes strong exposure in the area of Digital Hardware Design using VHDL, VLSI Design, Signal and Speech Processing, Digital and Data Communication, Data Compression and Error Control Coding, Optical Communication, Satellite, Wireless and Mobile Communication Systems. Students are

also exposed to core computer courses like Data Structures, Object Oriented Programming, Operating Systems and Computer Networks. Unique features of our department are designing electronic and communication systems using software tools such as MATLAB, PSPICE, Model-Sim and DSP kits.

Computer Science & Engineering

The Department of Computer Science & Engineering promotes software, database, internet and information system technologies as well as network and distributed systems. Students are exposed to CASE tools, conceptual modeling, Requirements engineering and data warehouse design. They study all standard courses like Data Structures, Object-Oriented Programming, Operating Systems, Compilers, Computer Networks, etc. A special feature of our teaching is workshop courses where intensive practical experience is given on important tools like Unix and Shell Programming,Network Programming, etc. Students are given courses in cutting edge technologies immediately relevant to industry, for example, Web Programming, Web Services, Web Application Development, Data Mining, etc. Further they can opt for courses in futuristic technologies like Quantum Information Theory, Nano-Science & Technology.

Current research interests are in the areas of Algorithms, Computer Graphics, Computer Network and Security, Database Systems, Data Warehousing & Data Mining, Digital Image Processing, Internet Technologies, Learning Science & Technology and Soft Computing, Parallel, Distributed and Grid Computing, Computer Architecture, Computer Networks.
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Biotechnology, Bioinformatics and Pharmacy

The Department runs Ph.D. program in Biotechnology, Bioinformatics and Pharmaceutical sciences with a provision of teaching assistantship @ Rs. 18,000/month to scholars analogous to American Universities so that the students are provided an opportunity to learn modern teaching skills while pursuing their research so as to enable them to become finest academicians and researchers. The Dept. has registered 75 Ph.D.scholars in different areas of biotechnology such as Medical Biotechnology, Plant Biotechnology, Agriculture Biotechnology, Environmental, Biotechnology, Food Technology, Industrial Biotechnology, Computational Drug Discovery, Bioinformatics Tools Development, Medicinal Chemistry, Neuropharmacology, Pharmaceutics, etc. The DRDO, DIHAR, Leh have registered their JRFs/SRFs in PhD through an MoU with us. Fifteen Ph.D.s have been awarded by the Department and a few are in their final stages of Thesis writing and submission.

Civil Engineering

The Department carries out research and development activities in the areas Rockfill material modelling, Constitutive modeling, FEM in Geotechnical Engineering, Soil plasticity, Slope stability problems (including seismic), Soil-nailing, Landfill design, Fluvial hydraulics, Scouring, Flow of water around hydraulic structures such as bridge piers and abutments, Concrete rheology, Development of HPC with Alcofine, micro-silica, etc., Composite materials, Prestressed concrete, Dynamic analysis of structures subjected to extreme loading, and earthquakes,

Seismic evaluation of existing buildings, Active and passive control of tall structures against earthquakes, Smart structures, Air pollution, Estimation of NOx / CO concentrations, and Solid-waste management, Pavement Materials, Design and Maintenance, Optimization Techniques, and development of mini-standard penetration test.

Physics

The Department has strong research interests in microwaves, compound semiconductors, and nano-materials. The Department has established a laboratory for the fabrication of thin film devices and nano-materials. A microwave antenna laboratory has also been set up for fabrication and simulation of antennas. Research is carried out with a number of doctoral students in the fields of nano-materials, semiconductors and microwave antenna.

Mathematics

Departmental research interests are in Applied group theoretic techniques, Discrete symmetries, Mathematical modeling and simulation, non-linear partial differential equations, Linear Algebra, Numerical Methods, Operations Research, Differential Geometry, Multivariable Calculus, Mechanics of Continuous Media, Elastic Waves, Wave propagation, Wavelets and differential equations, Wavelets in image processing, Algebraic Coding Theory, Sequence Design, Distributed Source Coding, Fuzzy Information Measures, Decision Making, Pattern Recognition, Probability and stochastic process, Reliability theory and engineering applications, Statistical inference under non-standard conditions, Time series analysis and forecasting. Application of Markov Random Field and Bayesian Techniques in Image Processing, Statistical methods in Epidemiology, Environmental and Bio Sciences.

Humanities and Social Sciences

The Department was set up with the intention of producing well-rounded engineers, not only having good technological skills but also with the ability to interact with different organs of an organization. Thus, the Department develops 'soft' skills in students. These skills are group and co-operative working, economics, finance, project management etc. Additionally, the department exposes students to entrepreneurshipskills, HR management, Customer relationship management, total quality management etc.

ACADEMIC DEPARTMENTS

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

The Department of Electronics and Communication Engineering (ECE) has been playing a vital role in producing competent engineers of highest caliber ever since it was established in JUIT. The Electronics and Communication Engineering department emphasizes on technical skills, critical thinking and problem-solving skills. During the year under report, the department offered under-graduate, post-graduate and Ph.D. programs to cater to the ever challenging needs of technical excellence in all areas of electronics and communication engineering such as integrated electronics and circuits, telecommunications, Signal processing, VLSI, and Digital Communication. The ECE department created four research groups such as Signal Processing, VLSI Circuits and Systems, Microwave Engineering and Communication System to focus on research in advanced trends and applications in these fields. The department has distinguished faculty, all are research oriented and working on cutting edge technologies. In the year 2014-2015, the current faculty strength is 21 and 440 undergraduates, 24 postgraduates and 5 research scholars are registered in the department.

Department Vision and Mission

To become a centre of excellence and to produce high-quality, self-motivated, creative and ethical engineers and technologists those will contribute effectively to the universal science and contemporary education. The mission of Department is:
- To impart high quality engineering education and ethics to its students.
- To adopt the best pedagogical methods in order to maximize the knowledge transfer.
- To have adequate mechanisms to enhance the understanding of implementation of theoretical concepts in practical scenarios.
- To carry-out high quality research leading to the creation and commercialization of Intellectual Property.
- To provide the best facilities, infrastructure, and environment to the students, researchers and faculty members, creating an ambience conducive for excellence in technical education and research.

The educational objectives of the program are to produce graduates:

- Those would have developed a strong background in basic science and mathematics and ability to use these tools in Electronics and Communication Engineering.
- Who would have the ability to demonstrate technical competence in the fields of electronics and communication engineering globally and develop solutions to the problems in various areas of Electronics and Communication Engineering.
- Who would attain professional excellence through life-long learning.
- Who function effectively in the multi-disciplinary teams/domains and exhibit professional leadership.
- Who would ensure the ethical and moral behaviour as a good human being.

Academic Programmes

The department offers a comprehensive B Tech programme in Electronics and Communication Engineering and an intensive M Tech programme in Electronics and Communication Engineering, which focuses on developing analytical skills to enable fluent use mathematical techniques as to tool for engineering research. The department of ECE offers PhD program in Electronics and Communication Engineering, which provides exciting opportunities for research in emerging areas. The candidates are selected for admission to B. Tech. and M. Tech. programmes through JEE and GATE Score/PGET test, respectively. The selection for Ph. D. candidates is carried out through tests/ interviews. The number of students and scholars admitted to various programmes in July 2014 are provided in Table-1.

Table-1 Electronics and Communication Engineering student on roll (July, 2014).

S. No.	Program	I Year	II Year	III Year	IV Year	Total
1.	B. Tech	105	100	115	120	440
2.	M. Tech	10	14	-	-	24
3.	Ph.D.	-	2+3	-	-	5
4.	Total	115	119	115	120	469

Program Outcomes

With the successful completion of the program, the students would have the following attributes.
a) Shall be able to solve problems through analytical thinking
b) An ability to apply knowledge of mathematics, science, and engineering to solve problems.
c) Shall be able to employ necessary techniques, hardware and software tools for engineering applications.
d) To synthesize solutions for existing problems within practical constraints.
e) Should be able to communicate effectively both orally and in writing.
f) Shall be able to write project proposals, devise implementation strategies and plan execution.
g) Should be aware of contemporary issues and their implications.
h) Should have strong ethical and professional responsibility and adherence to quality

In the academic year 2014-2015, the new courses introduced by the department are provided in Table-2.

Table-2 New Courses Introduced.

S. No.	Course Code	Title
1.	13M1WEC132	Mathematical Techniques for Engineering
2.	13B1WEC731	CMOS Analog Design
3.	14B1WEC734	Non-Linear and Digital Control Systems
4.	14M1WEC331	Fault-Tolerant Communication Networks
5.	13B1WEC832	Modern Antennas
6.	13B1WEC833	Bio-Electronic Sensors
7.	14M1WEC231	Advanced CMOS Digital Design Techniques

Laboratory Facilities

Laboratory support for the lecture courses are provided by the following well equipped laboratories to the department. All the laboratories are equipped with state-of-the-art instruments and software tools to enable the students to perform design oriented experiments and test their designs.

- Basic Electronics Lab
- Electrical Science Lab
- Power Electronics Lab
- Analog and Digital Communication Lab
- Advance Communication Lab
- Electromagnetic Lab
- Control and Machine Lab
- Research Lab
- Digital Electronics Lab
- Analog Electronics Lab
- VLSI Design Lab
- Project Lab

The infrastructure and lab facilities are upgraded from time to time and provide adequate opportunities for students and researchers to learn and innovate. The various softwares available in the department are MATLAB, LABVIEW, PSPICE, CST Microwave Studio, XILINX, and ORCAD.

Research and Development Activities

The research at the department continued to flourish during the year under review. Around 4 Ph.D. students enrolled in academic year 2013-2014, in keeping with the national goal increasing the availability of the high quality researchers and teachers to industry and academia. In 2013-2014, our faculty and research scholars published 18 papers in refereed international journals and 13 in various national/international conferences. The department is involved in a variety of frontier and traditional areas of research in Electronics and Communication Engineering. The thrust areas are: Communications Network and Internet, Channelization (OVSF) Codes and Optimization in WCDMA, Wireless Sensor Networks, OFDM, MIMO-OFDM, Microstrip Antenna, Signal and Image Processing, Medical Image Processing, Wireless and Mobile Communications, Signal Processing Application, Low Power VLSI System and Hardware Design, Devices and IC Technology, High-Frequency Switches, MEMS Design and Technology, Next Generation Communication System, Terahertz Communication System, Terahertz Imaging and Sensing, The department received grants from various sources towards many new projects during the year, apart from various ongoing projects.

Projects Sanctioned/Approved

Table-3 Several funded projects.

S. No.	Responsibility (PI/Co-PI)	Title of the Project	Funding Agency	Amount	Duration
1	Dr. Ghanshyam Singh	Design and analysis of frequency selective surface at Ka/Ku Band for reflection and S Band for transmission	ISRO	15.96 Lakhs	3 yrs. (Completed)
2	Dr. Shruti Jain	Fabrication of Energy Harvesting Prototypes using Piezoelectric Materials	DRDO	9.8 Lakhs	2 years (Completed)
3	Dr. Pradeep Kumar	Design and Investigation of Antennas and Arrays for 60 GHz Applications	DST	5.96 Lakhs	4 years
4	Dr Ghanshyam Singh	Mathematical Modeling of Spectrum Sharing techniques in Cognitive Radio Network	ISRO	11.10 Lakhs	Ongoing (April 2015-March 2017)
5	Dr Rajiv Kumar/ Dr. Piotr Cholda	Reliability Modeling and Optimized Planning of Risk-based Resilient Networks	DST	9.04 Lakhs	Ongoing (March 2015), 3 Year

Lectures delivered by the experts

- **Dr. B.N. Basu,** Professor Emeritus and Research Coordinator, Sir JC Bose School of Engineering, Supreme Knowledge Foundation Group of Institutions, Mankundu-712 139, West Bengal on topic "Electromagnetic theory and its scope in microwave tube research in India" Nov. 8, 2014.
- **Dr R P Gupta,** (Ex Scientist G), Central Electronics Engineering Research Institute Pilani, Rajasthan, India, on topic "VLSI fabrication of Silicon chips" Nov. 22, 2014.

List of Publications

A) Books/Monographs

- I Bala, MS Bhamrah, V Rana, N Jain, G Singh, "Adaptive Power Control Scheme for the Cognitive Radio System Based on Receiver Sensitivity", in Koushik Maharatna, Goutam Kumar Dalapati, P K Banerjee, Amiya Kumar Mallick, Moumita Mukherjee, ed. **"Computational Advancement in Communication Circuits and Systems,"** New Delhi: Springer, pp. 69-79, 2015.

B) Journal Publications

- Meenakshi Sood, Sunil Vidya Bhooshan (2015). Parameter-selective based CAD system for epileptic seizure classification. *International Journal of Applied Engineering Research,* 10 (10), 25389-25408.
- Ritendra Mishra, Shruti Jain, C. Durga Prasad (2015). A review on piezoelectric material as a source of generating electricity and its possibility to fabricate devices for daily uses of army personnel. *International Journal of Systems, Control and Communications,* 6 (3), 212-221.
- Shruti Jain, D. S. Chauhan (2015). Implementation of fuzzy system using different voltages of OTA for JNK pathway leading to cell survival/death. *Network Biology,* 5 (2), 62-70.
- Garima Bharti, Kumud Ranjan Jha, Ghanshyam Singh, Rajeev Jyoti (2015). Angular stable, dual-polarized and multiband modified circular ring frequency selective surface. *Frequenz: Journal of RF-Engineering and Telecommunications,* 69 (5-6), 199-206.
- Tapan Jain, Davinder Singh Saini, Sunil Vidya Bhooshan (2015). Lifetime optimization of a multiple sink wireless sensor network through energy balancing. *Journal of Sensors,* 2015 (Article ID 921250), 6p.-.
- Pradeep Kumar, Jose Luis Masa-Campos (2015). Waveguide fed circular microstrip patch antenna for Ku band applications. Microwave and Optical *Technology Letters,* 57 (3), 585-589.
- Garima Bharti, Kumud Ranjan Jha, Ghanshyam Singh, Rajeev Jyoti (2015). Azimuthally periodic wedge-shaped metal vane loaded circular ring frequency selective surface. *International Journal of Microwave and Wireless Technologies,* 7 (1), 95-106.
- Shruti Jain (2014). Design and simulation of fuzzy system using two stage CMOS operational amplifier. *Journal of Active and Passive Electronic Devices,* 9 (4), 329-338.
- Indu Bala, Manjit Singh Bhamrah, Ghanshyam Singh (2014). Ergodic Capacity Analysis for Underlay Cognitive Radio System. *International Journal of Mobile Network Communications & Telematics,* 4 (6), 13-19.
- Shweta Pandit, Ghanshyam Singh (2014). Channel capacity in fading environment with CSI and interference power constraints for cognitive radio communication system. *Wireless Networks,* 21(4), 1275-1288,
- Pradeep Kumar Gupta, Ghanshyam Singh (2014). A novel human computer interaction aware algorithm to minimize energy consumption. *Wireless Personal Communications,* 79 (3), 661-683.
- Tapan Jain, Davinder Singh Saini, Sunil Vidya Bhooshan (2014). Cluster head selection in a homogeneous wireless sensor network ensuring full connectivity

with minimum isolated nodes. *Journal of Sensors,* 2014 (2014), Article ID 724219-8p.

- Kaushlendra Kumar Pandey, Neetesh Purohit, Ajay Agarwal (2014). Efficient clustering technique for cooperative wireless sensor network. *International Journal of Computer Network and Information Security*, 6 (10), 40-47.
- Garima Bharti, Kumud Ranjan Jha, Ghanshyam Singh (2014). A synthesis technique of single square loop frequency selective surface at terahertz frequency. Optik – *International Journal for Light and Electron Optics*, 125(21), 6428–6435.
- Pradeep Kumar (2014). Computation of resonant frequency of gap-coupled ring microstrip antennas. *International Journal of Automation and Computing*, 11 (6), 671-675.
- S Deepali, Naman Kumar Patel, Aditya Gupta, Shruti Jain (2015). Design of universal gates based on reversible logic. *International Journal of Emerging Technologies in Computational and Applied Sciences*, 11((2), 174-178.
- A Aastha, Rohit Chauhan, Somya Verma, Shruti Jain (2014). Energy harvesting using thermoelectric materials. *International Journal of Advanced Information Science & Technology*, 32(32), 28-37.
- Aditya Ahuja, Kamal Dewan, Nikita Gupta and Meenakshi Sood (2014). Enhancing the competence of enterprise network using contemporary networking paradigms. *Transactions on Networks and Communications*, 2(5), 201-213.
- Mohd. Abbas Murtaza, Ruchita Gupta, Meenakshi Sood (2015). Resilient real-time hand gesture recognition system. *International Journal of Advanced Information Science and Technology*, 37(37), 30-36.

C)   Conference Publications

- A. Arman, Davinder Singh Saini (2015). WSN node lifetime enhancement based on hybrid protocol. *Proceedings of the International Conference on Computing, Communication & Automation,* Noida, India: 15-16 May 2015, pp.518-522.
- A.K. Singh, S. Rajoriya, S. Nikhil, Tapan Jain (2015). Design constraint in single-hop and multi-hop wireless sensor network using different network model architecture. *Proceedings of the International Conference on Computing, Communication & Automation*, Noida, India : 15-16 May 2015, pp.436-441.
- Meenakshi Sood, Sunil Vidya Bhooshan (2015). Modular based dynamic analysis of EEG signals using non-linear feature. *Proceedings of the International Conference on Parallel and Distributed Computing*, Solan, India: 11-13 December 2014, pp.186-190.
- Aditi Agnihotri, Bhasker Gupta (2015). Performance evaluation of linear/non-linear precoding schemes for downlink multi-user MIMO systems. *Proceedings of the International Conference on Industrial Instrumentation and Control*, Pune, India: 28-30 May 2015, pp.484-489.
- A. Arman, Vansha Kher, Tapan Jain, Davinder Singh Saini (2015). Implementation of MPLS routing in traditional LEACH. *Proceedings of the 2nd International Conference on Signal Processing and Integrated Networks (SPIN'2015),* Noida, India: 19-20 Feb. 2015, pp.1026-1030.

- Indu Bala, Manjit Singh Bhamrah, Vanita Rana, Neelu Jain, Ghanshyam Singh (2015). Adaptive power control scheme for the cognitive radio system based on receiver sensitivity. *Proceedings of the International Conference on Computational Advancement in Communication Circuits and Systems*, Agarpara, India: 30 Oct 2014 - 1 November 2014, pp.69-79.
- Indrajeet Kumar, H.S. Bhaduria, Jitendra Virmani, Jyoti Rawat (2015). Reduction of speckle noise from medical images using principal component analysis image fusion. *Proceedings of the 9th IEEE International Conference on Industrial and Information Systems, (ICIIS- 2014),* Gwalior, India: 15-17 December 2014, pp.1-6.
- Meenakshi Sood, Sunil Vidya Bhooshan (2015). Hierarchical computer aided diagnostic system for seizure classification. *Proceedings of the 2nd Computing for Sustainable Global Development,* New Delhi, India: 11–13 March 2015, pp.6.315-6.320.
- Shruti Jain (2015). Design of sigma and anti-sigma membership function using operational transconductance amplifier. *National Seminar on Recent Trends in VLSI and Embedded Systems (RTVES-2014)*, Oct 15-16, 2014, India, p. 29.
- P. Balina, K. Garg, S.V.R.K Rao (2014). Spectrum occupancy measurements and analysis in a rural area setting. *Proceedings of the 3rd International Conference on Parallel and Distributed Computing,* Solan, India: 11-13 December 2014, pp.412-416.
- Meenakshi Sood and Sunil V. Bhooshan (2015). Hierarchical computer aided diagnostic system for Seizure classification. *Proceeding of the 2nd International Conference on Sustainable and Global Development (INDIACom)*, 11th – 13th March, 2015, India, pp. 1925 – 1930.
- Meenakshi Sood and Sunil V. Bhooshan (2014). Modular based dynamic analysis of EEG signals using non-linear feature. *Proceeding of the 3rd IEEE International Conference on Parallel, Distributed and Grid Computing*, 11-13 Dec. 2014, India, pp. 186-190.

Workshop Organized/Session Chaired

- Dr Shruti Jain, Session Chair (2014). International Conference on Emerging trend in Science and Technology, Sri Satya Sai University of Technology and Medical Sciences, Sehore (Bhopal) M.P, India, August 22-23, 2014.
- Dr Shruti Jain, Session Chair (2014). International Conference on Applied Science and Engineering, Advance Research and Educational Services, Bhopal M.P. India in association with The Institution of Electronics and Telecommunication Engineers, Bhopal Center, Bhopal, October 19, 2014.
- Dr Ghanshyam Singh, (Dec. 2014), RDC Meeting, School of Engineering & Technology, Jaipur National University, Jaipur

Special lectures delivered by the faculty in other institutions

Table-4 The invited lecture delivered by ECE department faculty members.

S No.	Name of Faculty Member	Topic of Lecture	Institution	Date
1	Ghanshyam Singh	Terahertz Technology for Next Generation Communication	Jaipur National University, Jaipur	27th December, 2014
2	Sunil Bhooshan	Design of Conventional Antennas	Thapar University, Patiyala	27th Jan. 2015

Doctoral and M Tech Degree Awarded

Doctoral Degree

S. No.	Student Name	Topic	Guide Name
1.	Alok Joshi	Peak to Average Power Ratio Reduction in Orthogonal Frequency Division Multiplexed Systems	Dr. D. S. Saini

M. Tech Degree

S. No.	Name	Topic	Supervisor
1.	Khushvinder	Design of triple band microstrip patch antenna for public protection and disaster relief using aperture coupled feed	Dr. Pradeep Kumar
2.	Versha Sharma	Advanced signal-HOP and multi-HOP Leach protocol in wireless sensor networks	Dr. D S Saini
3.	Nimisha Manth	Despecklling and classification of liver ultrasound images	Dr. Jitendra Viemani
4.	Mayank Sharma	Digital image separation based on joint PDF of mixed images	Mr. Wajid Mohammad
5.	Subhash Chandra	Fabrication process and performance analysis of ion sensitive field transistor sensor (ISFET)	Mr. Akhil Ranjan
6.	Prabhat Thakur	General framework of compressive sampling and its application to RADAR signals	Dr. Sunil Bhooshan
7.	Aakanksha Sharma	Marginal moment generating function based suboptimal adaptive analysis for Generalized-K fading: A composite for fading channels	Dr. Ghanshyam Singh
8.	Nidhi Chauhan	Maximizing communication reliability in WSN by introducing MIMO technology	Dr. Sunil Bhooshan
9.	Vansha Kher	Multi-window comparison of SIR performance in extraction of mono-aural vocal and non-vocal components in repet	Dr. T. S. Lamba
10.	Bindu Bharti	Optimal power allocation to cognitive user under joint power constraints with imperfect channel state information	Dr. Ghanshyam Singh
11	Aditi Agnihotri	Performance analysis of linear and non-linear pre-coding schemes with leakage based pre-coding scheme in multi-user MIMO systems	Dr. Sunil Bhooshan/ Dr. Bhaskar Gupta

12	Himangi Sood	Performance assessment of devices beyond the scaling limits — Double-Gate and surrounding-gate MOSFET	Dr. Ghanshyam Singh
13	Kriti	Texture analysis of mammograms for classification of breast tissue density	Dr. Jitendra Viemani
14	Anuja Arman	Wireless sensor network node lifetime enhancement using mobile sink based on hybrid protocol	Dr. Davinder Singh Saini

Professional Activities of Students

- Dr Shruti Jain, *Senior Member, IEEE*
- Dr Shruti Jain, *Member, IAENG*
- Dr Shruti Jain, *Life Member, Biomedical Engineering Society of India*
- Dr Pradeep Kumar, *Life Member, IETE*
- Dr Rajiv Kumar, *Member, IEEE*
- Dr Rajiv Kumar, *Corporate Member, IETE*
- Dr Rajiv Kumar, *Life Member, ISTE*
- Dr Rajiv Kumar, *Life Member, System Society of India*
  - IEEE Student branch
  - Annual Technical Fest-Murious
  - Workshops (LabView, MATLAB…Robotics Workshop .. Photoshop Workshop
  - Paper presentation in conferences, publication in journals/conferences

Faculty and Their Expertise

S No	Faculty	Specializations
1	T. S. Lamba	Speech Signal Processing, Digitization of Speech Waveforms
2	Sunil Bhooshan	Milli-meter Wave Dielectric Waveguides, DSP Filters, Signal Compression
3	D.C. Kulshreshtha	Circuits and Systems
4	Ghanshyam Singh	RF/Microwave Communication Systems, Terahertz, Communication, Imaging and Sensing, Next Generation Communication System, Plasmonics
5	Davinder Singh Saini	Communication Systems, 3G/4G, OVSF, MIMO-OFDM
6	Pradeep Kumar	Antenna design and analysis, array design, signal and image processing
7	Bhasker Gupta	MIMO-OFDM
8	Jitendra Virmani	Image Processing, Bio-Medical Imaging
9	Neeru Sharma	Communication System
10	Rajiv Kumar	Fault-Tolerance, Network Recovery, Control Systems
11	Shruti Jain	Bio Medical Engineering, VLSI
12	Akhil Ranjan	CMOS, VLSI System Design
13	Meenakshi Sood	Biomedical Signal Processing
14	Mohammad Wajid	Signal processing, Acoustic Wave
15	Munish Sood	Microwave Antennas
16	Pardeep Garg	Bio-Medical Engineering

17	Pragya Gupta	Semiconductor Material and Devices, Electromagnetic Field Theory, Digital Image Processing, Analog Electronics
18	Salman Raju Talluri	RF/ Microwave Engineering, Waveguide, Filter, Metamaterials
19	Tapan Jain	Wireless Sensor Network, Signal Processing
20	Vanita Rana	Electronic product design & technology, Cognitive Radios
21	Kaushlendra K. Pandey	Wireless Communication, Cognitive Radio

DEPARTMENT OF COMPUTER SCIENCE ENGINEERING & INFORMATION TECHNOLOGY

The Department promotes software, database, internet and information system technologies as well as network and distributed systems. Students are exposed to CASE tools, conceptual modeling, Requirements engineering and data warehouse design. They study all standard courses like Data Structures, Object-Oriented Programming, Operating Systems, Compilers, Computer Networks, etc. A special feature of our teaching is workshop courses where intensive practical experience is given on important tools like Unix and Shell Programming, Network Programming, etc. Students are given courses in cutting edge technologies immediately relevant to industry, for example, Web Programming, Web Services, Web Application Development, Data Mining, etc. Further they can opt for courses in futuristic technologies like Quantum Information Theory, Nano-Science & Technology.

- **Under GRADUATE PROGRAM**

  B.Tech (Computer Science & Engineering)
  B.Tech (IT)

  The program consists of 195 credits in 4 years(Eight Semesters) covering all core areas in computing, Mathematics, Sciences, humanities and social sciences, management and other enginineering disciplines.

Research Groups

Current research interests are in the areas of Ubiquitous Computing, Algorithms, Computer Graphics, Computer Network and Security, Database Systems, Data Warehousing & Data Mining, Digital Image Processing, Internet Technologies, Learning Science & Technology and Soft Computing, Parallel, Distributed and Grid Computing, Computer Architecture, Computer Networks.

Ubiquitous Computing

Ubiquitous computing is a concept in software engineering and computer science where computing is made to appear everywhere and anywhere. In contrast to desktop computing, ubiquitous computing can occur using any device, in any location, and in any format. A user interacts with the computer, which can exist in many different forms, including laptop computers, tablets and terminals in everyday objects such as a fridge or a pair of glasses. The underlying technologies to support ubiquitous computing include Internet, advanced middleware, operating system, mobile code, sensors, microprocessors, new I/O and user interfaces, networks, mobile protocols, location and positioning and new materials.

Dr. Vivek Sehgal (coordinator)
Dr. RMK Sinha
Dr Yashwant Singh
Dr. P.K. Gupta
Dr Sakshi Babbar
Mr. Punit Gupta
Mr. Ravindara Bhatt

Ms. Nishtha Ahuja
Mr. Shailendra Shukla

Algorithms and Parallel Computing

The Algorithms and Parallel computing group at the Jaypee University of Information Technology (JUIT) is part of the JUIT's Computer Science and Information Technology Department. The primary goal of the Algorithms and Parallel Computing group is to provide a mathematical design and engineering of computer algorithms, and to use these algorithms to produce better applications, protocols, and systems. Researchers in our group explore a variety of algorithm types and areas of applications. Some of the different research domains of our group is as follows:

Combinatorial algorithms
Randomized algorithms
Parallel and Distributed Algorithms
Distributed Synchronization
Self-stabilizing Algorithms
Automata
Theory of Computation
Programming languages.

Faculty:

1.   Mr. Shailendra Shukla (coordinator)
2.   Mr. Suman Saha
3.   Mr. Amol Vasudeva
4.   Mr. Arvind Kumar
5.   Mr. Punit Gupta

Computational and Machine Intelligence

Computational intelligence and Machine intelligence (CMI) group addresses the challenges arising from the computational interpretation of complex data that may involve vision, speech and natural language. The group focuses on evolving solutions using logic, rule-based, statistical & hybrid modeling, knowledge & data mining, machine learning, soft computing, and human behavior modeling. The emphasis of the group is on developing applications of interdisciplinary nature for the benefit of the society at large and the same time provide frameworks for advancement of knowledge in the area.

1.   Dr. RMK Sinha (coordinator)
2.   Prof. Dr. SP Ghrera
3.   Dr. Pooja Jain
4.   Dr. Pardeep Kumar
5.   Dr. Rajni Mohana
6.   Mr. Amit Kumar Singh
7.   Ms. Sanjana Singh
8.   Mr. Suman Saha

Computer Systems and Networks

Computer network, also called Network, two or more computers that are connected with one another for the purpose of communicating data electronically. Besides physically connecting computer and communication devices, a network system serves the important function of establishing a cohesive architecture that allows a variety of equipment types to transfer information in a near-seamless fashion. Two popular architectures are ISO Open Systems Interconnection (OSI) and IBM's Systems Network Architecture (SNA).

Two basic network types are local-area networks (LANs) and wide-area (or long-haul) networks. LANs connect computers and peripheral devices in a limited physical area, such as a business office, laboratory, or college campus, by means of permanent links (wires, cables, fibre optics) that transmit data rapidly. A typical LAN consists of two or more personal computers, printers, and high-capacity disk-storage devices called file servers, which enable each computer on the network to access a common set of files. LAN operating system software, which interprets input and instructs networked devices, allows users to communicate with each other; share the printers and storage equipment; and simultaneously access centrally located processors, data, or programs (instruction sets). LAN users may also access other LANs or tap into wide-area networks. LANs with similar architectures are linked by "bridges," which act as transfer points. LANs with different architectures are linked by "gateways," which convert data as it passes between systems.

Faculty

1.   Dr Nitin Chanderwal (coordinator)
2.   Dr S P Ghrera
3.   Dr. Deepak Dahiya
4.   Dr. Hemraj Saini
5.   Dr. P.K. Gupta
6.   Dr. Vivek Sehgal
7.   Dr Yashwant Singh
8.   Mr. Punit Gupta
9.   Ms. Nishtha Ahuja
10.   Mr. Ravindara Bhatt
11.   Mr. Amol Vasudeva
12.   Mr. Shailendra Shukla
13.   Mr. Arvind Kumar
14.   Ms Ruchi Verma

Databases and Distributed Systems

The database group at JUIT conducts research on all areas of database systems and distributed systems. Projects range from the design of new user interfaces and query languages to handling structured and unstructured data in data-intensive systems i.e. Big Data Analytics / Management. One of the objectives of this group is to spread application and research awareness among students and research scholars regarding the usefulness of database system technology by creating, extending, and applying database technology. At the Undergraduate level, this group offers courses like databases, Data Mining, Big Data Analytics, Distributed systems, Data Warehousing and Advanced Databases.

Our current work is focused on building the data management infrastructure for the twenty-first century, with particular emphasis on issues surrounding the internet (including XML, text mining, database design, data integration, security), object-relational databases, mobile

databases, on issues of data warehousing and data mining, and on the effective integration and efficient querying of big data.

