

**JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY (JUIT)
WAKNAGHAT
Himachal Pradesh**



**ANNUAL REPORT
2017 - 2018**

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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 Private 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
Chancellor	:	Sh. Acharya Dev Vrat Hon'ble Governor of Himachal Pradesh
Pro-Chancellor	:	Sh. Manoj Gaur Executive Chairman, Jaiprakash Associates Ltd
Vice Chancellor	:	Prof. (Dr) Vinod Kumar
Registrar	:	Maj Gen Rakesh Bassi, SM (Retd)
Tele/Fax/Website		
Vice Chancellor	:	(O) 01792-239201 (R) 01792-239250
Registrar	:	(O) 01792-245371/239203 (R) 01792-239272
EPBAX	:	01792-257999 (30 lines)
Fax	:	01792-245362
Website	:	www.juit.ac.in

STUDENT STRENGTH AS ON 30 SEP. 2018

<u>Year of Study</u>	<u>U.G. Prog.</u>	<u>P.G. Prog.</u>	<u>Integrated Dual Degree Prog.</u>
6 th Year	01		
5 th Year	21		04
4 th Year	488		
3 rd Year	430		
2 nd Year	396	24	
1 st Year	383	15	

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.

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 Wahnaghat, Himachal Pradesh [July 2002]; the Jaypee University of Engineering & Technology (JUET) at Guna, Madhya Pradesh [July 2003] and Jaypee University, Anoopshahr [July 2014].

Genesis

Set up by Act No. 14 of 2002 vide Extraordinary Gazette notification of Government of Himachal Pradesh dated May 23, 2002 and 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 and Civil Engineering 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.
- 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. The state-of-the-art campus covers a total built up area of around 73,864.81 Sq. m. Smart buildings with internet and Wi-Fi connectivity, 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

Academic Philosophy:- The Academic philosophy of the University is based on following principles:-

- 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 Qualities
- Emphasis on fundamentals, concepts, understanding and analytical & problem solving skills
- Enhancement of Scientific reasoning ability;
- Integration of human values and professionalism.

Accreditation

1. The following undergraduate programmes of the University are accredited by National Board of Accreditation (NBA) under Washington Accord upto 30th June 2020.
 - Electronics & Communication Engg.
 - Biotechnology
2. The University has been accredited by the National Assessment and Accreditation Council (NAAC) Peer team upto 29 October 2022 with B+ Grading.
3. The NIRF ranking of the University is 84th among all Engineering Institutes in the country.
4. The University is also approved by University Grants Commission under Section 2(f) of UGC Act 1956.

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, and pursuit of excellence, self-discipline and enhancement of creativity through motivation and drive, which helps to produce professionals who are well trained for the rigours 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 and (vi) Civil Engineering.

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.

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

In academic session 2014, the students for this program were admitted. 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. The Program was discontinued in 2015. As on date four students enrolled in 2014 are undergoing this program.

- **Post Graduate Programs**

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, 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, computer technology, 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, and 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.

- **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.

- **Ph.D. 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.

- **Ph.D. 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.

- **Ph.D. Biotechnology, Bioinformatics**

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.

- **Ph.D. Civil Engineering**

The Department carries out research and development activities in the areas Rock fill material modelling, Constitutive modelling, 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 NO_x / CO concentrations, and Solid-waste management, Pavement Materials,

- **Ph.D. Physics & Materials Science**

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

- **Ph.D. 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, Wavelets and differential equations, Algebraic Coding Theory, Sequence Design, Distributed Source Coding, Fuzzy Information Measures, Decision Making, Pattern Recognition

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, SPSS, Lingo and Lindo.

- **Ph.D. 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 group and co-operative working, economics, finance, project management etc. Additionally, the department exposes students to entrepreneurship skills, HR management, Customer relationship management, total quality management etc.

ACADEMIC DEPARTMENTS

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

The department of Electronics and Communication Engineering was established in the year 2002 with the undergraduate program in Electronics and Communication Engineering. M.Tech and Ph.D programs are also run by the department for more than ten years. The department is playing a vital role in producing competent engineers of highest caliber with emphasis on technical skills, critical thinking and problem-solving. The department has six research groups, namely Signal Processing, Embedded System and VLSI, RF and Microwave Antenna, Communication and Networking, Biomedical Engineering and Automation and Control to focus on research in advanced trends and applications in these fields. The department has highly motivated and learned faculty who are research oriented and working on cutting edge technologies. In the year 2017-2018, the department had three hundred and eighty two undergraduates, seven postgraduates and fourteen research scholars.

Students of the department are working on projects based on recent developments in Engineering and Technology. Along with invited industries participation in curriculum delivery, mentoring, summer internships and industrial visits, the department provides the best a student should receive.

Department Vision and Mission

The vision of the department is 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 the 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

Bachelor of Technology (B.Tech)

The department offers a comprehensive B.Tech programme in Electronics and Communication Engineering which provides the knowledge of latest developments in the field of Electronics and Communication. Students are also exposed to core computer courses like Data Structures, Object Oriented Programming, Operating Systems and Computer Networks. The candidates are selected for admission to B.Tech through all India entrance examination, Joint Entrance Examination (JEE).

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:** This lab covers the basic exploration of electronic devices and circuits. The students are encouraged to hands on design electronic circuits which helps them in determining the behavior of devices and circuits.
- **Electrical Science Lab:** This lab is designed to expose students to the practical executions of the fundamental theories of Electrical Engineering.
- **Power Electronics Lab:** This lab covers the working and performance of power electronic devices as SCRs, DIAC, TRIAC, UJTs.
- **Analog and Digital Communication Lab:** This lab is designed to make the students learn about the basics of Communication Engineering. After working in this lab, students become aware of the fundamentals of Analog and Digital Communication.
- **Electromagnetics Lab:** This lab helps the students to understand the basics of wave propagation in rectangular waveguides and the basics of microwave engineering.
- **Control and Machine Lab:** This lab helps the students to perform the mathematical modeling of physical systems. Also it helps the students to analyze the system using time domain and frequency domain methods.
- **Digital Electronics Lab:** This lab provides students basic experimental experiences in constructing digital circuits, measuring the experimental data and analysis of the results. Also it helps to develop skills to design various combinational and sequential circuits using electronics devices.
- **Analog Electronics Lab:** This lab provides students about the basic experimental experiences in constructing Analog circuits, measuring the experimental data and analysis of the results. Also it helps to develop skills to design various Amplifier and Oscillator Circuits using BJTs, and FETs circuits.
- **VLSI Design Lab:** This lab helps the students to design digital circuits using Verilog HDL using XILINX platform. Also it helps the students to study gate level, dataflow (RTL), behavioral, and switch level modeling.
- **Research Lab:** This lab is provided with the latest state-of-art software and hardware which help the research scholars to carry on their research activity.
- **Project Lab:** This lab is provided with the latest software and hardware which are used by the under graduate students for their final year project work.

The infrastructure and lab facilities are upgraded from time to time and provide adequate opportunities for students and researchers to learn and innovate. Various softwares are available

in the department like MATLAB, LABVIEW, PSPICE, CST Microwave Studio, XILINX, and ORCAD, LabView.

Master of Technology(M.Tech)

The department offers an intensive M.Tech programme in Electronics and Communication Engineering. The candidates are selected based on the GATE score and entrance test along with personal interview. 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.

Ph.D

Electronics & Communication Engineering department offers PhD program in various areas like 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. Unique features of our department are designing electronic and communication systems using software tools such as MATLAB, PSPICE, Model-Sim and DSP kits.

New Courses/ Labs Introduced

New labs and courses are being introduced from time to time to keep the students abreast with the latest technologies and developments in the field of Electronics and Communication Engineering. In the academic year 2017-2018, the new courses introduced by the department are:

S.No.	Title	Course Code
New courses introduced		
1	Robotics system and control	17B1WEC733
2	Time frequency analysis and its applications	17B1WEC731
3	VLSI in Biomedical Processing System	17M1WEC331
4	Computational Intelligence and Applications	17M1WEC332
5	Bio-Medical Signal Processing	18B2WEC801
6	Basics of Software Defined Radio	18B2WEC802
7	Multirate DSP	18B2WEC803
New laboratories introduced		
1	Microprocessor and Controller Lab	10B17CI407
2	e Yantra Lab	

Research Projects Sanctioned

International Projects

S.No	Name of the faculty	Project Title	Funding Agency	Amount	Duration	Status
1	Dr. Rajiv Kumar	Reliability Modeling and Optimized Planning of Risk-based Resilient Networks	DST Ministry of Sc and Tech Poland	9.04 Lacs	2015-2018	Ongoing

National Projects

S.No	Name of the faculty	Project Title	Funding Agency	Amount	Duration	Status
1	Dr. Ghanshyam Singh	Mathematical Modeling of spectrum Sharing Techniques in	ISRO	11.10 Lacs	2015-2018	Ongoing
2	Dr Shruti Jain Dr. Meenakshi Sood	Design and analysis of a thermoelectric generator for energy harvesting system from waste heat for the state of Himachal	State council for Science, Technology & Env, H.P.	5.24 Lacs	2017-19	Ongoing
3	Dr. Meenakshi Sood	Identification of commercial crop diseases using image processing techniques & its environmental effects for the farmers of Himachal Pradesh	Department of Environment, Science & Technology H.P	9.96 Lacs	2017-19	Ongoing

Research and Development Activities

The research at the department continued to flourish during the year under review. Around eight Ph.D students enrolled in academic year 2017-2018, in keeping with the national goal increasing the availability of the high quality researchers and teachers to industry and academia. In 2017-2018, our faculty and research scholars got two new projects approved, published some 24 papers in refereed journals and 16 papers 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,

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 new projects during the year, apart from various ongoing projects.

4th International Conference on Signal Processing, Computing and Control (ISPCCC 2k17)

ECE Department organized 4th International Conference Signal Processing, Computing and Control, ISPCCC 2k17, from September 21-23, 2017. The aim of the conference was to serve for researchers, developers, educators working in the area of signal processing, computing, control and their applications to present and future work as well as to exchange research ideas. The conference was one of the premier venues for fostering international scientific and technical exchange across research communities in networking. The 4th IEEE ISPCCC 2k17 technical program committee put together an outstanding program, consisting of 20 technical sessions, 5 invited talks and 2 workshops.

Prominent speakers were **Prof. Panicos Kyriacou**, Professor of Biomedical Engineering, City University London, **Prof. Dinesh Kumar**, Professor (Biomedical Engineering), Electrical and Computer System Engineering, RMIT, University, Melbourne, Australia and **Prof. H.K. Sardana**, Chief Scientist, CSIO Chandigarh. We also had two workshops by BIOPAC systems and AD Instruments that provided lot of exposure to the participants. The papers were presented in their respective session schedule spanned over three days

An overwhelming response from the researchers, academicians and industry from all over the globe was received. Papers from Australia, Malaysia, Iran, China, Phillipines, Pakistan, Maldives were received making it truly International. Also papers from were received from Pondicherry, Kerela, Nagpur, Pune, Hyderabad, Rajasthan, M.P., Guwahati, Utrakhand, Raipur, Ranchi and neighbouring states. The authors were from premium institutes IITs, NITs, Central Universities, NSIT, PU and many other reputed institutes.

Over 483 research papers were received, out of which 121 papers were accepted and presented during the three day conference, acceptance ratio being 25%.

Photos Related to 4th International Conference Signal Processing, Computing and Control, ISPCCC 2k17





Faculty Development Program

ECE Department organized a 10 days Faculty Development Program on “EMERGING TRENDS IN VLSI AND COMMUNICATION (ETVC 2018)”. The program was scheduled from June 09 -18, 2018 at Jaypee University of Information Technology, Wanknaghat, Solan. The program was inaugurated by Dr. Subhajt Roy Chaudhary, Prof. School of Computing and Electrical Engineering, IIT Mandi, Prof. Vinod Kumar, Vice Chancellor, JUIT and Prof. Samir Dev Gupta, HOD ECE. More than 30 faculty members from various universities / institutes and 20 research scholars participated in this FDP.

Photos Related to 10 days Faculty Development Program on “EMERGING TRENDS IN VLSI AND COMMUNICATION (ETVC 2018)”.



FACULTY ACTIVITIES

I) Workshops/Guest Lectures organized by the Department

- i) One week workshop on “Recent Trends in Electronics and Communication Fields”, from June 11-17, 2018 .
- ii) Two day workshop on “Implementation and Applications of Different Sensors using LabView”, on November 06th -07th, 2017 in collaboration with National Instruments.
- iii) Guest lecturer on “Mobile Phones, Wearable’s, Artificial Intelligence and Your Heart!” by Prof. Peter Macfarlane, Electro cardiologist, University of Glasgow on October 9, 2017.
- iv) Guest Lecture on “Development of Advanced Image and Signal Processing Techniques for Disease Diagnostic Devices: Process and Examples” by Prof. Dinesh Kant Kumar, (Biomedical Engineering), RMIT University, Melbourne, Australia on September 22, 2017.
- v) Guest Lecturer on “*Sensors and Signals in Clinical Monitoring and Diagnosis of Disease*” by Prof. Panicos Kyriacou, Professor of Biomedical Engineering City University London on September 21, 2017 .
- vi) Guest Lecturer on “Medical Imaging – Acquisition Processing Analysis & Applications” by Prof. (Dr.) H.K. Sardana, Chief Scientist, CSIO Chandigarh on September 21, 2017.
- vii) Organized three day workshop on “Bio Medical Signal Processing (Wired techniques v/s Wireless techniques)” by the experts from AD Instruments, New Delhi from September 21-23, 2017.
- viii) Organized three day workshop on “Inquiry-Based Biomedical Signal Processing Laboratory: From Practice to Simulation” by the experts from Biopac, New Delhi, India from September 21-23, 2017.