Faculty

1.   Dr. Deepak Dahiya (coordinator)
2.   Dr. Pardeep Kumar
3.   Ms. Sanjana Singh
4.   Mr. Suman Saha

Software Engineering and Information Systems

Software Engineering and Information Systems are the applications of a systematic, disciplined, quantifiable approach to the development, operation, and maintenance of software, and the study of these approaches. It is the application of engineering to software because it integrates significant mathematics, computer science and practices whose origins are in engineering. Prevalence of software in society provides significant opportunities to do good or cause harm, so one should ensure that the efforts are used to do good. Design and Security of software systems raises numerous open legal and ethical issues that are currently being addressed at both the academic and industrial levels. Many of these issues raise some clear conflicts between the global versus national interests, as well as government versus public interests. The bulk of programming consists of making a large number of small choices while attempting to solve a larger set of problems. How wisely those choices are made depends largely upon the programmer's skill and expertise. Use of solid coding techniques and good programming practices to create high quality code plays an important role in software quality and performance. By consistently applying a well-defined coding standard and proper coding techniques, and holding routine code reviews, a team of programmers working on a software project is more likely to yield a software system that is easier to comprehend and maintain. Software engineers, information system analysts, and researchers must always use the public interest as the highest and governing principle and must contribute to the society either by direct participation or by teaching, to the analysis, specification, design, development, certification, maintenance, and testing of software systems.

Faculty

1.   Dr. P.K. Gupta (coordinator)
2.   Dr. Deepak Dahiya
3.   Dr. Pooja Jain
4.   Dr. Rajni Mohana
5.   Mr. Punit Gupta

Systems and Network Security
Our focus is to provide leadership in information security and networking science that predicts and solves critical problems in the cyber domain using novel practical solutions. Our work seeks to better protect consumers from fraud and identity theft, enhance individuals' privacy, and foster economic growth by enabling industry both to move more services online and to create innovative new services. The research aims to make online transactions more trustworthy, thereby giving businesses and consumers more confidence in conducting business online.

Faculty

1. Prof. Dr. S P Ghrera (coordinator)
2. Dr. Hemraj Saini
3. Dr Yashwant Singh
4. Ms. Ramanpreet Kaur
5. Mr. Arvind Kumar
6. Mr. Amit Kumar Singh
7. Ms. Sanjana Singh
8. Mr. Amol Vasudeva
9. Mr. Shailendra Shukla

PhDs Awarded in 2014 – 15

Ved prakash

Rashmi Sharma

PhDs Registered in 2014 - 15

Srl	Roll No	Name of Research Scholar
1	146201	Ms. Geetanjali
2	146202	Ms. Osheen Sharma
3	146203	Mr. Prince Sharma

Laboratory Infrastructure

The Department promotes software, database, internet and information system technologies as well as network and distributed systems. Students are exposed to CASE tools, conceptual modeling, Requirements engineering and data warehouse design. They study all standard courses like Data Structures, Object-Oriented Programming, Operating Systems, Compilers, Computer Networks, etc. A special feature of our teaching is workshop courses where intensive practical experience is given on important tools like Unix and Shell Programming, Network Programming, etc. Students are given courses in cutting edge technologies immediately relevant to industry, for example, Web Programming, Web Services, Web Application Development, Data Mining, etc. Further they can opt for courses in futuristic technologies like Quantum Information Theory, Nano-Science & Technology.

Current research interests are in the areas of Algorithms, Computer Graphics, Computer Network and Security, Database Systems, Data Warehousing & Data Mining, Digital Image Processing, Internet Technologies, Learning Science & Technology and Soft Computing which are enriched by their respective research groups.

Facilities including Labs

Department puts a great emphasis on laboratory work. While laboratories are also used for developing skills to use and apply various concepts, tools and techniques, their main purpose is to develop the core technical as well as general professional competencies through experimental and collaborative learning. Main purpose of the laboratories is to develop the abilities to design and conduct experiments; collect, analyze and interpret data; work independently and also in teams; and also to improve reporting and communication skills.

This practical experience in the laboratory is intended to nurture the students' initiative, originality, creativity and spirit of inquiry and also to generate an appreciation of the nature of engineering design and scientific discovery. Through various active learning experiences in laboratories, students gain more insights into the field of study, develop ability to apply their knowledge to a greater extent, exhibit a greater level of understanding of course material and sharpen their problem solving skills.

The laboratories of department provide computational facility of approximately 700 computer nodes interconnected via LAN. These nodes are running on the Windows 2000/Windows XP/Linux platform and are equipped with state-of-the-art software. A CUDA research lab has been established with a server and five clients. CUDA has been introduced as part of course on High Performance Computer Architecture for M Tech (first year) and B Tech(final year) students. In addition, a separate project lab having capacity of 58 computer nodes are also provided for the B.Tech. Final year students, M.Tech. students and Research Scholars with different cutting edge technologies to complete their high end assignments.

➢ **Course wise lab usage**

Different laboratories are being utilized for the conduct of various lab courses listed below:

Sr. No.	Title of the Lab	Running Courses
1	Algorithm Design and Programming Lab	• C Programming Lab (10B17CI171) • Objected Oriented Programming Lab (10B17CI371) • Object Oriented System & Programming Lab (10B17CI674) • Unix Programming Lab (10B17CI307) • Java Programming Lab (13B22CI583) • Algorithms Lab (10B17CI472) • Advanced Programming Lab • Data Structures and Computer Programming Lab (10B17CI271)
2	Software Engineering Lab	• Software Engineering Lab (10B17CI572) • Software systems Lab-I (10M17CI171) • Data Mining Lab (10B28CI682) • Software Testing & Debugging Lab (08B51CI101)
3	CUDA Lab	• Parallel Programming and High Performance Lab
4	Database Lab	• Database Systems Lab (10B17CI372) • Database Management Systems Lab (13B22CI381)
5	Multimedia Lab	• Computer Graphics Lab (11B1WCI671) • Multimedia Development Lab-I (10B28CI408) • Multimedia Development Lab-II (10B28CI683) • Multimedia Development Lab-III (13B22CI382)
6	Operating system Lab	• Operating system Lab (10B17CI571)
7	Web Engineering Lab	• Web Technology Lab (10B28CI581) • Information Systems Lab (10B28CI681)
8	Microprocessor and Controllers Lab	• Microprocessor and Controllers Lab (10B17CI407)
9	Network and Communication Lab	• Computer Networks Lab (10B17CI671) • System and Network Programming Lab (10B17CI673)
10	Compiler Design Lab	• Compiler Design Lab (10B17CI672)

FACULTY

S.No.	Name	Position	Specialisation
1	Ms Ruhi Mahajan	Assistant Prof(Grade-I)	NLP
2	Ms Annie Singla	Assistant Prof(Grade-I)	Databases
3	Ms Nishtha	Assistant Prof(Grade-I)	Mobile Computing
4	Ms Ruchi Verma	Assistant Prof(Grade-I)	Data Structure and C Programming
5	MS. SANJANA SINGH	Assistant Prof(Grade-I)	Software Engineering
6	Sh Punit	Assistant Prof(Grade-I)	High Performance Computing
7	Ms Ramanpreet Kaur	Assistant Prof(Grade-II)	Computer Networks
8	Sh Amit Kumar Singh	Assistant Prof(Grade-II)	Web Application Engineering
9	Sh Amol	Assistant Prof(Grade-II)	Object oriented Systems and Programming
10	Sh Arvind Kumar	Assistant Prof(Grade-II)	Theory of Computation
11	Sh Ravindara Bhatt	Assistant Prof(Grade-II)	Computer Networks
12	Sh Suman Saha	Assistant Prof(Grade-II)	Algorithms
13	Sh Shailendra	Assistant Prof(Grade-II)	Algorithms
14	Dr Rajni Mohana	Assistant Prof(Senior)	Software Engineering
15	Dr Sakshi Babbar	Assistant Prof(Senior)	Data Mining
16	Dr Pardeep Kumar	Assistant Prof(Senior)	Machine Learning, Data Mining
17	Dr Hem Raj	Assistant Prof(Senior)	Network Security
18	Dr Yashwant Singh	Assistant Prof(Senior)	Wireless Sensor Networks
19	Dr Vivek Sehgal	Associate Prof	IOT
20	Dr Nitin	Associate Prof	Computer Networks
21	Dr Deepak Dahiya	Prof	Software Engineering
22	Prof Dr S P Ghrera	Prof	Network Security, Image Processing, Algorithms, System Hardware
23	Prof Dr R M K Sinha	Prof	NLP

FACULTY ACTIVITIES

1) Publications

Book Chapter(s):

1. Yashwant Singh, Vivek Kumar Sehgal, Nitin, Satya Prakash Ghrera (2014). *Proceedings of 3rd International Conference on Parallel Distributed and Grid Computing*. USA: IEEE Press. [ISBN : 978-1-4799-7683-6] .

Journal(s):

1. Ashwani Kumar, S. P. Ghrera, Vipin Tyagi, (2014) " Implementation of Wavelet Based Modified Buyer-Seller Watermarking Protocol (BSWP) ", WSEAS TRANSACTIONS on SIGNAL PROCESSING, E-ISSN: 2224-3488, Volume 10, 2014, pp 212-220 http://www.wseas.org/multimedia/journals/signal/2014/a025714-226.pdf

2. Uday Singh Kushwaha, P. K. Gupta ,S. P. Ghrera (2015), "Performance evaluation of AOMDV routing algorithm with local repair for wireless mesh networks", CSI Transactions on ICT , SPRINGER , ISSN: 2277-9078, CSIT DOI 10.1007/s40012-015-0065-9. http://link.springer.com/article/10.1007%2Fs40012-015-0065-9

3. Yashwant Singh, Urvashi Chugh, M.V. Ramana Murthy, "Information Fusion and Change Point Detection in Mutual Exclusive distributive Clustering", Procedia Computer Science, Elsevier, 2015.

4. Yashwant Singh and Urvashi Chugh, "Mutual Exclusive Clustering (MEDC) Protocol for Wireless Sensor Networks", International Journal of Sensors, Wireless Communications and Control, Bentham Science Publishers, Vol. 3 No. 2, pp. 101-107, 2014, DOI: 10.2174/2210327903021405051000253. (2014)

5. Mayank Sharma, Yashwant Singh, Nagesh Kumar, "Opportunistic routing in Wireless Sensor Network: A Comparative Analysis" Journal of Basic and Applied Engineering Research (JBAER) Volume 1 Number 6, ISSN: 2350-0255, October 2014.

6. Balmukund Mishra, Vandana Mohindru, Yashwant Singh "Comparative Analysis WSN MAC protocol" JBAER October 2014 Volume 1 Number 6.Pp: 15-23, ISSN: 2350-0077, 2014.

7. Amit Kumar Singh , Mayank Dave and Anand Mohan (2015) Hybrid Technique for Robust and Imperceptible Multiple Watermarking using Medical Images, Journal of Multimedia Tools and Applications, DOI: 10.1007/s11042-015-2754-7, Springer.

8. Amit Kumar Singh , Mayank Dave and Anand Mohan (2015) Multilevel Encrypted Text Watermarking on Medical Images using Spread-Spectrum in DWT Domain, Wireless Personal Communications: An International Journal, DOI: 10.1007/s11277-015-2505-0 , Springer US.

9. Amit Kumar Singh , Mayank Dave and Anand Mohan (2015) Robust and Secure Multiple Watermarking in Wavelet Domain, A Special Issue on Advanced Signal Processing Technologies and Systems for Healthcare Applications(ASPTSHA), Journal of Medical Imaging and Health Informatics, Vol. 5, No. 2, pp. 1-9, American Scientific Publisher, USA DOI:10.1166/jmihi.2015.1407.

10. Amit Kumar Singh , Basant Kumar, Mayank Dave and Anand Mohan (2015) Multiple Watermarking on Medical Images Using Selective DWT Coefficients, Journal of Medical Imaging and Health Informatics, Vol. 5, pp. 1–8, American Scientific Publisher, USA DOI: 10.1166/jmihi.2015.1432.

11. Amit Kumar Singh , Basant Kumar, Mayank Dave and Anand Mohan (2015) Robust and Imperceptible Spread-Spectrum Watermarking for Telemedicine Applications, Proceedings of the National Academy of Sciences, India Section A: Physical Sciences, Vol. 85, Issue 2, pp. 295-301 DOI: 10.1007/s40010-014-0197-6, Springer.

12. Amit Kumar Singh , Basant Kumar, Mayank Dave and Anand Mohan (2014) Robust and Imperceptible Dual Watermarking for Telemedicine Applications, Volume 80, Issue 4 , pp 1415-1433 , Wireless Personal Communications: An International Journal, DOI 10.1007/s11277-014-2091-6, Springer US.

13. Amit Kumar Singh , Mayank Dave and Anand Mohan (2014) Wavelet Based Image Watermarking: Futuristic Concepts in Information Security, Proceedings of the National Academy of Sciences, India Section A: Physical Sciences: Vol. 84, Issue 3, pp. 345-359, DOI 10.1007/s40010-014-0140-x, Springer

14. Amit Kumar Singh , Mayank Dave and Anand Mohan (2014) Hybrid Technique for Robust and Imperceptible Image Watermarking in DWT- DCT-SVD Domain, National Academy Science Letters: Vol. 37, Issue 4, pp. 351-358, DOI:10.1007/s40009-014-0241-8, Springer

15. Anum Javeed Zargar and Amit Kumar Singh (2015) Wavelet based Image Watermarking using Huffman Compression Technique, International Journal of Applied Engineering Research (IJAER), Vol. 10, No. 69, pp.1-4.

16. Amit Kumar Singh , Mayank Dave and Anand Mohan (2014) Hybrid Technique for Robust and Imperceptible Dual Watermarking using Error Correcting Codes for Application in Telemedicine, International Journal of Electronic Security and Digital Forensics, InderScience, Vol.6, No.4, pp.285 – 305 , DOI : 10.1504/IJESDF.2014.065739.

17. P K Gupta, Gunjan Gugnani and S P Ghrera [2015], "XML DNA Encryption: Improved Security of Cloud Applications", CSI Communications , Volume No. 39 , Issue No. 4 , July 2015 pp 16-18.

18. Ashwani Kumar, S. P. Ghrera, Vipin Tyagi (2015), <u>A Comparison of Buyer-Seller Watermarking Protocol (BSWP) Based on Discrete Cosine Transform (DCT) and Discrete Wavelet Transform (DWT)</u> Emerging ICT for Bridging the Future, Proceedings of the 49th Annual Convention of the Computer Society of India (CSI) Volume 1, Advances in Intelligent Systems and Computing Volume 337, 2015, pp 401-408.

19. Mohd Dilshad Ansari, S. P. Ghrera, Vipin Tyagi, (2014) "Pixel-Based Image Forgery Detection: A Review ", IETE Journal of Education (Taylor & Francis online) Volume 55, Issue 1, 2014, pp 40-46, 07 Aug 2014 , DOI: 10.1080/09747338.2014.921415,

Conference(s):

1. Mayank Sharma, Yashwant Singh," Middle Position Dynamic Energy Opportunistic Routing For Wireless Sensor Networks", IEEE 4th International Conference on Advances in Computing, Communications and Informatics (ICACCI), Kerala, Kochi 10-13 August 2015 (Accepted).

2. Yashwant Singh, Urvashi Chugh, "Clustering, Information Fusion and Event Detection in Wireless Sensor Networks: A Review" 2nd International Conference on Computing for Sustainable Global Development (INDIACom), pp 566-571, 11-13 March, 2015.

3. Yashwant Singh, Pawan Kumar Gangwar and Vandana Mohindru, "Heterogeneous Sensor Networks for Target Detection: A WMSN Perspective", In Proceeding of ELSEVIER ERCICA, Aug 1-2, 2014, Bangalore, India. (2014)

4. Yashwant Singh, and Urvashi Chugh, "MEHEED: Mutual Exclusive Hybrid Energy Efficient Distributed Clustering in Wireless Sensor Networks", In Proceeding of ELSEVIER ERCICA, Aug 1-2, 2014, Bangalore, India. (2014)

5. Yashwant Singh, Pawan Kumar Gangwar and Vandana Mohindru, "An Energy Efficient Zone based Clustering Approach for Target Detection in Wireless Sensor Networks", In Proceeding of IEEE International Conference on Recent Advances and Innovations in Engineering (ICRAIE-2014), May 9-11, 2014, Jaipur, India. (2014)

6. Abhilasha Sharma, Mayank Dave, Amit Kumar Singh , S P Ghrera, "Encryption Based Medical Image Watermarking against Signal Processing Attacks", Proceedings of 2015 International Conference on Future Computational Technologies(ICFCT 2015) Singapur, March 29-30, 2015, ISBN 978-93-84468-20-0.

7. Abhilasha Sharma, Mayank Dave, Amit Kumar Singh, and S P Ghrera (2015). <u>Encryption Based Medical Image Watermarking against Signal Processing Attacks,</u> Proceedings of 2015 International Conference on Future Computational Technologies (ICFCT'2015) Singapore, March 29-30, 2015, ISBN 978-93-84468-20-0.

8. P Syamala Jaya Sree, <u>Prasanth Kumar Pattnaik</u>, <u>S. P. Ghrera</u> (2015), "A Novel Algorithm for Suppression of Salt and Pepper Impulse Noise in Fingerprint

Images Using B-Spline Interpolation", <u>Proceedings of the 3rd International Conference on Frontiers of Intelligent Computing: Theory and Applications (FICTA) 2014</u>, DOI:10.1007/978-3-319-12012-6_57, Print ISBN:978-3-319-12011-9, Online ISBN:978-3-319-12012-6, published in Springer International Publishing book series titled "<u>Advances in Intelligent Systems and Computing</u> ",ISSN 2194-5357, Volume 328, 2015, pp 521-528

International Conferences Organized

PGDC- 2014

Theme:

The Third International Conference on Parallel, Distributed and Grid Computing (PDGC-2014) was organized at Jaypee University of Information Technology, Waknaghat, Solan, Himachal Pradesh, India. PDGC-2014 served as an international forum for researchers and practitioners interested in recent advances in the areas of parallel, distributed and grid computing. It provided an opportunity to present and exchange advanced scientific and technological information in hardware, software and theoretical foundation in these areas. The conference was technically sponsored by IEEE Delhi Section Computer Society Chapter and the proceedings will be published in IEEE Xplore.
Duration: December 11-13, 2014

Keynote Speakers:

1. Professor Sartaj Sahni, University of Florida, USA
2. Professor Philip Wadler, , University of Edinburgh, UK
3. Professor Hong Shen, University of Adelaide, Australia
4. Professor Ivan Stojmenovic, Fellow IEEE, SITE, University of Ottawa, CANADA
5. Professor F.L.Lewis, University of Texas at Arlington, USA

Number of Papers Received: 623

Number of Papers Accepted: 92(Acceptance ratio: 14.76%)

Number of Foreign participants: 6

Number of Indian participants: 102

Conference Schedule: http://www.juit.ac.in/pdgc-2014/Programs.php

Conference Link: http://www.juit.ac.in/pdgc-2014/index1.php

Inauguration of PGDC-2014, Chief Guest and Keynote Speakers (on right)

Participants attending the keynote lecture

Welcome Speech by Vice chancellor Prof . S.K.Kak at Inauguration of PGDC-2014

Releasing of the Proceeding of PGDC-2014

Conferences/Workshops/Symposia organized

1. Dr. Yashwant Singh, Organizing Committee Member, IEEE Second International Conference Image Information Processing, December 9 - 11, 2013, JUIT, Waknaghat.
2. Dr. Hemraj Saini, Co-Chair Technical Program Committee, IEEE Second International Conference Image Information Processing, December 9 - 11, 2013, JUIT, Waknaghat.
3. Dr. Pardeep Kumar, Accommodation and Registration Committee Member, IEEE Second International Conference Image Information Processing, December 9 - 11, 2013, JUIT, Waknaghat.

Conferences/ Workshops Attended

Sr. No.	Name of Faculty	Title	Duration	Organization	Dates
1	Amit Kumar Singh	Excellence in Teaching, Research & Education - by Design	5 days	JUIT, Waknaghat	14-19 July,2014
2	Dr. Hemraj Saini	Second International Symposium on Computer Vision and the Internet (VisionNet'15)	4 days	SCMS, Aluva, Kochi	10-13 August, 2015
3	Dr. Hemraj Saini	IEEE Third International Conference on Parallel, Distributed and Grid Computing	3 days	JUIT Waknaghat	10-13 December, 2014
4	Arvind Kumar	Excellence in Teaching, Research & Education - by Design	5 days	JUIT, Waknaghat	14-19 July,2014

DEPARTMENT OF BIOTECHNOLOGY, BIOINFORMATICS & DEPARTMENT OF PHARMACY

Educational Programs

The Department offers 4 year B.Tech. programmes in Biotechnology and Bioinformatics, a dual degree 5 year M.Tech. programme in Biotechnology, 2 year M.Tech. programmes in Biotechnology and Computational Biology, and Ph.D. in Biotechnology/Bioinformatics. The Keeping in view the interdisciplinary nature of BT and BI, the curricula have been designed with an engineering base encompassing courses from computer science & engineering, electronics and communication engineering, mathematics, statistics, physics and professional development so as to enable students to work not only in the Biotech and Bioinformatics industries but also in other industries. The Department has introduced an innovative system of elective modules to the final year students wherein the students are given a choice of choosing modules to strengthen their knowledge and skill profile in a particular technology. The elective module system complements the theoretical knowledge of students related to their project work. The B. Tech. students are provided an opportunity to do a research project which helps them to handle independent projects in academia and industry. Each student is affiliated to a faculty member to supervise the project work and also to provide guidance for effective and productive implementation of the project work. JUIT has a unique distinction of providing teaching/research assistantships to all its PhD scholars. Biotechnology researchers of the University are venturing into modern areas of research such as nano-biotechnology, synthetic biology, biosensors, stem cells and regenerative medicine, metabolic engineering, etc. so as to remain at the forefront of biotech education and research at the global level.

Programme objectives

1. Core knowledge in biotechnology and bioinformatics, with particular emphasis on ability
   to integrate knowledge across disciplinary boundaries
2. Enable to identify, analyze and solve problems with novelty and updated knowledge
3. Integration of knowledge for product/process development to meet societal demands
4. Skills and knowledge to undertake research with a understanding of contemporary research and innovations within biotechnology
5. Spirit of team work, constructive thinking and wisdom to recognize the value of continuing education in their upliftment
6. Capability to work successfully in the working environments of industry, academia, and government organizations

Programme outcomes

1. The graduates demonstrate knowledge of basic biological sciences, general biotechnological principles and techniques that have been mastered and learning of broad range of basic lab skills applicable to biotechnology.
2. The graduates acquire applied research skills at an advanced level in at least one area of biology and biotechnology viz. ability to generate hypotheses and test them by designing and conducting experiments to analyze and interpret data from those tests to reach at valid conclusions.
3. The graduates develop capabilities of keeping abreast with the contemporary research and innovations in biotechnology, being inquisitive in understanding cutting

edge areas of biotechnology, adopt, grasp and absorb knowledge across disciplines and ability to integrate within research areas of Biotechnology.

4. The graduates develop soft skills such as understanding of professional and ethical responsibilities, an ability to function on multi-disciplinary teams which help them in effective communication abilities.

Infrastructural Strengths

The Department has been equipped with 3 Bioinformatics Labs with high end servers, Sun Work Stations and IBM Machines installed with several bioinformatics software packages such as Discovery Studio and DNASTAR in addition to many more for educating students in algorithm design, bio-programming & scripting languages, computational drug designing, development of biological databases, advanced chemo-informatics, etc. The Department has 20 state-of-the-art modern biotech laboratories such as Proteomics Technology lab, Genomic Technologies lab, Plant Biotechnology Lab., Microbial Biotechnology lab., Animal & Plant Cell Culture labs. Animal house, Environmental Biotechnology Lab., Industrial Biotechnology lab, and Pharmacy labs.

R&D Activities

The high academic profile of faculty has enabled them to win external funding worth Rs. 20.0 crores from various funding agencies such as the Department of Science & Technology (DST) and the Department of Biotechnology (DBT) of the Ministry of Science & Technology, the DRDO, Ministry of Defence, Indian Council of Medical Research (ICMR) and National Medicinal Plants Board of the Ministry of Health & Family Welfare, Ministry of Environment & Forests on various aspects of Biotechnology and Bioinformatics. The faculty has set up research collaborations with other Institutes and Universities such as All India Institute of Medical Sciences (AIIMS), New Delhi, Institute of Himalayan Bioresource Technology (CSIR), Palampur, Panjab University, Chandigarh, Himalayan Forest Research Institute, Shimla, Post Graduate Institute of Medical Education and Research (PGIMER), Chandigarh, Indian Agriculture Research Institute (IARI), New Delhi, Defence Institute of High Altitude Research, DRDO, Leh-Ladakh, and the HP University, Shimla. The Department has also set up liaison with the Biotechnology and Pharmaceutical industries such as Panacea Biotech and AyurVet Ltd. by providing consultancy services and by doing R&D of commercial value.

The diversity of specializations and research pursuits of the faculty puts the department in a unique advantage of pursuing research in any area of biotechnology contrary to most of the departments or R&D institutes in India. As a result the faculty is engaged in research on diverse fields of research such as understanding molecular biology of kidney stone formation and cure thereof, cancer biomarkers development of molecular diagnostics for diseases and pathogens, animal cell cultures for bioassays and anti-cancer drug discovery, development of herbal-based anti-depressant formulations, low-cost micropropagation technologies for high value ornamentals, fruit plants and medicinal & aromatic plants, plant cell culture technologies for production of phytopharmaceuticals, bioprospecting of Himalayan bioresources for novel genes and metabolites of medicinal and nutritional importance, development of genome resources for bioresources, transgenic plants with value addition, fermentation technologies for nutraceutical wines, refinements of bioprocesses towards green technologies, microbial bioremediation of environmental pollutants, bioleaching of E-waste, bioconversion of complex lignocellulosic waste into bio-ethanol, gene discovery through comparative and functional genomics, development & validation of molecular markers, DNA fingerprinting in forensics, computational drug designing for bacterial pathogens of biological warfare importance, development of computational

prediction tools, development of bioinformatics pipelines & tools, and development of biological databases, etc. All these research programs provide B.Tech. Students an opportunity to "Learn While Doing"-the motto of our education system for producing world-class leaders in science & technology.

Sponsored Research Projects: no. 55
New: 5.
Ongoing: 25.
Completed: 33.
Faculty Involved: 20.

List of sponsored Research Projects

S. N o.	Principal Investigator	Title	Duration	Funding Agency	Amount (Rs. In Lacs)	Completed / Ongoing
1	Dr. S. Naik	Cytogenetic evaluation, molecular characterization and improvement of some promising cultivars of turmeric and ginger through biotechnological methods	2003-2006	DST	10	completed
2	Dr. S. Syal	Development of a bioremedial system for diesel contaminated sites in South-Western areas of H.P.	2005-2008	DST	2.5	completed
3	Dr. C. Tandon	Biomolecules from *Tamarind indicus* and *Terminalia arjuna* influencing Mineralization/ Demineralization processes and their role in management of renal calculosis	2006-2009	DST	18	completed
4	Dr. P.K. Naik	Study of population structure of *Podophyllm hexandrum* using biochemical and molecular markers	2006-2009	DST	14	completed
5	Dr.S. Syal	Development of technologies for bioconversion of lignocellulosic waste from herbal industries for developing commercially viable products	2007-2009	AyurVet Ltd.	5	completed
6	Dr. R.S. Chauhan	Bioprospecting of buckwheat (*Fagopyrum tataricum*) for novel genes & metabolites of medicinal and nutritional importance	2007-2011	DBT	40.6	completed
7	Dr. R.S.Chauhan	Development of candidate gene markers for Jatropha by utilizing genome resources of caster bean	2007-2011	DBT	59.5	completed

8	Dr. R.S.Chauhan	Identification of low curcin genotypes of Jatropha and their utilization in developing candidate gene markers	2008-2011	DRDO	19.2	completed
9	Dr. C.Tandon	Development of a standardized herbal product for urolithiasis from *Tribulus terrestris* and *Achyranthes aspera*	2009-2011	DBT	26.2	completed
10	Dr. S. Syal	Development of a bioleaching strategy for sustainable disposal and recycling of electronics-waste	200 8-2011	MoE	19.7	completed
11	Dr.Uday Banu	Formulation of an antidepressant/stress reliever drug based on St John's Wort (*Hypericum perforatum*)	2009-2012	DRDO	15	completed
12	Dr.C Rout	Computational Identification, Evaluation and in vivo Validation of Vaccine Candidates from Bioweapon Toxins, and Selected Potential Bacterial Bioweapons (PBBWs)	2010-2012	DRDE	9.4	completed
13	Dr. C.Tandon	Exploring the role of matrix protein(s) from calcium oxalate stones in nephrolithiasis and assessment of their molecular interactions with calcium oxalate monohydrate (COM) crystals *in silico*	2009-2011	ICMR	8.4	completed
14	Dr. RS Chauhan	Identification of genetically superior strains of medicinal plants (*P. kurroa* and *Valeriana jatamanshi*) from North-Western Himalayas of India	2009-2012	Ministry of Health, GOI	16.5	completed
15	Dr. PK Naik	Genetic characterization, chemical profiling and optimization of parameters for Artemisinin yield in *Artemisia annua* from the Ladakh region	2010-2012	DRDO	9.5	completed
16	Dr. Poonan Sharma	Physico-chemical studies of drug-surfactant interactions in aqueous alcoholic solutions	2011-2013	DST	6.4	completed
17	Dr. S. Tandon	The potential of human embryonic stem cells in developmental toxicity testing	2010-2012	DBT	17.2	completed
18	Dr. G. Dey	Production of Nutrabeverages from Mahua Flowers	2010-2012	TRIFED	7	completed

19	Dr. R.S.Chauhan	Elucidating missing links in the biosynthetic pathways of major medicinal constituents for utilization in the development of gene markers	2010-2015	DBT	198.7	On going
20	Dr. Manu Sharma	Antioxidants and Lantadene A Hybrid compounds as anticancer agents	2010-2013	DBT	7.6	completed
21	Dr. Manu Sharma	Design, synthesis and evaluation of Lantadene polyphenol conjugates as anticancer agents.	2010-2013	DST	12	completed
22	Dr. Gopal Singh	Design, synthesis and evaluation of antibacterial peptidomimetics	2011-2014	DST	18	completed
23	Dr. C. Tandon	Identification and functional characterization of proteins as key/rate-limiting enzymes in the biosynthesis of desired chemical constituents of target plant species	2010-2015	DBT	60.7	On going
24	Dr.P.K. Naik	Identification of intermediate metabolites for linking missing links in the biosynthetic pathways of desired chemical constituents in target plant species	2010-2015	DBT	68.65	On going
25	Dr. Hemant Sood	Identification of elite chemotypes and optimization of differential accumulation conditions for major & desired chemical constituents of three medicinal plants species	2010-15	DBT	70.8	On going
26	Dr Tiratha Raj Singh	Structural, functional and evolutionary analysis of repair pathways with special relevance to human disease	2011-13	DST	13.2	completed
27	Dr. Harvinder Singh	Nucleotide diversity in granule bound starch synthase-I (GBSS-I) metabolic pathway genes and its association with starch quality in elite Indian rice genotypes	2011-2014	DST	16	completed
28	Dr. Manu Sharma	Polyunsaturated fatty acids and Lantadene A conjugates as selective tumor targeting agents	2012-2015	ICMR	22	completed
29	Dr. C. Tandon	Characterization of the antilithiatic proteins from *Tamarindusindica* and *Terminaliaarjuna* and evaluation of their cytoprotective role on	2012-2015	DST	50	completed

		oxalate-induced renal tubular epithelial cell injury				
30	Dr. Harvinder Singh	Genetic analysis to avoid inbreeding of the endangered western tragopan in the aviaries of Himachal Pradesh	2012-2015	DST	11.2	completed
31	Dr. Rahul Srivastava	Identification of Macrophage Invasion Protein(s) of Atypical Mycobacteria *M. fortuitum* as Potential Drug Target and Inhibitors Thereof	2012-2015	DST	17.4	completed
32	Mr. Dipankar Sengupta	Development of Business Intelligence Model of Army Personnel's at Higher Altitude	2012-2014	DRDO	9.9	completed
33	Dr. GL Gupta	Development of a polyherbal preparation to treat ethanol abstinence syndrome.	2012-2015	DST	24.85	completed
34	Dr. Haish Changotra	Identification of Single Nucleotide Polymorphisms in the transcriptional regulatory region of autophagy gene, ULK1 and their role in susceptibility to chronic hepatitis B virus infection	2012-2015	DBT	18	completed
35	Dr. Mamta Raghav	Probiotics to prevent infection of *Cronobacter sakazakii* in neonatal mouse model	2012-15	DBT	42.15	On going
36	Dr. Gunjan Goel	Development of a multicompartment *in vitro* model of the human gastrointestinal tract	2012-15	DBT	45.4	On going
37	Dr. RS Chauhan	DST-FIST	2012-2017	DST	150	On going
38	Dr. Aklank Jain	Ramanujan Fellowship	2012-2017	DST	73	On going
39	Dr RS Chauhan	Development of Gene Markers for High Seed Oil Content and Dissecting Molecular Basis of Female Flower Development in *J. curcas* Towards its Genetic Improvement for High Seed Yield	2013-2016	DBT	98	On going
40	Dr. Gunjan Goel	Novel quorum sensing modulators against biofilm forming *Cronobacter sakazakii*	2013-16	DST	26	On going
41	Dr. Harish Changotra	Autophagy genes (Atg16L1 and IRGM) single nucleotide polymorphisms in the susceptibility of chronic hepatitis B virus infection	2013-16	DST	24	On going

42	Dr. Anil Kant	Identification and validation of sex linked markers in seabuckthorn	2013-2015	DRDO	10	Completed
43	Dr. C.Tandon	Mass spectrometric identification of matrix protein(s) from calcium oxalate stones in nephrolithiasis and assessment of their activity on		ICMR		Completed
		calcium oxalate crystal-mediated stress in renal epithelial cells	2013-2016		17	
44	Dr. P.K. Naik	Toxicological evaluation of herbal formulations: (a) herbal performance enhancing capsules (PerfoMax), (b) herbal adaptogenic appetizer, (C) herbal tea and (D) seabuckthron oil based soft gel capsule	2012-2013	DRDO	8.5	On going
45	Dr. C.Tandon	Development of herbal product for urolithiasis from *Tribulus terrestris*	2013-2016	DBT	52.23	On going
46	Dr. Rahul Shrivastava	Identification of Macrophage Invasion Protein(s) of Atypical Mycobacteria *M. fortuitum* as Potential Drug Target and Inhibitors Thereof	2013-2016	DST	17.4	On going
47	Dr. Jitendra Vashistt	Identification, characterization of diarrhoeagenic pathogens in Himachal Pradesh	2013-2016	ICMR	16	On going
48	Dr. Simran Tandon	Establishment of an assay using human embryonic stem cell derived cardiac precursors from KIND2 cells for cytotoxicity testing	2013-2015	DBT	45.67	Completed
49	Dr. Chittaranjan Rout	Development of inhibitors to target glyoxylate and methylcitrate cycles essential for persistence of *Mycobacterium tuberculosis*	2013-2016	ICMR	16	On going
50	Dr. Jayashree Ramana	Comparative genomics of diarrheal pathogens to identify vaccine candidates and study of various antibiotic resistance mechanisms.	2013-2016	DST	23.11	On going
51	Dr. Gunjan Goel	Development of an *in vitro* gut model to study the survival of probiotics in mixed microbial consortia	2013-2016	DBT	42	On going

52	Dr. Sudhir Kumar	Bioremediation of electronic waste (E-waste) for precious metal recovery and removal of polybrominated diphenyl ethers (PBDE's)"	2013-2016	DBT	33.2	On going
53	Dr Tiratha Raj Singh	A Bioinformatic and experimental approach to investigate the interaction between acetylcholinesterase (AChE) and angiotensin-converting-enzyme (ACE) along with Alzheimer's disease associated proteins.	2014-2017	ICMR	20	On going
54	Dr. Gunjan Goel	Elucidating the linkage between key limiting processes and microorganisms during anaerobic degradation of lignocellulosic waste	2014-2016	Indo-Russian	24	On going
55	Dr. Manju Jain	Investigating the role of thymus in mediating host immune modulation in visceral leishmaniasis	2013-2016	DST	27	On going
56	Dr. Anil Kant	Transcriptome analysis of seabuckthorn male and female flowers	2015-17	DRDO	9.99	On going
57	Dr. Hemant Sood	Molecular Dissection of Biosynthesis of Pharmacologically Important Phenol Glycosides in a High Value Medicinal Plant (*Rhodiola imbricata*) from Trans- Himalayan Region of Ladakh	2015-17	DRDO	9.8	On going
58	Dr. Udaybanu	Investigation of behavioral alterations and associated synaptic changes in different regions of brain during conditioned stress and to evaluate the efficacy of Codonpsis extract	2015-17	DRDO	9.42	On going
	TOTAL				1762.97	

Patents Granted

Tandon C, Chaudhary A, Gupta S and Jain S, . Henna Based Dye, Process for Preparing the Same and Use Thereof in SDS-PAGE Method. (Patent application no. 1216/DEL/2007 A)

Published

1. Rout C, Chauhan A, Chauhan RS and Chauhan D (2014) "Automated Computer Aided Diagnosis (CAD) of Tuberculosis using Chest X-Ray" (Patent Application No. 396/DEL/2013).

2.   **Sood H** and Chauhan RS, A process of enriching the amount of medicinal compound, Picroside-1 in shoots of medicinal herb, *Picrorhiza kurroa*. (Patent Application No. 163/DEL/2009 filed in India. Publication Date : (06/08/2010), Journal No.-32/2010)

3.   **Sood H**, Kumar V and Chauhan RS, Isolation and purification of Picroside-I and Picroside-II. (Patent Application No. 551/DEL/2012 filed in India. Publication Date : 14/02/2014, Journal No. - 07/2014)

4.   Sharma S, **Sood H** and Chauhan RS, INDITECH - A NOVEL BIOREACTOR. (Patent Application No. 1631/DEL/2012. Publication Date: 25/07/2014, Journal No. 29545)

5.   Manu Sharma, Suthar Sharad Kumar, An improved process of conversion of Lantadene A & B to reduced Lantadene A & B, Application No. 2867/DEL/2011.

6.   Tandon C and A Aggarwal. A novel anticalcifying protein from *Tribulus terrestris* (Patent Application No. 2248/DEL/2011) (Published on 15-02-2013)

7.   RS Chauhan, Tamanna Anwar, Ashwani Mathur, Ashutosh Malhotra & Garima Mathur. Thermo-halotolarent Lipase by a New Strain of *Staphylococcus arlettae* (Patent Application No. 1865/DEL/2010) (Published on 15-03-2013).

8.   Tandon C, Chaudhary A, Gupta S and Jain S, . Henna Based Dye, Process for Preparing the Same and Use Thereof in SDS-PAGE Method. (Patent application no. 1216/DEL/2007 A)

9.   Sood H. and Chauhan RS. A process of enriching the amount of medicinal compound, Picroside-1 in shoots of medicinal herb, Picrorhiza kurroa. (Patent application no. 163/DEL/2009).

10.   Chauhan RS, Arti Sharma and Payal Sood. 2010. Gene Markers for Selection and Development of High Oil Content Jatropha. (Patent Application No.292/DEL/2010).

Filed

1.   Bisht GS, Lohan S, Non-Natural Short Cationic Antimicrobial Lipopeptides. (Patent application no. 1161/DEL/2014)

2.   Sood H, Gulati S, Bakshi S, Sandhu BS, Kumar V and Chauhan RS, **A process of enriching medicinal constituents in shoot cultures of *Swertia chirayita*.** (Patent application No.362/DEL/2013)

3.   RS Chauhan, Varun Kumar, Hemant Sood, Saurabh Pandit, Kirti Shitiz. Biosynthetic Pathway for the Production of Picroside-I and Picroside-II and their Intermediates in Picrorhiza kurroa (Application No. 1922/DEL/2012).

4.   Sood H, Varun Kumar and RS Chauhan. 2012. Patent Application No. 155/DEL/2012 filed in India on "Isolation and purification of Picroside-I and Picroside-II.

5.   Sharma Shivam, Hemant Sood and RS Chauhan .2012. Patent Application No. 1631/DEL/2012"INDITECH - A NOVEL BIOREACTOR"

6.   Manu Sharma, Suthar Sharad Kumar, An economical and improved process of isolation of antitumor pentacyclic triterpenoid Lantadene B from leaves of weeds Lantana camara L. (pink-edged red flowering variety), Application No. 1970/DEL/2012.

7.   Gargi Dey and Bharti Negi. Novel method for producing sea buckthorn wine and wine thereof. (Patent Application No. 499/DEL/2010).

8.   Kumari M, Kumar S, Chauhan RS and Ravikanth K. 2011. Process for production of cellulase and pectinase from herbal industry residue. (Patent Application No. 139/DEL/2011)

Outreach Activities

- An industrial visit to the Mohan Meakin Brewery, Solan was organized by Synapse for the 2nd and 3rd year students of the department on 11th February, 2015
- The Outreach team of Synapse headed by Dr. Sudhir Syal, visited the Dumehar Secondary school, on 22nd Feb 2015 and 4th March, 2015
- A trip to Minchy's Food Products, a food processing unit in Solan, was organized by Synapse on April 9th 2015, and accompanied by Dr. Hemant Sood,
- A group of IIIrd year Bioinformatics students accompanied by Dr. Tiratha Raj Singh attended a national symposium on "SYS-BIOMICS 2015" organized by the Centre for Systems Biology and Bioinformatics, Panjab University on 4th April 2015. The program consisted of inspiring lectures presided over by eminent scientists in the field - Prof. G.P.S. Raghava (IMTECH) and Prof. P.V. Bharatam (NIPER) among others.

Visitors to the Department

	Name	Institution/ Industry/ Adress	Date
1	Dr. Aindrila Das Gupta	Novozymes South Asia Pvt. Ltd. Bangalore	22/01/2014
2	Dr. Aindrila Das Gupta	Novozymes South Asia Pvt. Ltd. Bangalore	07/02/2014
3	Dr. M.M. Pachapagesa	Evola	13/03/2014
4	Dr. M.K. Sahib	Wockhardt Pvt. Ltd.	29/04/2014
5	Ankit Sharma	Venus Medicine Research Center	30/04/2014
6	Dr, TR Sharma	Director, NRCPB, New Delhi	29/09/2014
7	Dr. Aindrila Das Gupta	Novozymes South Asia Pvt. Ltd. Bangalore	30/10/2014
8	Dr. Nibedita Lanka	National Centre for Cell Science, Pune	10/11/2014
9	Dr. SK Singh	Mouse Cancer Genetic Program, National Cancer Institute, NIH Frederick, Maryland, USA	10/11/2014
10	Dr. MK Gupta	Dhirubhai Ambani Institute of Information and Communication Technology	13/11/2014
11	Dr Alla Nozhevnikova	Winogradsky Institute of Microbiology of the Russian Academy of Sciences (INMI RAS)	,14/11/2014

		7/2, Prospekt 60-letiya Oktyabrya 117312, Moscow, Russian Federation	
12	Dr. Litty Yuriy	Researcher Russia INMI RAS Moscow, Russian Federation	14/11/2014
13	Mrs. Aindrila Dasgupta	Novozymes South Asia Pvt. Ltd. Bangalore	05/12/2014
14	Anna Nikitina,	PhD student INMI RAS Moscow, Russian Federation	14 Nov.- 26 Dec, 2014
15	Dr. Rajeev Soni	Novozymes South Asia Pvt. Ltd. Bangalore	05/12/2014
16	Professor Claire Komives	Biomedical, Chemical & Materials Engineering, San Jose State University, California USA	15/04/2015
17	Delegation of Indian Administrative Services	--	06/08/15

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Officers of the Ministry of Micro, Small & Medium Enterprises, Govt. of India on a Capacity Building Programme for Export, Import & Marketing of Herbal Cosmetics & Aroma Products visited the Department on Date: 6-08-15. The officers represented all over India.

Publications

Books/Monographs

Chapters in Books

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4. Sood, S., Jaiswal, V., Katoch, P. and Shrivastava, R. [M. fortuitum ATCC 6841] M. fortuitum nitrate reductase narX, a homologue of M. tuberculosis H37Rv nitrate reductase narX. [BankIt 1750034 Sequence 1 KM282164].

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7.   Mahajan, R., Goel G., A, Kallistova, and A, Nozhevnikova. Development of sustainable bio-based technology for management of lignocellulosic waste in Himachal Pradesh using chir pine needle. Proceedings of the Himachal Pradesh Science Congress on Role of Science & Technology in Sustainable Development in Himachal Pradesh October 15-16, 2014.

8.   Jha D, Joshi V, Sharma A, Khosla R and Changotra H (2015) Autophagy Related Gene 5 (Rs17587319) Variants in Asthmatic Patients in North Indian Population. *6th World Congress on Biotechnology,* New Delhi, India, 05-07 October, 2015. (*accepted for presentation*)

9.   Jain S, Vashistt J and Changotra H (2015) Predominance of Rotavirus G1P[6] strain in Himachal Pradesh, India. *The 5th Asian Vaccine Conference, Hanoi, Vietnam*, 12-14 June 2015.

10. Jain S, Singh TR, Vashistt J and Changotra H (2015) Molecular analysis of G1 rotavirus strains isolated from Himachal Pradesh. *National Conference on Emerging Trends in Host-Microb Interactions,* DAV University Jalandhar, Punjab, 17th-18th April 2015. (*2nd best Poster presentation award*)

11. Jain S, Kumar N, Nutan, Vashistt J and Changotra H (2014) Phylogenetic analysis to study the evolution of Rotavirus G1P[6] strain isolated from Himachal Pradesh. *International Conference on "Stem Cell Research, Cancer Biology, Biomedical Sciences, Bioinformatics and Applied Biotechnology*, Jawaharlal Nehru University, New Delhi, India, 1st -2nd November, 2014.

12. Randhawa R, Sehgal M, Singh TR, Duseja A and Changotra H (2014) Computational analysis of unc-51 like kinase 1 (ULK1) gene and its association with autophagy. *International Conference on "Stem Cell Research, Cancer Biology, Biomedical Sciences, Bioinformatics and Applied Biotechnology*, Jawaharlal Nehru University, New Delhi, India, 1st -2nd November, 2014.

13. Randhawa R and Changotra H (2014) Interleukin-28B SNPs rs12979860 and rs8099917 allele frequencies from North India using a novel in-house multiplex T-ARMS-PCR. *International Conference on "Stem Cell Research, Cancer Biology, Biomedical Sciences, Bioinformatics and Applied Biotechnology*, Jawaharlal Nehru University, New Delhi, India, 1st -2nd November, 2014.

14. Nutan et al., 2014 "Identification, characterization of prevalent diarrheagenic bacterial pathogens from regions of Himachal Pradesh" *International Conference on Life*

science Biotechnology & Bioinformatics, Jaypee Institute of Information Technology, Noida, India, September, 2014. (2nd best Poster presentation award)

15. Randhawa R and Changotra H (2014) A Novel Multiplex T-ARMS-PCR Assay to Genotype IL28B Single Nucleotide Polymorphisms rs12979860 and rs8099917 Simultaneously. *New insights into Pharmacogenomics, Drug Development and Personalized Medicine*, Bhagwan Mahavir Medical Research Institute, Hyderabad, India, July 18 – 19, 2014 (2nd Best Poster).

16. Thakur, R., and Shankar, J. Heat-shock proteins influence Aflatoxin biosynthesis in *Aspergillus flavus*. Proceedings of National conference on Emerging trends in host microbe interaction, April 17-18, 2015 at Jalandhar, Punjab, India.

17. Tarun Kumar Patel, Jata Shankar, Bhupendra N Tiwary (2014). Mosquito larvicidal potential of Aspergillus flavus against Culex quinquefasciatus and Aedes aegypti. *Proceedings of the National Conference on Empowering Mankind with Microbial Technologies* [55th : Tamil Nadu Agricultural University Coimbatore - 641 003 : Nov 12-14, 2014

18. Sharma P., (2015). Drug-surfactant interactions: thermo-acoustic investigation of Sodium Dodecyl Sulphate and antimicrobial drug., at International conference in Emerging trends in basic and applied sciences held on 1-2 May 2015.

19. Sood, S., Poonam, Vashistt, J. and Shrivastava, R. Reporter based two-pronged strategy: target validation and rapid drug screening against persistent mycobacteria. Proceedings of International Symposium on 'Cellular Response to Drugs' and XXXVIII All India Cell Biology Conference, December 10-12, 2014 at CDRI Lucknow, India.

20. Thakur, A., Vaid, K., Saxena, S., Nutan, Vashistt, J. and Shrivastava, R. Aminoglycosides resistance pattern of Escherichia coli isolated from urine samples in various hospital settings of Himachal Pradesh. National Conference on Emerging Trends in Host-Microbe Interactions, April 17-18, 2015 at DAV University Jalandhar, India.

21. Batta, R., Poonam, Changotra, H., Shrivastava, R. and Vashistt, J. Assessment of the resistance pattern in Klebsiella spp. against β-lactams in Himachal Pradesh. National Conference on Emerging Trends in Host-Microbe Interactions. April 17-18, 2015 at DAV University Jalandhar, India.

22. Koundal, N., Tomar, A., Shilpa, Nutan, Shrivastava, R. and Vashistt, J. Comparative resistance pattern analysis of gram negative bacteria against commonly used antibiotics. National Conference on Emerging Trends in Host-Microbe Interactions. April 17-18, 2015 at DAV University Jalandhar, India.

23. Sood, S., Katoch, P. and Shrivastava, R. A conserved molecular mechanism of adaptation on exposure to acidic condition shown by fast growing pathogenic mycobacteria *Mycobacterium fortuitum*. 25th European Congress of Clinical Microbiology and Infectious Diseases, April 25 - 28, 2015 in Copenhagen, Denmark.

24. Tamanna, Ramana J., An ANN-based method for prediction of Multidrug And Toxin Extrusion (MATE) Proteins at World Congress on Stem Cell Research, Cancer Biology and Applied Biotechnology held 3-4th May, 2014

25. Mehla K., Ramana J. A Docking Study of Relationship between Point Mutations and Ciprofloxacin Resistance in *Campylobacter jejuni* at IC LIFE 2014 : International Conference on Life Sciences, Informatics, Food and Environment , August 29-30, 2014 at JIIT, Noida

26. Chawla, A., Stobdan, T., Srivastava, RB., Chauhan, RS. and Thakur, AK. (2014). Cross species application of female specific marker in *H. salicifolia* and *H. tibetana*. Proceedings of the National conference on perspective and trends in plant science and biotechnology, February 21-23, 2014 at Chandigarh, India.

27.   Gangwar, M. and Chauhan, RS. (2014). Dissecting the molecular basis of female flower in *Jatropha curcas*. Proceedings of the National Symposium on Advances in Biotechnology for Crop Improvement, July 12, 2014 at Baru Sahib, H.P., India.

28.   Padhan, JK., Kumar, V., Sood, H. and Chauhan, RS. (2014). Expression profiling of swertiamarin and amarogentin biosynthetic pathway genes in an endangered medicinal herb, *Swertia chirayita* (Roxb. Ex Fleming) H. Karst. Proceedings of the National Symposium on Advances in Biotechnology for Crop Improvement, July 12, 2014 at Baru Sahib, H.P., India.

29.   Malhotra, N., Sood, H. and Chauhan, RS. (2014) Aconites biosynthesis recruits both MVA and MEP pathways of isoprenogenesis in *Aconitum heterophyllum* Wall. National Symposium on Advances in Biotechnology for Crop Improvement, July 12, 2014 at Baru Sahib, H.P., India.

30.   Pal, T., Jaiswal, V., Chanumolu, SK. and Chauhan, RS. (2014) Computational mining of *Aconitum heterophyllum* transcriptomes for transcription factors controlling atisine biosynthesis. National Symposium on Advances in Biotechnology for Crop Improvement, July 12, 2014 at Baru Sahib, H.P., India.

31.   Shitiz, K., Sood, H. and Chauhan, RS. (2014) Mining simple sequence repeats (SSRs) in *Picrorhiza kurroa* transcriptomes and assessment of genetic diversity vis-à-vis picrosides content. National symposium on Advances in Biotechnology for Crop Improvement, July 12, 2014 at Baru Sahib, H.P., India.

32.   Kumar, P., Pal, T., Jaiswal, V., Sood, H. and Chauhan, RS. (2014). Computational mining of transcriptomes for transcription factors controlling various biological processes in *Podophyllum* spp.. Proceedings of the International Conference on Agricultural & Horticultural Sciences, February 03-05, 2014 at Hyderabad, India.

33.   Shitiz, K., Kumar, V., Pal, T., Sood, H. and Chauhan, RS. (2014). Transcript profiles of phenylpropanoid pathway genes vis-à-vis picrosides content in an endangered medicinal herb *Picrorhiza kurroa* Royle ex. Benth. Proceedings of International Conference on Emerging Trends in Biotechnology, November 06-09, 2014 at New Delhi, India.

34.   Malhotra, N., Sood, H. and Chauhan, RS. (2014). Molecular cloning and *in silico* analysis of HMGR and DXPS promoters in *Aconitum heterophyllum* Wall. Proceedings of International Conference on Emerging Trends in Biotechnology, November 06-09, 2014 at New Delhi, India.

35.   Sharma, N., Chauhan, RS. and Sood, H. (2014). Seaweed extract an effective alternative of growth hormones for mass propagation and enhanced secondary metabolite production in *Picrorhiza* spp. Proceedings of International Conference on Emerging Trends in Biotechnology, November 06-09, 2014 at New Delhi, India.

36.   Padhan, JK., Kumar, V., Sood, H. and Chauhan, RS. (2014). Mangiferin biosynthesis in *Swertia chirayita* is correlated to elevated expression of phenylpropanoid pathway genes. Proceedings of International Conference on Emerging Trends in Biotechnology, November 06-09, 2014 at New Delhi, India.

37.   Chawla, A., Stobdan, T., Srivastava, RB., Chauhan, RS. and Thakur, AK. (2014). Female specific markers in *H. salicifolia* and *H. tibetana*: A tool for useful in large scale commercial plantation. Proceedings of the ISTS-IUFRO Conference on Sustainable Resource Management for Climate Change Mitigation and Social Security, March 13-15, 2014 at Chandigarh, India.

38.   Sud, A., Chauhan, RS. and Tandon, C. (2014). Correlation of Differentially Expressed Proteins with Picroside Biosynthesis in *Picrorhiza Kurroa* - a proteomics approach. Proceedings of the Perspectives & Trends in Plant Sciences and Biotechnology, February 21-23, 2014 at Chandigarh, India.

39.   Sharma, D., Goel, G., Sharma, BM. and Chauhan, RS. (2014). Exploring white rot fungi isolated from North-Western Himalyas for lignocellulolytic enzyme activities.

Proceedings of the International Conference on Emerging Trends in Biotechnology, November 04-06, 2014 at New Delhi, India.

40. Gour, RS., Bairagi, M., Chawla, A., Chauhan, RS. and Thakur, AK. (2014). Survey and Characterization of potential biofuel feedstock Microalgae from Himachal Pradesh. Proceedings of the International Conference on Biotechnology and Bioinformatics, February 01-02, 2014 at Pune, India.

41. Kumar, P., Sharma, N., Pal, T., Sood, H. and Chauhan, RS. (2014). Molecular components control podophyllotoxin biosynthesis in *Podophyllum hexandrum*: A medicinal herb of North-Western Himalayas. Proceedings of the International Conference on Emerging Trends in Biotechnology, November 06-09, 2014 at New Delhi, India.

42. Chawla, A., Chauhan, RS., Stobdan, T., Srivastava, RB. and Thakur, AK. (2014). Sex-biased expression of female specific SCAR marker in flower buds of Seabuckthorn (*Hippophae rhamnoides*). Proceedings of the National Symposium on Advances in Biotechnology for Crop Improvement, July 12, 2014 at Badu Sahib, H.P., India.

43. Kumar, P., Sharma, N., Pal, T., Sood, H. and Chauhan, RS. (2014). Differential expression analysis of phenylpropanoid pathway genes controlling podophyllotoxin biosynthesis in *Podophyllum hexandrum*: A medicinal herb of North-Western Himalayas. Proceedings of the National Symposium on Advances in Biotechnology for Crop Improvement, July 12, 2014 at Badu Sahib, H.P., India.

44. Sood, A. and Chauhan, RS. (2014). Expression analysis of fatty acid biosynthesis genes in high versus low oil content genotypes of *Jatropha curcas*. Proceedings of the National Symposium on Advances in Biotechnology for Crop Improvement, July 12, 2014 at Badu Sahib, H.P., India.

45. Atri, P., Dey, G. and Bansal, S., Bacteriocins: New age anti-microbial agents. Proceedings of Bioworld-2014: Protein structure and function, 12-14 Dec, 2014 at IIT Delhi, New Delhi, India.

46. Patel SS , Udayabanu M, *Urtica dioica* attenuates the cognitive decline in streptozotocin-induced diabetic mice through modulation of insulin signaling pathway, International Conference on Chemical Biology: Disease Mechanisms and Therapeutics (ICCB-2014), CSIR-Indian Institute of Chemical Technology, 2014, Hyderabad.

47. Shukla, A., Kumar, A., Sehgal, M., and Singh, T.R. Modeling and Simulation of Colorectal Cancer Pathways : An Insight into Regulatory Elements and Biological Processes. Proceedings of the Annual International Conference on Advances in Biotechnology, March, 13-15, 2015 at Kanpur, India.

48. Sehgal, M., and Singh, T.R. Bioinformatics applications to resolve the mystery of diseases associated with Human DNA repair system. Proceedings of the Annual Conference of Indian Association of Biomedical Scientists, 14-16 July, 2014at Palampur, India.

49. Shukla, A., Sehgal, M., and Singh, T.R. Hydroxymethylation and its Role in DNA Repair Associated Disease. Proceedings of the International Conference on Life Sciences, Informatics, Food and Environment, 29-30, August 2014 at Noida, India.

50. Sehgal, M., Shukla, A., and Singh, T.R. Functional Enrichment of Pathways Implicated in DNA Repair using Top Down Approach. Proceedings of the International Conference on Life Sciences, Informatics, Food and Environment, 29-30, August 2014 at Noida, India.

Conferences/Symposia/Workshops/Seminars (participated / Papers Presented): Conducted/ attended

1. Dr Gunjan Goel: Best Paper Award: Best paper award at 1st Himachal Pradesh Science Congress, Shimla for the work presented: Development of sustainable bio-based technology for management of lignocellulosic waste in Himachal Pradesh using chir pine needle".

2. Dr. Chittaranjan Rout: Smriti Mishra, Mohd Imran Shah, Malay Sarkar, Arun Chauhan, Sanjiv Sharma, Chittaranjan Rout (2014). Integration of medical data for affordable healthcare. Proceedings of the International Conference on Data Sharing and Integration for Global Sustainability [New Delhi, India : 2nd - 5th November, 2014].

3. Dr. R.S. Chauhan: Best Poster Award: Kumar, P., Pal, T., Jaiswal, V., Sood, H. and Chauhan, RS. (2014). Computational mining of transcriptomes for transcription factors controlling various biological processes in *Podophyllum* spp. 2nd International Conference on Agricultural and Horticultural Sciences (Omics Group), February 03-05, 2014 at Hyderabad, India.

4. Dr. Rahul Shrivastava: 'Reporter based two-pronged strategy: target validation and rapid drug screening against persistent mycobacteria' (December 2014) at International Symposium on 'Cellular Response to Drugs' and XXXVIII All India Cell Biology Conference organized by CDRI Lucknow, India.

5. Dr. Rahul Shrivastava: Organized a lecture series related to career avenues and opportunities for B.Tech and M.Tech (Biotechnology and Bioinformatics) – 2016 Batch students. The interaction session was conducted by different faculty members of the department. (Synapse Event) Synapse is a students and faculty club of the Department of Biotechnology and Bioinformatics, Jaypee University of Information Technology (JUIT).

6. Dr. Rahul Shrivastava: Organized and coordinated a summer training of 6 weeks duration during June-July 2015. The training was offered in different areas of Biotechnology & Bioinformatics to M.Tech./B.Tech/M.Sc./B.Sc. students. More than 100 students from different parts of the country attended this summer training program. The training was hosted by Department of Biotechnology and Bioinformatics, Jaypee University of Information Technology (JUIT).

7. Dr. S. Bansal: Participated in workshop on 'Computational Methods in Drug Discovery', BTIS, IIT Delhi, New Delhi, 14-15 July 2014.

8. Kumar A., Saini H.S., Kumar, S. Exploration of novel bacterial species from the abandoned gold mine for bioleaching and enhancement of gold recovery from E-Waste. International Conference on Life Sciences, Informatics, Food and Environment, (August 29-30, 2014) Jaypee Institute of Information Technology, Noida. [Poster presentation by Kumar, A., - best poster award]

9. Kumar A., Sharda, M., Sharma P., Saini H.S., Kumar, S. Development of sustainable bioleaching technology for recovery of precious metals (Au, Ag and Pt.) from e-waste and biodegradation of polybrominated aromatic fire retardants. (October 15-16, 2014) 1st Himachal Pradesh science congress, Shimla on Role of Science and Technology for Sustainable Development in H.P [Oral presentation by Kumar, S., Best Oral Presentation Award].

10. Pandita M., Kanwar S., Kumar S. Diesel degradation by Acinetobacter species for bioremediation of contaminated soil ecosystem. In a national conference at Botany Department, (October 28-29, 2014) Panjab University, Chandigarh. [Poster presentation by Pandita M. & Kanwar S]

Invited Lectures

1. Dr. Chittaranjan Rout: "Retrieval of 2-D and 3-D data of macromolecules and homology modeling techniques using various inline/offline tool and softwares" in the training programme on "Protein Structure Prediction and Molecular Docking" at Bioinformatics Centre, Himachal Pradesh University on 28th October 2014.

2. Dr. Jitendraa Vashistt: Metgenomic studies in relation to diarrheal disease (April 2015) in"Friedreich's Ataxia and DNA Structure in Health & Disease" at the All India Institute of Medical Sciences, New Delhi, India.

3. Dr. Rahul Shrivastava: 'Safety in Laboratory: Dealing with Biologicals' (November, 2014) at First National Seminars on Lab Safety in Chemistry organized by MM University Mullana, Haryana.

4. Dr. Sudhir Kumar "Biogas and bio-briquettes from solid waste: Cost effective Models" in a National workshop on renewable energy, 22 November, 2014 organized by Jawaharlal Nehru Government Engineering College, Sundernagar, Mandi, HP.

5. Dr. Sudhir Kumar "Biogas production from solid waste" in an Indo-US workshop on "Anaerobic Microbial Processes for Energy and Environment" 22 December, 2014 at Department of Microbiology, Guru Nanak Dev University, Amritsar, Punjab.

6. Dr. Sudhir Kumar "Bioremediation of e-waste" in an Indo-US workshop on "Anaerobic Microbial Processes for Energy and Environment" 23 December, 2014 at Department of Microbiology, Guru Nanak Dev University, Amritsar, Punjab.

7. Dr. Sudhir Kumar "Solid waste to biofuels" in the first international conference on 'Recent advances in bio-energy research - ICRABR- 14 to 17 March 2015 at S.S.S. National Institute of Renewable Energy, Kapurthala, Pb. (An Autonomous Institution of the Ministry of New and Renewable Energy, Govt. of India).