II) Industrial Visit

An industrial visit to CDAC Mohali was organized on April 13, 2018 for 3rd year ECE students to familiarize them with various aspects of applied electronics, technology and applications.



III) **Technovatorz Club**

Technovatorz is a club that strives to acquire new skills in an era of rapidly evolving technology in the field of Electronics and Communication Engineering. The club aims to provide potential minds of JUIT a platform to discuss innovative ideas and nurture their skills to tackle real life challenges in the world today and contribute to the technical society through various projects, patents and research publications. In the academic year 2017-2018, this club organized the following events.

1. Poster Presentation Competition – October 9, 2017
2. Quiz Competition (Quizard-18) – March 22, 2018

IV) **Books Published**

1. Shweta Pandit and Ghanshyam Singh, “Spectrum Sharing in Cognitive Radio Networks: Medium Access Control Protocol Based Approach” USA: Springer International Publishing. eBook ISBN 978-3-319-53147-2, 2017.
2. Meenakshi Sood and Shruti Jain, “Signal Processing, Computing and Control” ISBN 978-1-5090-5837-2, 2017.
3. Amit Kumar Singh, Basant Kumar, Ghanshyam Singh, and Anand Mohan, "Medical Image Watermarking: Techniques and Applications," Springer International Publishing, eBook ISBN 978-3-319-57699-2, 2017.

V) **List of Publications**

a) **Journals Publications**

- i) G. Thakur, H. Sohal, S. Jain, “An Efficient Design of 8-bit High Speed Parallel Prefix Adder”, Research J. Science and Tech. vol. 10, no. 2, pp.105-114, 2018.
- ii) P. Thakur, A. Kumar, S. Pandit, G Singh, and S N Satashia, “Spectrum mobility in cognitive radio network using spectrum prediction and monitoring techniques,” Physical Communication, vol. 24, pp. 1-8, Sep. 2017.
- iii) M. Sood, “Performance Analysis of Classifiers for Seizure Diagnosis for Single Channel EEG Data”, Biomed Pharmacol Journal, vol. 10, no. 2, pp.795-803. 2017.
- iv) C. Bhardwaj, Urvashi, M. Sood “Implementation and Performance Assessment of Compressed Sensing for Images and Video Signals” Journal of Global Pharma Technology, vol. 06, no. 9 , pp. 123-133, 2017.
- v) Urvashi, M. Sood, C. Bhardwaj “Effectiveness of Reconstruction Methods in Compressive Sensing for Biomedical Images”, Journal of Global Pharma Technology, vol. 06, no. 9, pp. 134-143, 2017.
- vi) J. Dogra, N. Prashar, S. Jain, M. Sood, “ Improved methods for analyzing MRI brain images” Network Biology, vol. 8, no. 1, pp. 1-11, 2018.
- vii) N. Prashar, J. Dogra, M. Sood, S. Jain, “Removal of electromyography noise from ECG for high performance biomedical systems” Network Biology, vol. 8, no. 1, pp. 12-24, 2018.

- viii) J. Dogra, S. Jain, M. Sood, "Segmentation of MR Images using Hybrid kMean-Graph Cut Technique" *Science Direct Procedia Computer Science*, vol. 132, pp. 775–784, 2018.
- ix) S. Jain. "System Modeling of AkT using Linear and Robust Regression Analysis", *Current Trends in Biotechnology and Pharmacy*, vol. 12, no. 2, pp.177-186, April 2018.
- x) S. Jain, "Classification of Protein Kinase B Using Discrete Wavelet Transform", *International Journal of Information Technology*, vol. 10, no. 2, pp. 211-216, 2018.
- xi) S. Jain, D. S. Chauhan, " Computational Model using Anderson Darling Statistics and Pearson Correlation Coefficients of Different Distribution Functions for Stress Activation Protein Kinase", *International Journal of Scientific Research and Reviews* , vol. 7, no. 1, pp. 51-63, Jan - March 2018.
- xii) S. Jain, "Regression modeling of different proteins using linear and multiple analysis", *Network Biology*, vol. 7, no. 4, pp. 80-93, 2017.
- xiii) S. Jain, "Classification of EGF and Insulin Receptors using Gabor Wavelet Transform", *International Journal of Advanced Research Trends in Engineering and Technology*, vol. 4, no. 11, pp. 21-25, 2017.
- xiv) S. Jain, "Parametric and Non Parametric Distribution Analysis of AkT for Cell Survival/Death", *International Journal of Artificial Intelligence and Soft Computing*, vol. 6, no.1, pp. 43- 55, 2017.
- xv) S. Kaushal, S D Sharma, S. Jain "Glaucoma Detection Technique in Retina-A study", *Preprints* 2018, 2018060301 .
- xvi) Amandeep, Shruti Jain, Sahil Bhusri, "CAD for Two Class Classification of Lung Cancer using Statistical Features", *International Journal of Pharmaceutical Sciences Review and Research* , vol. 45, no. 2, pp. 55-60, August 2017.
- xvii) Shreya Sharma, Shruti Jain, Sahil Bhusri, "Two Class Classification of Breast Lesions using Statistical and Transform Domain features", *Journal of Global Pharma Technology* vol. 9, no. 7, pp. 18-24, 2017.
- xviii) N U Khan and K. V. Arya, "Two Stage Image De-noising and Edge Enhancement by SVD on Anisotropic Diffused Image Data" , *Multimedia Tools and Applications*, vol. 77, pp. 22543 – 22566, 2018.
- xix) N Singh, S D Sharma , R M. Yennamalli , Modified S-transform as a tool to identify secondary structure elements in RNA, *Bio-Algorithms and Med-Systems (Degruyter)*, vol.13, no.4, pp.187-193, 2017.
- xx) S D Sharma , R Saxena, S N Sharma , "Tandem Repeats Detection in DNA Sequences using Kaiser Window Based Adaptive S-Transform", *Bio-Algorithms and Med-Systems (Degruyter)*, vol.13, no.3, pp. 167-173, 2017.
- xxi) N. Kumari, and S R Talluri. "A Simple Novel Method of Designing Dualband and Multi-bandpass Filters." *International Journal of Advances in Microwave Technology*, vol. 2, no. 3, pp. 131-135, 2017.
- xxii) P.Chawla and N. Sharma, "YCbCr Colour Watermark Embedding in Digital Video for Copyright Protection using Zero Padding", *Journal of Telecommunication, Electronic and Computer Engineering* , vol. 9, no. 3-6, pp. 19-22, December 2017.
- xxiii) P. Chawla and N.Sharma, "A Robust Approach of Embedding Watermark Blocks In Digital Video For Copyright Protection Using Zero Padding

- Algorithm”, Journal of Telecommunication, Electronic and Computer Engineering , vol. 9, no. 3-6, pp. 23-27, December 2017.
- xxiv) A. Sharma and R. Kumar, “A Framework for Pre-computed Multi-Constrained Quickest QoS Path Algorithm,” Journal of Telecommunication Electronic and Computer Engineering, vol. 9, no. 3-6, pp. 73-77, December, 2017.

b) Conference Publications

- i) P. Thakur, A. Kumar, S. Pandit, G Singh, and S N Satashia, “Effect of imperfect spectrum monitoring on cognitive radio network performance,” in Proceedings of IEEE 4th International Conference on Image Information Processing (ICIIP -2017), Wakhnaghat, India, December 21-23, 2017, pp. 1-5.
- ii) A. Kumar, P. Thakur, S. Pandit, and G. Singh, “Fixed and dynamic threshold selection criterion in energy detection for cognitive radio communication systems,” in Proceedings of 10th IEEE International Conference on Contemporary Computing (IC-3), Noida, August 10-12, 2017, pp. 1-6.
- iii) A. Kumar, P. Thakur, S. Pandit, and G. Singh, “Performance analysis of different threshold selection schemes in energy detection for cognitive radio communication systems,” in Proceedings of 4th International Conference on Image Information Processing (ICIIP -2017), Wakhnaghat, India, December 21- 23, 2017, pp. 1-6.
- iv) S. Guleria, A. Kaushal, R. Shahi, and M.Sood, “Designing assembled system for plant disease diagnosis using IoT and android”, in International Conference on Power Energy, Environment and Intelligent Control (PEEIC) G.L. Bajaj Institute of Technology and Management Greater Noida, U. P., India, April 13-14, 2018, pp. 34-37.
- v) Singh, R Tiwari, A Sharma, Y Kumar, and M Sood, “A systematic review on automatic image caption generation using deep learning”, in Proceedings of the 5th International Conference on Computing for Sustainable Global Development, BVICAM, INDIACom, New Delhi , March 14-16, 2018, pp. 6294-6297.
- vi) N. Elias, S. Anmol, A.Mehta, and M. Sood, “Recognition of spoken words using mel frequency cepstral coefficients (MFCC) and Dynamic Time Warping (DTW) algorithm”, in Proceedings of the 5th International Conference on Computing for Sustainable Global Development, BVICAM, INDIACom, New Delhi, March 14-16, 2018, pp. 2245-2248.
- vii) N. Prashar, S. Jain, M. Sood, and J. Dogra, “Review of biomedical system for high performance applications” in 4th IEEE International Conference on signal processing and control (ISPCC), Jaypee University of Information Technology, Wakhnaghat, Solan, September 21- 23, 2017, pp. 300-304.
- viii) R.Thakur, S.Jain, and M.Sood, “ FPGA implementation of unsigned multiplier circuit based on quaternary signed digit number system” in Proceedings of the 4th IEEE International Conference on signal processing and control (ISPCC 2017) , Jaypee University of Information Technology, Wakhnaghat, Solan, India , September 21-23, 2017, pp.637-641.

- ix) J. Dogra, M. Sood, S. Jain, and N. Prashar “ Segmentation of magnetic resonance images of brain using thresholding techniques”, in 4th IEEE International Conference on Signal Processing and Control (ISPCC 2017), Jaypee University of Information Technology, Wagnaghat, Solan, India, September 21-23, 2017, pp. 311-315.
- x) M. Garg, “Model order reduction and approximation analysis for control system design”, in Proceedings of 4th IEEE International Conference on Signal Processing, Computing and Control, (ISPCC 2017), Jaypee University of Information Technology, Wagnaghat, India, September 21-23, 2017, pp. 473-476.
- xi) V. Baghel and P. Sharma, “Efficient pulse compression using convolutional neural network”, in Proceedings of International Conference on Advance Studies in Engineering and Sciences (ICASES-17), Sri Satya Sai University of Technology and Medical Sciences, Sehore, India, December 2, 2017, pp. 109-114.
- xii) P. Garg, S D Sharma, and S N Sharma, “Tandem repeats detection in DNA sequences using P-spectrum based algorithm”, in Proceedings of IEEE Conference on Information and Communication Technology , IITM Gwalior, November 3-5, 2017, pp. 1-5.
- xiii) A. Mohan and N U Khan, “Dataset expansion and accelerated computation for image classification: a practical approach”, Proceedings of 2018 International Conference on Applied Computing and Data Sciences (ICACDS 2018), April 20 – 21, 2018, Uttarakhand University, Dehradun, India.
- xiv) A. Gupta and S D Sharma, “Study of the tandem repeats in dna sequences using proposed algorithm,” in Proceedings of the International Conference on Technology and Trust, Greater Noida, December 28-29, 2017, pp. 129-134.
- xv) A. Thakur and S R Talluri, “A novel pulse compression technique for side-lobe reduction using woo filter concepts”, in Proceedings of IEEE International Conference on Communication and Signal Processing (ICCSP), April 6-8, 2017, pp. 1086-1090.
- xvi) A. Sharma and R. Kumar, “An optimal routing scheme for critical healthcare HTH services - an IOT perspective,” in Proceedings of 4th International Conference on Image Information Processing (ICIIP -2017), Wagnaghat, India, December 21-23, 2017, pp. 1-5.
- xvii) A. Sharma, M D Ansari, and R. Kumar, “A comparative study of edge detectors in digital image processing” in Proceedings of 4th IEEE International conference on Signal Processing, Computing and Control (ISPCC), Wagnaghat, India, September 21-23, 2017, pp. 246-250.
- xviii) R. Bag, D. Das, and R. Kumar, “An architecture of smart transportation system using modified RR algorithm and VANET,” in Proceedings of the 8th International Conference on Computing, Communication and Networking Technologies (ICCCNT), New Delhi, July 3-5, 2017, pp. 1-7 .

c) Workshop Organized/Session Chaired

- i) Meenakshi Sood & Shruti Jain: Conference General Chair Person of 4th IEEE International Conference on signal processing and control (ISPCC 2017), Jaypee University of Information Technology, Wagnaghat, Solan, H.P, India, September 21-23, 2017.

- ii) Meenakshi Sood & Shruti Jain: Session Chair: 12th INDIACom: 5th 2018 International Conference on Computing for Sustainable Global Development, BVICAM, New Delhi, India, March 14-16, 2018.
- iii) Meenakshi Sood & Shruti Jain: Session Chair First International Conference on Futuristic Trends in Network and Communication Technology(FTNCT-2018), February 9-10, 2018, Jaypee University of Information technology, Wagnaghat, Solan, H.P, India.

d) Special lectures delivered by the faculty in other institutions

- i) Dr. Meenakshi Sood delivered expert lecture on “IoT at a Glance” on May 26, 2018 at UIIT, H.P University, Shimla.
- ii) Dr. Meenakshi Sood delivered expert lecture on “Latest techniques and trends for Engineering students” on 28th May 2018 at UIIT, H. P University, Shimla.
- iii) Dr. Meenakshi Sood delivered expert lecture on “Mobile and Wireless Communication” on 3rd Dec 2017 at UIIT, H. P University, Shimla.
- iv) Dr. Shruti Jain delivered Guest lecture on “Two Class Classification of Lung Cancer using different feature extraction techniques” in Chandigarh Engineering College, Landran, Sector-112, Greater Mohali, Punjab-140307, India on August 24, 2017.
- v) Dr. Shruti Jain delivered Guest lecture on “Implementation of fuzzy system using different voltages of OTA for JNK pathway leading to cell survival/ death” in Giani Zail Singh Campus College of Engineering and Technology (GZS CCET), Maharaj Ranjit Singh Punjab Technical University, Bathinda, Punjab, India on October 31, 2017.

e) Other Activities

- i) Meenakshi Sood: Selected as Member of the Experts Committee for **FIST, SSR** of DST Scheme, Govt. of India.
- ii) Rajiv Kumar: Invited as visiting researcher at AGH University of Science and Technology, Krakow, Poland in December 2017.