8. Dr. Sudhir Kumar As a resource person on the occasion of 'World Standards Day – 2014' organized by Bureau of Indian Standards, Govt. of India at Hotel Best Park Inn, Parwanoo, Solan, Himachal Pradesh. The theme of the talk was "Standards level the playing field – Solid waste Trade", October 14, 2014.

9. Dr. Tiratha Raj Singh: "Bioinformatics and its applications for genomic data analysis along with systems biology perspective" (April, 2015) at Center for Systems Biology & Bioinformatics, Panjab University, Chandigarh.

Honorary Work (Editor, reviewer, committee expert, Session Chair, etc.)

1. **Dr. R.S. Chauhan**

   Editor: Journal of Plant Biochemistry & Biotechnology
   Reviewer: BMC Genomics; Phytochemistry; Gene

2. **Dr. Vijay Kumar Garlapati**

   - Serving as a Editorial Board Member for "African Journal of Biotechnology"
   - Serving as a Editorial Board Member for "Journal of Biotechnology, Bioinformatics and Bioengineering",
   - Serving as a Editorial Board Member for "Bioengineering and Bioscience"
   - Serving as a Editorial Board Member for "Trends in Biotechnological Research"
   - Serving as a Reviewer for "Food Research International (Elsevier)"
   - Serving as a Reviewer for "International Journal of Biological MacroMolecules"
   - Serving as a Reviewer for Journal of Bioprocess Engineering and Biorefinery.

3. **Dr. Jitendraa Vashistt:**

Reviewer for the following journals:

     i.   Journal of Bimolecular Structure & Dynamics
    ii.   Science Journal of Environmental Engineering Research
   iii.   OMICS: A Journal of Integrative Biology
- Coordinator for Membrane Biophysics- e-portal generation UGC (MHRD, INDIA)

4. **Dr. Sudhir Syal**

Reviewer for the following journals

     i.   Environmental Science and Pollution Research
    ii.   Environmental Technology
   iii.   Process Biochemistry
   iv.   Science of the Total Environment
    v.

5. **Dr. Rahul Srivastava:**

Reviewer for the following journals:

     i.   Journal of the American Academy of Dermatology (Elsevier)
    ii.   JAAD Case Reports (Elsevier)
   iii.   African Journal of Microbiology Research
   iv.

6. **Dr. Gunjan Goel:**
7.

Reviewer for the following journals:

     i.   Frontiers in Microbiology,
    ii.   Journal of Molecular catalysis
   iii.   Fungal Biology,
   iv.   PLOS one,
    v.   Anaerobe,

Review Editor: Frontiers in Systematic Microbiology

8. **Dr. Harish Changotra**

Member Editorial Board of:

1. International Journal of Biology, Pharmacy and Allied Sciences (ISSN: 2277-4998)
2. International Journal of Research in Biosciences (ISSN: 2319–2844)
3. Journal of Cell Science and Molecular Biology
4. Journal of Immunology and Vaccine Technology

Reviewer for the following journals:

1. Cellular and Molecular Life Sciences
2. Critical Reviews in Microbiology
3. Vaccine
4. World Journal of Gastroenterology

5. Gene
6. New Horizons in Translational Medicine
7. International Journal of Preventive Medicine
8. European Journal of Molecular Biology
9. International Journal of Biology
10. International Journal of Genetics and Genomics

9. **Dr. Anil Kant: Reviewer for the following journals:**
   i.   Scientia horticulturae
   ii. Euphytica

10. **Dr. J.Ramanna: Reviewer for** Omics: Journal of Integrative Biology

11. **Dr. Uday: Reviewer**

   - Neurochemistry International (ISSN: 0197-0186)
   - Research & Reviews: A Journal of Neuroscience (eISSN: 2277–6427)
   - Research & Reviews: A Journal of Drug Design & Discovery
   - Advances in Diabetes and Metabolism (ISSN: 2332-0052)
   - Advances in Pharmacology and Pharmacy (ISSN: 2332-0036)
   - International Journal of Neuroscience and Behavioral Science (ISSN: 2333-2743)

12. **Dr. Tiratha Raj Singh:**

   - Appointed as an academic Editor, PLOSONE.
   - Served as an Indian member for the PhD jury of a Moroccon student during 2014 at ENSA, Tangier, Morocco.
   - Program Committee Member, BioMining'14 (Workshop on Mining Biological and Genomics Data), BioMining'14 , Rabat, Morocco.
   - Program committee member, 6th International Workshop on Biological Knowledge Discovery and Data Mining (BIOKDD'15) at DEXA-15, Valencia, Spain.
   - Provided Reviewing Services to many International Journals of repute such as :
     BMC Genomics, PlosOne, Molecular Cancer, BMC Evolutionary Biology, GENE, Molecular Ecology Resources, Infection Genetics and Evolution.

Faculty Members and their Specialization

Sr. No	Name of Faculty Members	Specializations
1	Dr. R.S.Chauhan	Genomics
2	Dr. Harvinder Singh	Genetics and Plant Breeding, Biotechnology
3	Dr. Anil Kant Thakur	Plant Biotechnology, Molecular Biology
4	Dr. Jitender Vashistt	Bacterial Resistance, Clinical Proteomics
5	Dr. Manju Jain	Immunology
6	Dr. Saurabh Bansal	Protein engineering, Enzymology
7	Dr. Jata Shanker	Fungal biology, Functional genomics
8	Dr. Harish Changotra	Molecular Virology
9	Dr. Poonam Sharma	Chemistry
10	Dr. Hemant Sood	Plant Biotechnology

11	Dr. Vijay Kumar Garlapati	Bioprocess Engineering
12	Dr. Gunjan Goel	Microbiology and Food Biotechnology
13	Dr. Sudhir Kumar Syal	Environmental Biotechnology
14	Dr. Rahul Shrivastva	Microbial Pathogenesis, Mycobacteriology
15	Dr. C. Rout	Drug and Vaccine Designing, and Health Informatics
16	Dr. Tiratha Raj Singh	Bioinformatics, Functional genomics, Molecular Evolution and Systems Biology
17	Dr. Jayashree Ramana	Computational study of antibiotic resistance in infectious pathogens
18	Mr. Ahmed Nawaz Khan	Phamraceutical Chemistry & Drug Regulatory Affairs
19	Dr. Gopal Singh Bisht	Medicinal Chemistry
20	Dr. UdayBanu	Neuropharmacology

PhD degrees awarded

1. Priya P Panigrahi (2015) Ph.D. Thesis in Bioinformatics – under the supervision of Dr. TR Singh
2. Manika Sehgal (2015) Ph.D. Thesis in Bioinformatics – under the supervision of Dr. TR Singh
3. Saurabh Pandit (2014) Ph.D. Thesis in Biotechnology – under the supervision of Dr. RS Chauhan.
4. Varun Bhardwaj (2014) Ph. D Thesis in Pharmaceutical Sciences- Under Dr Poonam Sharma
5. Kanu Priya Aggarwal (2014) Ph.D. Thesis in Biotechnology – under the supervision of Dr. C. Tandon.
6. Dipankar Sengupta (2014) Ph.D. Thesis in Bioinformatics – under the supervision of Dr. PK Naik
7. Navin Kumar Tailor (2014) Ph.D. Thesis in Pharmacy –under the supervision of Dr. Manu Sharma.
8. Varun Jaiswal (2014) Ph.D. Thesis in Pharmacy –under the supervision of Dr. C Rout.
9. Seneha Santoshi (2014) Ph.D. Thesis in Bioinformatics – under the supervision of Dr. PK Naik

DEPARTMENT OF CIVIL ENGINEERING

The Department offers B.Tech. Degree in Civil Engineering and three 2-year M.Tech. programmes in Construction Management, Environmental Engineering and Structural Engineering. The Department also offers doctoral program in various fields of Civil Engineering. The undergraduate program has been specially designed keeping in view the emerging civil infrastructure needs of the country as well as the modern emphasis on IT enabled Civil Engineering courses. The curriculum has been prepared to keep it more practice and industry oriented without losing its academic focus.

Infrastructural Strengths

Civil Engineering Department is equipped with laboratories covering the areas of Fluid Mechanics, Concrete Technology, Highway Engineering, Environmental Engineering, Geotechnical Engineering and Surveying. Students are enabled to work with latest equipment like Acoustic Doppler Velocimeter (Vetrino), TOTAL STATION and computerized UTM, Spectrophotometer, Autoclave Vertical High Pressure apparatus, Luminescent Dissolved Oxygen Probe, etc. and also software tools such as MXROADs, ANSYS, PLAXIS-2D, STAAD.pro-2008, MATLAB, Primavera P6, AutoCAD 2013, GEO-5 and Estimator 2.0. Additionally, a Hydraulic Research Lab has been developed for conducting research in the field of Fluvial hydraulics. Further, development of a new laboratory on Structural Mechanics and upgrading CAD lab with high end computer is under process.

List of Laboratories

o   CAD Lab
o   Concrete Lab
o   Environmental Engg. Lab
o   Fluid Mechanics Lab
o   Geotechnical Engg. Lab
o   Highway Engg. Lab
o   Surveying Lab
o   Workshop Practices Lab
o   Fluvial Hydraulics Lab
o   Engineering Drawing Hall

Student Collaboration

R&D Activities

Sponsored Research Projects :   One
New :   No
Ongoing :   One
Completed :   No
Faculty Involved: Dr. Ashish Kumar

List of sponsored research projects

(1) Project Title: *"Effect of Stream-Wise Spacing of Circular Bridge Piers on Flow Characteristics and Local Scour"*
                    Under :   Fast Track Scheme for Young Scientists, Department of Science and Technology, (DST) New Delhi .

Outreach Activities

1. Mr. Anil Kumar delivered a guest lecture on "Abnormal Loadings on Structures and their Mitigation" at one-week short-term course on Disaster Mitigation and Management, held at National Institute of Technology (NIT), Kurukshetra, June 22-26, 2015.
2. Ms. Poonam delivered a guest lecture on "Advances in Earthquake Mitigation Techniques" in one-week short-term course on Disaster Mitigation and Management, National Institute of Technology (NIT), Kurukshetra, June 22-26, 2015.
3. During the second International Conference on Engineering and Management (iCEM) on Advancement in Civil Engineering, 6th volume of departmental students' e-magazine SANRACHNA-2015 was unveiled on April 3, 2015.

Publications

Books/Monographs :

"Engineering Mechanics - Statics and Dynamics (2015)" by Anil Kumar Dhiman, Poonam Dhiman, D C Kulshreshtha, McGraw Hill Education, New Delhi. [ISBN: 978-93-39219-17-8, eBook ISBN: 978-93-39219-29-1]

Chapters in Books :

Umesh K. Singh, Z. Ahmad, Ashish Kumar (2014). Experimental Study On Incipient Motion of Cohesive Sediment Mixture. In H. L. Tiwari, S. Suresh, R. K. Jaiswal, Hydraulics, Water Resources, Coastal and Environmental Engineering (pp. 196-204). New Delhi: Excellent Publishing House. [ISBN : 978-93-84935-04-7]

Articles in Refereed Journals

1. Nichole Baldwin, Owais Gilani, Suresh Raja, Stuart Batterman, Rajiv Ganguly, Philip Hopke, Veronica Berrocal, Thomas Robins, Sarah Hoogterp (2015). Factors affecting pollutant concentrations in the near-road environment. Atmospheric Environment, 115 (), 223-235. [IF(2013) : 3.281].
2. Rajesh K. Jain, Ashish Kumar, Umesh C. Kothyari (2015). Turbulence statistics of flow through degraded channel bed of sand-gravel mixture. Journal of Hydro-environment Research, (Forthcoming), -. [IF(2013) : 3.018] .
3. Stuart Batterman, Rajiv Ganguly, Paul Harbin (2015) 'High Resolution Spatial and Temporal Mapping of Traffic-Related Air Pollutants.' *International Journal of Environmental Research and Public Health, 12(4), 3646-3666.*
4. Nikita Gupta, Poonam, Ashok Kumar Gupta (2015), "Retrofitting of an Existing Residential Building by Using Shear Wall", Journal of Civil Engineering and Environmental Technology, 2 (7), ISSN: 2349-8404, 582-586.
5. Nikita Gupta, Aditya Tiwary, Poonam, Ashok Kumar Gupta (2015). "Advanced Retrofitting Techniques for Reinforced concrete Buildings", Journal of Civil Engineering and Environmental Technology, ISSN: 2349-8404, 2 (7), 587-592.
6. Rishi Rana, Rajiv Ganguly, Ashok Kumar Gupta (2015), "An Assessment of Solid Waste Management System in Chandigarh City, India" Electronic Journal of Geotechnical Engineering, 20 (6), 1547-1572.

7. Niraj Singh Parihar, Rajesh Prasad Shukla, Ashok Kumar Gupta (2015). Effect of Reinforcement on Soil. International Journal of Applied Engineering Research, 10 (55), 4147-4151.
8. Nikita Gupta, Aditya Tiwary, Poonam, Ashok Kumar Gupta (2015). Advanced Retrofitting Techniques for Reinforced concrete Buildings. Journal of Civil Engineering and Environmental Technology, 2 (7), 587-592.
9. Nikita Gupta, Poonam, Ashok Kumar Gupta (2015). Retrofitting of an Existing Residential Building by Using Shear Wall. Journal of Civil Engineering and Environmental Technology, 2 (7), 582-586.
10. A. Usmani, G. Kannan, A. Nanda, Subodh Kumar Jain (2015). Seepage behavior and grouting effects for large rock caverns. ASCE International Journal of Geomechanics, 15 (3), 06014023.
11. Rishi Rana, Rajiv Ganguly, Ashok Kumar Gupta (2015) 'An Assessment of Solid Waste Management System in Chandigarh City.' *Electronic Journal of Geotechnical Engineering, 20,Bundle 6, 1547-1572.*
12. Ashok Kumar Gupta, Rajiv Ganguly, Ankit Singh Mehra (2015) 'Bamboo as Green Alternative to Steel for Reinforced Concrete Elements of a Low Cost Residential Buildings.' *Electronic Journal of Geotechnical Engineering, 20,Bundle 6, 1523-1545. (Scopus Indexed, Scopus (2013/14) – 0.32).*
13. Rajiv Ganguly, Stuart Batterman, Vlad Isakov, Michelle Snyder, Michael Breen, Janet Burke, Wilma Brakefield-Caldwell (2015) 'Effects of geocoding errors on traffic related air pollutant exposure and concentration estimates.' *Journal of Exposure Science and Environmental Epidemiology, (Published by Nature Group of Journals). (SCI Indexed, IF(2013/14) – 3.05)*

Papers in Proceedings of Conferences/Symposia/Seminars

1. Anil Kumar, Vasant A. Matsagar (2015). "Sensitivity Analysis of Progressive Collapse of Steel Moment Frames Subjected to Blast Loading", Proceedings of the PROTECT-2015: Fifth International Workshop on Performance, Protection & Strengthening of Structures under Extreme Loading, Michigan State University, East Lansing, Michigan, USA, June 28 - 30, 2015, ISBN: 978-1-60595-227-7.
2. Anil Kumar, Sandip Kumar Saha, Vasant A. Matsagar, "Uncertainty Quantification of Stochastic Linear Systems under Random Impulse Loadings", Proceedings of 41st Annual German Congress on Acoustics (DAGA 2015) Nürnberg, Germany, March 16 - 19, 2015, ISBN: 978-3-939296-09-6.
3. Deepika Sharma, Rajiv Ganguly (2014) 'Management of Urban Solid Waste in Solan' in *National Conference on Recent Advances in Solid Waste Management held during December 22-23, 2014 at Chandigarh University, Chandigarh., India. Pg 11-13.*
4. Rajiv Ganguly, Veeresh Gali, Aman Thakur, Shubham Chopra (2014) 'EIA of Hydropower Project in Himachal Pradesh: An Analysis' in *19th Conference on Hydraulics, Water Resources, Environmental and Coastal Engineering (HYDRO 2014) held during December 18-20, 2014 at Maulana Azad National Institute of Technology (MANIT), Bhopal., India. Pg 151-158.*
5. Rajiv Ganguly, Anil Kumar Dhiman, Ashok Kumar Gupta (2014) 'Construction and Design principles for Energy-efficient Buildings in Hilly Regions in Northern India' in *International Conference on Sustainable Civil Infrastructure (ICSCI 2014) held during October 17-18, 2014 at HITEX Exhibition Centre, Hitech City, Hyderabad., India. Pg 970-979.*
6. Rishi Rana, Rajiv Ganguly, Ashok Kumar Gupta (2014) 'Solid Waste Management in Chandigarh – A case study' in *5th International Conference on Architecture, Civil and Environmental Engineering (ACEE 2014) held during October 11-12, 2014 at Jawaharlal Nehru University (JNU), New Delhi., India. Pg 67-70.*

7.   Rajiv Ganguly, Abhinav Bansal, Mudit Mishra, Ashish Kumar (2014) 'Application of Rainwater Harvesting Scheme in Shimla' in *3rd International Conference on Hydrology and Meteorology held during September 15-16, 2014 at Hyderabad., India. Book of Abstracts.*

8.   Rajiv Ganguly, Ashok Kumar Gupta, Mudit Mishra (2014) 'Traffic Volume and Accident Studies on NH-22 between Solan and Shimla, India' in *2nd Annual International Interdisciplinary Conference (AIIC 2014) held during July 8-12, 2014 at University of Azores, Azores., Portugal. Pg 233-238.*

Conferences/Symposia/Workshops/Seminars (participated/Papers Presented): Conducted/ attended

1.   Mr. Niraj Singh Parihar attended International Conference on Advances in Applied Engineering and Technology (ICAAET-2015) organized by Syed Ammal Engineering College (Anna University), Ramananthapuram, Tamilnadu during May 14-16, 2015., and presented a research paper on Effect of Reinforcement on Soil.

2.   The technical festival SANRACHNA-2015 was organized during April 3-5, 2015. The Chief Guest in the Opening Cultural Night was Er. D.K. Sharma, Managing Director, Himachal Pradesh Power Corporation Limited (HPPCL). He officially launched the Certificate of Guiness World Record (GWR) earned by CEC in 2014. Under the ambit of technical festival 2nd International Convention on Engineering & Management (iCEM) was organized by Civil Engineering Consortium of the department.

3.   A one-week Workshop from February 16-20, 2015 on Primavera for Civil Engineers was organized by Department of Civil Engineering for the students of B.Tech. Civil and M.Tech. SE, CM and EE. Er. P. Prasad of Project management Solutions was the key faculty for this workshop. About 50 students participated in the workshop. Mr. Chandrapal Gautam and Mr. Anil Kumar coordinated the event.

4.   All the Civil Engineering faculty members and the students attended the 2nd International Convention on Engineering & Management (iCEM) during April 3-5, 2014 held at JUIT Waknaghat.

5.   All the Civil Engineering faculty members attended a week Faculty Development Workshop on Outcome-based Education organized by JUIT Waknaghat during July 14-19, 2014. Eminent speakers included Prof. M.P. Gupta, Department of Management Studies, IIT Delhi and Veerendra K Jaitly, CEO, C-cube consultants.

6.   Two M.Tech. Structural Engineering students attended and presented two research papers at 7th International Conference on Emerging Technologies in "Civil Engineering, Architecture and Environmental Engineering for Global Sustainability" (CEAEGS- 2015) at JNU Delhi on April 5, 2015.

7.   Three CE students attended a National Conference on Advances in Engineering, Technology and Management (AETM-2015) on April 4, 2015 at MM University, Ambala and presented four research papers.

Invited Lectures (uniform format)

1.   A guest lecture was organized by the Department on Construction Management by Dr. K N Jha from Indian Institute of Technology, (IIT) New Delhi on February 28, 2015. The students of B.Tech. third and fourth years, M.Tech. Structural Engineering, Environmental Engineering and Construction Management, and faculty attended the same.

Significant Awards/ Distinctions

Honorary Work (Editor, reviewer, committee expert, Session Chair, etc.)
Prof. Ashok Kumar Gupta:
Editorial Board Member, Hindawi Scientific World Journal.
Reviewer, KSCE Journal of Civil Engineering
Reviewer, ASCE International Journal of Geomechanics

Faculty Members and their Specializations (2014-2015)**:**

S. No.	Name	Designation	Specialization	Research Area
1	Dr. Ashok K. Gupta	Professor & Head	Geotechnical Engineering	Constitutive modeling of Geological materials, Rock Mechanics and FEM
2	Dr. Veeresh Gali	Professor	Environmental Engineering	Anaerobic treatment of Phenolic and Toxic wastewaters
3	Dr. S K Jain	Associate Professor	Geotechnical Engineering	Material Modeling, Plasticity of Soils, Stability of Slopes, Engineering Mechanics
4	Dr. Ashish Kumar	Associate Professor	Water Resources Engineering	Scouring around hydraulic structures, Fluvial Hydraulics
5	Dr. Rajeev Ganguly	Associate Professor	Environmental Engineering	Air pollution, Estimation of NOx / CO concentrations
6	Mr. Anil Kumar	Assistant Professor (G-II)	Structural Engineering	Active control systems, Blast-resistant design, Structural dynamics and reliability
7	Ms. Poonam	Assistant Professor (G-II)	Structural Engineering	Base Isolation, Semiactive Isolation, Retrofitting of structures
8	Mr. Chandrapal Gautam	Assistant Professor (G-II)	Structural Engineering	Rehabilitation of structure, Concrete technology, Fracture Mechanics
9	Mr. Abhilash Shukla	Assistant Professor (G-II)	Structural Engineering	Structural dynamics, Concrete rheology, Blast-resistant materials.
10	Mr. Mani Mohan	Assistant Professor (G-II)	Structural Engineering	Structural Dynamics, Finite Element Method, Composite Structures
11	Mr. Saurav	Assistant Professor (G-I)	Structural Engineering	Concrete rheology, Development of HPC with Alcofine
12	Mr. Saurabh Rawat	Assistant Professor (G-I)	Geotechnical Engineering	Slope stability problems (including seismic), Soil-nailing, Landfill design
13	Mr. Ashish Kumar	Assistant Professor (G-I)	Transportation Engineering	Pavement Materials, Pavement Design & Maintenance; Traffic Engineering; Optimization Technique

14	Mr. Lav Singh	Assistant Professor (G-I)	Structural Engineering	Structural Analysis and Dynamics, Bridge Engineering, Concrete Technology
15	Mr. Neeraj Singh Parihar	Assistant Professor (G-I)	Geotechnical Engineering	Liquefaction, Slope Stability, Hazard assessment

Research Thrusts of the Department

Fluvial hydraulics, Development of High Performance Concrete, Rock-fill material modeling, Effects of dynamics loads on structures.

Significant achievements of current students and alumni

Around 40 Civil Engineering students of 2015-passout batch qualified the prestigious examination GATE-2015, with about five students scoring above 99 percentile. At least 15 students have gone for post-graduate studies at IISc Bangalore, IITs and NITs, and some other have joined Universities abroad viz. University of Florida.

DEPARTMENT OF PHYSICS

Department offers various interdisciplinary courses and projects at undergraduate level. All faculty members are actively involved in research in key scientific and technological areas as Semiconductor Physics, Microwaves and Antenna designing (Numerical Modeling, Design and simulations), Nanotechnology (Nano ferrites, Carbon Nano structures etc.). The department is offering courses on a wide spectrum of disciplines for under graduate level such as Optics, Laser Physics, Statistical Physics, Thermodynamics, Atomic Physics, Electromagnetism, Solid State Physics, Quantum Physics, Biophysical techniques, Biomaterials, Material Science, Optical Fibres, Wireless Networks, Photonics and Microwave Devices, Nanotechnology, Thin Film Technology, Biosensors, Nano-structured films etc. The faculty of the department has established many research collaborations with corresponding departments in various other Universities as Himachal Pradesh University, Shimla, Panjab University, Chandigarh, Delhi College of Engineering, IITs, IISc. Bangalore, IOP, CAT Indore etc. In near future, the department plans to extend these collaborations to Research Institutes and industries for fruitful realization and productivity of their research. On account of this research, the Department of Physics has come out with research publications in esteemed international and national journals and presented the research work in many international and national conferences. Already eight students of the department have obtained their Ph.D degrees and three have submitted their thesis. To carry out advance research, grants have also been received from DST, CSIR, DRDO, ISRO etc.

Laboratories

The department has well equipped laboratories having the latest well maintained instruments that cater to laboratory classes of B.Tech courses. These laboratories have setup on optics such as Newton's Rings, Diffraction grating, polarimeter, radiation physics as Planck's photo cell, electronics as Hall Effect set up, Four probe set up, dielectric constant and capacitance measurements, Optical fibres set up, Hysteresis loop, Frank Hertz experimental set up, Magnetostriction and Magneto resistance measurement devices. In addition to carry out research, the department has four laboratories. The department has a spectroscopy laboratory with UV-VIS-IR spectrophotometer, semiconductor laboratory with a Vacuum coating unit for thin film deposition, Keithley digital multimeter for I-V measurements, Electron Beam evaporator. The department has developed an antenna laboratory with antenna design and measurement facility. An established electromagnetic analysis lab is equipped with latest simulations tools like, HFSS, Empire Xcel, IE3D and other mathematical tools with high end processors.

FACULTY

Sr. No	Name of the faculty	Designation	Area of Specialization
1	Prof. P.B. Barman	Professor & Head	Materials Science
2	Pro. Sunil K. Khah	Professor	Electromagnetic Antenna Theory
3	Dr. Vineet Sharma	Associate Professor	Chalcogenides
4	Dr. Pankaj Sharma	Assistant Professor (Senior Grade)	Amorphous Semiconductors
5	Dr. Dheeraj Sharma	Assistant Professor (Senior Grade)	Polymer nanoc omposites
6	Dr. Rajesh Kumar	Assistant Professor (Senior Grade)	Nanotechnology

7	Dr. Surajit Kumar Hazra	Assistant Professor (Grade-II)	Material Sensors
8	Dr. Ragini Raj Singh	Assistant Professor (Grade-II)	Quantum dot structures
9	Dr. Sanjiv Kumar Tiwari	Assistant Professor (Grade-II)	Semiconductors

FACULTY ACTIVITIES

1) Journal Publications(2014-15)

1. Mohammed El Bana, Suzan S. Fouad, Pankaj Sharma and Vineet Sharma "Analysis of chemical ordering and fragility for Ge-Se-In glasses" Applied Physics A, Vol 120, No. 1 (2015) 137 – 143.
2. A. K. Dixit, P. Sharma, A. Thakur, V. Mishra, Pankaj Sharma, V. S. Rangra, "Compositional Dependence of Physical Parameters in Sn-Se-In Chalcogenide Glasses" Chalcogenide Letters, Vol. 12, No. 5, (2015) 249 – 256.
3. Neha Sharma, Sunanda Sharda, Vineet Sharma and Pankaj Sharma, "Thermal Analysis of Quaternary Ge-Se-Sb-Te Chalcogenide Alloys" Journal of Thermal Analysis and Calorimetry Vol 119 (2015) 213-218.
4. L. K. Abhilashi, Pankaj Sharma, R. Vaish, P. Sharma, "Effect of Compositional Dependence on the Physical Properties of Sn-Se-Sb Chalcogenide glasses" Universal Journal of Physics and Application Vol 9 No. 2 (2015) 58-63.
5. Pankaj Sharma and Vineet Sharma, "Temperature Dependent Electrical Study of $Ge_{17}Se_{74}Sb_9$ Thin Film" Int. J. New. Hor. Phys. Vol 2 (2015) 21-24.
6. Arpit Kaistha, V.S. Rangra and Pankaj Sharma, "Assessment of physical parameters for quaternary antimony substituted Ge-Se-Te alloys" Glass Physics and Chemistry Vol 41, No. 2, (2015) 175-179.
7. Pankaj Sharma, A. Dahshan and K. A. Aly, "New Quaternary Ge-Se-Sb-Ag Optical Materials: Blue Shift in Absorption Edge and Evaluation of Optical Parameters" Journal of Alloys and Compounds Vol 616 (2014) 323–327.
8. D. Gupta, D. Dutta, M. Kumar, P.B. Barman, C.K. Sarkar, S. Basu, S.K. Hazra, A low temperature hydrogen sensor based on palladium nanoparticles, Sensors and Actuators, B: Chemical, 196 (2014) 215-222.
9. D. Dutta, S.K. Hazra, J. Das, C.K. Sarkar, S. Basu, Studies on p-TiO_2/n-graphene heterojunction for hydrogen detection, Sensors and Actuators, B: Chemical 212 (2015) 84-92.
10. Rajinder Kumar, Hitanshu Kumar, Manoj Kumar, Ragini Raj Singh and P. B.Barman,, *"Enhanced saturation magnetization in cobalt doped Ni-Zn ferrite nanoparticles"* Journal of Superconductivity and Novel Magnetism (2015).

2) Conference Publications

1. D. Gupta, P.B. Barman, S.K. Hazra (2014) 'Synthesis of palladium nanoparticles for selective hydrogen sensing', paper presented at the International Conference on Electron Microscopy & XXXV Annual Meeting of Electron Microscope Society of India (EMSI-2014) Delhi, July 9-11, India.
2. D. Gupta, P.B. Barman, S.K. Hazra, "Hydrogen Response of Porous Palladium Nano-Films", AMRP-2015 (13-14 March 2015), SLIET, India
3. Rajinder Kumar, Ragini Raj Singh and P. B. Barman , "Structural Analysis of Emerging Ferrite: Doped Nickel Zinc Ferrite" AMRP-2015 (13-14 March 2015), SLIET, India

4. Sarita Kango and Rajesh Kumar "Magnetite Nanoparticles Coated Glass Wool For As(V) Removal From Drinking Water" AMRP-2015 (13-14 March 2015), SLIET, India

5. Bandna Bharti, P. B. Barman and Rajesh Kumar "XRD analysis of undoped and Fe doped TiO2 nanoparticles by Williamson Hall Method" AMRP-2015 (13-14 March 2015), SLIET, India

6. Hitanshu Kumar, Umesh Bind, P. B. Barman and Ragini Raj Singh "Low Temperature Regulated Growth of PbS Quantum Dots by Wet Chemical Method" AMRP-2015 (13-14 March 2015), SLIET, India

Projects Received by the Department from various Government /Private Agencies

On going Projects:

S. No.	PI	Title	Funding Agency	Amount (INR)	Duration
1.	Dr Sunil Kumar Khah	Shared Aperture Microstrip Antenna Array for L and S Band	CSIR	15.54 Lac	2012-2015
	Ragini Raj Singh	Development, characterization & processing of quantum dots for imaging in near infrared (NIR) range	DST	24.8 lac	2014-2017

Patent: (Filed)

1. A Method and an Apparatus to increase antenna gain and reduce side lobe level in a Micro strip Antenna.

DEPARTMENT OF MATHEMATICS

The Department of Mathematics was established from the very inception of the University mainly to cater the needs of B. Tech. programs. The Department is well equipped with software like MATLAB, Maple, Mathematica, SPSS, Lingo and Lindo.

Research

The Department has an active Doctoral program. Since the establishment of the Department in 2002, four faculty members have obtained Doctoral degree. One research scholar has been awarded the degree. Currently 3 students are registered for Ph. D. degree.

Departmental research interests are in Applied group theoretic techniques, Discrete symmetries, Mathematical modeling and simulation, non-linear partial differential equations, Linear Algebra, Numerical Methods, Operations Research, Differential Geometry, Multivariable Calculus, Mechanics of Continuous Media, Elastic Waves, Wave propagation, Wavelets and differential equations, Wavelets in image processing, Algebraic Coding Theory, Sequence Design, Distributed Source Coding, Fuzzy Information Measures, Decision Making, Pattern Recognition, Probability and stochastic process, Reliability theory and engineering applications, Statistical inference under non-standard conditions, Time series analysis and forecasting. Application of Markov Random Field and Bayesian Techniques in Image Processing, Statistical methods in Epidemiology, Environmental and Bio Sciences.