VI) Doctoral and M.Tech Degrees Awarded

1) Doctoral Degree

S. No.	Student Name	Topic	Guide Name
1	Keerti Tiwari	Analysis of MIMO System Over a Composite Fading Channel	Dr. S. V. Bhooshan
2	Isha Malhotra	Analysis, Design And Characterization Of Small-Gap Photoconductive Dipole Antenna For Terahertz Imaging Applications	Dr. Ghanshyam Singh

2) M. Tech Degree

S. No.	Name	Topic	Supervisor	Co Supervisor
1	Aman Sharma	QoS WDM Network Architecture Design and Simulation	Dr. Rajiv Kumar	Dr. Shweta Pandit
2	Diksha Thakur	Analysis of Components of Butter Matrix with Arbitrary Gains and Phase Shifts	Dr.Salman Raju Talluri	Dr. Nafisudin Khan
3	Vishakha Thakur	Design, Analysis and Mathematical Modelling of Wideband Phase Shifter	Dr.Salman Raju Talluri	Dr. Meenakshi Sood
4.	Shilpa Kaushal	Evaluation of Empirical Wavelet Tranforms for Glaucoma Detection using Fundus Images	Dr. Shruti Jain	Dr. Sunil Datt Sharma
5.	Garima Thakur	High Speed Radix-2 Butterfly Structure using Novel Wallace Multiplier	Dr. Shruti Jain	Dr. Harsh Sohal
6	Swati Bhalaik	Performance Analysis of Optical WDM Networks using Matplan WDM	Dr. Rajiv Kumar	Dr. Neeru Sharma
7	Nitika Sharma	Analysis and Design of Microstrip Patch Antenna at 60 GHz for Automotive Radar	Dr. Ashwani Sharma	Dr. Vikas Baghel

VII) Professional Affiliations of faculty

- i) Dr. Shruti Jain: *Senior Member IEEE, Member IAENG and Life Member Biomedical Engineering Society of India.*
- ii) Dr. Meenakshi Sood: *Senior Member IEEE, Member IAENG and Life Member Biomedical Engineering Society of India.*
- iii) Dr. Rajiv Kumar: *Member, IEEE, Corporate Member IETE and Life Member ISTE, Life Member, System Society of India, SSI ,Life Member FIM*
- iv) Dr. Neeru Sharma: *Life Member, ISTE*
- v) Dr. Harsh Sohal: *Member IEEE, Member IAENG and Life Member Biomedical Engineering Society of India.*
- vi) Dr. Emjee Puthooran: *Member Institute of Engineers, Life Member Biomedical Engineering Society of India, Senior Member IRED, Member IAENG.*
- vii) Dr. Vikas Baghel: *Member IEEE, Member ACM, Life Time Member IAENG.*
- viii) Dr. Sunil Datt Sharma: *Member IET, Member CSTA, Member IAENG, Associate Member UACEE, Member IACSIT.*
- ix) Dr. Shweta Pandit: *Member IACSIT.*

VIII) Faculty and Their Specialization

S.No.	Faculty	Qualification	Designation	Specializations
1	S .V. Bhooshan	Ph.D.	Professor	Milli-meter Wave, Dielectric Waveguides, RF & Microwave Engineering
2	Ghanshyam Singh	Ph.D.	Professor	RF & Microwave Communication Systems, Terahertz, Next Generation Communication System
3	Samir Dev Gupta	Ph.D.	Professor	Antenna Design, Microwave Engineering
4	Shruti Jain	Ph.D.	Associate Professor	Bio Medical Signal Processing, VLSI Design
5	Rajiv Kumar	Ph.D.	Associate Professor	Fault-Tolerance, Network Recovery, Control Systems
6	Neeru Sharma	Ph.D.	Assistant Professor	Wireless Communication
7	Meenakshi Sood	Ph.D.	Assistant Professor	Biomedical Signal and Image Processing, Antenna Design, Metamaterials
8	Salman Raju	Ph.D.	Assistant Professor	RF & Microwave Engineering, Digital Filter Design
9	Sunil Datt Sharma	Ph.D.	Assistant Professor	Time-frequency analysis, Signal Processing, Micro-Doppler Signature Analysis
10	Shweta Pandit	Ph.D.	Assistant Professor	Cognitive Radio, Wireless Communication
11	Nafis Uddin Khan	Ph.D.	Assistant Professor	Signal and Image Processing
12	Ashwani Sharma	Ph.D.	Assistant Professor	Antenna Design, Communication System

13	Naveen Jaglan	Ph.D.	Assistant Professor	Microwave Communications, Planar and Conformal Microstrip Antennas
14	Harsh Sohal	Ph.D.	Assistant Professor	VLSI Design, FPGA based Algorithm Implementation
15	Nishant Jain	Ph.D.	Assistant Professor	Biomedical Signal Processing, Image Processing
16	Emjee Puthooran	Ph.D.	Assistant Professor	Medical Instrumentation and Signal Processing, Image Processing, Soft Computing Techniques
17	Vikas Baghel	Ph.D.	Assistant Professor	Radar Signal Processing, Adaptive Signal Processing, Spectral Analysis, Soft and Evolutionary Computing
18	Sujit Kumar Patel	Ph.D.	Assistant Professor	VLSI Design
19	Piyush Okas	M. Tech.	Assistant Professor	Embedded Systems
20	Ajay Kr Agarwal	M.Tech.	Assistant Professor	Communication Systems
21	Pragya Gupta	M. Tech.	Assistant Professor	Communication Engineering, Image Processing
22	Alok Kumar	M. Tech.	Assistant Professor	Communication Systems, Cognitive Radio, Wireless Sensor Networks
23	Pradeep Garg	M. Tech.	Assistant Professor	Genomic Signal Processing
24	Munish Sood	M. Tech. MBA (HR)	Assistant Professor	Communication Engineering
25	Mohit Garg	M. Tech.	Assistant Professor	Control Systems and Robotics

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.

Undergraduate 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 engineering 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.

Faculty

Dr. Vivek Sehgal (Coordinator)
Dr Yashwant Singh
Dr. P.K. Gupta
Mr. Punit Gupta
Mr. Ravindara Bhatt
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

Mr. Shailendra Shukla (coordinator)
Mr. Suman Saha
Mr. Amol Vasudeva
Mr. Arvind Kumar
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.

Faculty

Prof. Dr. SP Ghreera(coordinator)
Dr. Pardeep Kumar
Dr. Rajni Mohana
Mr. Amit Kumar Singh
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

Dr S P Ghrera (coordinator)
Dr. Hemraj Saini
Dr. P.K. Gupta
Dr. Vivek Sehgal
Dr Yashwant Singh
Mr. Punit Gupta
Mr. Ravindara Bhatt
Mr. Amol Vasudeva
Mr. Shailendra Shukla
Mr. Arvind Kumar
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

Dr. Pardeep Kumar (Coordinator)

Dr. Suman Saha

Dr Hari Singh

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

Dr. P.K. Gupta (coordinator)

Dr. Rajni Mohana

Dr. Punit Gupta

Dr Yugal

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

Prof. Dr. S P Ghrera (coordinator)

Dr. Hemraj Saini

Dr Yashwant Singh

Ms. Ramanpreet Kaur

Mr. Arvind Kumar
Mr. Amit Kumar Singh
Ms. Sanjana Singh
Mr. Amol Vasudeva
Mr. Shailendra Shukla

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	<ul style="list-style-type: none">• 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	<ul style="list-style-type: none">• Software Engineering Lab (10B17CI572)• Software systems Lab-I (10M17CI171)• Data Mining Lab (10B28CI682)• Software Testing & Debugging Lab (08B51CI101)
3	CUDA Lab	<ul style="list-style-type: none">• Parallel Programming and High Performance Lab
4	Database Lab	<ul style="list-style-type: none">• Database Systems Lab (10B17CI372)• Database Management Systems Lab (13B22CI381)
5	Multimedia Lab	<ul style="list-style-type: none">• Computer Graphics Lab (11B1WCI671)• Multimedia Development Lab-I (10B28CI408)• Multimedia Development Lab-II (10B28CI683)• Multimedia Development Lab-III (13B22CI382)
6	Operating system Lab	<ul style="list-style-type: none">• Operating system Lab (10B17CI571)
7	Web Engineering Lab	<ul style="list-style-type: none">• Web Technology Lab (10B28CI581)• Information Systems Lab (10B28CI681)
8	Microprocessor and Controllers Lab	<ul style="list-style-type: none">• Microprocessor and Controllers Lab (10B17CI407)
9	Network and Communication Lab	<ul style="list-style-type: none">• Computer Networks Lab (10B17CI671)• System and Network Programming Lab (10B17CI673)
10	Compiler Design Lab	<ul style="list-style-type: none">• Compiler Design Lab (10B17CI672)

Jaypee University of Information Technology Wagnaghat has been designated as the Nodal Center for Virtual Labs.

Objectives of the Virtual Labs

- To provide *remote-access to Labs* in various disciplines of Science and Engineering. These Virtual Labs would cater to students at the *undergraduate level, post graduate level as well as to research scholars.*
- To enthuse students to *conduct experiments by arousing their curiosity.* This would help them in learning basic and advanced concepts through remote experimentation.
- To provide a *complete Learning Management System* around the Virtual Labs where the students can avail the various tools for learning, including additional web-resources, video-lectures, animated demonstrations and self evaluation.

- To *share costly equipment and resources*, which are otherwise available to limited number of users due to constraints on time and geographical distances.

Faculty Activities

I) Book(s):

- i) Bijaya Ketan Panigrahi, Munesh C. Trivedi, Krishn K. Mishra, Shailesh Tiwari, Pradeep Kumar Singh(2018). *Smart Innovations in Communication and Computational Sciences*(Vol. 669 (2)). Singapore: Advances in Intelligent Systems and Computing (AISC) Springer. [ISBN : 978-981-10-8971-8] . [Google Search](#)
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- i) Dharti Patel, Zunnun Narmawala, Sudeep Tanwar, Pradeep Kumar Singh (2018). A Systematic Review on Scheduling Public Transport Using IoT as Tool. In Bijaya Ketan Panigrahi, Munesh C. Trivedi, Krishn K. Mishra, Shailesh Tiwari, Pradeep Kumar Singh, *Smart Innovations in Communication and Computational Sciences* (Volume 670, pp. 39-48). Singapore: Advances in Intelligent Systems and Computing (ASIC), Springer. [ISBN : 978-981-10-8971-8] . [Google Search](#)

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- iii) Gagandeep Kaur, Nishant Bhardwaj, Pradeep Kumar Singh , (2018). An Analytic Review on Image Enhancement Techniques Based on Soft Computing Approach. In , *Sensors and Image Processing*(pp. 255-265). Singapore: AISC, Springer. [ISBN : 978-981-10-6613-9] . [Google Search](#)
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v) **International Conferences Organized**

International Conference on Image Information Processing (ICIIP-2017)

Duration: December 21 - 23, 2017

Keynote Speakers:

- a) **Prof. Dr. Subhasis Chaudhuri**
Deputy Director (AIA) & Professor
Department of Electrical Engineering,
Indian Institute of Technology Bombay,
Powai,
Mumbai 400 076,
India.
- b) **Dr. K K Shukla**
Professor (HAG)
Department of Computer Sc. & Engineering,
I.I.T.(B.H.U.), Varanasi, UP
INDIA
Email: kkshukla.cse@iitbhu.ac.in
- c) **Prof. Dr. Joaquim Jorge**
Full Professor
Instituto Superior Técnico (IST/UTL),
School of Engineering of the Technical University of Lisboa,
Portugal,

- d) **Dr. Lipo Wang** (in Chinese: 王力波)
Associate Professor
School of Electrical and Electronic Engineering
Nanyang Technological University
Singapore
- e) **Prof. Dr. Maheshkumar H.Kolekar**
Associate Professor
Electrical Engineering Department
Head- Center for Advanced Systems Engineering, IIT Patna
India
Papers Received=512
Papers accepted= 140
Acceptance rate=27.3%

Photographs:

(a) Inauguration of ICIIP-2017, Chief Guest and Keynote Speakers



(b) Participants attending the keynote lecture



(c) Delivering Lecture at ICIP-2017



(c) Releasing of the Proceeding of ICIP-2017



VI) a) Conferences/Workshops/Symposia organized From July 2017-Dec 2017

S. No.	Workshop	Scheduled on	Venue
1	PHP & My SQL	14-Aug-17	Computer Lab CL-3,5
2		15-Aug-17	Computer Lab CL-3,5
3		16-Aug-17	Computer Lab CL-3,5
		21-Aug-17	Computer Lab CL-3,5
4		24-Aug-17 (Test)	Computer Lab CL-3,5
5	Python	22-Aug-17	Computer Lab CL-3,5
6		23-Aug-17	Computer Lab CL-3,5
7		24-Aug-17	Computer Lab CL-3,5
		28-Aug-17	
8		01-Sep-17 (Test)	Computer Lab CL-3,5
9	Java	29-Aug-17	Computer Lab CL-3,5
		30-Aug-17	
10		31-Aug-17	Computer Lab CL-3,5
11		01-Sep-17	Computer Lab CL-3,5
12		12-Sep-17 (Test)	Computer Lab CL-3,5
13	Basic C & C++	11-Sep-17	Computer Lab CL-3,5
14		12-Sep-17	Computer Lab CL-3,5
15		13-Sep-17	Computer Lab CL-3,5
		18-Sep-17	Computer Lab CL-3,5
16		20-Sep-17 (Test)	Computer Lab CL-3,5
17	Advanced C++	19-Sep-17	Computer Lab CL-3,5
		20-Sep-17	Computer Lab CL-3,5
18		25-Sep-17	Computer Lab CL-3,5
19		26-Sep-17	Computer Lab CL-3,5
20		04-Oct-17 (Test)	Computer Lab CL-3,5
21	Drupal & linux	02-Oct-17	Computer Lab CL-3,5
22		03-Oct-17	Computer Lab CL-3,5
23		04-Oct-17	Computer Lab CL-3,5
24		11-Oct-17 (Test)	Computer Lab CL-3,5
25	Perl & R Studio	09-Oct-17	Computer Lab CL-3,5
26		10-Oct-17	Computer Lab CL-3,5
27		11-Oct-17	Computer Lab CL-3,5
28		18-Oct-17 (Test)	Computer Lab CL-3,5
29	Scilab & Ruby	16-Oct-17	Computer Lab CL-3,5
30		17-Oct-17	Computer Lab CL-3,5
31		18-Oct-17	Computer Lab CL-3,5
32		08-Nov-17 (Test)	Computer Lab CL-3,5
33	LaTeX & Xfig	06-Nov-17	Computer Lab CL-3,5
34		07-Nov-17	Computer Lab CL-3,5
35		08-Nov-17	Computer Lab CL-3,5

36	Advanced java (Servlet & JSP)	15-Nov-17 (Test)	Computer Lab	CL-3,5
37		13-Nov-17	Computer Lab	CL-3,5
38		14-Nov-17	Computer Lab	CL-3,5
39		15-Nov-17	Computer Lab	CL-3,5

b) **Conferences/Workshops/Symposia organized From Jan 2018-June 2018**

S. No.	Workshop	Scheduled on	Venue
1	PHP & MySQL	06-Feb-18	Computer Lab CL-7,8
2		07-Feb-18	Computer Lab CL-7,8
3		08-Feb-18	Computer Lab CL-7,8
4		10-Feb-18 (Test)	Computer Lab CL-7,8
5	Python	13-Feb-18	Computer Lab CL-7,8
6		17-Feb-18 (Test)	Computer Lab CL-7,8
7	Ruby	01-Mar-18	Computer Lab CL-7,8
8		03-Mar-18 (Test)	Computer Lab CL-7,8
9		06-Mar-18	Computer Lab CL-7,8
10	Java	07-Mar-18	Computer Lab CL-7,8
11		08-Mar-18	Computer Lab CL-7,8
12		10-Mar-18 (Test)	Computer Lab CL-7,8
13		13-Mar-18	Computer Lab CL-7,8
14	Basic C & C++	15-Mar-18	Computer Lab CL-7,8
15		17-Mar-18 (Test)	Computer Lab CL-7,8
16		20-Mar-18	Computer Lab CL-7,8
17	Advanced C++	21-Mar-18	Computer Lab CL-7,8
18		22-Mar-17	Computer Lab CL-7,8
19		24-Mar-18 (Test)	Computer Lab CL-7,8
20		10-Apr-18	Computer Lab CL-7,8
21	Linux	11-Apr-18	Computer Lab CL-7,8
22		12-Apr-18	Computer Lab CL-7,8
23	R Studio	14-Apr-18 (Test)	Computer Lab CL-7,8
24		17-Apr-18	Computer Lab CL-7,8
25	Advanced java (Servlet & JSP)	18-Apr-18	Computer Lab CL-7,8
26		21-Apr-18 (Test)	Computer Lab CL-7,8
27		04-May-18	Computer Lab CL-7,8
28	Perl	27-Apr-18	Computer Lab CL-7,8

		(Test)	
29	Scilab	08-May-18	Computer Lab CL-7,8
30		12-May-18 (Test)	Computer Lab CL-7,8
31	LaTeX	15-May-18	Computer Lab CL-7,8
32		16-May-18	Computer Lab CL-7,8
33		17-May-18	Computer Lab CL-7,8
34		19-05-2018 (Test)	Computer Lab CL-7,8

VII) Conferences/ Workshops Attended

Staff training Attended

Sr. No.	Name of the Faculty	Details of the participation (Faculty development/training activities/STTPs)
1	Ravindara Bhatt	Wireless and Mobile communication through ICT 30.10.2017 to 03-11-2017
2	Ravindara Bhatt	Image Information Processing (ICIIP -2017)
3	Yashdeep Singh	Image Information Processing (ICIIP -2017)
4	Ruhi Mahajan	Image Information Processing (ICIIP -2017)
5	Puneet Kumar Jain	Image Information Processing (ICIIP -2017)
6	Geetanjali	Image Information Processing (ICIIP -2017)
7	Arvind Kumar	Image Information Processing (ICIIP -2017)
8	Amol Vasudeva	Image Information Processing (ICIIP -2017)
9	Dr. Suman Saha	Image Information Processing (ICIIP -2017)
10	Dr. Shailendra Shukla	Image Information Processing (ICIIP -2017)
11	Dr. Ravindara Bhatt	Image Information Processing (ICIIP -2017)
12	Dr. Rajni Mohana	Image Information Processing (ICIIP -2017)
13	Dr. Punit Gupta	Image Information Processing (ICIIP -2017)
14	Dr. Pradeep Kumar Singh	Image Information Processing (ICIIP -2017)
15	Dr. Yashwant Singh	Image Information Processing (ICIIP -2017)
16	Dr. Vivek Sehgal	Image Information Processing (ICIIP -2017)
17	Dr. Hemraj	Image Information Processing

	Saini	(ICIIP -2017)
18	Yashdeep Singh	Image Information Processing (ICIIP -2017)
19	Ruhi Mahajan	Image Information Processing (ICIIP -2017)
20	Geetanjali	Image Information Processing (ICIIP -2017)
21	Arvind Kumar	Image Information Processing (ICIIP -2017)
22	Amol Vasudeva	Image Information Processing (ICIIP -2017)
23	Dr. Suman Saha	Image Information Processing (ICIIP -2017)
24	Dr. Shailendra Shukla	Image Information Processing (ICIIP -2017)
25	Dr. Rajni Mohana	Image Information Processing (ICIIP -2017)
26	Dr. Punit Gupta	Image Information Processing (ICIIP -2017)
27	Dr. Yashwant Singh	Image Information Processing (ICIIP -2017)
28	Dr. Hemraj Saini	Image Information Processing (ICIIP -2017)
29	Ruhi Mahajan	Image Information Processing (ICIIP -2017)
30	Ruchi Verma	Image Information Processing (ICIIP -2017)
31	Dr. Rajni Mohana	Image Information Processing (ICIIP -2017)
32	Amol Vasudeva	Image Information Processing (ICIIP -2017)
33	Dr. Suman Saha	Image Information Processing (ICIIP -2017)
34	Dr. Shailendra Shukla	Image Information Processing (ICIIP -2017)
35	Dr. Yashwant Singh	Image Information Processing (ICIIP -2017)
36	Dr. Vivek Sehgal	Image Information Processing (ICIIP -2017)
37	Dr. Hemraj Saini	Image Information Processing (ICIIP -2017)
38	Prof. Dr. Satya Prakash Ghrera	Image Information Processing (ICIIP -2017)
39	Geetanjali	Image Information Processing (ICIIP -2017)
40	Arvind Kumar	Image Information Processing (ICIIP -2017)
41	Amol Vasudeva	Image Information Processing (ICIIP -2017)
42	Dr. Suman Saha	Image Information Processing

		(ICIIP -2017)
43	Dr. Shailendra Shukla	Image Information Processing (ICIIP -2017)
44	Dr. Punit Gupta	Image Information Processing (ICIIP -2017)
45	Dr. Hemraj Saini	Image Information Processing (ICIIP -2017)
46	Prof. Dr. Satya Prakash Ghrera	Image Information Processing (ICIIP -2017)
47	Yashdeep Singh	Image Information Processing (ICIIP -2017)
48	Ruhi Mahajan	Image Information Processing (ICIIP -2017)
49	Ruchi Verma	Image Information Processing (ICIIP -2017)
50	Puneet Kumar Jain	Image Information Processing (ICIIP -2017)
51	Geetanjali	Image Information Processing (ICIIP -2017)
52	Arvind Kumar	Image Information Processing (ICIIP -2017)
53	Amol Vasudeva	Image Information Processing (ICIIP -2017)
54	Dr. Suman Saha	Image Information Processing (ICIIP -2017)
55	Dr. Shailendra Shukla	Image Information Processing (ICIIP -2017)
56	Dr. Ravindara Bhatt	Image Information Processing (ICIIP -2017)
57	Dr. Rajni Mohana	Image Information Processing (ICIIP -2017)
58	Dr. Punit Gupta	Image Information Processing (ICIIP -2017)
59	Dr. Pradeep Kumar Singh	Image Information Processing (ICIIP -2017)
60	Dr. Pradeep Kumar Gupta	Image Information Processing (ICIIP -2017)
61	Dr. Pardeep Kumar	Image Information Processing (ICIIP -2017)
62	Dr. Amit Kumar Singh	Image Information Processing (ICIIP -2017)
63	Dr. Yashwant Singh	Image Information Processing (ICIIP -2017)
64	Dr. Vivek Sehgal	Image Information Processing (ICIIP -2017)
65	Dr. Hemraj Saini	Image Information Processing (ICIIP -2017)
66	Prof. Dr. Satya Prakash Ghrera	Image Information Processing (ICIIP -2017)

67	Amol Vasudeva	Image Information Processing (ICIIP -2017)
68	Puneet Kumar Jain	Image Information Processing (ICIIP -2017)
69	Puneet Kumar Jain	Image Information Processing (ICIIP -2017)
70	Hemraj Saini	International Conference on Advances in Science & Technology (ICAST-2018) Computer Society of India, ISTE, IETE, The Institute of Engineers and SKIT, Jaipur
71	Hemraj Saini	FDP on Emerging Trends in VLSI and Communication (ETVC-18) 04.05.2018 to 05.05.2018 Computer Society of India, ISTE, IETE, The Institute of Engineers and SKIT, Jaipur
72	Hemraj Saini	Workshop on Computer Forensics Centre of Excellence in cyber Systems and Information Assurance, IIT, Delhi-110016
73	Hemraj Saini	STC on cloud computing through ICT NITTTR, Chandigarh

FACULTY SPECIALISATIONS

Srl	Position	Name	Specialisation
1	Assistant Prof(Grade-I)	Ms Ruhi Mahajan	NLP
2	Assistant Prof(Senior)	Rajinder Sandhu	Cloud Computing
3	Assistant Prof(Grade-II)	Amit Kumar	Software engineering, Machine learning
4	Assistant Prof(Grade-I)	Ms Ruchi Verma	Data Structure and C Programming
5	Assistant Prof(Grade-I)	Sh. Yashdeep	High Performance Computing
6	Assistant Prof(Grade-I)	Sh Punit	High Performance Computing
7	Assistant Prof(Grade-II)	Ms Ramanpreet Kaur	Computer Networks
8	Assistant Prof(Grade-II)	Sh Amit Kumar Singh	Web Application Engineering
9	Assistant Prof(Grade-II)	Sh Amol	Object oriented Systems and Programming
10	Assistant Prof(Grade-II)	Sh Arvind Kumar	Theory of Computation
11	Assistant Prof(Grade-II)	Sh Ravindara Bhatt	Computer Networks
12	Assistant Prof(Grade-II)	Sh Suman Saha	Algorithms
13	Assistant Prof(Grade-II)	Sh Shailendra	Algorithms
14	Assistant Prof(Senior)	Dr Rajni Mohana	Software Engineering
15	Assistant Prof(Grade-II)	S.Punit Jain	Wireless Sensor Networks

16	Assistant Prof(Senior)	Dr Pardeep Kumar	Machine Learning, Data Mining
17	Assistant Prof(Senior)	Dr Hem Raj	Network Security
18	Associate Prof	Dr Yashwant Singh	Wireless Sensor Networks
19	Associate Prof	Dr Vivek Sehgal	IOT
20	Assistant Prof(Grade-II)	Rizwan Ur Rehman	Image Processing
21	Assistant Prof(Grade-II)	Nitin Kumar	Image Processing
22	Assistant Prof(Senior)	Dr. Ekta Gandotra	Machine learning

PROJECTS AWARDED:

Name of Project: Identification of Diseases of Tomato Using Image Processing Techniques for the Farmer of Himachal Pradesh with Feedback System Using IoT and Android Application

Investigators: Dr. Pradeep Kumar Singh , Assistant Professor (Senior Grade), Department of Computer Science & Engineering, Jaypee University of Information Technology, Wagnaghat, Solan (H.P.) India
 Dr. Meenakshi Sood, Assistant Professor (Senior Grade), Department of Electronics and Communication Engineering, Jaypee University of Information Technology, Wagnaghat, Solan (H.P.) India
 Amount (Rs) Granted: Rs 9,96,750
 Sponsored Agency: Department of Environment, Science and Technology, Shimla, Himachal Govt., HP, India
 Category of Project: Research and Development Projects 2017-18

Consultancy/Grant Received: Amount (Rs) Granted: Rs 3,43,000
 Sponsoring Agency: National Skill Development Corporation (NSDC), Govt. of India
 Grant Provided: ACM JUIT Student Chapter
 Faculty Name : Dr. Pradeep Kumar Singh , Assistant Professor (Senior Grade), Department of Computer Science & Engineering, Jaypee University of Information Technology, Wagnaghat, Solan (H.P.) India

DEPARTMENT OF BIOTECHNOLOGY AND BIOINFORMATICS

Educational Programs

The Department offers 4 year B.Tech. programmes in Biotechnology (BT) and Bioinformatics (BI), 5 year integrated course of Biotechnology, M.Tech. Biotechnology for 2 years and Ph.D. in Biotechnology as well as in Bioinformatics. 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 domain. 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 project work 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 PhD scholars who qualified PGET exam. The department is working in technology extensions in the field of setting biogas reactors in the rural and suburban areas of Himachal Pradesh and transferring of tissue cultured plantlets to farmers for improving their socio-economic status. The department has exclusivity in having 3 granted Patents from the Govt. of India and many others under the process of development for the same. The Faculty of the Department is venturing into modern areas of research such as nano-biotechnology, synthetic biology, biosensors, stem cells and regenerative medicine, metabolic engineering, biofuels, computational biology etc. so as to remain at the forefront of education and research at the global level in BT & BI.