FACULTY

S. No.	Name	Designation	Qualification	Specialization
1.	Harinder Singh	Professor	Ph D	Applied Mathematics Mechanics of Continuous Media, Elasticity, Thermoelasticity
2.	Karanjeet Singh	Professor	Ph D	Nonlinear partial differential equations
3.	R S Raja Durai	Associate Prof	Ph D	Algebraic Coding Theory, Image and video processing
4.	R K Bajaj	Associate Prof	Ph D	Fuzzy Information Measures, Intuitionistic Fuzzy Information Measures, Decision Making
5.	Neel Kanth	Assistant Prof Sr. Grade	Ph D	Numerical Analysis, Operations Research, Mathematical Modeling.
6.	P K Pandey	Assistant Prof Sr. Grade	Ph D	Differential Geometry, Geometry of Submanifolds
7.	Narendra Kumar	Assistant Prof Grade I	M Sc (Math, Stat)	Statistical Inference and Multiple Comparison Procedures, Computational and Applied Statistics, Biostatistics.

FACULTY ACTIVITIES

1)   Publications: Journals

1. Neel Kanth,B.K Pathak(2015), Analysis of Uniform Load on Nip Width of Machine Calendering using Artificial Neural Network, Mathematical Journal of Interdisciplinary Sciences.(Communicated).
2. Tanuj Kumar and Rakesh K Bajaj, " 'NTV' Metric Based Entropies of Interval Valued Intuitionistic Fuzzy Sets and Applications in Decision Making", Annals of Fuzzy Mathematics and Informatics, Volume 9, No. 1, 1 - 21, (January 2015) [MathSci Net, Impact Factor: 1.1147; ISSN: 20939310].
3. Tanuj Kumar and Rakesh K Bajaj (2014) "On Complex Intuitionistic Fuzzy Soft Sets with Distance Measures and Entropies", *Journal of Mathematics - Hindawi Publishing Corporation*, Volume 2014, Article ID-972198, 12 pages. [doi:10.1155/2014/972198]
4. Tanuj Kumar, Rakesh K Bajaj and Nitin Gupta, (2014), "Fuzzy Information Measure in Weighted Fuzzy Linear Regression Model under Linear Restrictions with Simulation Study", *International Journal of General Systems*, Volume 43 (2), 135 - 148, 2014.[Taylor & Francis, Impact Factor: 0.733, Scopus, SCI]
5. Gaurav Kumar and Rakesh K Bajaj, (2014), "On Solution of Interval Valued Intuitionistic Fuzzy Assignment Problem Using Similarity Measure and Score Function", *International Journal of Mathematical, Computational, Physical and Quantum Engg,* 8(4), 86 - 91, 2014. [ISSN: 1307-6892, International Science Index 88].
6. Gaurav Kumar and Rakesh Kumar Bajaj, (2014) , "Intuitionistic Fuzzy Weighted Linear Regression Model with Fuzzy Entropy under Linear Restrictions", *International Scholarly Research Notices - Applied Mathematics - Hindawi Publishing Corporation*, Volume 2014, Article ID-358439, 10 pages.

2)   Conferences/Workshops Organized

One-Week Workshop on "Combinatorics and Graph Theory in Science and Engineering" during November 3 – 8, 2014. There were 52 registrations in the workshop including faculty members, research scholars, M Tech and B Tech students from all over India. The workshop was conducted by our guest speaker Dr. Ashish Srivastava, Department of Mathematics & Computer Science, Saint Louis University; Saint Louis, MO, USA.

3)   Students Currently Registered for PhD:
1.   Mr. Manoj Gaur
2.   Mr. Madan Mohan Sati

4)   Students Awarded PhD:
1.   Tanuj Kumar under the supervision of Dr R K Bajaj

DEPARTMENT OF HUMANITIES AND SOCIAL SCIENCES

Department of Humanities and Social Sciences is a source of change-facilitators who serve to complement the existing and emerging educational programs of our University by imparting professional and behavioral competencies in the domain of humanities and social science and, thereby, transforming our students to become the New-age, Innovating, Competitive and Enterprising leaders in their chosen professions of service and technology. This department serves as a 'Centre of Excellence' dedicated to the dissemination of behavioral knowledge pertaining to skill oriented courses in fields of Social Sciences, Communication and Management.

The Department was set up with the intention of producing well-rounded engineers, not only having good technological skills but also with the ability to interact with different organs of an organization. Thus, the Department develops 'soft' skills in students. These skills are Group and Co-operative working, Economics, Finance, Project management etc. Additionally, the Department exposes students to Entrepreneurship, Conflict management skills, HR management, Customer relationship management, Total quality management etc.

The Department offers core (I-VI Semesters) and elective (VII-VIII Semesters) courses for all B.Tech students and it is mandatory for all students to take one course in each semester. The epartment offers doctoral program in Social Sciences, Languages and Management

Department of Humanities and Social Sciences commits to make the following deliverables in respect of teaching, research and service to our family of institutions:

Teaching

- To improve the quantitative, communication, social and interpersonal skills of our students
- To provide high-quality decision-making education in all area of professional and behavioral development
- To improve the effectiveness and quality of teaching of the faculty
- To encourage the faculty to place greater emphasis on motivating and counseling students and to participate in students' organization and activities
- To update, enrich and present the course content and keep them increasingly relevant and action-oriented
- To design customized professional courses to complement and enhance the niche areas of engineering and technologies and
- To develop, sponsor, and conduct executive education

Research

- To improve the research atmosphere and support to the Department
- To encourage faculty and students to undertake research and present at least one research output every year at professional meetings
- To help identify joint research projects and topics and to encourage faculty members towards interdisciplinary projects and
- To increase the approach and acquisition of research grants and sponsorships

FACULTY

Sr. No.	Name of Faculty	Designiation	Area of Specialization
1	Dr Anil Sehrawat	Associate Professor & Head (Actg.)	Business communication & Organizational Behaviour
2	Dr Anupriya Kaur	Associate Professor	Marketing
3	Dr Amit Srivastava	Assistant Professor (Senior Grade)	International Business, Economics & Finance
4	Dr Tanu Sharma	Assistant Professor (Senior Grade)	Human Resource Management, Emotional Intelligence & Corporate Social responsibility
5	Ms. Rashmi Sud	Assistant Professor (Grade II)	Marketing
6	Dr Puneet B. Sood	Assistant Professor (Grade II)	Finance & Accounting
7	Ms. Triambica Gauitam	Assistant Professor (Grade II)	Finance
8	Ms. Neena Jindal	Associate lecture	Corporate Governance

Research Groups

Emotional Intelligence and Leadership

Our work includes group and team building, job satisfaction, organizational commitment, Styles of leadership, leadership development, planning, recruiting and organizing of human resources, decision making at both individual and team level, Change   management, conflict management, Emotional intelligence and

Faculty

Dr. Anil sehrawat
Dr. Tanu Sharma

Courses

• International Human Resource Management

Finance Group

Our Work includes different areas of Finance, Economics and International Trade like Behavioural Finance, Financial Econometrics, Capital Structure, Financial Modelling, Banking, Financial Literacy, Social Networking, Economic Development, Macroeconomics, Financial Systems and Financial Planning etc.

Faculty

Dr. Amit Srivastava
Dr. Puneet Bhushan Sood
Ms. Triambica Gautam

Courses

- Financial Institutions and Markets
- Macroeconomics
- Advance Financial Planning
- Econometrics

Marketing Management

Areas of research are Consumer behavior, Brand Management, Service marketing, Impact of changing environment on marketing practices, rural marketing.

Faculty

Dr Anupriya Kaur
Ms. Rashmi S Chaudhry

Courses

- Strategic Brand Management
- Global Marketing
- Service Marketing

Language and Literature Group

We focus on the research in the areas such as Textual Organization in English, Metadiscourse Features, Partition Literature, War Literature, Translation Studies, Shakespearean studies and South Asian Writers.

Faculty

Dr Anil Sehrawat

Courses

- Intercultural Communication
- Persuasive Communication

Humanities Group

This group focuses on the research in the areas such as Human rights, Ethics and Good Governance.

Faculty

Ms Neena Jindal
Service

- To encourage faculty and students to relate usefully to our institutions and wider community via active participation in selected activities

- To encourage faculty members to work with Departmental and University committees and programs
- To encourage faculty and students to serve the local, national and professional organizations and
- To encourage faculty and students to apply for and participate in service –oriented grants and sponsorships

Facilities

- CMIE – PROWESS –Financial database
- SPSS-16.0-Statistical analysis
- Clarity Infinity Digital Language Lab (4.6) –Software package for Language lab
- Proquest journal database
- Emerald journal database

FACULTY ACTIVITIES

1)   Book Publications:

1. Sehrawat, A. (2014), "Emotional Intelligence, Well-being and Achievement Goals", Saarbrücken: LAP Lambart Academic Publishing.ISBN: 978-3-659-63521-2
2. Sehrawat, A. (Ed.). (2014), "New Directions in English Language Teaching. Parbhani", New Man Publication. ISBN: 978-93-83871-39-1
3. Sehrawat, A. (Ed.). (2014), "Perspectives on Indian English literature. Parbhani", New Man Publication.ISBN: 978-93-83871-40-7
4. Sharma, T. and Sehrawat, A. (2014) Emotional Intelligence, Leadership and Conflict Management", Saarbrücken: LAP Lambart Academic Publishing. ISBN13:978-3-659-63123-8.
5. Srivastava, A. (2015), "Intra-Industry Trade of India with Reference to Few Selected Sectors", LAP Lambert Academic Publishing, Germany (ISBN: 978-3-659-64800-7).
6. Sharma, T. (2014), "Poverty in India: Issues & Challenges", Parbhani: New Man Publication, (ISSN/ ISBN No. :978-93-83871-41-4)
7. Sharma, T. (2014), "Socio-Economic Development of Below Poverty Line Classes", Parbhani: New Man Publication, (ISSN/ ISBN No: 978-93-83871-41-4)

2)   Journals/Book Chapter Publications:

1. Srivastava, A. (2015), "Factor Endowment Differences and Intra-Industry Trade of India with Different Country Groups: A VECM Approach", BHU Management Review, Vol. 5 - Special Issue on Changing Perspectives of International Business & Trade, pp 1-12, Jan-June (ISSN: 2231-0142)
2. Khanna, S., Srivastava, A. and Medury, Y. (2015), "Analyzing the Relationship Between Management Efficiency, Capital Structure, and Firms' Performance in a Turbulent Environment : Evidence from India", Indian Journal of Research in Capital Markets, Vol 2, Issue 2, pp 56-64, Apr-June (ISSN: 2394-3459)

3. Srivastava, A. (2015), "Exploring the Determinants of India's Intra-Industry Trade: A Panel VAR/VECM Approach", International Journal of Computational Engineering and Management, Vol. 18, Issue 3, pp 23-31, May (ISSN: 2230-7893)

4. Bhushan, P. and Murtaza, M. A. (2015), "Bancassurance in India: A Managerial Perspective", Asian Journal of Research in Banking and Finance, Vol 5, Issue 6, pp 151-159. (ISSN – 2249-7323).

5. Kumari S., and Sharma T. (2015), "Corporate social responsibility: A study of Pepsico India", Corporate Social Responsibility, pp. 193-204 (ISBN 93-83793-28-7)

6. Khanna, S., Srivastava, A. and Medury, Y. (2014), "Revisiting the Capital Structure Theories with Special Reference to India", The International Journal of Business and Management. Vol 2, Issue 8, pp 132-138 (ISSN: 2321 – 8916).

7. Sehrawat, A. (2014), "Coherence in ESL Students' Persuasive Texts", American International Journal of Research in Humanities, Arts and Social Sciences, Issue 7 (1), 80-85. (ISSN-2328-3639)

8. Sehrawat, A. (2014), "Metadiscourse in ESL Writers' Persuasive Writing", International Journal of English Language, Literature & Humanities, Vol. 2 (4), 374-384. (ISSN 2321-7065)

9. Sehrawat, A. (2014), "Issues of identity and conflict between present and past values: A study of Bharati Mukherjee's Jasmine", Research Scholar, Vol. 2 (3), 24-29. (ISSN 2320 – 6101)

10. Sehrawat, A. and Singh, D. (2014), "Social transformation of working class through self expression and education: a study of Arnold Wesker's Roots", Research Scholar, Vol. 2 (2), 589-594. (ISSN 2320 – 6101)

11. Sehrawat, A. and Sharma, T. (2014), "Leadership and Conflict Management Style among Indian Managers", International Journal of Scientific & Engineering Research, Vol. 5 (5), 145-152 (ISSN- 2229-5518)

12. Singh, D. and Sehrawat, A. (2014), "Social and Political Concerns in Arnold Wesker'sChicken Soup with Barley" In A. Sehrawat (Ed.) British Literature: Critical Perspectives. Parbhani: New Man Publication, pp.12-24.

13. Bhushan, P. and Murtaza, M. A. (2015), "Impact of CSR on SMEs in India," Chapter 14, (Title of Book: Corporate Social Responsibility), Edited By: Prof. Suresh Kumar and Dr. Vinod Negi, Published by YS Books International (ISBN: 93-83793-28-7)

14. Chauhan, A., Kaur, A., & Medury,Y. (2014). "Information sources and perceived destination image: Insights from an empirical study in India", International Journal of Tourism Policy, 5(4), 327-349.

15. Sharma, T. (2014), "Corporate Social Responsibility: A study of Tata and Aditya Birla Group". International Journal of Scientific & Engineering Research, Vol. 5 (5), 35-39 (ISSN: 2229-5518).

16. Sehrawat, A. and Sharma, T. (2014), "Emotional Intelligence and Leadership in Indian Context." International Journal of Research in Organizational Behavior and Human Resource Management, Vol. 2 (2), 89-95 (ISSN: 2320-8724.

17. Sharma, T. & Sehrawat, A. (2014), "Emotional intelligence and conflict management: An empirical study in Indian context", International Journal of Engineering, Business and Enterprise Applications, Vol.1 (7), 104-108 (ISSN: 2279-0039.

18. Sharma, T, Sehrawat, A. and Chauhan, A. (2014), "Domestic Tourism Destination Preferences of Indian Youth", Himalyan Journal of Contemporary Research, Vol.3 (1), 747-753 (ISSN: 2279-0039).

19. Sharma,T (2014), "Business Ethics " ,Contemporary Approaches of Innovative Business Management (ISBN: 13-978-81-927004-2-7).

3) Conference Publications:

1. Chauhan, A., Kaur, A., & Medury,Y., (2015), "Destination Branding and Architecture: Review and Critique", Paper presented at Twelfth AIMS International Conference on Management, Indian Institute of Management Kozhikode, January 2-5, 2015. Kozhikode ISBN: 978-81-924713-8-9.
2. Chauhan, A., Kaur, A., & Medury,Y., (2015), "Tourists' propensity for WOM and E-WOM across selective destinations of India", Paper presented at Twelfth AIMS International Conference on Management, Indian Institute of Management Kozhikode, January 2-5, 2015. Kozhikode ISBN: 978-81-924713-8-9.
3. Khanna, S., Srivastava, A., & Medury,Y., (2015), "Do Capital Structure Decisions in Turbulent Environment Affect Value of Firm?", Paper presented at Twelfth AIMS International Conference on Management, Indian Institute of Management Kozhikode, January 2-5, 2015. Kozhikode ISBN: 978-81-924713-8-9.
4. Bhushan, P. (2014), "Financial Capability of Salaried Individuals: Evidence from Himachal Pradesh", 2014 NIT-MTMI International Conference on Emerging Paradigms and Practices in Global Technology, Management & Business Issues, December 22-24, Department of Mechanical Engineering, National Institute of Technology, Hamirpur, (H.P.), India.
5. Bhushan, P and Murtaza, M. A. (2014), "Bancassurance: The Indian Scenario", 2014 NIT-MTMI International Conference on Emerging Paradigms and Practices in Global Technology, Management & Business Issues, December 22-24, Department of Mechanical Engineering, National Institute of Technology, Hamirpur, (H.P.), India.
6. Bhushan, P and Murtaza, M. A. (2014), "Impact of CSR on SMEs in India", National Seminar on Corporate Social Responsibility, Bahra University, Shimla Hills, November 28, pp 183-192.
7. Sharma T. (2014), Business Ethics (Abstract), Third International Conference on "Paradigm Shift in Innovative Business Management", December 06-07, VIPSAR, Indore.

4) Participation in International Conferences/Workshop held abroad :

1. Dr. Amit Srivastava participated in a Workshop "ARTNeT-CDRI Capacity Building Workshop on Gravity Modelling", during January 20-22, 2015, held in Phnom Penh, Cambodia.

5) Participation in International Conferences held in India

1. Srivastava, A. (2014), "Determinants of India's Intra-Industry Trade: A Panel VAR/VECM Approach", Paper presented at Fourth Research Conference on Empirical Issues in International Trade and Finance, Indian Institute of Foreign Trade, New Delhi, December 17-19.

2.   Dr. Tanu Sharma Attended, Third International Conference on "Paradigm Shift in Innovative Business Management", December 06-07, 2014, VIPSAR, Indore.

6)   National Conferences /Workshops Attended:

1.   Kumari Santosh and Sharma T., Corporate social responsibility: A study of Pepsico India, National seminar on Corporate Social responsibility, Bahara University, Shimla Hills, November 28,2014

2.   Dr. Tanu Sharma attended and Participated in TED X at Jaypee University of Information Technology, August 24, 2014.

7)   Departmental Activities:

1.   Department of Humanities and Social Sciences organized a One-Week Self-Financed Workshop on "Tools and Techniques for Data Analysis in Management Research" during June 08-13, 2015. Dr. Amit Srivastava was organizer as well as one of resource person of the Workshop. Dr. Anupriya Kaur and Dr. Puneet Bushan Sood were the other two resource persons of the Workshop. About 20 participants (faculty members and research scholars) from different part of India were participated in it.

CENTRES

LEARNING RESOURCE CENTER (LIBRARY)

Learning Resource Center (LRC) is a backbone of academic and research activities of the University and has been catering to the information need of the faculty members, students, staffs and research scholars. LRC is a separate block of three storied building embedded to main academic block which can accommodate 300 students at a time in order to carry any activity related to study and research. The LRC has around **33665** volumes of books and **1394** back volume of journals which covering the disciplines of Computer Science and Engineering, Electronics and Communication Engineering, Information Technology, Civil & Environmental Engineering, Biotechnology, Bioinformatics, Pharmacy, Mathematics, Physics & Material Science, Management, and languages. The Collection comprises of Print monograph such as Textbooks, Reference Books, Encyclopedias, Handbooks, Theses, Standards, Atlases, etc. LRC is regularly subscribing 19 International Journals, 50 National Journals, and 43 National and International Magazines in order to supplement teaching and research activity of the university. The Non-book materials include audio/video cassettes, CD-ROM discs, DVD-ROM discs etc. The LRC is an active member of Indian National Digital Library in Engineering, Science and Technology (INDEST) consortia for subscribing e-journals initiated by MHRD and AICTE.

LRC is subscribing IEEE, ACM, Springer, ASCE, Emerald digital library from INDEST and resources like SciFinder Scholars and Manuals from BIS has been added to the collection. More than 22000+ full texts electronic resources of Journals, Conference Proceedings, Transactions, Magazines and Reports are available for reading throughout the campus. LRC is also active member of Developing Library Network (DELNET), New Delhi for resource sharing, document delivery services among the member libraries and supplementing the needs of the resources which are not available with LRC. LRC has subscribed industrial databases Proquest ABI/INFORM Complete, Prowess, and Business Beacon. There are 95 dedicated computer nodes and are fully connected with Internet and LAN of the campus. Students, faculty, research scholars can use computer facility in LRC for the purpose of browsing internet, accessing journals, reading course materials during the opening hours of the LRC. LRC resources are fully computerized and bar-coded with latest version of 'Liberty' library automation software (a fully internet based library automation software). All activities of the LRC are computerized and patrons have been issued Bar-coded Identity card. All the resources of LRC can be viewed, searched through Internet OPAC or dedicated terminal for OPAC throughout the campus through Internet. LRC remains open from 8:30 AM to 12:00 PM midnight except holidays. LRC has implemented an integrated electromagnetic security system from 3M, USA for the materials movement of the LRC. The LRC has also developed an institutional repository by using Dspace, Open Source Software for maintaining scholarly output of the university.

Resource Collection

Unique Titles   :   18411

Total Copies   :   33665

- **Subject wise Book Collection**

S. No.	Department	Titles	Copies
1	Bioinformatics and Biotechnology	1795	3215
2	Chemistry	377	655
3	Civil Engineering	2161	4343
4	Computer Science Engineering	3641	7820
5	Electronics and Communication Engineering	2851	5588
6	Humanities and Social Sciences	2410	3762
7	Mathematics	1624	2771
8	Others	1709	2287
9	Pharmacy	834	1295
10	Physics	1009	1929
	Grand Total	**18411**	**33665**
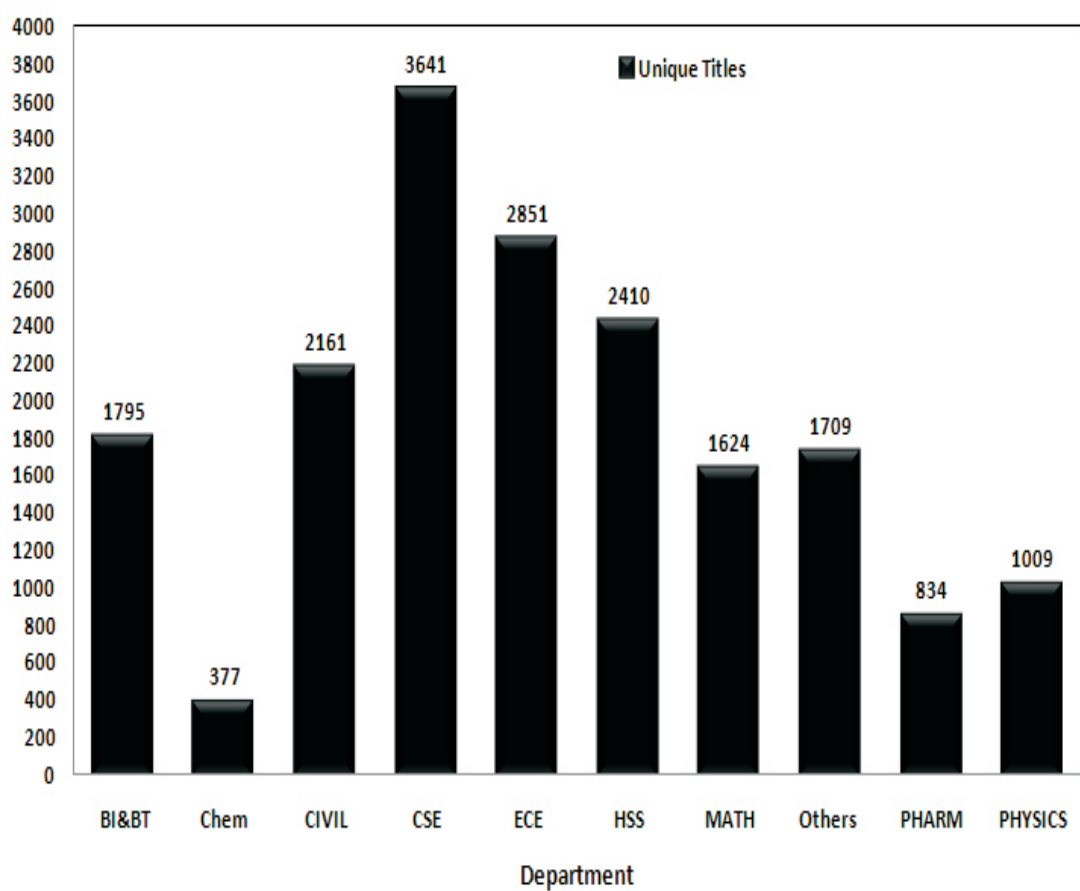
Subject wise collection of Books at Learning Resource Center
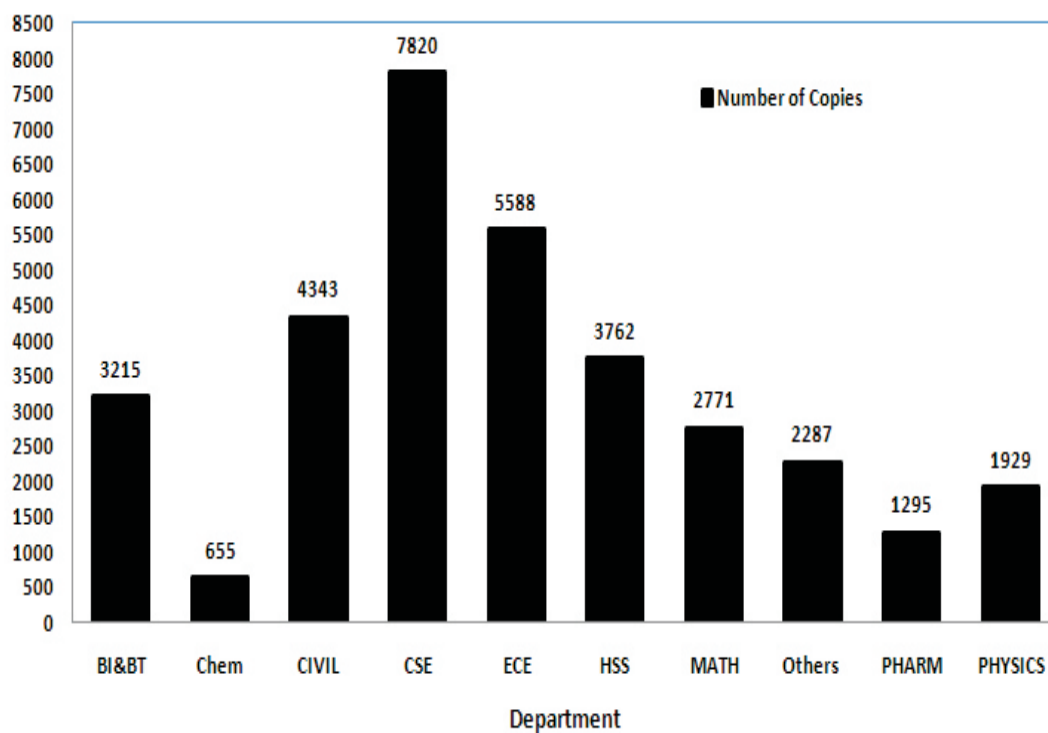
Online Journal Collections

Publisher	URL	No of Journals	No of Conference Proceedings
Association of Computer Machinery (ACM)	http://portal.acm.org	44	6035
American Society of Civil Engineers (ASCE)	http://ascelibrary.org/	33	-
Institute of Electrical and Electronics Engineers (IEEE)	http://ieeexplore.ieee.org/	241	18431
American Physical Society (APS)	http://publish.aps.org/	10	-
Emerald Publishing Inc	http://emeraldinsight.com	150	-
Springer	http://springerlink.com	586	-
	Total	**1064**	**24466**

- **Other Collections   :   3811**

Type of Resource	Number
E-books (SIAM)	372
Print Journals (International – Current Subscription)	19
Print Journals (National – Current Subscription)	50
Magazines (Current Subscription)	43
Back Volume Journals	1394
PhD Thesis	83
M.Tech & Dual Degree Thesis	433
B.Tech Project Reports	1405
Newspapers (National Dailies)	12

- **Publications by LRC Staff**

Book(s) :

1. Sanjay Kataria, John Paul Anbu K, **Shri Ram**, Richard Gartner (2015). Proceedings of 2015 4th Interrnational Symposium on Emerging Trends and Technologies in Libraries and Information Services. New Delhi: IEEE Press. [ISBN : 978-1-4799-7999-8] .
2. Sanjay Kataria, John Paul Anbu K, **Shri Ram**, Nirmal Kumar Swain, Naresh Singh Bhandari (2015). Transforming Libraries and Librarianship. New Delhi: KBD Publications. [ISBN : 978-81-907999-6-6] .

Book Chapter(s) :

1. **Shri Ram**, John Paul Anbu K, Sanjay Kataria (2015). Mobile Information Literacy for libraries: A case study on requirements for an effective Information Literacy Program. In Gill Needham, Mohamed Ally , M-Libraries 5: From Devices to People (pp.). London: Facet Publishing Company. [ISBN : 9781783300341] .
2. John Paul Anbu K., Sanjay Kataria, **Shri Ram** (2015). The Influence of ICT in the Transformation of Libraries and Librarianship: An Analysis. In Sanjay Kataria, John Paul Anbu K, Shri Ram, Nirmal Swain, Naresh Singh Bhandari, Transforming Libraries and Librarianship (pp. 151-157). Delhi: KBD Publication. [ISBN : 978-81-907999-6-6] .

Journal(s) :

1. **Shri Ram** (2015). A bibliometric assessment of liquorice (Glycyrrhiza glabra) research trends. Annals of Library and Information Studies, 62 (1), 27-32.
2. **Shri Ram** (2015). A Bibliometric Profile of Lymphatic Filariasis Research in India. Journal of Vector Borne Diseases, 52 (1), 73-78. [IF(2013) : 0.806] .

3. **Shri Ram** (2015). Tag Cloud Application and Information Retrieval System: Visualization to Create Information Literacy about New Arrivals in the Library. DESIDOC Journal of Library and Information Technology, 35 (1), 41-46.

4. **Shri Ram**, N Laxman Rao (2014). Metadata Description Framework for Integration of Bioinformatics Information Resources: A Case of iBIRA. DESIDOC Journal of Library and Information Technology, 34 (5), 384-392.

5. **Shri Ram** (2014). Research Profile of Polycystic Ovary Syndrome: A Bibliometric Perspective of Literature from 1984-2013. Collnet Journal of Scientometrics and Information Management, 8 (2), 311-327.

6. **Shri Ram**, John Paul Anbu K. (2014). The Use of Bibliographic Management Software by Indian Library and Information Science Professionals. Reference Service Review, 42 (3), 499-513.

7. **Shri Ram**, Nitin Paliwal (2014). An Assessment of Bradford Law's of Scattering to the Psoriasis Literature through Bibliometric Snapshot. DESIDOC Journal of Library and Information Technology, 34 (1), 46-56.

8. **Shri Ram**, Sanjay Kataria (2014). An Assessment of the Visibility of Indian Journals in Social Science Citation Index Journal Citation Report. Journal of Information Management, 1 (1), 1-17.

Awards

Dr Shri Ram was awarded with Travel Grants by Open University (UK) to attend **5**[th] **International m-libraries Conference 2014** held at Chinese University of Hong-Kong during May 27-30, 2014. He presented his paper during the international conference on "*Mobile Information Literacy for libraries: A case study on requirements for an effective Information Literacy Program*".

IT INFRASTRUCTURE CENTRE

The main objectives of the Server Room (IT Infrastructure Center) are to provide support to all the members of JUIT on all aspects of academic computing, to implement and maintain IT infrastructure and application software, to impart introductory and advanced instructions to users, generate trained manpower to maintain IT infrastructure (Servers, Desktops, Network, Projectors, Printers, UPS, Wi-Fi, sound system, scanner), to provide support to institute computerization efforts, to do in house research & development, and to serve a user population of more than 2500 users consisting of undergraduate students, postgraduate students, research scholars, faculty and staff of the institute.

In addition, it also owns the responsibility to develop and implement application software for various needs of the Institute like finance, payroll, results, MIS reports and electronic attendance system etc.

- **General Computing Facilities**

    The Server Room is equipped with IBM X series Server for high performance Unix Computing Server, Intel Xeon servers with multiple processors, High end Intel Pentium server with multiple processors, various engineering and technical computing software, network management tools, Client/Server Database computing system connected over a switched fast Ethernet with Optical fiber backbone.

    For our printing needs we have total 65 printers with 12 heavy duty Network Printers and 1 Line matrix printers.