Vision

To produce Biotechnology and Bioinformatics professionals with leadership quality in technology, creativity, innovation, and entrepreneurship

Mission

DM1: To provide state of the art outcome-based teaching/learning practices

DM2: To develop a research-based education model in Biotechnology & Bioinformatics

DM3: To harness human capital for sustainable competitive edge and social relevance

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 an 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 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 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 and Industrial Biotechnology 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 Climate change 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, Guru Nanak Dev university, Amritsar 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, 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, 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.

1. Sponsored Research Projects: (2017-2018)

Ongoing: 8

Completed: 5

List of sponsored Research Projects

S. No.	Principal Investigator	Title	Duration	Funding Agency	Amount (Rs in Lacs)	Completed/Ongoing
1	Dr. Sudhir Kumar	Bioremediation of electronic waste (E-waste) for precious metal recovery and removal of polybrominated diphenyl ethers (PBDE's)"	2013-2017	DBT	33.2	Completed
2	Dr. Anil Kant	Transcriptome analysis of seabuckthorn male and female flowers	2015-17	DRDO	10	Completed
3	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	10	Completed
4	Dr. Rahul Shrivastava	Synthesis of Novel Poly-N Substituted Glycines (Peptoids) Based on Cell Selective Antimicrobial Peptides for Gram Negative and Gram Positive Bacterial Infections	2015-18	ICMR	18.76	Completed

5	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.	2015-2018	ICMR	25.66	Completed
6	Dr.Uday Bhanu	To investigate the effect of Urtica dioica on maternal diabetes induced neuronal dysfunction in the offspring	2018-2020	ICMR	6	Ongoing
7	Dr. Hemant Sood	Socio Economic upliftment of high altitude farmers of Himachal Pradesh through transfer of micro-propagation technologies for high value medicinal herbs	2015-19	DST	14.5	On going
8	Dr. Jitendraa Vashistt	Identification of biofilm associated proteins of multidrug resistant Acinetobacter baumannii as potential drug target and inhibitors thereof.	2015-18	SERB	23.30	On-going
9	Dr. RS Chauhan (Dr Hemant Sood, Dr Saurabh and Dr Tiratha Raj Singh as Co- PI)	Functional analysis and validation of picosides biosynthetic pathway and development of gene markers for elite chemotypes of Picrorhizakurroa	2016-21	DBT	350	On-going
10	Dr Sudhir Kumar	Biogas production for sustainable energy generation in Rural Himachal Pradesh using one-stage portable digester.	2016-18	HPSCST&E	7,87,000	On going
11	Dr. Gopal Singh Bisht	Synthesis of Novel Poly-N Substituted Glycines (Peptoids) Based on Cell Selective Antimicrobial Peptides	2015-2018	ICMR	24.3	On going

		for Gram Negative and Gram Positive Bacterial Infections				
12	Dr. Poonam Sharma	Physico-chemical Study of Flavonoid - Surfactant Interaction: Utilization in Neomycin Topical Formulation	2017-2020	DST	22.50	On going
13	Dr. Gunjan Goel	Microbial interventions for generating renewable bio-energy in Himachal Pradesh using Pine needle forest litter	2016-18	HP state council of Science, Technology and Environment	5.8 lacs	On going

2. Patents Granted

S.No.	Patent No. and Date of Grant	Application no.	Title	Department and Inventors
1.	295996 and 23 rd April, 2018	163/DEL/2009, 29 Jan. 2009	A process of enriching the amount of medicinal compound Picoside -1 in shots of medicinal herb of <i>Picrorhiza kurroa</i> .	BIOTECHNOLOGY & BIOINFORMATICS Hemant Sood & RS Chauhan
2	Allowed for Granted, no. is awaiting	292/DEL/2010, 11 Feb. 2010	Gene markers for selection and development of high oil content <i>Jatropha</i> .	BIOTECHNOLOGY & BIOINFORMATICS R. S. Chauhan, A. Sharma and P. Sood

3. Outreach Activities

- i. **Dr Jitendraa Vashistt and Dr Abhishek** took students to visit HPKV and **IHBT Palampur** (16-19th April,2018)
- ii. **Dr Anil Kant and Dr Ashok Nadda**, took students for educational tour to visit **UHF, Nauni** (20th April, 2018)
- iii. **Dr Rahul Shrivastva, Dr Anil Kant and Dr Hemant Sood** coordinated the visit of Govt college **Sanjauli, Shimla** (28th April, 2018)
- iv. **Dr Ashok Kumar Nadda** did Outreach Activity - Govt Vallabh Degree College **Mandi, Himachal Pradesh** (09th April, 2018)
- v. **Dr Hemant Sood** did outreach Activity - Govt. PG College **Solan** (04th April, 2018)
- vi. **Dr Tiratha Raj Sing and Dr Ashok** did outreach Activity - Swami Vivekananda Govt. Degree College **Ghumarwin** (20th March, 2018)
- vii. **Dr Sudhir Kumar, Dr Anil Kant and Dr. Chittranjan Rout** coordinated Student and Faculty Visit from **Sambalpur University Odisha** (27 Feb to 02 March, 2018)

- viii. **Dr Narendra Kumar and Ms Sonika Gupta** did Outreach Activity - Academic Institution Visit **NABI, Mohali** (06th Feb, 2018)
- ix. **Dr Sudhir Kumar** coordinated visit of faculty and students visit from GSS Barma Papri, **Nahan and Bankala** Visit (18th Dec, 2017)
- x. **Dr Hemant Sood** coordinated visit of students and faculty from St. Luke's, School **Solan** (2nd Nov, 2017)
- xi. **Dr. Sudhir Kumar, Dr. Tiratha Raj Singh, Dr. JitendraaVashishtt, Dr. Raghu M. Yennamalli, Ismail, Baleshwar** did outreach activity - The 25th HP State Level Children's Science Congress- **Nauni** 2017 (12 – 15 November 2017)
- xii. **Dr. Tiratha Raj Singh and Dr Anil Kant** did Outreach Activity at DAV Public School, Saraswati Nagar, **Rohru**, H.P., Oct, 12, 2017.
- xiii. **Dr. Sudhir Syal and Dr. Udaybhanu** did outreach at CRI **Kasauli** Visit (07 Oct, 2017)
- xiv. **Dr. Rahul Shrivastava and Dr. Raghu M. Yennamalli** did Outreach Activity: DAV School, **Rampur**, H.P. September 01, 2017
- xv. **Dr Abhishek and Dr Poonam Sharma** took students for Industrial visit at Minchy's **Kandaghat** (19 Aug, 2017)
- xvi. **Dr. Sudhir Kumar, Dr. Tiratha Raj Singh and Dr Anil Kant** did Outreach Activity at DAV Schools, **Bilaspur and Barmana**, H.P. August 05, 2017
- xvii. **Dr Anil Kant** did Outreach Activity: Laureate Public School, **Shimla**, H.P. July 12, 2017

4. Visitors List (01 July 2017-30 June 2018)

S. No.	Name of Visitors	Affiliation	Date
1	Prof. A J S Bhanwer	Department of Human Genetics Guru Nanak Dev University Amritsar, Punjab India	26 th May,2018
2	Prof. S. S. Kanwar,	Department of BT, HPU	23 rd and 24 th May,2018
3	Dr Naveen Chandra Bisht,	National Institute from Plant Genome Research, JNU Campus, New Delhi	19 th May,2018
4	Prof. Diwan S Rawat	Delhi University	16 th April,2018
5	Dr Harash Nayyar	Department of Botany, PU Chandigarh	29 th March,2018
6	Dr Mohar Singh	Principle Scientist cum office Incharge ICAR-NBPGR Research Station, Shimla	16 th March, 2018
7	Dr Mamta Bhatia	Senior Manager. Paraxel International Ltd.,Chandigarh	16 th March, 2018
8	Prof. K Balamugan	Department of Biotechnology, Alagappa University, Tamil Nadu	27 th Feb., 2018
9	Dr VK Gupta	Department of Biochemistry, Kurukshetra University, Harayana	29 th Jan., 2018
10	Dr Suresh Kumar Sharma	Professor Department of Statistics and Coordinator, Centre for Systems	9 th Sep., 2017

		Biology and Bioinformatics ,PU Chandigarh	
11	Dr. Debasis Pattanayak	National Research Centre on Plant Biotechnology (IARI, New Delhi)	16 th Dec., 2017
12	Prof. Yosi S. Diaman	TAU, Israel	12 Dec. 2017
13	Dr TR Sharma	Director NABI, Chandigarh	30 th Nov., 2017

5. Books/Monographs

(Book Chapters)

1. Pavan Kumar Agrawal, **Rahul Shrivastava**, Jyoti Verma (2019). Bioremediation Approaches for Degradation and Detoxification of Polycyclic Aromatic Hydrocarbons. In Ram Naresh Bharagava, Pankaj Chowdhary, *Emerging and Eco-Friendly Approaches for Waste Management* (pp. 99-119). Singapore: Springer. [ISBN : 978-981-10-8669-4] . Google Search
2. Shraddha Tiwari, **Jata Shankar** (2018). Hsp70 in Fungi: Evolution, Function and Vaccine Candidate. In Dr. Alexzander A. A. Asea & Dr. Punit Kaur, *HSP70 in Human Diseases and Disorders* (14, pp. 381-400). Springer International Publishing AG, part of Springer Nature: Springer, Cham. [ISBN : 978-3-319-89550-5] . Google Search
3. Lakshmishri Upadrasta, **Vijay Kumar Garlapati**, Nafisa Lakdawala, Rintu Banerjee (2018). Enzyme Triggered Hydrogels for Pharmaceutical and Food Applications. In Shashi Lata Bharati and Pankaj Kumar Chaurasia , *Research Advancements in Pharmaceutical, Nutritional and Industrial Enzymology*. (1st, pp. 159-177). Pennsylvania, USA: IGI Global Publishers. [ISBN : 9781522552376] . Google Search
4. **Raghu M. Yennamalli** (2018). Protein Design. In Shoba Ranganathan, *Reference Module in Life Sciences* (1st, pp. 1-8). Netherlands: Elsevier. [ISBN : 9780128096338] . Google Search
5. **Jitendraa Vashistt** (2018). Membrane Biophysics . In , *Components and Architecture of Cell Membrane* (pp. 11). INFLIBNET Centre, Gandhinagar, Gujarat, India.: INFLIBNET e-Pg Pathshala Management System. [ISBN :] . Google Search
6. **Jitendraa Vashistt** (2018). Techniques used in Molecular biophysics . In , *Gel based proteomic analysis using mass spectrometer* (pp. 29). INFLIBNET Centre, Gandhinagar, Gujarat, India.: INFLIBNET e-Pg Pathshala Management System. [ISBN :] . Google Search
7. **Jitendraa Vashistt** (2018). Techniques used in Molecular biophysics . In, *Introduction to mass spectrometry* (pp. E-chapters). INFLIBNET Centre, Gandhinagar, Gujarat, India.: INFLIBNET e-Pg Pathshala Management System. [ISBN :] . Google Search
8. Mahajan R, Chandel S, **Gunjan Goel** (2018). A review on Implications of Interaction between Human Pathogenic Bacteria and Host on Food Quality and Disease. In Alexandru Grumezescu, Alina Maria Holban, *Food Safety and Preservation* (1st, pp. Chapter 15). Cambridge, Massachusetts, United States: Academic Press. [ISBN : 9780128149560] . Google Search
9. Niraj Singh Parihar, **Vijay Kumar Garlapati**, Rajiv Ganguly (2018). Stabilization of Black Cotton Soil Using Waste Glass. In Chaudhery

- Mustansar Hussain, *Handbook of Environmental Materials Management* (1st, pp. 1-16). : Springer. [ISBN : 9783319585383] . Google Search
10. Ankit Srivastava, **Saurabh Bansal, Jata Shankar** (2017). Developments and Diversity of Proteins and Enzymes. In Vipin Chandra Kalia, Adesh Kumar Saini, *Strategies for Metabolic Engineering in Bioactive Compounds and Processes* (pp. 11-48). Singapore: Springer. [ISBN : 9789811055119] . Google Search
 11. Anshu Alok, Shivam Sharma, Jitesh Kumar, Subodh Verma, **Hemant Sood** (2017). Engineering in Plant Genome Using Agrobacterium: Progress and Future . In Kalia V., Saini A. , *Metabolic Engineering from Bioactive compounds: Strategies and Process* (pp. 91-112). Singapore: Springer . [ISBN : 978-981-10-5511-9] . Google Search
 12. **Gopal Singh Bisht**, Kinam Gupta, **Rahul Shrivastava** (2017). Factories for Antibody Generation. In Vipin Chandra Kalia, Adesh Kumar Saini, *Metabolic Engineering for Bioactive Compounds* (pp. 351-370). Singapore: Springer . [ISBN : 978-981-10-5511-9] . Google Search
 13. Poonam, Ritu Ghildiyal, **Gopal Singh Bisht, Rahul Shrivastava** (2017). Engineering Yeast as Cellular Factory. In Vipin Chandra Kalia, Adesh Kumar Saini, *Metabolic Engineering for Bioactive Compounds* (pp. 173-208). Singapore: Springer . [ISBN : 978-981-10-5511-9] . Google Search
 14. Deepika Sharma, **Rahul Shrivastava, Gopal Singh Bisht** (2017). Nanomaterial in Diverse Biological Application. In Kalia V., Saini A. , *Metabolic Engineering for Bioactive Compounds* (pp. 293-317). Singapore: Springer . [ISBN : 978-981-10-5511-9] . Google Search
 15. Thakur R., **Jata Shankar** (2017). Strategies for Gene Expression in Prokaryotic and Eukaryotic System. In Kalia V., Saini A., *Metabolic Engineering for Bioactive Compounds* (pp. 223-247). Singapore: Springer. [ISBN : 9789811055119] . Google Search
 16. Rajiv Ganguly, **Vijay Kumar Garlapati** (2017). Comparative Account of Carbon Footprints of Burning Gasoline and Ethanol. In Anuj Kumar Chandel, Marcos Henrique Luciano Silveira, *Advances in Sugarcane Biorefinery: Technologies, Commercialization, Policy Issues and Paradigm Shift for Bioethanol and By-Products* (pp. 241-252). Amsterdam: Elsevier. [ISBN : 9780128045343] . Google Search
 17. Ankita Shukla, **Tiratha Raj Singh** (2017). Computational Network Approaches and their Applications for Complex Diseases. In Dong-Qing Wei, Yilong Ma, William C.S. Cho, Qin Xu, Fengfeng Zhou, *Translational Bioinformatics and Its Application* (International, pp. 337-352). Netherlands: Springer Netherlands. [ISBN : 9789402410433] . Google Search
 18. Kuila A, Sharma V, **Vijay Kumar Garlapati**, Singh A, Roy LS, Banerjee R (2017). Present Status on Enzymatic Hydrolysis of Lignocellulosic Biomass for Bioethanol Production. In Lalit Kumar Singh and Gaurav Chaudhary, *Advances in Biofeedstocks and Biofuels. Volume1: Biofeed stocks and their processing* (pp. 85-96). USA: Wiley-Scrivender Publishing LLC.. [ISBN : 9781119117254] . Google Search
 19. **Vijay Kumar Garlapati**, Gour RS, Sharma V, Roy LS, Samudrala PJK, **Anil Kant Thakur** (2017). Current status of Biodiesel Production from Microalgae in India.. In Lalit Kumar and Gaurav Chaudhary, *Advances in Feedstocks and Biofuels Volume 2: Production*

- technologies for Biofuels* (pp. 127-152). USA: Wiley-Scrivender Publishing LLC.. [ISBN : 9781119117520] . Google Search
20. Chandel AK, Bhatia L, **Vijay Kumar Garlapati**, Roy LS, Arora A (2017). Biofuel Policy in Indian Perspective: Socioeconomic Indicators and Sustainable Rural Development. In Anuj K. Chandel and Rajeev K. Sukumaran, *Sustainable Biofuels Development in India* (pp. 459-488). Switzerland: Springer International Publishing AG.. [ISBN : 9783319502175] . Google Search
 21. Ixxa Khandelwal, Aditi Sharma, Pavan Kumar Agrawal, **Rahul Shrivastava** (2017). Bioinformatics Database Resources. In Shri Ram, *Library and Information Services for Bioinformatics Education and Research* (1st. ed., pp. 45-90). : IGI Global. [ISBN : 9781522518716] . Google Search
 22. Manika Sehgal, **Tiratha Raj Singh** (2017). Principles and Analysis of Biological Networks: Biological Pathways and Network Motifs. In , *Library and Information Services for Bioinformatics Education and Research* (pp. 112-129). : IGI Global. [ISBN : 9781522518716] . Google Search

6. Journals Publications

1. Ashwina Singh, Akshay Sharma, **Saurabh Bansal**, **Poonam Sharma** (2018) Comparative interaction study of amylase and surfactants for potential detergent formulation. **Journal of Molecular Liquids** 261: 397-401. [IF: 4.513]
2. Yawalkar R, **Harish Changotra**, Gupta GL (2018). Protective influences of N-acetylcysteine against alcohol abstinence-induced depression by regulating biochemical and GRIN2A, GRIN2B gene expression of NMDA receptor signaling pathway in rats. *Neurochemistry International* , 118 (2018), 73-81. [IF(2013) : 3.5] . Google Citation
3. N. Thakur, S. Jain, **H. Changotra**, R. Shrivastava, Y. Kumar, N. Grover, and **J. Vashistt** (2018) Molecular characterization of diarrheagenic Escherichia coli pathotypes: Association of virulent genes, serogroups, and antibiotic resistance among moderate-to-severe diarrhea patients," **J Clin Lab Anal**, vol. 32, p. e22388. Google Citation
4. S. Singh, M. Gupta, A. Sharma, R. K. Seam, and **H. Changotra** (2018) The nonsynonymous Polymorphisms Val276Met and Gly393Ser of E2F1 Gene are Strongly Associated with Lung, and Head and Neck Cancers," **Genet Test Mol Biomarkers**. Google Citation
5. Sharma A, **Harish Changotra** (2018). Mutagenic Primer Based PCR-RFLP Assay for Genotyping IRGM Gene Promoter Variant rs4958843 (C/T). *Journal of Clinical Laboratory Analysis* , 32 (4), e22346 -. Google Citation
6. R. Thakur and **J. Shankar** (2018). Comprehensive in-silico Analysis of High-risk Non-synonymous SNPs in Dectin-1 Gene of Human and their Impact on Protein Structure," **Current Pharmacogenomics and Personalized Medicine**, vol. 15, pp. 144-155. Google Citation
7. **Jata Shankar**, Shraddha Tiwari, Sonia Shishodia, Manali Gangwar, Shanu Hoda, Raman Thakur, Pooja Vijayaraghavan (2018). Molecular insights into development and virulence determinants of Aspergilli: A proteomic perspective. *Frontiers in Cellular and Infection Microbiology*, 8 (180), 1-15. Google Citation

8. Mahajan R., Attri S., Sharma K., Singh N., Sharma D., **Gunjan Goel** (2018). Statistical assessment of DNA extraction methodology for culture-independent analysis of microbial community associated with diverse environmental samples. *Molecular Biology Reports*, 45 (3), 297-308. Google Citation
9. Deepika Sharma, Nutan Thakur, **Jitendraa Vashistt**, **Gopal Singh Bisht** (2018). Antibacterial Evaluation of Cuprous Oxide Nanoparticles Synthesized Using Leaf Extract of *Callistemon viminalis*. *Indian Journal of Pharmaceutical Education and Research*, 52 (3), 449-455. Google Citation
10. Dewangan Rikesh Parsad, **Gopal Singh Bisht Singh** VP, M yar, Pasha Santosh (2018) Design and synthesis of cell selective α/β -diastereomeric peptidomimetic with potent in vivo antibacterial activity against methicillin resistant *S. Aureus*. *Bioorganic Chemistry* 76:538-547. Google Citation
11. Megha Bhatnagar, Sampan Attri, Kavita Sharma, **Gunjan Goel** (2018). *Lactobacillus paracasei* CD4 as potential indigenous lactic cultures with antioxidative and ACE inhibitory activity in soymilk hydrolysate. *Journal of Food Measurement and Characterization*, 12 (2), 1005-1010. Google Citation
12. Jyoti Thakur, **Tiratha Raj Singh** (2018). Frame OUT and FrameOUTDB: A web based application and repository for the identification and analysis of frameshift mutations. *International Journal for Computational Biology*, 7 (1), 35-48. Google Citation
13. Nutan Thakur, Harish Changotra, Neelam Grover, **Jitendraa Vashistt** (2018). Elucidation of Bacterial Species during Childhood Diarrhea through 16S rRNA Illumina Miseq approach. *Meta Gene*, 16(June 2018), 234-240. Google Citation.
14. Anil Kumar, Harvinder Singh Saini, **Sudhir Kumar** (2018). Enhancement of gold and silver recovery from discarded computer printed circuit boards by *Pseudomonas balearica* SAE1 using response surface methodology (RSM). *3 Biotech*, 8 (2), -. Google Citation
15. Anil Kumar, Harvinder Singh Saini, **Sudhir Kumar** (2018). Biorecovery of Gold and Silver from Waste Printed Circuit Boards by *Pseudomonas balearica* SAE1 Isolated from an e-Waste Recycling Facility. *Current Microbiology*, 75 (2), 194-201. Google Citation
16. Ankita Shukla, **Raghu M. Yennamalli**, **Tiratha Raj Singh** (2018). Network and structure based inference of functional single nucleotide polymorphisms associated with the TGF β 1 gene and its role in colorectal cancer (CRC) . *Gene Reports*, 11 (June 2018), 131-142. Google Citation
17. Thakur N, **Harish Changotra**, **Rahul Shrivastava**, Grover N, **Jitendraa Vashistt** (2018). Estimation of *Vibrio* species incidences and antibiotic resistance in diarrhea patients. *Asian Journal of Pharmaceutical and Clinical Research*, 11 (1), 369-373. Google Citation
18. Deepika Sharma, Amit Sud, **Saurabh Bansal**, Rishi Mahajan, B. M. Sharma, Rajinder Singh Chauhan, **Gunjan Goel** (2018). Endocellulase Production by *Cotyledonia pannosa* and its Application in Saccharification of Wheat Bran to Bioethanol.. *Bioenergy Research*, 11 (1), 219-227. [IF(2013) : 2.487] . Google Citation
19. Surendra Kumar Parashar, Sunil Kumar Srivastava, N. N. Dutta, **Vijay Kumar Garlapati** (2018). Engineering aspects of immobilized lipases on

- esterification: A special emphasis of crowding, confinement and Diffusion effects. *Engineering in Life Sciences*, 18 (5), 308-316. [IF(2013) : 2.119]. Google Citation
20. Raman Thakur, **Jata Shankar** (2018). Comprehensive in-silico Analysis of High-risk Non-synonymous SNPs in Dectin-1 Gene of Human and their Impact on Protein Structure. *Current Pharmacogenomics and Personalized Medicine*, 16 (2018), -. Google Citation
 21. Shraddha Tiwari, **Jata Shankar** (2018). Integrated proteome and HPLC analysis revealed quercetin-mediated inhibition of aflatoxin B1 biosynthesis in *Aspergillus flavus*. *3 Biotech*, 8 (1), -. Google Citation
 22. Attri S, Sharma K, Raigond P, **Gunjan Goel** (2018). Colonic fermentation of polyphenolics from Sea buckthorn (*Hippophae rhamnoides*) berries: Assessment of effects on microbial diversity by Principal Component Analysis. *Food Research International*, 105 (March 2018), 324-332. [IF(2013) : 3.182] . Google Citation
 23. Vashisht R, Attri S, Sharma D, **Abhilash Shukla** , **Gunjan Goel** (2018). Monitoring biocalcification potential of *Lysinibacillus* sp. isolated from alluvial soils for improved compressive strength of concrete. *Microbiological Research*, 207 (), 226-231. Google Citation
 24. Rakesh Singh Gour, Madhusudan Bairagi, **Vijay Kumar Garlapati**, **Anil Kant Thakur** (2018). Enhanced Microalgal Lipid Production with Media Engineering of Potassium Nitrate as a Nitrogen Source. *Bioengineered*, 9 (1), 98-107. Google Citation
 25. **Hemant Sood** (2017). Cultured Cambial Meristematic Cells – A Sustainable Route Towards In Vitro Production of Phytochemicals. *Advances in Cell Science and Tissue Culture*, 1 (1), 3-4. Google Citation
 26. Anaida Kad, Archit Pundir, Shubham Sharma, **Hemant Sood** (2017). Development of suspension cultures and ex-vitro rooting in *Rauwolfia serpentina* for rapid and large scale multiplication.. *International Journal of Innovative Research in Science and Engineering*, 3 (1), 135-143. [IF(2013) : 0.998] . Google Citation
 27. Shivam Sharma, Vineet Mehta, Parul Sharma, Kritika Jaggi, Udayabanu Malairaman and **Hemant Sood** (2017) Anti- fertility activity and contraceptive potential of the hydroalcoholic rhizome extract of *Trillium govanianum* in female wistar rats .*Asian Journal of Pharmaceutical and clinical research*.11(11) .DOI10.22159/ajpcr.2017.v11i11.27420 IF (0.42) Scopus Google Citation
 28. Arun Sharma, Ankita Rajata, Udayabanu Malairaman and **Hemant Sood** (2018) Hydroalcoholic extraction of shoot cultures from *Nothapodyte nimmoniana* and its anti-proliferative analysis. *International journal of Pharmacy and Pharmaceutical sciences*.10(6) IF(0.51) Scopus Index Google Citation
 29. Nancy Singh, **Sunil Datt Sharma** , **Raghu M. Yennamalli** (2017). Modified S-transform as a tool to identify secondary structure elements in RNA. *Bio-Algorithms and Med-Systems*, 13 (4), 187-193. Google Citation
 30. Vineet Mehta, **Tiratha Raj Singh**, **Udayabanu M** (2017). Quercetin Ameliorates Chronic Unpredicted Stress-induced Behavioral Dysfunction in Male Swiss Albino Mice by Modulating Hippocampal Insulin Signaling