- **Hardware configuration**

SERVER DETAILS

S.No	Server	Configuration	Quantity
1	IBM X Series 235	Intel® XEON 2.4 GHz 4 GB RAM 73 GB SCIC HDD with RAID Support.	3
2	IBM X Series 226	Intel® XEON 3.0 GHz 4 GB RAM 140 GB SCIC HDD with RAID Support.	2
3	IBM System X 3400	Intel® XEON 2.0 GHz 4 GB RAM 956.32 GB SCIC HDD with RAID Support.	7
4	IBM X Series 200	Intel® P3 1.2 GHz 2 GB RAM 20 GB SCIC HDD with RAID Support.	2
5	IBM X Series 232	Intel® P3 1.2 GHz 1.2 GB RAM 204 GB SCIC HDD	2
6	IBM X Series 206	Intel® P4 3.0 GHz 1.2 GB RAM 68 GB SCIC HDD	1
7	SUN Fire 280R	2 GB RAM ,502 GB HDD SUN OS 5.8	1
8	CR 1000ia	10 10/100/1000 Gigabit ports with 3.5 Gbps firewall throughput and 600 Mbps anti-virus throughput	2
9	IBM X Series 3500	Intel® XEON 2.26 GHz 6 GB DDR III RAM 1200 GB SCIC HDD with RAID 5 Support , 17 inch TFT moniter	3
10	IBM Server X3100	IBM Server intel XEON X3100 with 8 GB DDR3 ,500 GB HDD and TFT screen	3
11	IBM x-3400 M3	Server IBM Model x-3400 M3 with intel xeon quad core processor,8 GB RAM,300 GB X 4 HDD,18.5 inch TFT	1

S.No	Brand	CONFIGURATIONS	QTY
12	HP	HP ML 110G6 Server Intel Xeon Quad Core X3430 Processor with 4 gb RAM ,250 GB Sata HDD and 18.5 TFT Screen	2
13	IBM X3300	IBM server x3300 m4 server 16 gb ram,1200 gb hdd with raid 5 card	1
		Total Number of servers	**30**

DESKTOP DETAILS

S.No	Brand	CONFIGURATIONS	QTY
1	Sun Think Client	Sun Client	35
2	IBM	P IV with 3 GHz, 80 GB HDD & 512 MB RAM	150
3	IBM	Core 2 due 2.4 Ghz, 160 GB HDD & 1 GB RAM 17 inch Monitor	60
4	IBM	P4 2.8 Ghz,40 GB HDD,256 MB RAM & 15 inch Monitor	35
5	IBM	P4 3.06 Ghz,80 GB HDD,256 MB RAM & 15 inch Monitor	25
6	IBM	Celeron 2.4 Ghz,40 GB HDD,256 MB RAM & 15 inch Monitor	25
7	IBM	Dule core 1.8 Ghz,80 GB HDD ,1 GB RAM & 17 inch Monitor	45
8	IBM	Dule core 1.8 Ghz,80 GB HDD ,512 MB RAM & 17 inch Monitor	15
9	IBM	INTEL CORE 2 DUO,160 GB HDD,4 GB RAM & 17 inch Monitor	2
10	IBM	INTEL CORE 2 DUO,160 GB HDD,2 GB RAM & 17 inch Monitor	50
11	IBM	INTEL CORE 2 DUO,160 GB HDD,2 GB RAM & 17 inch Monitor	135
12	IBM	core i3-530 (2.92 Ghz) with 2 GB RAM ,250 GB Sata HDD,18.5 inch TFT Monitor	90
13	IBM	Core I3- 2100 3.10 Ghz with 2 GB RAM ,320 GB Sata HDD,18.5 inch TFT Monitor	80
14	IBM	Core I3- 2100 3.10 Ghz with 4 GB RAM ,500 GB Sata HDD,dvd rom,18.5 inch TFT Monitor	120
15	IBM	Desktop computer lenovo M-73 core i5,4 gb ram,500 gb HDD,18.5 inch tft with wondows 8	45
		Total Number of computers	912

Engineering and Technical Computing Software.

SOFTWARE DETAILS

S.No	Product Title	No of Licenses
1	Hyperchem Release 7	10
2	Matlab ver 7.1	30
	Simulink	30
	CDMA Reference Blockset	5
	Communications Blockset	5
	Communications Toolbox	5
	Signal Processing Toolbox	5
	Wavelet Toolbox	5

3	Library Automation – Alice	Unlimited
4	MS Office Professional Plus 2007	100
5	Windows Server Enterprises 2003	3
6	Adobe Premier Pro Ver 7.0	20
7	Cold Fusion MVLP Ver 6.1	10
8	Flash MX 2004 MVLP	20
9	Micro Media Director Shockwave Studio for windows English AE	10
10	Symantec Anti virus	1000
11	SQL Server 2000 Standard Edtn	1
12	Windows Server CAL 2003 English OLP NL AE Device CAl	4
13	VStudio .Net Pro 2003 Win32 English OLP NL AE	15
14	Office XP Pro Win 32 English	20
15	VStudio .Net Pro 2002 Win32 English	9
16	ISA Server 2000 English	1
17	Windows Advanced Svr 2000 English.	1
	Windows CAL 2000 English OLP NL AE	23
18	DB2 UBD Enterprise Server Edition .	1
19	IBM Tivoli Storage Managed Processor	1
20	Cyberoam software for internet	1
21	Schrodinger For Biotech	1 user 25 Token
22	Lotus Domain	100
23	AutoCad 2005 Education	5
24	A'Desk 3 ds Max 6 (Edu)	20
25	Rational suit Enterprise Software	20
26	Mathematica Ver 5.0	10
27	Autocad 2004 Network User	10
28	Maple 9.5	1
29	Sun Solrix Ver 8	35
30	Window XP Proffesional	20
31	Oracle 9i	10
32	Visual Prolog ver 6.1	15
33	Soft image xsi Ver 4.0	20
34	Staad Pro	5
35	SPSS Base 16.0	15
36	Oracle 11g	1
37	Clarity Digital Multimedia Language Lab	31
	Clarity English Teaching Software from U.K	
	1. Sky Pronunciation Suite	5
	2. Connected Speech	5
	3. Tense Buster Compilation	5
38	NI Lab View Academic Site License 2010	50
39	Pasw Amos 18.0	3
40	Windows Server Enterprise 2008 with media	10
41	Antivirus Symantec Protection Suite enterprise edition 3.0	1000
42	Bentley Civil of perpetual network based software a.Mx Road V8 b.Power Civil c.Power Map	5
43	Ansys release 12.1	
44	HyperLynx 3d EM Super Structure Designer V 15.2	3
45	Auto CAD 2013	30
46	Matlab ver 10	50
	Simulink	10
	Filter Design Toolbox	10
	Communications Blockset	10

	Communications Toolbox	10
	Signal Processing Toolbox	10
	Video and Image processing Blockser	10
47	Window server standard 2012	4
48	Geo 5 suit of Software with various modules	50
	Xilinx UEF-VIVADO_SYSTEM	25
49	Base2 100	7
	Atlys Spartan-6 FPGA Development Board	1
50	Geo 5 suit of software with various modules (50 User)	50

- **Database Services**

  The Server Room has a Client/Server Database Computing System – Oracle 11g with Developer 2000 version 6.0 at front end, the platform is windows NT/2000/2003.

- **Network Services**

  The University Local Area Network (LAN) is a state of the art switched network with Fiber Optical and enhanced CAT5e/CAT6 UTP Backbone. It consists of more than 3500 network access points spread using 73-3 com switches, 3 Cisco Routers, 17 Cisco switches, 17 Cisco AP ,6 HP AP and 15 VLANs.

  The network access is provided to every room in student's hostel, faculty & staff residence, doctors at JUIT hospital, mess, laboratories and rooms in guest houses.

  Internet connection has been provided through a router. We have 1 Gbps (1: 1) leased circuit from BSNL and Railtel (4 MBPS) on OFC. Apart from internet and intranet many more services including mail, web, and library book search, domain name, antivirus and software upgrades are being provided over this network.

  JUIT is using Cyberoam Suite to manage internet bandwidth and mailing services. Cyberoam is consists of software firewall, anti spam controller, content filtering and antivirus protection at gateway level. Lotus Domino is being used by JUIT for official mailing services.

INTERNATIONAL LINKAGES OF THE UNIVERSITY

1. **MOU with the University of Abertay Dundee (U.K)**

   The MOU aims at:
   - Academic Partnership in areas of smart systems, Internet Computing & IT.
   - Developing and operating fees sharing model for combine studies & collaborating projects at PG level.
   - Identifying articulation roots for JUIT students to pursue research at UAD.
   - Allow JUIT faculty development in teaching and research at UAD.

2. **Educational Services Agreement with the University of Florida, Gainesville, Florida, United States of America**

   The primary objective of this agreement is to offer engineering professionals located in India, the opportunity to earn a Master of Science Degree through electronic delivery of Graduate Engineering program at JUIT in specified areas.

3. **MOU with the University of Westminster, London, England**

   The primary objective is to:

   - Explore collaborative development in selected areas based on common interest.
   - Development of Joint delivery post graduate programme.
   - Creation of jointly supported staff development programme.
   - Consultancy work to assist the development of new postgraduate courses.

4. **MOU with the Finnish University of Applied Sciences, Finland.**

   - Memorandum of Association aiming at exchange programmes for faculty and students for developing the ties to enhance the cooperation in University education.
   - Joint research projects.
   - Exchange of information and publication.

5. **MOU with Youth Development Fund Bhutan.**

   The MOU aims at:

   - Long terms association between the people of Bhutan and Jaypee Group, India.
   - It assures 20 scholarships every year to cover cost of tuition fee, lodging at Institutes of Higher Learning of Jaypee Group.

6. **MOU with Mapua Institute of Technology, Manila, Philippines.**

   - Implementing a student exchange programme. This programme is on a one-to-one basis. The students bear their own travel and living expenses. The exchanged students take cultural-related courses, above the science and technology courses, to make the programme more meaningful.
   - Sharing faculty resources for mutual benefit.

- Creating a group of Asian, European and US Schools, that will formulate and adhere to represent certain standards in IT education.

7   MOU with Institute of Microbiology, Johann Wolfgang Goethe, University of Frankfurt, Germany.

The memorandum focuses on:-

- Providing specialist advise on an Individual / Institutional basis.
- Advising and assisting in development of course curricula.

8   MOU with University of Florida, International Center, Gainesville, Florida, USA.

Primary objective is to:

- Development of cooperative efforts and academic interchange between two institutions.
- Specific projects in area of Educational interest selected through coordination.

9   MOU with University of California, Berekeley Extension

- Cooperation in mutual fields of academic interest for purpose of developing specific education and training opportunities and programmes.
- UCBE provides academic & organization development assistance as well as education & training activities in number of fields and subjects including:-
  - ❖   Design of curricula.
  - ❖   Development of appropriate faculty profiles.
  - ❖   Internship opportunities with United Sates companies.
  - ❖   Establishment of periodic quality assurance practices and procedures.
  - ❖   Distance learning opportunities.

10   MOU with College of Information Science & Technology, The Peter Kiewit Institute of Information Science, Engineering & Technology, University of Nebraska, Omaha.

Aims at:

- Exchange of Information & Experience
- Faculty and Student Exchange
- Cooperative research projects
- Coordinated Graduate Degree programs

11.   General MOU with Alliance of 4 Universities (A-4A) of Spain

The MOU States that:

- Enhance relations between two parties.
- Development academic and cultural interchange in the areas of education research and other activities.
- Collaborate together towards the internationalization of higher education

  1.   Student Exchange

2. Faculty Exchange
3. Joint Research projects
4. Online student research
5. Graduate and postgraduate research co-supervisor
6. Dual Degrees
7. Sharing of knowledge, regular dialogue, and reciprocal visit programs; sharing of
   information on best practices in higher education
8. Identifying funding, internships, or any other kind of cooperation opportunities.
9. Joint cultural programs, conferences, workshops and seminars development; training programs.
10. Any other Collaboration possibility.

12) **MoU with Arkansas State University, USA**

The MoU States that:

a) To establish a long-term cooperation envisaged to create mutually advantageous relationship.
b) Contingent upon full satisfaction of the requirements and expectations of the appropriagte faculty governance; upon the approval of the proposal by the executive officers of both universities; where appropriate, by the Universities, Board or Trustees.

13) **Technion – Israel Institute of Technology, Israel**

The MoU States that:

a) The primary objective of the agreement is the development of cooperative efforts between Technion and JUIT, which will enhance the academic interchange between the two institutions. Recognizing the importance of mutual collaboration and the contributions to society made by institutions of higher education, the parties desire to promote exchange between the faculty and the students of the two institutions as well as the exchange of academic and research information.

b) Specific projects in an area of educational interest will be selected as a result of coordination by Technion and JUIT at the appropriate administrative level in each institution. As these projects are developed, each will require a specific written agreement made in advance, setting for the the terms and conditions thereof and executed by authorized representatives of both institutions.

14) **South Dakota School of Mines and Technology, USA**

The MoU States that:

a) The two institutions agree in principal to the possibility of exchanges by general staff (administrative and technical) and faculty members.
 b) Cooperative research is to be encouraged as individual scholars establish contact and develop mutual interests.

c)   Each party will encourage continuing education and professional development   for teachers, professors, and academic staff, which   may
include
      i)   Vistis for studying teaching principles and methods
      ii)   Exchange of academic materials and other information
      iii)   Participation in seminars, congresses and meetings
      iv)   organizing training workshops

c)   Joint research activities and publications
Cooperative research is to be encouraged as individual scholars establish contact and develop mutual inteeests.

d)   Dual Degree Bachelor Program
Under this program, students will attend Jaypee for two years and South Dakota School of Mines and Technology (SDSMT) for two years, during which time the student will have the opportunity to earn bachelor's degree at SDSMT.

e)   Student Exchange
Each party will recommend potential students to participate in an exchange for the matriculation of the other university's appropriate academic programs on a reciprocal basis.

15)   **Center for Industrial Microbiology, Food Industries Research Institute, Nguyen Trai, Thanh Xuan - Hanoi, Vietnam**

16)   **SAP AG, Dietmar-Hopp-Allee, Germany**

ACADEMIC ADMINISTRATION

Admission Process

1) **UG Program:**

Admissions in the academic session 2014-15 were carried out through a counselling process conducted by the University, based on all India merit in JEE ranking.

Admissions to the Biotechnology, Bioinformatics, Biotechnology & Dual Degree 50% admissions were carried out based on merit in 10+2 Examination & 50% on JEE Merit.

2) **PG Programme**

Admissions for M.Tech programs were based on GATE score / Entrance Test conducted by the University for eligible candidates.

3) **PhD:**

The selection is done through our own Eentrance Examination and an interview of short listed candidates, based on their merit in Entrance Examination, qualifications and credentials.

4) **Students Enrollment**

The University over the period of 8 years has gained strength and confidence of the masses. The number and quality of intake has shown a remarkable improvement. The current state of student strength is given below.

Year of Study	UG Prog.	PG (M. Tech) Prog. Ph.D.	M. Pharm
a. 4th Year	426		
b. 3rd Year	428		
c. 2nd Year	465	78	
d. 1st Year	528	74	
e. Ph.D Scholars registered			119

FACULTY

The Unique feature of the University, despite being at nascent stages of development is the high quality of faculty on its rolls. The brief on the Faculty giving their terminal qualification is as Appendix-B.

VISITING / ADJUNCT FACULTY

The University further has some eminent academicians and eminent industry persons on its rolls as visiting faculty to conduct specialized classes. Currently there are four adjunct and 32 visiting faculty members associated with the University.

RESULTS:

The performance of Students in the University is graded in terms of Semester Grade Point Average (SGPA) and Cumulative Grade Average (CGPA) over a scale of 10. A typical analysis of results of a semester is given in Appendix-B.

SCHOLARSHIPS

1. **Prof. William C Webster Merit & Means Scholarship:** Eligible students get a tuition fee waiver for a year upto a maximum of Rs.25000/- The scholarship was started in the year 2004-05.

2. **The Jaypee India Scholars Fund:** has been launched to provide financial assistance to meritorious students with poor financial and economic conditions for pursuing higher technical education (4-year UG program) in Jaypee Education System. Under the scheme financially and economically poor students would be provided financial assistance of Rs.1.05 lacs each every year to pursue the 4-year UG Program starting from the admission year 2008 at the Jaypee Education System. The scholarship will be available for all the 4 years of their study, provided they maintain a minimum performance every year in their respective program of study. The unique aspect of this scholarship scheme is that such students will also enter into an undertaking to repay back the total scholarship amount over a period of 2-3years after post graduating from the Institute.

3. **Admission to Meritorious Students:** The Management has approved that students who take admission in the first year of the 4-year UG program in academic session 2008-09 onwards, with an All India Rank of less than 1000 in the AIEEE conducted by CBSE, shall be provided free education for the entire duration of under graduate program.

JUIT YOUTH CLUB (2013-2014) ANNUAL REPORT

JUIT Youth Club(JYC), the official student body of Jaypee University of Information Technology ,conducts various events including LeFiestus, Murious, Diksha, Sports meet and many more. The body consists of 9 clubs and 5 committees which work throughout the year for the enjoyment and entertainment of the students of university.

MASTERCHEF 2.0

On 28, August,2014, the hidden chefs of JUIT came into action. The air was filled with mouth watering aroma. The JYC Cultural Club organised MASTERCHEF 2.0 (with Technical Tadka) at the Open Cafe. The event was sponsored by Sunny's Take Away.

The event was a great s   uccess as a large number of students from all the years participated in teams and displayed their talents. From delicious pastas to amazing chocolate cake, the participants, they could cook everything. To lighten up the stress of the participants there was some good music being played in the background. In the end they came up with some very creative, innovative and tempting dishes.

The judges for the event were Dr. T.S. Lamba sir and his wife, Reema Aswani ma'am, Maala ma'am, Mrs R.S. Chauhan and Sameer. They had a tough time deciding the winners. The participants were judged on the basis of taste, innovation and presentation. After long discussion it was decided that Aditya Bansal and Shreshth Chabra won the challenge. The winners were given gift coupons by Sunny's Kandaghat. The event was a great success and everyone enjoyed themselves.

Dhun

DHUN 2014 was an unplugged acoustic night organized by Arts Club on 30 September 2014 at Dhyan Kaksh in which singers of various genre performed. The event was felicitated by the wonderful audience whose claps and cheers really made the aura of Dhyan Kaksh lively and charismatic. From the loud beats of Punjabi songs to the soothing instrumental music to English pop to hard rock to romantic melodies and what not, Dhun was truly an amalgamation of music ,at its best! Arts Club Faculty Coordinator Ms. Vanita Rana graced the occasion with her benign presence. DHUN indulged a mass participation from 1st and 2nd year students, collaborated by a few from 3rd year as well. The event was very well coordinated with the support of the club members and was culminated beautifully by a band performance.

Astrophotography Workshop

Day 1

Explained the basics of photography: The shutter release mechanism of a DSLR and thus significance of it's name-Aperture, Depth of Field, Shutter Speed, ISO, Exposure. Also explained were the basics of night-sky photography including the significance of the factors like-Light Pollution,T ime of the Year. The Position of the Moon. The Correct Settings of the camera. The movement of stars with time

Day 2 (First Half)

Students were explained how to edit photos in Adobe Lightroom. The features explained include-Shadows and Highlights, Hue and Saturation, White Balance, Exposure, Tint (Uniform and Graduated),Library Management, Sharpness, Clarity and Vibrance, Level Editing.

Day 2 (Second Half)

Demonstrations of long exposure photography using slow shutter release method and a laser pointer as a light source, explained how digital means like Stellarium can be used to simulate the night sky and prepare for an actual night photography session, explained and demonstrated how to use the app Google Sky Maps to observe the constellations in the sky, explained how to properly photograph the night sky including photographing star trails and the correct settings to do that.

MOVIE FEST "SILVER SCREEN"
Fun, amusement, excitement, enjoyment and entertainment were in the atmosphere of the JUIT campus during the three days of Movie Fest "SILVER SCREEN" organised by JYC Movie Club dated 7-9th November 2014.

The Movie Fest began with a great zeal for a Hollywood movie "Now You See Me" which attracted an enthusiastic crowd. Delicious refreshments from McDonalds were available. The auditorium was decorated by the Arts Club with beautiful charts and balloons making the

atmosphere much more pleasant. Tambola was organised during the Interval which added fun to the Movie night. The movie ended with a happy and satisfied crowd.

The following day Movie Club started its events with "Kicks and Flicks" consisting of three rounds: Treasure Hunt, Two leg race and fun with balloons entertaining a huge crowd. The entertaining evening turned to a romantic night by the movie "Dilwale Dulhania Le Jayenge". The movie went Housefull delighting the crowd.

The last day was initiated with the presence of the great director Imtiaz Ali and his team who were in the campus for interactive session with students. There was so much excitement among the huge gathered crowd. The session ended with his promise to shot some scenes in the beautiful campus of JUIT and also give some students chance for short roles in his upcoming movie. Evening was very amusing with an event "Exotic Amusement" which consisted of rounds like Fun route, rope race and tongue twisters. A lot of people came to test their twisting skills and the event ended with the announcement of winners. The end of event was marked by the beginning of the Punjabi movie "Carry On Jatta" which gained a lot of appreciation from the crowd.The "Silver Screen" ended with a marvellous response from all the students of JUIT making it a huge success.

CELLULOID 1.0

On Sunday evening, 9 November 2014, Cultural Club held out an event named 'CELLULOID', a game show based on movie theme.The teams of two or three playes were invited and the game consisted of three rounds in all. In first two rounds players had to guess the name of movie with the help of dialogues and posters respectively whereas in final round, in which only five teams were left, the players had to guess a word given to one of their team mates and had to sing a song comprising of the word. The winners of this game were Vishwa Gupta and his team mates who were awarded a cash prize by Abhishek Popli.

Halla Bol

On 16th November 2014 an event named Halla Bol was organised by Environment Club of JYC.It was a Street play competition. It was a sensitising event for the awareness of students regarding various Social issue topics. The event started at 2:00 pm. Our honourable V.C. Mr. S.k. Kak , and his wife Mrs. Kak, Faculty Head of our club Mr. Sudhir Sayal and Chief Warden Mrs. Mala Singh were the judges. There were five teams who participated in the event. Rotaract Club of Waknaghat landed with two teams, first team represented the topic SAWACH BHARAT ,it was based on values taught by Mahatama Gandhi and how we are forgetting him and his values. Their second team came with very sensitive and very less often discussed topic SEX EDUCATION and why is it so important. Young Thespians were the third team, they landed with the topic AAJ KA SATYA n they represented various positive and negative points of Today's India and how can the negatives be resolved .There were two teams of our club environment club, first team came up with the topic SAWACH BHARAT they represented poor sanitary conditions of India and what steps we can take in order to resolve them. Second team of environment club landed with topic CHUPPI KYUN? they represented that how problems like eve teasing, honour killing are happening in our day to day life and we are contributing to them just by being silent ,they also highlighted the issue of prostitution that how are we neglecting it and what wrong is happening there and they too are a part of society. There was a cash prize of Rs 2500 for winner and a cash prize of Rs 2000 for the runner up team .Environment's first team with topic SAWACH BHARAT won and Rotaract's SAWACH BHARAT was the runner up team.

"PARAKRAM 2014" organized on 21st, 22$^{nd\ and}$ 23rd of November, 2014 was a great success. It was the 2nd open fest organized in our college with students participating enthusiastically from different colleges and universities. JUIT, again for sure, was the overall champion.
Over 17 colleges took part in the fest, thus comprising of 261 students. Participants from our college were 60. The main events were basketball, volleyball, table tennis and badminton. Winners of the various events are as follows:
Basketball (boys) - DAV Chandigarh
Basketball (girls) - JUIT
Volleyball (boys) - Shoolini
Table tennis (boys) - HPU
Badminton (girls and boys) – JUIT
Apart from the main events, fun events were also there such as cricket, chess, casino royale, blur, counter strike. Winners were awarded with cash prize.

The trophies were presented by Prof.S.K.Kak, Dr. TS Lamba and Dr. C Rout.
On behalf of JYC, the Sports Club was very much thankful to the Management of the University for their help and support.

JUIT Youth Parliament(JYP)

The Literary Club of JUIT organised a Youth Parliament for the first time in the history of JUIT. The executive board for the two day session was headed by Speaker Prashant Narang, Deputy Speaker Abhai Pratap Singh and Scribe Ankita Sabharwal for the Lok Sabha. Chairperson Animesh Mohan, Deputy Chairperson Tania Wadera and Scribe Bhoomik Sharma headed the Rajya Sabha.

The topic of discussion in the Lower House was 'Black Money' which saw a very heated argument among the Parliamentarians whereas the topic 'Comprehensive foreign policy Review' was discussed in the Upper House resulting in a very fruitful debate. Both the houses witnessed an enthusiastic participation by the executive boards as Parliamentarians during the proceedings of the house.

The event proved to be a success owing to the efforts put in by the Literary club members and the Organizing Committee.

PRE CONVOCATION CULTURAL NIGHT

On the auspicious occasion of convocation, a cultural night was organised by cultural club for congratulating the passouts for their success and to wish them luckfor their future.On this very occasion Mr. J.P. Gaur was invited as the chief guest and all faculty members including Director Brig. Balbir Singh along with Vice Chancellor Prof. Kak marked their presence.The night started with Kavi Sammelan nd was followedby dance and other cultural programes by college students.The event was a great success and it took away hearts of many.

RIVIERA

The arts club organized this year's art fest Riviera – Love is in the air. It started with a weeklong gift stall .Club members prepared many cards, gifts and paintings which were a huge sell out. The main events held on 13th and 14th February 2015.Mr. and Ms. Valentine took place in the open cafeteria which was vivaciously decorated for the occasion. It started off with a ramp walk followed by fun game round. The last round was the question-answer round. Various competitions like doodle making, caricature etc were through the day. Many fun one minute games were also organized. The day ended with an unplugged night which left everyone spell bound with soft and subtle love songs.In all it was a successful show which provided the students with a great platform to showcase their talent in music and arts.

INIZIO

INZIO –The Environment Week was from 4th February - 10th February 2015. Various events were-Kaizon: It was a rally to generate awareness about environment ,Environment Hunt: A treasure hunt. Environment Doodle making competition-to draw using leaves, sticks or other environment related stuff in spite of brushes, Bol-Bachchan: an open group discussion on any environment issue, ENAct: a short movie making competition and many more.

Murious 9.O – The Annual Technical Fest of JUIT

The 3-day Fest was organised from 20 January 2012 to 22 January 2012.
The events that were organised during the MURIOUS 9.O are as follows: Robo race, Impulse, Jeopardy quiz, Paintball, Circuit designing, Codez, Mock placement, Lan gaming, Innovatia, PCB designing(workshop)

DAY 1

Date and Time: Saturday, February 20, 2015, 6:30 pm onwards Event Location: Auditorium
SYNCHROTON:

Liveliness....Excitement....Vitality....all have two things in common....they are synonyms for fun and the perfect description for Synchrotron 2015. It was to brighten the corners and illuminate the spaces with the dances, acts, songs. It hosted a plethora of dances by different dance groups. It was the fight for the beat matchers. The most awaited night of the fest calendar. It was about vogue, dance and fun. Night where people were overwhelmed to enter but never thought of exit.

DAY 2

Date and Time: Saturday, February 21, 2015, 12:00   noon onwards Event Location: Academics, Jaypee University of Information Technology, Waknaghat, Dist. Solan

Event Description:

PCB DESIGNING: It was a workshop taken by Mr. D.V. Gadre and his team on designing a printed circuit board by using software named EAGLE, and burning the same circuit on PCB for practical applications. MOCK PLACEMENT: It was an event especially for 3rd year students to give them an idea of real time experience during an interview process. It had 3 rounds- aptitude test, group discussion and then finally personal interviews. JEOPARDY QUIZ: A general knowledge quiz that consisted of 2 rounds. Round 1 was a written test. The next one was a buzzer round. PAINTBALL: An outdoor activity with an essence of a battlefield. It was a fun event that consisted of 2 teams with 5 members each.LAN

GAMING: It was an online event which included the following events:BLUR-A multiplayer arcade racing style vehicular combat racing game. It can take upto 20 players over the internet or LAN .FIFA 14-A multiplayer football game here done within two players. Each player attempting to win the match by scoring as many goals in the of two halves. COUNTER STRIKE: A first person shooter game in which a player joins either the terrorist team , the counter-terrorist team or become a spectator.

DAY 3

Event Location: Academics, dhyan kaksh, open café , Jaypee University of Information Technology, Waknaghat, Dist. Solan

CODEZ: It was an event in which we had a programming contest, where coders from all fields competed. We had different sections in coding like AutoCAD, Matlab, web designing, coding in C, C++, Java, Python and many other coding languages.ROBORACE: It was a race in which participants came with their manual robots which traversed the whole track with around 10 hurdles in minimum time and with maximum score. This event provided a zeal and thrill to students who competed with their bots to win and get the cash prize.INNOVATIA: It was the first time that such type of event was organized in JUIT. Innovatia was an event which judged how you had grabbed your bookish knowledge to implement something practically. Participants came with their working projects and the projects which had the best working and the best idea behind it was awarded.CIRCUIT DESIGNING: It was an event in which students were tested on their circuit designing and debugging skills. They were given a circuit for designing and a circuit which they had to debug also.IMPULSE: an event in which the participants made and launched their water rockets.

GOONJ

If you have a natural aptitude and appreciation for it, then music simply draws you to it and connects. Keeping this sprit Arts Club organized a special musical evening "GOONJ". It provided a great platform for showcasing the exceptional talent imbibed by JUITians.

Students from different years came together to perform and give a time to the audience that was phenomenal. Ranging from good old music of 80s and 90s to present day's sensational melodies the music was heart throbbing. The event was a great success and attracted a large crowd. People were pretty excited and gave a very enthusiastic response. It was set up in the auditorium and the ambience was breathtaking.

WORKSHOP CONDUCTED DURING 2014-15

Overclocking: It is the process of forcing a computer or hardware component to operate faster than the manufacturer –specified clock frequency. Operating voltages may also be changed accordingly, which can also increase the speed at which operation remains stable. Most overclocking techniques increase power consumption, ending up generating more heat that must be dispersed if the component is to remain operational.

CONDUCTED BY- Rajdeep Sharma(co-ordinator 2014-15).

Photoshop: It is a rastor graphics editor which can edit and compose rastor images in multiple layers and supports, masks, alpha compositing and several color models. In addition to rastor graphics, it has limited abilities to edit or render text, vector graphics,3-D graphics and videos.

CONDUCTED BY: Rohit(co-ordinator 2013-14).

Power director: It was a closed workshop about a complete video editing suite with which we can create professional looking videos. It provides the most comprehensive and easy to use tools for high quality video production. It provides total flexibility to design and customize the transition effects, titles, disc menu and much more.

CONDUCTED BY : Abhijit Srivastava(a 3rd year student).

PCB designing: It was a workshop on designing a printed circuit board by using software named EAGLE, and burning the same circuit on PCB for practical applications.

CONDUCTED BY: Mr. D.V. Gadre.

Le-Fiestus-The Annual Cultural Fest of The University

Le Fiestus, the annual social and cultural festival of JUIT, Solan presented its 2015 edition from 22nd to 24th April'15.As we evolve to continuously learn and adapt different ideas and thoughts, Le Fiestus, with the animation of colors, enthuse of energy, distinction of diverseness and with the spirit of elegance ,we celebrated and acknowledged "Elegance Personified Over the past years, Le Fiestus, the three day panorama which is the largest University fest in the state, has established a name for itself, as the place to be in, just by the virtue of the quality of events organized by various clubs of the JUIT Youth Club (JYC) and the poise with which they are held.

HIGHLIGHTS OF EVENTS OF LE-FIESTUS 2015

DAY 1

Date and Time: Thursday 23, 2015-18:00 hrs onwards
Event Location: Basket Ball Court, Jaypee University of Information Technology, Waknaghat, Dist. Solan

Event Description:

- **CULTURAL NIGHT**: Cultural Night is a unique extravagant night in the Le Fiestus calendar with students exploring and showcasing their various talents of dance, singing and ramp enriched with the myriad of cultural flavours. So come and experience the night of the young talents.

DAY 2
Date: Friday 24, 2015

Event Description:

• **WAR OF BANDS**: It is the fusion of bands to creating a reverberating environment in the serene hills of JUIT. Be a part of it and make it more happening and lively.