- Pathway. *Physiology and Behavior*, 182 (), 10-16. [IF(2013) : 2.461] . Google Citation
31. Ashwani Kumar, **Tiratha Raj Singh** (2017). Analysis for Biological Network Properties of Alzheimers Disease Associated Gene Set by Enrichment and Topological Examinations. *International Journal of Bioinformatics Research and Applications*, 13 (3), 214-222. Google Citation
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 33. **Harish Changotra**, Vij A (2017). Rotavirus-Virus Like Particles (RV-VLPs) Vaccines: An Update. *Reviews in Medical Virology, Online* (), - . [IF(2013) : 5.5] . Google Citation
 34. Vikrant Abbot, **Poonam Sharma**, Saurabh Dhiman, Harun M. Patel, Malleshappa N. Noolvi, Varun Bhardwaj (2017). Small Hybrid Heteroaromatics : resourceful biological tools in cancer research. *RSC Advances*, 7 (-), 28313-28349. [IF(2013) : 3.708] . Google Citation
 35. Shraddha Tiwari, Nupur Gupta, **Udayabanu M, Jata Shankar** (2017). Anti-aspergillus properties of phytochemicals against aflatoxin producing *Aspergillus flavus* and *Aspergillus parasiticus*. *National Academy Science Letters, Online* (), -. Google Citation
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 42. Swati Sharma, Ambika Verma, **Ashok Kumar***, Hesam Kamyab (2018) Magnetic Nano-Composites and their Industrial Applications. *Nano Hybrids and Composites*, 20-, 149-172. Google Citation

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44. Sahil Kapoor, Rinky Raghuvanshi, Pushpender Bhardwaj, **Hemant Sood**, Sheweta Saxena, and Om prakesh Chaurasia. 2018 Influence of light quality on growth, secondary metabolites production and antioxidant activity in callus cultures of *Rhodiola imbricate* Edgew. Journal of Photochemistry and Photobiology. <https://doi.org/10.1016/j.jphotobiol.2018.04.018> IF(2.625) Scopus and SCI ISSN: 1010-6030
45. Jibesh Kumar Padhan, Pawan Kumar, **Hemant Sood**, Rajinder S. Chauhan. 2017 Comparative Transcriptomics Uncovers Differences in Photoautotrophic versus Photoheterotrophic Modes of Nutrition in relation to Secondary Metabolites Biosynthesis in *Swertia chirayita*. Molecular Biology Reports. <https://doi.org/10.1007/s11033-017-4135-y> (IF: 1.82) SCI and Scopus .ISSN 03014851
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47. Deepika Chauhan, Pulkit Anupam Srivastava, **Raghu M. Yennamalli**, Richa Priyadarshini (2017). Draft Genome Sequence of *Deinococcus indicus* DR1, a Novel Strain Isolated from a Freshwater Wetland. Genome Announcements, 5 (31), e00754-17-
48. Pulkit Anupam Srivastava, Siddhant Kalra, **Raghu M. Yennamalli** (2017). Structural Bioinformatics and Big Data Analytics: a mini-review. International Journal for Computational Biology, 6 (1), 25-30
49. Avni Vij, **Raghu M. Yennamalli**, Harish Changotra (2017). Non-Synonymous Single Nucleotide Polymorphisms of ATG5 Destabilize ATG12 - ATG5 / ATG16L1 Complex: an enzyme with E3 like activity of ubiquitin conjugation system. Meta Gene, 13 (2017), 38-47
50. **Raghu M. Yennamalli**, Siddhant Kalra, Pulkit Anupam Srivastava, Vijay Kumar Garlapati (2017). Computational Tools and Resources for CRISPR/Cas 9 Genome Editing Method. MOJ Proteomics & Bioinformatics, 5 (4), 164-170

7. Papers in Proceedings of Conferences/Symposia/Seminars

- i) Thakur N, **Harish Changotra**, **Jitendraa Vashistt** (2017). Next Generation Sequencing: An amalgam of disease biology and computer algorithms for comprehensive exploration of Infectious agents. *Proceedings of the IEEE INDIACom-2017* [: 1-3 March, 2017], pp.4044-40448.. Google Citation
- ii) **Vijay Kumar Garlapati**, Vundavilli PR, Banerjee R (2017). Optimization of Flavour ester production through Artificial Bee Colony Algorithm. *Proceedings of the IEEE 2017 Fourth International Conference on Image Information Processing (ICIIP 2017)* [4 : Jaypee University of Information Technology (JUIT), Wagnaghat, HP- 173234, India : December 21-23, 2017], pp.1-4.. Google Citation
- iii) Arpita Prasad, Rahul Pramjeet, **Gopal Singh Bisht**, **Rahul Shrivastava** (2017). In-Vitro studies of the Overexpressed Gene Isocitrate Lyase of *Mycobacterium fortuitum* under Stressed Conditions.. *Proceedings*

- of the Annual Conference of Association of Microbiologists of India and International Symposium on Microbes for Sustainable Development: Scope and Applications (MSDSA-2017) [58th : Babasaheb Bhimrao Ambedkar University Lucknow, Uttar Pradesh, India. : 16-19 November, 2017], pp.-.. Google Citation
- iv) Divya, Anandita Govil, **Jitendraa Vashistt, Rahul Shrivastava** (2017). Identification and Construction of LipU Antisense Knockout Mutant of Mycobacterium fortuitum and its Potential Role in pathogenesis. *Proceedings of the Annual Conference of Association of microbiologist of India and International Symposium on Microbes for Sustainable Development: Scope and Applications (MSDSA-2017)* [58th : Babasaheb Bhimrao Ambedkar University Lucknow, Uttar Pradesh, India : 16-19 November, 2017], pp.-.. Google Citation
- v) Shubham Mittal, Poonam, **Rahul Shrivastava** (2017). Identification of Mycobacterium Fortuitum Virulent Membrane Genes as Potential Drug Targets. *Proceedings of the Indian Conference on Bioinformatics* [Birla Institute of Scientific Research, Jaipur, India : 7-9 November, 2017], pp.-.. Google Citation
- vi) **Jata Shankar**, Raman Thakur, Shanu Hoda, Shraddha Tiwari, Pooja Vijayaraghavan (2017). Proteome profile provided molecular insight into germination of Aspergilli and biosynthesis of secondary metabolites. *Proceedings of the International Congress on Analytical Proteomics (V ICAP 2017)* [5th : Caparica, Portugal. : 3-6 July, 2017], pp.-.. Google Citation
- vii) **Vijay Kumar Garlapati**, Nitish Vikarm Shahi, Radhika Sharma (2017). Evaluation of lipase for its formulation additive in bio-based toothpaste and contact lens solution. *Proceedings of the The 13th Asian Congress on Biotechnology (ACB 2017) " Bioinnovation and Bioeconomy"* [13 : Khon Kaen, Thailand : July 23-27, 2017], pp.129-129.. Google Citation
- viii) **Vijay Kumar Garlapati**, Vikram Shahi (2017). Formulation of Bio-based Toothpaste. *Proceedings of the Proceedings of the International Conference on Recent Trends in Agriculture, Environmental & Bio Sciences* [Chandigarh, India : 27-29 April, 2017], pp.31-32.. Google Citation
- ix) Singh S, Seam RK, Gupta MK, **Harish Changotra** (2017). Association of G393S Variant of E2F1 gene with Lung and HNC cancer risk in North Indian Population. *Proceedings of the Punjab Science Congress* [20th : IET Bhaddal, Ropar, Punjab : 7-9 February 2017], pp.-.. Google Citation
- x) Sharma A, **Harish Changotra** (2017). Mutagenic primer based PCR-RFLP assays for genotyping of three promoter region SNPs (rs4958842, rs4958843 and rs4958846) of IRGM gene. *Proceedings of the* [20th Punjab Science Congress : 7-9 February 2017], pp.-.. Google Citation
- xi) Sharma A, Duseja A, **Harish Changotra** (2017). Association of IRGM gene variant rs4958842 with Hepatitis B infection in North Indian population. *Proceedings of the 20th Punjab Science Congress*[IET Bhaddal, Ropar, Punjab : 7-9 February 2017], pp.-.. Google Citation
- xii) Sharma A, Duseja A, **Harish Changotra** (2017). Association of IRGM promoter polymorphisms with hepatitis B virus infection in North Indian population. *Proceedings of the Annual Meeting of the Indian Society of Human Genetics & International Symposium on Trends in Human Genetic*

- Research & Management* [42nd : Indian Institute of Sciences, Bangalore : 2-4 March, 2017], pp.-.. Google Citation
- xiii) Vij A, **Harish Changotra** (2017). Role of Autophagy related gene 5 (ATG5) single nucleotide polymorphism rs2245214 (C/G) with HBV susceptibility in North Indian population. *Proceedings of the International Conference on Recent Research in Biomedical Engineering, Cancer Biology, Stem Cells, Bioinformatics and Applied Biotechnology (BECBAB-2017)* [Jawaharlal Nehru University, New Delhi : 25 February, 2017], pp.-.. Google Citation
- xiv) Ashwina, Akshay, **Bansal S**, Sharma P (2017). Comparative Interaction Study of Amylase and Surfactants for Potential Detergent Formulation. Proceedings of the National Conference, Maharaja Agarsen University, Baddi, 04 March 2017.
- xv) Payal Kotvi, Rhythem Sharma, Satyam Singh and **Hemant Sood***2017 Gentipicroside Elicitation in Shoot Cultures of Gentiana kurroo and Swertia chirayita with Molecular Authentication. *Proceedings for the International Conference on Biotechnology And Biomedicine* organized by National Institute for Engineering and Research Hyderabad.13August 2017 .DOI 01.1617/vol4iss7pid47186 ISBN:9788192958012
- xvi) Sahil Kapoor, Ajay Sharma, **Hemant Sood**, Shweta Saxena, Om Prakash Chaurasia (2018). Phytochemical profiling of callus extracts of Rhodiola imbricata by gas chromatography-mass spectrometric technique. *National Seminar on "Science & Technology for Sustainable Future"* (NSD-2018). Rayat Bahra University, Punjab, India: 27th Feb 2018.
- xvii) Shubham Sharma, Devanshi Popli and **Hemant Sood** (2018) Optimization of growth hormones and culture conditions for salidroside production in Rhodiola imbricata. *International Conference on Bio and Nano Technologies for Sustainable Agriculture, Food, Health, Energy and Industry* organized by Department of Bio and Nano Technology, Guru Jambheshwar University of Science and Technology ,Hisar ,Harayana in collaboration with Society for Sustainable Agriculture and Resource Management on 21-23 February, 2018. Abstract Published ISSN: **2471-5689** (Poster Presentation)pp197
- xviii) Archit Pundir, Anaida Kad, Shubham Sharma and **Hemant Sood**(2018). Effect of different lights on the growth and development of endangered medicinal herb Rhodiola imbricata *International Conference on Advances in Biosciences and Biotechnology* organized by *JIIT,Noida*.1-3rd February 2018. Abstract published in Journal of Proteins and Proteomics 9: 110.ISSN-0975-8151 and NASS(4.55)
- xix) Singh S, Seam RK, Gupta MK, **Raghu M. Yennamalli** , Harish Changotra (2017). Prediction of Genetic marker in E2F1 Gene by a Computational Approach. Proceedings of the Annual Meeting of the Indian Society of Human Genetics & International Symposium on Trends in Human Genetic Research & Management [42nd : Indian Institute of Sciences, Bangalore : March, 2017], pp.-.. Google Citation

8. Conferences/Symposia/Workshops/Seminars (participated/ Papers Presented/ Conducted/ Attended)

1. **Dr Sudhir Kumar** organized one day workshop on Patent Drafting—Oct 13, 2017.
2. **Dr Suhir Kumar** organized lecture On Issues Related to Environment – By Dr. Vandana Shiva on 23rd September, 2017
3. **Dr Raghu M. Yennamalli** delivered lectures and conducting hands-on practical on “Application of Bioinformatics Tools in Plant Sciences” at Dr Y S Parmar University of Horticulture and Forestry, Nauni in August 24-25th 2017.
4. **Dr Sudhir Kumar** delivered lecture on “Solid Waste Management at Household Level” at NIT Hamirpur, 04 September, 2017. Organized by HP Rural Development Department, HP Govt. Honour by Rural Development Minister – Sh. Anil Sharma
5. **Dr Sudhir Kumar** delivered lecture Biogas Production from Solid Waste.” Workshop on Science and Technology for Women at Hotel Holiday Home, Shimla form 8-9, September, 2017. Organized by HIMCOSTE and DST.
6. **Dr. Tiratha Raj Singh** delivered invited talks in National Training Program on "Application of Bioinformatics Tools in Plant Sciences" Dr. Y.S. Parmar University of horticulture and Forestry, Nauni, Solan during 22-23, August, 2017
7. **Dr Rahul Shrivastava** (2017). Organized Mock Test Series "Infinity" to enhance the aptitude and reasoning of Students. [JUIT, Solan, H.P
8. **Dr Jata Shankar** has given oral presentation on Proteome profile provided molecular insight into germination of Aspergilli and biosynthesis of secondary metabolites. 5th International Congress on Analytical Proteomics (V ICAP 2017). 3 rd – 6 th July 2017 , Portugal
9. **Dr Hemant Sood** (2017). Plant tissue Culture Technology and Its applications and IPR for Developing Knowledge Economy. Expert Lectures in the In-service Training Programme for Lectures/PGT of Biology 10 July and 11 July 2017 .State Council Of Education Research and Training, Solan HP
10. **Dr. Sudhir Kumar** coordinated workshop **BIRAC Biotechnology Ignition Grant (BIG) scheme on 20th January,2018,at JUIT Wagnaghat.**
11. **Dr Hemant Sood organised** one day workshop on *Cultivation of high value medicinal plants through micropropagation technology* on 7th April, 2018 supported by JUIT in collaboration with DST –SYST funded project at Archhandi, Kullu, H.P
12. **Dr. Tiratha Raj Singh** and Dr. Neel Kanth ,Department of BT/BI jointly with Maths department organized a one week national workshop on *Statistical techniques for biological and medical sciences* (STBMS-2-18) from 4-9 June ,2018 at JUIT, Wagnaghat.
13. **Dr Sudhir Kumar** participated in workshop of DST on “Studies on Improving Livelihood Generation through Scientific Interventions in *Pinus gerardiana* and important wild mushrooms in Himachal Pradesh. 23 June, 2018. Shimla.
14. **Dr Saurabh Bansal** attended One Week Workshop on ‘Statistical Techniques in Biological and Medical Sciences’ (STBMS-2018) organized by JUIT Wagnaghat, 04- 09 June 2018.