Time: 10:00 hrs to 14:00 hrs.

Event Location: Basket Ball Court, Jaypee University of Information Technology, Waknaghat, Dist. Solan

Event Description:

• COMEDY AFTERNOON: Stand-up comedy existed in India in terms of kavis like Surendra Sharma which is now changing gradually with different flavour of stand-ups coming up on

the Indian stage. Sorabh Pant and Sapan Verma are two such young, great comedians

Sorabh Pant is one of India's successful comedians, having done over 250 shows in over 17 cities. He has been rated amongst India's top 10 stand-up comedians by The Times of India. The Bollywood actor Hrithik Roshan has dubbed him as "the funniest guy on stage".[1] In a poll by IBN Live in March 2012, he was listed No. 1 in the 30 most interesting Twitter users in India.

Sapan Verma is one of India's youngest professional comedians, having done over 300 shows in the last three years. He has not only performed all across India, but also in Barcelona, Singapore and China. As one of the founding members of India's busiest comedy company East India Comedy, Sapan has regularly performed at various auditoriums, college festivals and corporate events.

Time: 14:00 hrs onwards

Event Location: Auditorium, Jaypee University of Information Technology, Waknaght, Dist. Solan

- SUNBURN CAMPUS: This season we explore the most awaited Sunburn Campus at our own college. Pop! Goes the World with India's best DJ Liza Brown and Lost Stories

  The Lost Stories(Prayag Mehta and Rishab Joshi): Their combination of progressive sounds and uplifting melodies cemented their musical presence not only in India but world over. Of such tremendous worthiness is their music that 8 of the 10 best DJs of the world support their remixes including Markus Schulz and Andy Moor. Their first joint production "False Promises" was lapped up by DJ Tiesto's "Blackhole Recordings" , making them the first Indians to be singed onto a global leading recording company that has been nominated as the Best Global Dance Music Label in 2008 & 2009.

  Time: 20:00 hrs onwards.
  Event Location: Basket Ball Court, Jaypee University of Information Technology, Waknaghat, Dist. Solan

DAY 3
Date: Saturday, 25, 2015

- The Local Train: **The Local Train** is the four member band from Delhi, India. Founded in 2009, they have performed all around India and are very popular among the youth. Their fresh original tracks have gone viral online taking them to the top of the Indian circuit and even beyond! It's performance will surely leave u enthralled and high on energy quotient.

  Time: 18:00 hrs onwards

  Event Location: Basket Ball Court, Jaypee University of Information Technology, Waknaghat, Dist. Solan

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STAR NIGHT:

SACHIN-JIGAR :Sachin–Jigar are a music composing duo (Sachin Sanghvi and Jigar Saraiya), from Mumbai, India who compose for Bollywood and Gujarati Cinema. They have scored a number of successful soundtracks,the most recent one being that of "Badlapur"

SHRUTI PATHAK :Shruti Pathak is a Filmfare Award-nominated Indian playback singer and lyricist working in Hindi film industry.She is the voice behind "Shubh Aarambh" and "Tujhe Bhula Diya".

Time: 19:00 hrs onwards
Event Location: Basket Ball Court, Jaypee University of Information Technology, Waknaghat, Dist. Solan.

GOVERNANCE

1.   **Governing Council**

    i)   As per the Regulations of the University the responsibility for the general superintendence, direction and control of the affairs of the University is vested with the Governing Council. The composition is given at Appendix-C.

    ii)   The Council carried out its task and functions through statutory committees, which have been specified in the statute of the University. The composition of standing committees is at Appendix-C

2.   **Academic Council**

    i)   The Academic Council is the premier and august body of scholars, which decides and monitors the implementations of Academic Policies of the University. The powers and functions of the Council are defined in the Regulations of the University. Amongst other major functions, the Academic Council controls and approves the courses in various curricula, defines the thrust areas, objectives and constantly reviews the activities of the departments to ensure improvements in standards.

    ii)   The composition of the Academic Council is listed at Appendix-C

FINANCIAL STATUS

The Audited Balance Sheet is attached as Appendix-D.

TRAINING & PLACEMENT

a)   Training and Placement is an important activity of the University. T&P cell is mainly responsible for arranging practical training of the Undergraduate students to meet their degree requirement and to facilitate the placements of undergraduate & postgraduates' students in suitable jobs in the Industry and various private & public sector organizations.

b)   To facilitate placement T&P cell invites senior executives of major industries/organizations to give talk to the students at Campus which helps them acquire better knowledge about the organization prior to campus interviews.

c)   The Placement summary for is attached at Appendix-E

DETAILS OF LAND

S. No.	Particulars	Area in Sq. Mtr.	Area in Sq. Ft.
1	**Admin. & Academic Block**		
	Academic Block Phase I	2706.54	29132.95
	Academic Block Phase II	4221.61	45441.03
	Academic Block Phase II	3276.51	35265.26
	Academic Block Phase IV	2829.51	30456.59
		13034.17	**140295.83**
2	**Hostel (Boys)**		
	Student Lounge	132.63	1427.61
	Shastri Bhawan		
	H-1	1233.06	13272.54
	H-2	1171.09	12605.50
	H-3	632.16	6804.51
	H-4	1393.79	15002.63
	H-5	2181.56	23482.11
	H-6	1202.50	12943.60
	H-7	1091.65	11750.42
	H-8	930.10	10011.51
	H-9	944.78	10169.52
	H-10	956.55	10296.21
	H-11	1377.08	14822.76
		13246.95	**142588.92**
	Azad Bhawan		
	H-14A	961.17	10345.94
	H-14B	1361.33	14653.23
	H-14C	2291.97	24670.55
	H-14D	1913.34	20595.02
		6527.81	**70264.74**
	Parmar Bhawan		
	H-15A	1900.79	20459.93
	H-15B	1474.13	15867.40
	H-15C	1800.13	19376.43
	H-15D	1573.72	16939.38
		6748.77	**72643.14**
3	**Hostel (Girls)**		
	H-12A	1377.08	14822.76
	H-12B	1771.62	19069.55
	H-12C	1942.42	20908.03
	H-12D	1664.59	17917.49
		6755.71	**72717.83**

4	**Faculty Residences**		
	Malviya Bhawan		
	Faculty Block A Type	1896.38	20412.46
	Faculty Block B Type	5488.98	59082.88
	Faculty Block C Type	3248.84	34970.22
	Faculty Block D Type	2164.00	23293.10
	Faculty Block E Type	1148.53	12362.67
		13946.73	**150121.33**
5	**Facilties**		
	Annapurna	1041.81	11213.94
	Auditorium, C. Link & C. Porch	1755.76	18898.84
	Mandir	281.66	3031.76
	Dispensary	253.52	2728.86
	Basket Ball Field & Volley Ball Field	1200.00	12916.69
	Badminton Court Area	170.00	1829.86
		4702.75	**50619.95**
6	**Miscellaneous**		
	Guest House	1592.73	17144.00
	Telephone Exchange	897.54	9661.04
	ESS	2226.99	23971.12
	Plant Room/Green Room	593.80	6391.61
	Workers' Dormitory-1	1570.39	16903.53
	Workers' Dormitory-2	850.00	9149.32
	Uploading Bay	189.14	2035.88
		7920.59	**85256.50**
7	**Provisional Area**		
	H-12A&B	133.75	1439.67
	H12C&D	133.75	1439.67
		267.50	**2879.34**
	Total Area	**73150.98**	**787390.59**

NOTE

- Residential for Students   1791 (1205 Boys & 586 Girls)

- Residential for Faculty   HODs (8), Professors (26), Associate Professors (8) Assistant Professors (6) Lecturers (36)

Special Features

- Fully networked campus, including student hostels and faculty residences with 4 Mb leased line and 24 hour internet connectivity

- Learning Resource Centre – stocked with latest technical journals and reference books, and open from 8 am till 12 pm at night

Other Infrastructural Facilities

Facilities provided to students include the following:

- Student Hostels – Boys and Girls (Single and Double Seat Facility)
- Student Messing – Annapurna
- Sports Facility – Outdoor (Cricket, Volleyball, Basketball, and Badminton) and Indoor (Table-Tennis, Carrom, etc.)
- Student Lounge
- Student Canteen
- Dispensary with Resident Medical Officers
- Punjab National Bank
- PCO's for STD/ISD facility
- Student Convenience Shop
- Laundry (Washers & Dryers)
- 24-hour power back-up facility

University Results of Past Four Years

The University was set up in the year 2002 and nine batches have graduated, the results of the last four batches are being furnished below:

RESULT OF THE BATCH 2008-2012

Branch	No. of Students	No. of students Passed	Pass Percentage
B. TECH.			
ECE	124	117	95.16
CSE	126	123	97.6
IT	47	45	95.74
BT	23	22	95.65
BI	12	12	100.0
CE	33	27	81.8
PHARMACY			
B. Pharma	30	28	93.33
M. Tech.			
ECE	18	18	100
CSE	27	27	100
Construction Management	02	02	100
Computational Biology	04	04	100
Dual BT	24	24	100

RESULT OF THE BATCH 2009-2013

Branch	No. of Students	No. of students Passed	Pass Percentage
B. TECH.			
ECE	112	106	95
CSE	122	118	97
IT	47	45	94
BT	23	22	90
BI	12	12	88
CE	33	27	84
PHARMACY			
B. Pharma	30	28	85
M. Tech.			

Branch	No. of Students	No. of students Passed	Pass Percentage
ECE	20	20	100
CSE	14	14	100
Construction Management	04	04	100
Computational Biology	04	04	100
Structural Engineering	02	02	100
Dual BT	01	01	100
Nanoteechnology	03	03	100

RESULT OF THE BATCH 2010-2014

Branch	No. of Students	No. of students Passed	Pass Percentage
B. TECH.			
ECE	128	117	91.40
CSE	147	139	94.50
IT	41	41	100.00
CE	98	90	91.80
BI	12	10	83.30
BT	14	14	100.00
PHARMACY			
B. Pharm	06	03	50.00
M.Pharma	40	40	100.00
M. Tech.			
ECE	11	11	100.00
CSE	17	17	100.00
Construction Management	01	01	100.00
Computational Biology	05	05	100.00
Structural Engineering	01	01	100.00
Dual BT	31	30	96.70

RESULT OF THE BATCH 2011-2015

Branch	No. of Students	No. of students Passed	Pass Percentage
B. TECH.			
ECE	119	111	93%
CSE	129	121	94%
IT	59	58	98%
BI	12	11	92%
BT	17	17	100%
CE	101	95	94%
DUAL DEGREE (B.TECH-M.TECH) BIOTECHOLOGY			
BT	22	22	100%
B.PHARM	03	02	67%
M. PHARMA	28	28	100%
M.TECH			
ECE	14	14	100%
CSE	22	22	100%
Structural Engngineering	12	12	100%
Biotechnology	08	08	100%

GOVERNING COUNCIL

a. **Pro-Chancellor**

Shri Manoj Gaur   Chairman
Executive Chairman, Jaypee Group of Companies

Members of Trust (2) nominated by Pro-Chancellor

Sh. Jaiprakash Gaur   Founder Pro-Chancellor & Founder Chairman JSS

Shri Sunil Sharma
Executive Vice Chairman, Jaypee Group of Companies

Representatives (2) of Collaborating Universities

Prof William Webster
Ex-Acting Vice Chancellor (Budget & Finance)
University of California Berkeley, USA

Distinguished Academicians/Professionals (3) nominated by Chancellor in consultation with the Pro-Chancellor

Prof. K.K. Aggarwal
Former Vice Chancellor, GGS Univ. Delhi & Presently Patrol of Lingaya's University, Faridabad

Industry Representatives (3) nominated by Pro-Chancellor

Dr P G Sastry
Chairman – Committee for the Environmental Clearance of Irrigation & Hydropower Projects, Govt of India, New Delhi

Sh. S.S. Mittal
Sr. Advocate
Hight Court, Shimla

Vice Chancellor of the University

Prof. S.C. Saxena

One Head of another Institute of the Trust

Two Deans of the University by rotation

Prof. T.S. Lamba
Dean (A&R)

Prof. R.S. Chauhan
Dean (Biotechnology)

Ex-officio nominees (3) of the Government of Himachal Pradesh

Secretary (IT)
Govt. of HP

Secretary (Education)
Govt. of HP

Secretary (Technical Education)
Govt. of HP

Three Representative of Industry

Non-Member Secretary
Brig.(Retd.) Balbir Singh
Registrar, JUIT

EXECUTIVE COUNCIL

Vice Chancellor

Prof. S.K. Kak   Chairman

Members (2) of Governing Council nominated by Pro-Chancellor

Dr. Y. Medury
COO, Jaypee Education System

Prof S.C. Saxena
VC, JIIT Noida

Academic of repute nominated by Pro-Chancellor

Prof. T.S. Lamba
Dean (A&R), JUIT, Waknaghat

Non-Member Secretary

Brig. (Retd.) Balbir Singh
Registrar, Non-Member Secretary

FINANCE COMMITTEE

The Vice Chancellor

Prof. S.K. Kak   Chairman

Nominee of the Pro-Chancellor

Sh. Sunil Sharma   Finance Representative

Brig. (Retd.) Balbir Singh   Registrar

BOARD OF STUDIES

- Electronics & Communication Engineering
- Computer Science & Engineering
- Information & Communication Technology
- Bioinformatics
- Biotechnology
- Biotechnology Dual Degree
- Civil Engineering

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ACADEMIC COUNCIL

S.No.	Designation	Name (Current)
1.	Vice Chancellor	Prof. S.K. Kak
2.	Two Professors other than HODs	Prof. D.C. Kulshrshtha
		Prof. Chanderdeep Tandon
3.	Two Distinguished academicians	Prof. S.C. Saxena
		Prof. Hari Om Gupta
4.	Industry Representatives	Sh. Vinod Sharma
		Sr. Vice President
		Jaiprakash Associates Ltd.
		Dr. Y. Medury,
		Jaiprakash Associates Ltd.
5.	One Member from amongst the Heads of other Institutions of the Trust	Prof. N.J. Rao
6.	Deans	Prof. T.S. Lamba
7.	Heads of the Department	Prof. Ashok Kumar Gupta
		Prof. S.V. Bhooshan
		Brig. (Retd.) S.P. Ghrera
		Prof. R.S. Chauhan
		Prof. Ashok Kumar Gupta
		Prof. P.B. Barman
		Prof. Harinder Singh
8.	Non Member Secretary	Brig. (Retd.) Balbir Singh
		Registrar, JUIT

BALANCE SHEET FOR
THE
FINANCIAL YEAR 2014-15
WILL BE ATTACHED

FORM NO. 10B

[*See* rule 17B]

Audit report under section 12A(b) of the Income-tax Act, 1961, in the case of charitable or religious trusts or institutions

We have examined the balance sheet of **JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY** , **AAATJ4059Q** [name and PAN of the trust or institution] as at **31/03/2015** and the Profit and loss account for the year ended on that date which are in agreement with the books of account maintained by the said trust or institution.

We have obtained all the information and explanations which to the best of **our** knowledge and belief were necessary for the purposes of the audit. In **our** opinion, proper books of account have been kept by the head office and the branches of the abovenamed **trust** visited by **us** so far as appears from **our** examination of the books, and proper Returns adequate for the purposes of audit have been received from branches not visited by **us** , subject to the comments given below:

In **our** opinion and to the best of **our** information, and according to information given to **us** , the said accounts give a true and fair view-

    (i) in the case of the balance sheet, of the state of affairs of the above named **trust** as at **31/03/2015** and

    (ii) in the case of the profit and loss account, of the profit or loss of its accounting year ending on **31/03/2015**

The prescribed particulars are annexed hereto.

Place   **SHIMLA**
Date   **28/09/2015**

Name	**RAJEEV SOOD**
Membership Number	**088357**
FRN (Firm Registration Number)	**010478N**
Address	**71 MIDDLE BAZAR SHIMLA**

ANNEXURE
Statement of particulars
I. APPLICATION OF INCOME FOR CHARITABLE OR RELIGIOUS PURPOSES

1.	Amount of income of the previous year applied to charitable or religious purposes in India during that year (₹)	463953644
2.	Whether the **trust** has exercised the option under clause (2) of the Explanation to section 11(1) ? If so, the details of the amount of income deemed to have been applied to charitable or religious purposes in India during the previous year (₹)	No
3.	Amount of income **accumulated or set apart** for application to charitable or religious purposes, to the extent it does not exceed 15 per cent of the income derived from property held under trust **wholly** for such purposes. (₹)	Not Applicable
4.	Amount of income eligible for exemption under section 11(1)(c) (Give details)	No
5.	Amount of income, in addition to the amount referred to in item 3 above, accumulated or set apart for specified purposes under section 11(2) (₹)	0
6.	Whether the amount of income mentioned in item 5 above has been invested or deposited in the manner laid down in section 11(2)(b) ? If so, the details thereof.	Not Applicable
7.	Whether any part of the income in respect of which an option was exercised under clause (2) of the Explanation to section 11(1) in any earlier year is deemed to be income of the previous year under section 11(1B) ? If so, the details thereof (₹)	No
8.	Whether, during the previous year, any part of income accumulated or set apart for specified purposes under section 11(2) in any earlier year-	
	(a) has been applied for purposes other than charitable or religious purposes or has ceased to be accumulated or set apart for application thereto, or	No
	(b) has ceased to remain invested in any security referred to in section 11(2)(b)(i) or deposited in any account referred to in section 11(2)(b)(ii) or section 11(2)(b)(iii), or	No
	(c) has not been utilised for purposes for which it was accumulated or set apart during the period for which it was to be accumulated or set apart, or in the year	No

	immediately following the expiry thereof? If so, the details thereof	

II. APPLICATION OR USE OF INCOME OR PROPERTY FOR THE BENEFIT OF PERSONS REFERRED TO IN SECTION 1

1.	Whether any part of the income or property of the **trust** was lent, or continues to be lent, in the previous year to any person referred to in section 13(3) (hereinafter referred to in this Annexure as such person)? If so, give details of the amount, rate of interest charged and the nature of security, if any.	No
2.	Whether any part of the income or property of the **trust** was made, or continued to be made, available for the use of any such person during the previous year? If so, give details of the property and the amount of rent or compensation charged, if any.	No
3.	Whether any payment was made to any such person during the previous year by way of salary, allowance or otherwise? If so, give details	No
4.	Whether the services of the **trust** were made available to any such person during the previous year? If so, give details thereof together with remuneration or compensation received, if any	No
5.	Whether any share, security or other property was purchased by or on behalf of the **trust** during the previous year from any such person? If so, give details thereof together with the consideration paid	No
6.	Whether any share, security or other property was sold by or on behalf of the **trust** during the previous year to any such person? If so, give details thereof together with the consideration received	No
7.	Whether any income or property of the **trust** was diverted during the previous year in favour of any such person? If so, give details thereof together with the amount of income or value of property so diverted	No
8.	Whether the income or property of the **trust** was used or applied during the previous year for the benefit of any such person in any other manner? If so, give details	No

III. INVESTMENTS HELD AT ANY TIME DURING THE PREVIOUS YEAR(S) IN CONCERNS IN WHICH PERSONS REFERRED TO IN SECTION 13(3) HAVE A SUBSTANTIAL INTEREST

S. No	Name and address of the concern	Where the concern is a company, number and class of shares held	Nominal value of the investment(₹)	Income from the investment(₹)	Whether the amount in col. 4 exceeded 5 per cent of the capital of the concern during the previous year-say, Yes/No
	Total				

Place   **SHIMLA**
Date   **28/09/2015**

Name   **RAJEEV SOOD**
Membership Number   **088357**
FRN (Firm Registration Number) **010478N**
Address   **71 MIDDLE BAZAR SHIMLA**

Form Filing Details	
Revision/Original	Original

FORM NO. 10B

[*See* rule 17B]

Audit report under section 12A(b) of the Income-tax Act, 1961, in the case of charitable or religious trusts or institutions

We have examined the balance sheet of **JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY** , **AAATJ4059Q** [name and PAN of the trust or institution] as at **31/03/2015** and the Profit and loss account for the year ended on that date which are in agreement with the books of account maintained by the said trust or institution.

We have obtained all the information and explanations which to the best of our knowledge and belief were necessary for the purposes of the audit. In our opinion, proper books of account have been kept by the head office and the branches of the abovenamed **trust** visited by **us** so far as appears from our examination of the books, and proper Returns adequate for the purposes of audit have been received from branches not visited by **us** , subject to the comments given below:

In our opinion and to the best of our information, and according to information given to **us** , the said accounts give a true and fair view-

(i) in the case of the balance sheet, of the state of affairs of the above named **trust** as at **31/03/2015** and

(ii) in the case of the profit and loss account, of the profit or loss of its accounting year ending on **31/03/2015**

The prescribed particulars are annexed hereto.

Place **SHIMLA**
Date **28/09/2015**

Name	**RAJEEV SOOD**
Membership Number	**088357**
FRN (Firm Registration Number)	**010478N**
Address	**71 MIDDLE BAZAR SHIMLA**

ANNEXURE
Statement of particulars
I. APPLICATION OF INCOME FOR CHARITABLE OR RELIGIOUS PURPOSES

1.	Amount of income of the previous year applied to charitable or religious purposes in India during that year (₹)	463953644
2.	Whether the trust has exercised the option under clause (2) of the Explanation to section 11(1) ? If so, the details of the amount of income deemed to have been applied to charitable or religious purposes in India during the previous year (₹)	No
3.	Amount of income **accumulated or set apart** for application to charitable or religious purposes, to the extent it does not exceed 15 per cent of the income derived from property held under trust **wholly for such purposes**. (₹)	Not Applicable
4.	Amount of income eligible for exemption under section 11(1)(c) (Give details)	No
5.	Amount of income, in addition to the amount referred to in item 3 above, accumulated or set apart for specified purposes under section 11(2) (₹)	0
6.	Whether the amount of income mentioned in item 5 above has been invested or deposited in the manner laid down in section 11(2)(b) ? If so, the details thereof.	Not Applicable
7.	Whether any part of the income in respect of which an option was exercised under clause (2) of the Explanation to section 11(1) in any earlier year is deemed to be income of the previous year under section 11(1B) ? If so, the details thereof (₹)	No
8.	Whether, during the previous year, any part of income accumulated or set apart for specified purposes under section 11(2) in any earlier year-	
	(a) has been applied for purposes other than charitable or religious purposes or has ceased to be accumulated or set apart for application thereto, or	No
	(b) has ceased to remain invested in any security referred to in section 11(2)(b)(i) or deposited in any account referred to in section 11(2)(b)(ii) or section 11(2)(b)(iii), or	No
	(c) has not been utilised for purposes for which it was accumulated or set apart during the period for which it was to be accumulated or set apart, or in the year	No

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	immediately following the expiry thereof? If so, the details thereof		

II. APPLICATION OR USE OF INCOME OR PROPERTY FOR THE BENEFIT OF PERSONS REFERRED TO IN SECTION 13(3)

1.	Whether any part of the income or property of the **trust** was lent, or continues to be lent, in the previous year to any person referred to in section 13(3) (hereinafter referred to in this Annexure as such person)? If so, give details of the amount, rate of interest charged and the nature of security, if any.	No
2.	Whether any part of the income or property of the **trust** was made, or continued to be made, available for the use of any such person during the previous year? If so, give details of the property and the amount of rent or compensation charged, if any.	No
3.	Whether any payment was made to any such person during the previous year by way of salary, allowance or otherwise? If so, give details	No
4.	Whether the services of the **trust** were made available to any such person during the previous year? If so, give details thereof together with remuneration or compensation received, if any	No
5.	Whether any share, security or other property was purchased by or on behalf of the **trust** during the previous year from any such person? If so, give details thereof together with the consideration paid	No
6.	Whether any share, security or other property was sold by or on behalf of the **trust** during the previous year to any such person? If so, give details thereof together with the consideration received	No
7.	Whether any income or property of the **trust** was diverted during the previous year in favour of any such person? If so, give details thereof together with the amount of income or value of property so diverted	No
8.	Whether the income or property of the **trust** was used or applied during the previous year for the benefit of any such person in any other manner? If so, give details	No

III. INVESTMENTS HELD AT ANY TIME DURING THE PREVIOUS YEAR(S) IN CONCERNS IN WHICH PERSONS REFERRED TO IN SECTION 13(3) HAVE A SUBSTANTIAL INTEREST

S. No	Name and address of the concern	Where the concern is a company, number and class of shares held	Nominal value of the investment(₹)	Income from the investment(₹)	Whether the amount in col. 4 exceeded 5 per cent of the capital of the concern during the previous year-say, Yes/No
	Total				

Place   **SHIMLA**
Date   **28/09/2015**

Name	**RAJEEV SOOD**
Membership Number	**088357**
FRN (Firm Registration Number)	**010478N**
Address	**71 MIDDLE BAZAR SHIMLA**

Form Filing Details	
Revision/Original	Original

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Jaypee University of Information Technology
Waknaghat, Distt. Solan (H.P.)

Consolidated Balance Sheet as on 31.03.2015

Amount (₹) 31.03.2014	LIABILITIES		Amount (₹) 31.03.2015	Amount (₹) 31.03.2015
	CORPUS FUND			
5,00,00,000	For University		5,00,00,000	
1,01,55,000	For Research Promotion (UBSK)		1,01,55,000	
6,01,55,000			6,01,55,000	
	GENERAL FUND			
8,62,70,328	Opening Balance		5,16,76,811	
(3,45,93,517)	Add / (Less) - Surplus / (Deficit) brought from Income & Expenditure A/C.		1,07,07,795	
5,16,76,811			6,23,84,606	
	RESEARCH PROJECT'S FUND			
2,15,33,577	Opening Balance	T	1,14,03,982	
2,82,37,595	Add : Received during the year	a	1,96,60,842	
(3,73,72,736)	Less : Expenses during the yea	b	(2,51,75,092)	
(9,94,454)	Less : Refund during the year	l	(2,24,304)	
		e		
1,14,03,982		1	56,65,428	
	CURRENT LIABILITIES & PROVISIONS			
10,40,68,014	Sundry Creditors	SCH. "H"	11,05,01,305	
16,52,63,146	Other Liabilities	SCH. "I"	16,07,62,702	
	CAUTION MONEY			
1,75,67,129	Opening Balance		1,79,08,533	
37,30,000	Add : Received during the year		45,26,000	
(33,88,596)	Less : Refund during the year		(44,05,715)	
1,79,08,533			1,80,28,818	
41,04,75,486	**Total Liabilities**		**41,74,97,859**	

Amount (₹) 31.03.2014	Amount (₹) 31.03.2014	ASSETS		Amount (₹) 31.03.2015	Amount (₹) 31.03.2015
		FIXED ASSETS			
51,23,87,141		Opening Balance			55,21,15,904
3,97,28,763		Addition during the year			96,35,413
	55,21,15,904	Gross Block	SCH. "A"		56,17,51,317
	29,09,83,778	Less : up to date Depreciation			32,70,79,688
	26,11,32,126	Net Block			23,46,71,629
	75,87,494	CAPITAL WORK IN PROGRESS	SCH. "B"		1,52,68,359
		CURRENT ASSETS, LOANS & ADVANCES			
	11,89,56,000	Cash & Bank Balance	SCH. "C"		14,30,96,118
	1,17,12,075	Advances and Receivables in Cash or in Kind	SCH. "D"		1,36,50,217
	16,41,317	Prepaid Expenses	SCH. "E"		31,42,239
	20,87,352	Security Deposits	SCH. "F"		21,95,186
	73,59,122	Stock- in- Hand	SCH. "G"		54,74,111
	41,04,75,486	**Total Assets**			**41,74,97,859**

Significant Accounting policies and notes on accounts as per Schedule 'P' forming part of Balance Sheet.

For RAJEEV SOOD & Co.
CHARTERED ACCOUNTANTS

For Jaypee University of Information Technology

(RAJEEV SOOD)
Partner

PLACE : Waknaghat, H.P.
DATE : 24.09.15

(Vice -Chancellor)   (Registrar)   (Finance Officer)

Jaypee University of Information Technology
Waknaghat, Distt. Solan, H.P.

Consolidated Income & Expenditure Account for the year ended on 31.03.2015

Amount (₹) 31.03.2014	EXPENDITURE		Amount (₹) 31.03.2015	Amount (₹) 31.03.2014	INCOME		Amount (₹) 31.03.2015
13,17,13,449	Institutional Expenses	SCH. "J"	11,18,14,436	44,14,68,482	Collection from Students	SCH. "M"	45,20,52,452
20,66,31,565	Salary & Allowances	SCH. "K"	20,29,02,801	1,12,67,957	Interest received on FDs	SCH. "N"	1,05,45,228
11,14,94,236	Students Hostel Expenses	SCH. "L"	10,23,72,958	40,36,001	Other Income	SCH. "O"	13,55,964
4,15,26,707	Depreciation	SCH. "A"	3,61,55,656				
49,13,65,957	Total Expenditure		45,32,45,851				
(3,45,93,517)	Surplus / (Deficit) Transferred to General Fund A/C.		1,07,07,795				
45,67,72,440	TOTAL		46,39,53,646	45,67,72,440	TOTAL		46,39,53,644

Significant Accounting policies and notes on accounts as per **Schedule 'P'** forming part of Balance Sheet.

For RAJEEV SOOD & CO.
CHARTERED ACCOUNTANTS

(RAJEEV SOOD)
PARTNER

PLACE : Waknaghat, H.P.
DATE : 24.09.2015
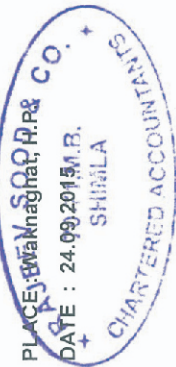
For Jaypee University of Information Technology

(Vice -Chancellor)   (Registrar)   (Finance Officer)

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JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY
FINANCIAL YEAR 2014-15
Details of Fixed Assets as on 31.03.2015

SCHEDULE "A"

Amount (₹)

Block of Assets	Rate of Dep.	GROSS BLOCK				DEPRECIATION			NET BLOCK	
Classification of Assets		Op. Balance as on 01.04.2014	Addition during the year 180 Days or more	Less than 180 Days	As on 31.03.2015	Op. Balance As on 01.04.2014	For the Year	Up to 31.03.2015	As on 31.03.2014	As on 31.03.2015
Buildings	10%	11,54,34,279	1,91,994		11,56,26,273	2,07,73,050	94,85,322	3,02,58,373	9,46,61,229	8,53,67,900
Library Books/Software Library	15%	6,24,77,877	4,23,080	5,31,239	6,34,32,196	3,36,51,363	44,27,282	3,80,78,645	2,88,26,514	2,53,53,551
Electronic Lab Equipments	15%	1,97,27,894	2,05,514		1,99,33,408	1,16,73,909	12,38,925	1,29,12,834	80,53,985	70,20,574
Bio Informatics Lab Equipments	15%	2,75,18,453		53,015	2,75,71,468	1,49,23,221	18,93,261	1,68,16,482	1,25,95,232	1,07,54,986
Physics Lab Equipments	15%	1,04,18,609	73,198	1,61,918	1,06,53,725	58,33,479	7,10,893	65,44,372	45,85,130	41,09,353
Computer Lab Equipments	60%	9,02,43,011		27,97,398	9,30,40,409	8,63,20,034	31,93,006	8,95,13,040	39,22,977	35,27,369
Imported Bio Lab Equipments	15%	2,20,31,080			2,20,31,080	1,42,57,552	11,66,029	1,54,23,581	77,73,528	66,07,499
Imported Electronic Lab Equipmen	15%	33,58,810			33,58,810	28,48,275	76,580	29,24,855	5,10,535	4,33,955
Imported Computer Lab Equipment	60%	7,37,191			7,37,191	7,37,137	32	7,37,189	54	22
Imported Office Equipments	15%	87,905			87,905	59,725	4,227	63,952	28,180	23,953
Civil Lab Equipments	15%	73,66,327	9,62,146	12,06,094	95,34,567	43,68,995	8,84,379	50,53,374	29,97,332	44,81,193
Software-Computer	60%	30,64,905			30,64,905	29,76,502	53,042	30,29,544	88,403	35,361
Software -Math	15%	3,24,350			3,24,350	2,02,022	18,349	2,20,371	1,22,328	1,03,979
Software-Civil	15%	21,40,130	1,24,348		22,64,478	8,72,479	2,08,800	10,81,279	12,67,651	11,83,199
Software –Language Lab	15%	8,20,116			8,20,116	4,67,577	52,881	5,20,458	3,52,539	2,99,658
Office Equipments	15%	1,23,47,002	5,05,837	5,53,729	1,34,06,568	53,60,407	11,65,394	65,25,801	69,86,595	68,80,767
Miscellaneous Assets	15%	41,33,304		44,085	41,77,389	25,89,122	2,34,934	28,24,056	15,44,182	13,53,333
Gymnasium Equipments	15%	24,68,675	92,999	4,31,981	29,93,655	10,15,863	2,64,270	12,80,133	14,52,812	17,13,522
Furniture & Fixtures	10%	5,58,19,520	67,718	2,70,176	5,61,57,414	2,36,34,407	32,38,792	2,68,73,199	3,21,85,113	2,92,84,215
Vehicles	15%	1,08,80,986		3,90,408	1,12,71,394	75,64,237	5,09,997	80,74,234	32,57,005	31,97,160
Imported Kitchen Equipments	15%	2,78,308			2,78,308	1,73,344	15,745	1,89,089	1,04,964	89,219
Kitchen Equipments	15%	50,94,194			50,94,194	24,81,857	3,91,850	28,73,708	26,12,337	22,20,486
Plant & Machinery	15%	5,02,84,149		2,27,915	5,05,12,064	3,37,18,270	25,01,975	3,62,20,245	1,65,65,879	1,42,91,819
Electrical Equipments	15%	79,27,483		3,11,498	82,38,981	48,81,862	4,80,205	53,62,068	30,45,621	28,76,913
Mechanical Lab Equipments	15%	27,37,255			27,37,255	12,77,221	2,19,005	14,96,226	14,60,034	12,41,029
Research Equipments	15%	3,43,94,091		9,123	3,44,03,214	92,62,122	29,20,480	1,21,82,602	2,61,31,969	2,22,20,612
GROSS TOTAL		55,21,15,904	26,45,834	69,88,579	56,17,51,317	29,09,24,032	3,61,55,656	32,70,79,688	26,11,32,128	23,46,71,629
PREVIOUS YEAR		51,23,87,141	2,23,49,248	1,73,79,515	55,21,15,904	24,93,97,327	4,15,26,707	29,09,24,034	26,29,89,814	26,11,32,126

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY
FINANCIAL YEAR 2014-15

Capital Work in Progress

SCHEDULE - "B"

Particulars	Opening Balance as on 01.04.2014	Addition during the Year	Capitalized during the Year	Written off during the year	Amount (₹) Closing balance as on 31.03.2015
Capital Work in Progress	75,87,494	78,72,859	1,91,994	-	1,52,68,359
Gross Total	75,87,494	78,72,859	1,91,994	-	1,52,68,359
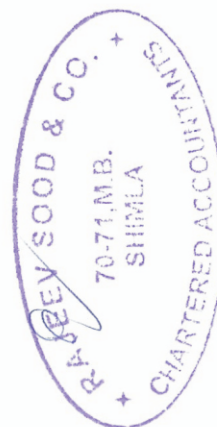
JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY
FINANCIAL YEAR 2014-15

Cash and Bank Balance

SCHEDULE - "C"

S.No	Particulars	Amount (₹) 31.03.2014	Amount (₹) 31.03.2015
I	**Cash in Hand**	2,98,451	2,10,070
II	**Balance with Schedule Banks**		
	In Current Account :		
	- State Bank of Patiala, Waknaghat	36,65,656	30,31,307
	- Punjab National Bank, Shimla	13,21,133	1,66,847
	- Oriental Bank of Commerce, Solan	2,42,636	2,57,067
	- Punjab National Bank , Waknaghat	1,69,52,567	28,55,307
	- Punjab National Bank ,Samirpur	28,045	6,42,267
	- Cheques /DDs in Hand	-	27,54,278
	- Interest Accrued but not due	8,03,454	7,88,220
	- PDC Received	85,750	-
III	**Fixed Deposits with Banks**		
	- State Bank of Patiala, Wakanaghat	5,00,00,000	5,00,00,000
	- Punjab National Bank, Shimla	23,70,611	9,89,534
	- Punjab National Bank, Waknaghat	-	5,88,00,000
	- Oriental Bank of Commerce, Solan	2,67,39,893	50,00,000
	- Punjab National Bank,Samirpur	7,00,000	7,00,000
	The above FDRs have been physically verified and not pledged with any Bank or Institution.		
IV	**Earmarked Deposits with Banks**		
	- Syndicate Bank UBSK, Noida (C/A)	1,52,676	1,52,562
	- Syndicate Bank UBSK, Noida (FD)	1,55,95,128	1,67,48,659
	TOTAL CASH & BANK BALANCE	**11,89,56,000**	**14,30,96,118**

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY
FINANCIAL YEAR 2014-15

ADVANCES AND RECEIVABLES IN CASH OR IN KIND

SCHEDULE - "D"
(Annexure Enclosed)

Particulars	Amount (₹) 31.03.2014	Amount (₹) 31.03.2015
Advances To:-		
- Staff	3,33,951	1,70,441
- Suppliers/Agencies	34,62,835	55,55,721
Receivables From:-		
- Students	24,32,468	20,69,327
- Income Tax Department as on 31.03.15	14,50,127	18,22,034
- Excise & Taxation Department as on 31.03.15 (VAT)	38,17,348	38,17,348
- Excise & Taxation Department as on 31.03.15 (Entry Tax)	2,15,346	2,15,346
TOTAL ADVANCES AND RECEIVABLES IN CASH OR IN KIND	**1,17,12,075**	**1,36,50,217**

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY
FINANCIAL YEAR 2014-15

PREPAID EXPENSES

SCHEDULE - "E"

Particulars	Amount (₹) 31.03.2014	Amount (₹) 31.03.2015
AMC for Equipments	2,54,773	7,39,910
Insurance	2,70,479	88,689
Subscription for Journals & Digital Library	11,16,065	23,13,640
TOTAL PREPAID EXPENSES	**16,41,317**	**31,42,239**

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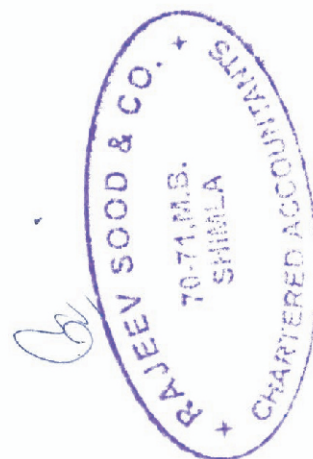
JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY
FINANCIAL YEAR 2014-15

SECURITY DEPOSITS

SCHEDULE - "F"

Particulars	Amount (₹) 31.03.2014	Amount (₹) 31.03.2015
For Electricity Charges	19,75,680	20,83,514
For LPG	1,00,300	1,00,300
For Telephones	11,372	11,372
TOTAL SECURITY DEPOSITS	**20,87,352**	**21,95,186**

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY
FINANCIAL YEAR 2014-15

STOCK-IN-HAND

SCHEDULE - "G"

Particulars	Amount (₹) 31.03.2014	Amount (₹) 31.03.2015
Annapurna Grocery & Eatables	7,20,665	5,80,236
Printing & Stationery	45,262	-
Medicines	87,102	43,406
Diesel	10,84,066	6,88,296
General Hardware Items	37,07,082	22,87,671
Electrical Items	15,97,152	18,27,706
Spares for Vehicles	1,17,793	46,796
TOTAL STOCK IN HAND	**73,59,122**	**54,74,111**
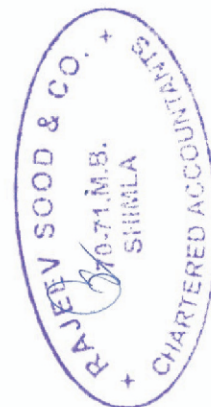
JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY
FINANCIAL YEAR 2014-15

SUNDRY CREDITORS

Particulars		Amount (₹) 31.03.2014	Amount (₹) 31.03.2015
- For Goods Supplied	(i)	90,30,771	1,16,07,033
- For Services Rendered	(ii)	7,36,67,621	7,53,47,883
- For Retention	(iii)	7,79,251	8,27,696
- For Statutory Liabilities	(iv)	2,05,90,371	2,27,18,693
TOTAL SUNDRY CREDITORS		**10,40,68,014**	**11,05,01,305**

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JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY
FINANCIAL YEAR 2014-15

Annexure to Sundry Creditors

S. No.	Particulars	Amount (₹) 31.03.2014	Amount (₹) 31.03.2015
	FOR GOODS SUPPLIED: (i)		
1	Advanced Microdevices Pvt. Ltd.	5,373	2,526
2	AIMIL Ltd.	84,674	7,80,806
3	Air Fluid Engineers & Equipments	10,388	-
4	Ambala Motor Stores	-	60,210
5	Anamika Screen Printers	-	18,780
6	Anand Electronics	-	1,95,644
7	Anchal Enterprises	8,400	14,000
8	Apara Enterprises Solutions (P) Ltd.	32,722	32,722
9	Apsara Innovations Pvt. Ltd.	7,60,493	-
10	Balani Infotech Pvt. Ltd.		8,99,360
11	Balzers Enterprises	22,354	1,74,999
12	Bio Rad Laboratories (India) Pvt. Ltd.	-	16,854
13	Brightway Agencies	-	22,680
14	Dinesh Kumar & Co.	57,750	63,369
15	Gainda Mull Hemraj	-	20,849
16	Gigo Bytes	67,365	1,04,683
17	Glance Enterprises	1,960	6,860
18	Global Information Systems Technology Pvt. Ltd.	-	13,63,586
19	Globe Electric Store	31,967	2,61,233
20	Greentech Envirocare Services	42,532	-
21	Gupta Sales Corp.	-	25,308
22	Heatex Boilers (India) Pvt. Ltd.	2,730	1,22,438
23	Hira Nand & Brothers	25,245	9,92,279
24	Inflibnet	-	5,000

Annexure to Schedule - "H"

S. No.	Particulars	Amount (₹) 31.03.2014	Amount (₹) 31.03.2015
25	International Scientific & Surgicals	22,17,783	21,03,113
26	Jay Sons Mill Store	-	1,79,213
27	Jaypee Alumni Association	2,92,000	3,58,000
28	Jaypee Himachal Cement	14,019	-
29	Jupiter India Sales	1,52,266	32,926
30	K & G Promotions	481	50,894
31	Kanwar NDNE Indane Gas Service	-	2,70,600
32	Krishna Book Distributors	2,24,317	2,47,410
33	Kumar Enterprises	-	49,542
34	Labrex Biologicals	3,87,123	94,654
35	Lakshit Enterprises	7,992	-
36	Lynx Designers & Creators Pvt. Ltd.	283	-
37	M K Electric & Electronic Works	-	5,500
38	M.S.Auto Store	33,052	1,493
39	Mahamaya Promoters	17,259	4,586
40	MCAT Aptitude Classes		49,200
41	Metro Sports & General Suppliers	-	54,338
42	Milman Thin Film Systems Pvt.Ltd.	31,953	31,953
43	Moudgil Gas Services & hardware	-	3,400
44	Namo Shivai Enterprises	-	4,568
45	Nayana Trading Company	-	4,589
46	Pals Trading & Services	910	9,410
47	Periodica Indica	6,97,007	3,11,765
49	Prime Book Service	6,235	-
50	Prime Sports	-	24,833
51	R S Associates	-	12,495
52	Rajesh	45,864	4,116
53	Rajesh Kumar	-	8,825
54	Rajinder kumar	-	62,353
55	Research Aid Instruments & Services	11,72,245	7,69,767

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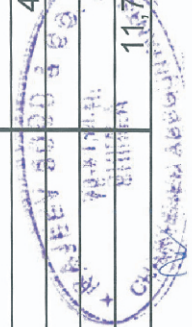
Annexure to Schedule - "H"

S. No.	Particulars	Amount (₹) 31.03.2014	Amount (₹) 31.03.2015
56	Rmaiden Agencies	-	24,728
57	Sai Agencies	7,750	1,24,766
58	Sai Indane Gas Services	-	28,308
59	Sandor Proteomics Pvt. Ltd.	58,310	-
60	Sheela Enterprises	3,20,487	10,71,864
61	Shiv Bakers	-	1,10,421
62	Shivam Trading Company	15,81,391	-
63	Sidh Timbers	44,844	-
64	Sigma Aldrich Chemicals Pvt. Ltd.	1,82,953	19,807
65	Sikand & Co.	4,570	3,100
66	SNA Power Engineering Pvt. Ltd.	10,969	-
67	Supertreads	27,940	1,32,689
68	Swastik Sales corporation	55,188	-
69	Thakur News Agency	24,080	8,362
70	VGN Books	1,85,244	-
71	Xcelris Labs Ltd.	72,303	1,49,259
	Sub – Total (i)	90,30,771	1,16,07,033

FOR SERVICES RENDERED:(ii)

	Particulars	Amount (₹) 31.03.2014	Amount (₹) 31.03.2015
1	Alpha Engineers	3,811	3,811
2	Baldev Sharma	-	39,045
3	Baldev Singh Thakur	61,387	-
4	Catalyst Forwarders & Logistics Pvt. Ltd.	-	16,959
5	Civil Engineering Consortium	-	5,000
6	Electro Mech.Engineers	80,644	59,821
7	Ensure Support Services (India) Ltd.	-	53,133
8	Enviro Engineers	22,050	40,425
9	Eppendorf India Ltd.	75,000	11,236
10	Ergo Dynamix	-	1,75,408

Annexure to Schedule - "H"

S. No.	Particulars	Amount (₹) 31.03.2014	Amount (₹) 31.03.2015
11	Essence Life Sciences	-	6,198
12	Eureka Forbes Limited	30,458	35,300
13	Genomic Services	-	5,90,292
14	Good Earth Engineering Industries	78,750	-
15	H.P.Private Educational Instt.Regulat.Co.	-	9,46,158
16	HCL Services Ltd.	-	68,775
17	Himtech Image Solution	23,940	-
18	JAL Baga	6,66,68,056	6,67,88,156
19	JAL Waknaghat	14,56,498	-
20	JIL Information Technology Ltd.	5,53,050	6,21,003
21	JIMS	6,35,422	6,97,841
22	Jitender Singh	21,462	12,054
23	JUIT CLUB	1,26,000	56,000
24	Kamaluddin	1,485	1,485
25	Khan Brothers & Associates	4,11,019	4,52,871
26	Labex Corporation	-	66,344
27	Lexport	-	69,120
28	Lovlesh Thakur	-	36,000
29	Mamta Raghav	1,57,520	-
30	Mani Srivstva	27,000	-
31	Oswal Scientific Stores	1,30,240	13,379
32	OYNX Mgt. Services Pvt. Ltd.	6,89,622	8,75,457
33	Pest Control (India) Pvt.Ltd.	-	57,543
34	Poonam Dalal	24,500	49,000
35	Prem Lata Bharti	79,576	85,064
36	Railtel Corp.of India Ltd.	-	6,08,880
37	Raj Analytical Solutions Pvt.Ltd.	-	1,26,949
38	Rajeev Sood & Co.	2,29,644	2,55,058
39	Ram Lal	-	24,500
40	Raman Sharma	28,000	28,000

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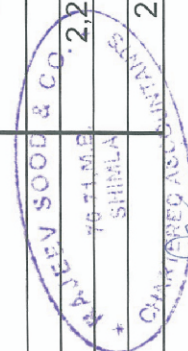
Annexure to Schedule - "H"

S. No.	Particulars	Amount (₹) 31.03.2014	Amount (₹) 31.03.2015
41	Redington India Limited	55,945	-
42	Revolution	-	16,092
43	Rishabh Enterp.	18,231	-
44	Rishi Mahajan	-	52,800
45	S.M.Bhatt	1,89,354	1,65,627
46	Samsuddin	-	10,200
47	Sawhney Brothers	3,575	3,575
48	Scientific Solutions	-	96,252
49	SGA Law Offices	-	29,700
50	Shalini Dhadwal	16,200	19,800
51	Shallu Bharti	82,320	74,088
52	Sharma Associates	-	85,985
53	Shiva Gas Services	-	40,922
54	Shivam Trading Co.	-	96,360
55	Sophisticated Industrial Mat.Anay.Labs	-	39,381
56	Sree Krishna Chanumolu	20,270	-
57	Surai Mani Bhatt	5,69,231	5,15,347
58	Suresh kumar Chauchan	1,50,895	12,348
59	Tek Chand Bharti	66,542	2,88,314
60	Tera Traderlinks Pvt.Ltd.	-	1,68,525
61	Thakur Electrical Works	22,410	41,827
62	Utkarsh Utilities	5,42,673	5,84,268
63	Vijay Kumar	2,51,549	30,207
64	Virender Kumar Thakur	63,292	-
	Sub - Total.(ii)	7,36,67,621	7,53,47,883
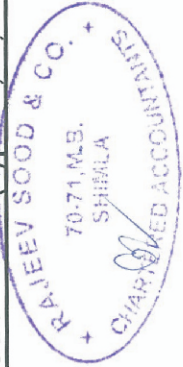
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Annexure to Schedule - "H"

S. No.	Particulars	Amount (₹) 31.03.2014	Amount (₹) 31.03.2015
	FOR RETENTION:(iii)		
1	Bhim Sain	70,048	70,048
2	Dinesh Pandit	44,157	-
3	Durga Agencies	6,118	6,118
4	Juned Ahmed	1,113	1,113
5	Kamaluddin	10,642	10,642
6	Pandit Gunsager	36,345	1,201
7	Prime Hi Tech Engg.	845	845
8	Rakesh Chand Thakur	10,564	10,564
9	Shivam Trading Company	4,07,796	6,66,355
10	Thakur Electrical Works	25,044	10,609
11	Vijay Kumar	1,59,969	43,591
12	Yes Water Proofing	6,610	6,610
	Sub - Total (iii)	**7,79,251**	**8,27,696**
	FOR STATUTORY LIABILITIES :(iv)		
1	Provision For Gratuity	1,79,85,043	2,03,59,891
2	Employer's Contribution to PF payable	26,05,328	23,58,802
	Sub - Total (iv)	**2,05,90,371**	**2,27,18,693**
	Grand Total (i+ii+iii+iv)	**10,40,68,014**	**11,05,01,305**

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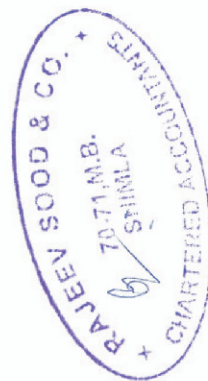
JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY
FINANCIAL YEAR 2014-15
OTHER LIABILITIES

Particulars		Amount (₹) 31.03.2014	Amount (₹) 31.03.2015
Uncleared Cheques		61,97,583	26,45,996
Interest Free Refundable Financial Assistance from Sponsoring Trust (JSS) -Delhi A/C		80,00,000	80,00,000
Interest Free Refundable Financial Assistance from Sponsoring Trust (JSS)-Noida A/C		3,91,32,439	3,90,30,945
Fee in Advance	(i)	8,65,91,452	8,75,45,421
Expenses Payable	(ii)	1,12,39,736	1,05,84,830
Salary and Allowances Payable	(iii)	1,16,27,857	1,12,10,523
T.D.S. Payable		24,74,079	17,44,987
TOTAL OTHER LIABILITIES		**16,52,63,146**	**16,07,62,702**

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JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY
FINANCIAL YEAR 2014-15

Annexure to Other Liabilities

Annexure to Schedule - "I"

Particulars	Amount (₹) 31.03.2014	Amount (₹) 31.03.2015
Expenses Payable:- (i)		
Scholarships	42,27,351	41,01,320
LTA	10,68,399	13,98,662
Electricity Expenses	27,11,957	22,52,879
Warden's Remuneration	45,000	
Telephone Reimbursment		6,000
Telephone Expenses	0	37,109
Mediacal Reimbursement	31,87,029	27,88,860
Sub-Total (i)	1,12,39,736	1,05,84,830
Salary & Allowances Payable :- (ii)		
Teaching Staff	1,11,96,890	90,09,536
Non-Teaching Staff	4,30,967	22,00,987
Sub-Total (ii)	1,16,27,857	1,12,10,523
TDS Payable:- (iii)		
TDS - Contractor	1,82,164	1,30,163
TDS - Legal & Professional	3,67,935	3,25,472
TDS - Commission & Brokerage	500	500
TDS - Salary	18,88,600	12,86,350
TDS - W.C.T.	34,880	2,502
Sub-Total (iii)	24,74,079	17,44,987

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JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY
FINANCIAL YEAR 2014-15
## INSTITUTIONAL EXPENSES

SCHEDULE - "J"

Particulars	Amount (₹) 31.03.2014	Amount (₹) 31.03.2015
Admission Exps. Including Advertisement	17,19,495	11,92,225
Audit Fee	1,68,540	1,68,540
Conference & Seminar Expenses	53,60,294	10,34,943
Convocation Expenses	-	6,84,126
E-Journals & Periodicals	88,03,412	54,69,105
Electricity Expenses	1,28,80,643	1,02,56,921
Honorarium to Faculty & Remuneration of Visiting Faculty	7,74,370	7,42,629
Institute Promotional Expenses	38,24,284	29,71,432
Insurance Expenses	2,94,612	5,35,994
Internet Charges	6,80,605	4,72,063
Laboratory Expenses	47,09,032	26,88,590
Lease Rent	1,25,411	39,234
Legal & Professional Charges	3,20,142	3,48,025
Misc. Expenses	8,31,075	11,55,772
Payment to Technical Personnel	77,60,144	88,01,070
Placement Expenses	5,39,872	7,75,419
Postage & Telegram	1,57,752	1,62,351
Printing & Stationery	31,38,314	28,76,148
Prior Period Expenses	(1,74,580)	60,126
Recruitment Expenses	2,93,717	86,123
Debt Obligation Principal Amount (JSS)	2,08,34,000	2,08,34,000
Debt Obligation Interest Amount (JSS)	1,21,19,928	96,93,222

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SCHEDULE - "J" (Continued)

Particulars	Amount (₹) 31.03.2014	Amount (₹) 31.03.2015
Scholarship to Students	1,49,91,722	1,11,42,727
Security Expenses	21,96,236	19,33,260
Staff Welfare	10,42,997	13,08,904
Telephone Expenses	2,66,625	5,63,194
Travelling & Conveyance	5,21,808	3,64,912
Water Expenses	37,54,105	50,41,733
Repair & Maintenance		
- Civil Maintenance	14,74,998	39,08,891
- Equipment & Machinery	56,89,927	30,73,210
- Furniture & Fixture	4,02,556	7,17,331
- Horticulture Exps.	32,09,454	32,55,907
- Institute House Keeping	47,70,864	47,75,061
- Others	41,24,398	9,49,615
- Vehicles	39,56,550	35,39,369
- Water Supply Scheme	1,50,147	1,92,264
TOTAL INSTITUTIONAL EXPENSES	**13,17,13,449**	**11,18,14,436**
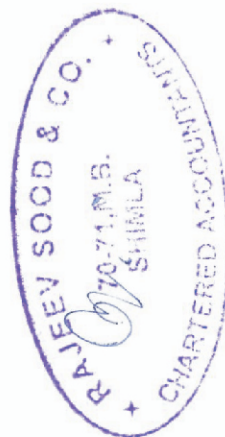
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JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY
FINANCIAL YEAR 2014-15

SALARY & ALLOWANCES

SCHEDULE - "K"

Particulars	Amount (₹) 31.03.2014	Amount (₹) 31.03.2015
Teaching Staff :		
Salary	10,20,28,604	10,39,56,337
Conveyance Allowance	82,03,440	76,00,183
H.R.A.	72,45,294	67,62,935
Medical Reimbursement	37,60,426	37,83,430
Leave Travel Assistance	35,10,575	38,20,568
Employer's Contribution to Provident Fund	1,26,67,442	1,26,95,924
Provision for Gratuity	59,29,092	45,19,506
Other Allowances	2,47,40,143	2,08,87,294
Sub - Total	**16,80,85,016**	**16,40,26,177**
Non-Teaching Staff :		
Salary	2,63,09,750	2,64,94,157
Conveyance Allowance	15,99,630	16,49,344
H.R.A.	18,95,669	20,39,862
Medical Reimbursement	10,59,310	10,53,716
Leave Travel Assistance	10,37,194	10,79,870
Employer's Contribution to Provident Fund	33,65,832	32,65,529
Provision for Gratuity	13,01,009	5,99,015
Other Allowances	19,78,155	26,95,131
Sub - Total	**3,85,46,549**	**3,88,76,624**
TOTAL SALARY & ALLOWANCES	**20,66,31,565**	**20,29,02,801**

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JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY
FINANCIAL YEAR 2014-15

STUDENTS' HOSTEL EXPENSES

SCHEDULE - "L"

Particulars	Amount (₹) 31.03.2014	Amount (₹) 31.03.2015
Grocery & Eatables Consumed	5,11,53,292	5,01,09,203
Security Expenses	51,24,553	45,10,946
Electricity Charges	1,76,27,041	1,39,85,581
Water Charges	1,00,18,134	1,00,48,263
Housekeeping Expenses	75,28,300	56,36,449
Dispensary Expenses	23,31,922	23,64,854
Student Welfare Expenses	24,11,627	10,89,146
Messing Staff Expenses	67,04,222	69,06,028
Repair & Maintenance	49,39,488	47,41,194
Laundry Expenses	36,55,657	29,81,294
TOTAL STUDENTS HOSTEL EXPENSES	**11,14,94,236**	**10,23,72,958**

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JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY
FINANCIAL YEAR 2014-15

COLLECTIONS FROM STUDENTS

SCHEDULE - "M"

Particulars		Amount (₹) 31.03.2014	Amount (₹) 31.03.2015
Fees From Students:			
Tuition Fee		19,34,04,078	19,59,77,320
Hostel Fee		12,72,19,179	13,69,23,525
Development Fee		10,23,19,650	10,02,90,025
	Sub Total :	42,29,42,907	43,31,90,870
Other Collection:-			
Sundry Charges For :-			
Late Registration, Grade Sheets, ID Card, Library Dues. etc.		22,62,875	20,16,542
Admission Form Charges		27,08,323	22,43,375
Tuck Shop Charges		47,22,818	45,97,753
Mess Charges		88,31,559	1,00,03,912
	Sub Total :	1,85,25,575	1,88,61,582
TOTAL COLLECTIONS FROM STUDENTS		44,14,68,482	45,20,52,452

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JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY
FINANCIAL YEAR 2014-15

INTEREST RECEIVED ON FDs

Particulars	Amount (₹) 31.03.2014	Amount (₹) 31.03.2015
Oriental Bank of Commerce - Solan	31,69,447	3,66,682
Punjab National Bank - Shimla	2,86,632	1,18,347
Punjab National Bank - Waknaghat	7,97,988	35,66,970
State Bank of Patiala - Waknaghat	58,15,150	51,97,306
Syndicate Bank - Noida (UBSK)	11,71,339	12,81,701
Punjab National Bank-Samirpur	27,401	14,222
TOTAL INTEREST RECEIVED	**1,12,67,957**	**1,05,45,228**

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JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY
FINANCIAL YEAR 2014-15

OTHER INCOME

SCHEDULE - "O"

Particulars	Amount (₹) 31.03.2014	Amount (₹) 31.03.2015
Overhead Charges for Research Projects	13,29,657	12,61,397
Registration Charges for Conference & Seminars	25,84,929	94,567
Interest Received on T.D.S deposited with Income Tax Deptt.	1,21,415	-
TOTAL OTHER INCOME	40,36,001	13,55,964

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TRAINING & PLACEMENT DATA

JUIT, Waknaghat : 2006-2010

Branch	Total No. of Students	No. of Students Offered	% of Placement
Biotech/BioInformatics	50*	43	96%
CIVIL	25*	25	100%
CSE	129	170	132%
ECE	149	157	105%
IT	63	68	108%
Total	**416**	**463**	**111%**
Biotech/BioInformatics	50*	43	96%

JUIT, Waknaghat : 2007-2011

Branch	Total No. of Students	No. of Students Offered	% of Placement
BI	23	47	204%
BT	17	21	124%
CIE	35	24	69%
CSE	124	214	173%
ECE	124	201	162%
IT	47	70	149%
DDBT / BI	30	21	70%
M.TECH	16	12	75%
Total	416	610	147%

Note: **Rest all the students are pursuing higher studies from various Institutes in India or Abroad.**

Campus Placement 2008-12 Batch

BRANCH	Total No. of Students Eligible	No. of Students Offered	% of Placement
CSE	126	205	163%
ECE	125	169	135%
IT	45	76	169%
BT	30	27	90%
BI	12	11	92%
CIVIL	30	23	77%

Campus Placement 2009-13 Batch

BRANCH	Total No. of Students Eligible	No. of Students Offered	% of Placement
CSE	80	69	86%
ECE	47	39	83%
IT	36	29	81%
CIVIL	16	10	63%

Campus Placement 2010-14

Branch	No. of Participating Students	Number of Selection	% of Placement
CSE	131	127	97%
ECE	139	85	61%
IT	36	43	119%
CIVIL	33 57	20 50 – Students Joined higher studies	61% 88%

2011-2015 Batch Placements

Mr.ABHISHEK SHARMA Roll no 111318 bagged a package of 21 Lakhs from Amazon.

The placement statistics for 2011-2015 batch till now is as follows:

Branch	Students Appeared	Selections
CSE	105	98
ECE	90	84
IT	50	46
Civil	71	8
BI/BT	26	11
BTDD	23	9

Students Joined MS in USA

University of Florida, USA : CSE - 7, Civil – 6, IT – 2
University of Nebraska at Omaha, USA : Biotech – 3
Georgia Tech Atlanta, USA: Biotech – 2
Joined IITD for higher studies: Civil – 1

Key Recruiters for Engineering : 2014 Batch			
Sl. No.	Company Name	Sl. No.	Company Name
1	Amazon	14	WIPRO
2	Accenture	15	ClickLabs
3	Infosys	16	Novozymes
4	Hindustan Times	17	BioXcel
5	ThoughtFocus	18	Omics Group
6	MAQ Software	19	Earth Infrastructures
7	Kuliza	20	Era Group
8	Ericsson	21	Roche Diagnostics
9	Ernst & Young	22	ExEvo
10	Sap Labs	23	CSC
11	MTree	24	Cognization Tech
12	Yamaha Motor Solutions	25	Cognizant Tech
13	NTT Data	26	NTL Electronics

M.Pharmacy Student's Placement – 2014 Batch	
Name of student	**Name of organization**
Ms. Sonali Singh	Drug Control Officer, Government of India
Ms. Champa Chauhan	Senior Pharmacist, Government of Himachal
Ms. Reetika	Bioxel Corporation
Ms. Vishaka	Bioxel Corporation
Ms. Jeenu	Click Labs
Ms. Shruchi Tanwar	Quantum Solutions
Mr. Ankesh Sharma	Integral Bioscience
Mr. Sanjay	Abbot Pharmaceuticals
Mr. Ishaan Verma	Panacea Biotech
Ms. Yamini	Cognizant technology solutions
Mr. Vaibhav	Cognizant technology solutions
Mr. Ankur Sharma	Akum Pharmaceuticals

Including those who have gone for higher studies namely in:

a)   University of Florida, USA
b)   University of Nebraska at Omaha, USA
c)   Georgia Institute of Technology, Atlanta, USA
d)   University of North Carolina, Charlotte, USA
e)   University of Bonn, Germany
f)   University of Arizona, USA
g)   University of Manchester, UK
h)   University of Nottingham, UK
i)   University College London
j)   London School of Economics