15. **Dr Rahul Shrivastva** conducted a six week workshop in “Molecular Pathogens and Medical Genomics”, domain for graduate and undergraduate students, at JUIT, Wagnaghat, Solan, June – July, 2018
16. **Dr Saurabh Bansal** participated in Workshop on ‘Patent Drafting’ at JUIT Wagnaghat, **13 Oct, 2017**
17. **Dr Hemant Sood** participated in Workshop on ‘Patent Drafting’ at JUIT Wagnaghat, **13 Oct, 2017**
18. **Dr Saurabh Bansal** participated in Workshop on ‘MOOCs’ at JUIT Wagnaghat, **15 Sept, 2017**
19. **Dr Rahul Shrivastva** participated in Workshop on ‘MOOCs’ at JUIT Wagnaghat, **15 Sept, 2017**
20. **Dr Rahul Shrivastva** organised One week Aptitude Training and Placement Workshop - for students from all Departments 25 Aug’17 to 30 Aug’17 at JUIT Wagnaghat,
21. **Dr Rahul Shrivastva** organized Summer Training – 2018 (6 Week Training Programme(For Participants Across India) June 1, 2018 – July 12, 2018 at JUIT Wagnaghat
22. **Dr Rahul Shrivastva** participated 2nd Himachal Pradesh Science Congress (HPSC-2017) 20-21 November, 2017 Shimla, Himachal Pradesh
23. **Dr Hemant Sood** participated in National Symposium on Medical Image Acquisition, Processing and Analysing 20th-22nd November, 2017 at JUIT Wagnaghat
24. **Dr Rahul Shrivastva** participated in one day workshop on Biosafety Capacity Building 6 March, 2018 at UHF, Dr. Y. S. Parmar University, Nauni, Solan
25. **Dr Rahul Shrivastva** participated Workshop on “Research-Based Pedagogical Tools from 10-13 December 2017 at IIT- Gandhinagar.
26. **Dr Saurabh Bansal** has organized JYC Alumni meet from March 17-18, 2018 at JUIT Wagnaghat.
27. **Dr. Raghu M. Yennamalli** delivered lectures and conducting hands-on practical on “Identification and quantification of the complete complement of proteins (the proteome) of a biological system” at Himachal Pradesh University, Shimla, Himachal Pradesh in November 2017
28. **Dr. Tiratha Raj Singh** organized a DBT sponsored workshop on “Bioinformatics: Sequence Alignment to Phylogeny”, at CSK HP Agricultural University, Palampur during October, 16-17, 2017.

8. Awards/recognition achieved by Faculty

- i) Travel Grant from DST for **Dr Jata Shankar**, Raman Thakur, Shanu Hoda, Shraddha Tiwari, Pooja Vijayaraghavan. Proteome profile provided molecular insight into germination of Aspergilli and biosynthesis of secondary metabolites. 5th International Congress on Analytical Proteomics (V ICAP 2017). 3 rd – 6 th July 2017 | Caparica | Portugal (Oral Invitation)
- ii) **Dr Hemant Sood** Awarded International Scholarship by the Israel’s Agency for International Development Cooperation (MASHAV) Israel’s Ministry of Foreign Affairs availed at The Hebrew University of Jerusalem (August 28 to Sept. 20, 2017) She has done International Post-Graduate Course with “Excellence” on Nutrition in a Changing Global Environment at The Hebrew University of

Jerusalem The Robert S. Smith Faculty of Agriculture, Food & Environment, The International School of Agriculture Sciences, Israel.

- iii) **Dr. Raghu M. Yennamalli** awarded with the prestigious **Bioenergy-Awards for Cutting Edge Research (B-ACER) Fellowship Program 2018** supported by the **Department of Biotechnology, Govt. of India**, and the **Indo-U.S. Science and Technology Forum (IUSSTF)** for the research work "Systems level analysis of Lytic Polysaccharide Monooxygenases and their involvement in degradation of recalcitrant crystalline cellulose" at University of Wisconsin-Madison, hosted by Prof. Brian Fox.
- iv) **Dr Rahul Shrivastva** got 3rd rank in Best Oral Presentation Award for "An in vitro Model for Mycobacterium Tuberculosis Persistent Infection Drug Discovery Studies" at International Conference on Advances in Biosciences and Biotechnology - ICABB-2018 [Jaypee Institute of Information Technology, Noida: 01-03 February, 2018].
- v) **Dr Hemant Sood** ,Associate Professor, appointed as Webmaster of the JUIT from February, 2018
- vi) **Dr Tiratha Raj** Associate Professor appointed as Faculty incharge media relations April,2018
- vii) **Dr Sudhir Kumar (Prof. and HOD BT&BI)** selected as consultant for Gobar Dhan project of the HP State Govt. Rural Development Project on 23rd April,2018.
- viii) **Dr Rahul Shrivastva** got travel Award by Newton Bhabha Fund of the British Council for attending Workshop on "Research-Based Pedagogical Tools" at IIT-Gandhinagar [Dec'2018]

9. Honorary Work (Editor, reviewer, committee expert, Session Chair, etc.forthe period of 2017-2018)

Dr. Sudhir Kumar (Professor and Head)

Ad hoc reviewer of Journal

- Waste Management
- Environmental Science and Pollution Research
- Biotech

TECHNOLOGY EXTENSION

- Fabrication and Installation of Biogas Digester (1500 litres) – Govt. Middle School Gyancoat, Sirmour, H.P., Pooghat – Bani, Kandaghat, Solan. (Establishment – 30 March 2018) Sponsored by HP State Council for Science and Environment.
- Fabrication and Installation of Biogas Digester (1500 litres) – Govt. Primary School, DarKi Anji, Dharampur, Solan. (Establishment – 08 June 2017) Sponsored by HP State Council for Science and Environment.

Dr. Gopal Singh Bisht (Associate Professor)

Reviewer for the following journals:

- APPLIED BIOMATERIAL (American chemical society)
- Bioorganic medicinal letters (Elsevier)

Dr. Harish Changotra (Associate Professor)

Member Editorial Board of:

- Meta Gene (Elsevier; ISSN: 2214-5400)
- International Journal of Biology, Pharmacy and Allied Sciences (ISSN: 2277-4998)
- International Journal of Research in Biosciences (ISSN: 2319–2844)
- Journal of Cell Science and Molecular Biology (ISSN: 2350-90)
- Journal of Immunology and Vaccine Technology (ISSN: 2455-4766)
- Ad hoc Reviewer of Journals: Vaccine, Journal of Clinical Virology , PLoS one and , Gene

Dr. Hemant Sood (Associate Professor)

Reviewer for the following journals:

- Journal of Applied Phycology (International Springer)
- BMC Biotechnology
- BMC Genomics

TECHNOLOGY EXTENSION

Transfer micropropagated medicinal plants to farmers and train them with techniques of hardening in the field conditions of Kullu valley

Dr. Jata Shankar (Associate Professor)

Reviewer for the following journals:

- BMC Genomics,
- Computational Biology and Chemistry,
- Infection and Drug Resistance,
- Biotechnology Research International Journal,
- International Journal of Bioinformatics Research and Applications
- Virulence

Dr. Rahul Srivastava (Associate Professor)

Reviewer for the following journals:

- Journal of the American Academy of Dermatology (Elsevier) –
- JAAD Case Reports (Elsevier) On Reviewer Board
- PLoS ONE

Dr. Tiratha Raj Singh (Associate Professor)

Life Member: Bioinformatics and Drug Discovery Society

- Academic Editor, PLOSONE.
- Managing Editor, IJCB.

- Provided Reviewing Services to many International Journals of repute such as: PlosOne, Molecular Cancer, Gene, Molecular Ecology Resources, IJBRA, CCADD
- Served as a “Chair Person” in “ International Conference on Image Information Processing: ICIP-2017” held at JUIT, Solan, H.P., India (December, 21-23, 2017)

Dr. Vijay Kumar Garlapati (Assistant Professor) Senior Grade

Served as a “ChairPerson” in “ International Conference on Recent Trends in Agriculture, Environmental & Biosciences 2017” held at Chandigarh, India (April 27, 2017- April 29, 2017)

- Serving as an “ Associate Editor” for “ Academic Journal of Biotechnological Research”, IASR Publications
- Serving as an Editorial Board Member for
- Saudi Journal of Biomedical Research
- “Saudi Journal of Engineering and Technology

Reviewer for

- Resources, Conservation & Recycling
- Bioresource Technology
- ACS Sustainable Chemistry & Engineering

Dr. Jayashree Raman (Assistant Professor) Senior Grade

- Reviewer for Briefings in Bioinformatics, PLoS One, Omics: A Journal of Integrative Biology

Dr. Jitendraa Vashistt (Assistant Professor) Senior Grade

Reviewer:

- Metagene
- Journal of Bimolecular Structure & Dynamics
- Science Journal of Environmental Engineering Research
- OMICS: A Journal of Integrative Biology

Dr. Gunjan Goel

- **Reviewer of Project Grant:** Czech Science Foundation sponsored research project on: Multi-omics analysis of genus Cronobacter focused on the study of interactions with host tissues
- **Reviewer assignment of peer reviewed journals:** Frontiers in Microbiology, Animal, Current Microbiology, The Science of total Environment, Research in Biotechnology, Bioresources and Bioprocessing, Biofouling

Dr. Udaybanu (Assistant Professor) Senior Grade

- Session Chair: National Conference on ‘Recent Advances in Green Nanotechnology’ September 30th 2016 in School of Pharmaceutical Sciences, Bahra University, Solan, H.P. 173215. (Sponsored by SERB-DST, ICMR & SPER.

Dr. Raghu M. Yennamali (Assistant Professor) Grade II

- Travel Fellowship Reviewer for ISMB 2018, Chicago, USA conference.
- Serving in Early Career Committee (2018-2021), Biophysical Society, USA
- Head of the publication committee for Indian Conference on Bioinformatics 2017 (Inbix’17), Jaipur, India, Nov 7th-9th 2017.
- Early Career Reviewer (2017 onwards) for the Center for Scientific Review (CSR),
National Institutes of Health, USA

Reviewer for

- Journal of Emerging Investigators,
- International Journal for Computational Biology,
- International Society of Computational Biology, Member

Dr. Saurabh Bansal (Assistant Professor) Grade II

- Member of Editorial Board for the journal–Journal of Biotechnology, Bioinformatics and Bioengineering
(<http://www.sciknow.org/journals/editor/id/jbbb>)
- Reviewer for journal: Journals of Plant Biochemistry and Biotechnology (Springer)
- International Journal of Molecular Biotechnology
- International Journal of Industrial Biotechnology and Biomaterials.

10. Faculty Members Joined the Department (2017-2018)

Sr. No	Name of Faculty Members	Specializations
1	Dr Ashok Nadda	Bioenergy/Biopolymer/ Enzyme Technology/Biocatalysis
2	Dr Narinder	Genomes and Transcriptomes

11. PhD degrees awarded

- i) Tarun Kumar Patel (2017) Ph.D. Thesis in Biotechnology-under the Joint-supervision of Dr. Jata Shankar and Prof.R.S.Chauhan
- ii) **Sita Sharan Patel** (2017) Ph.D. Thesis in Pharmaceutical Sciences – under the supervision of Dr. Udayabanu, M.
- iii) **Swapnil Jain** (2017) Ph.D. Thesis in Biotechnology – under the supervision of Dr.Harish Changotra.
- iv) **Shivani Sood** (2017) Ph.D. Thesis in Biotechnology – under the supervision of Dr.Rahul Shrivastava.
- v) **Deepika Sharma** (2017) Ph.D. thesis in Biotechnology-under the supervision of Dr Gunjan Goel
- vi) **Niharika Singh** (2017) Ph.D. thesis in Biotechnology-under the supervision of Dr. Gunjan Goel
- vii) **Neha Sharma**(2017) Ph.D. thesis in Biotechnology – under the supervision of Dr. Hemant Sood
- viii) **Pawan Kumar**(2017) Ph.D. thesis in Biotechnology – under the supervision of Dr. R.S.Chauhan
- ix) **Tamanna**(2017) Ph.D. thesis in Bioinformatics – under the supervision of Dr. Jayashree Ramana
- x) **Ambika Sharma**(2018) Ph.D. Thesis in Biotechnology – under the supervision of Dr.Harish Changotra.
- xi) **Avni Vij**(2018) Ph.D. Thesis in Biotechnology – under the supervision of Dr.Harish Changotra.
- xii) **Ira Vashisht** (2018) Ph.D. Thesis in Biotechnology – under the supervision of Dr.R.S.Chauhan co- supervision of Dr. Hemant Sood
- xiii) **Jibesh Kumar** (2018) Ph.D. Thesis in Biotechnology – under the supervision of Dr.R.S.Chauhan co- supervision of Dr. Hemant Sood
- xiv) **Phutnsog Dolkar** (2018) Ph.D. Thesis in Biotechnology – under the supervision of Dr.Anil Kant
- xv) **Rohit Randhawa** (2018) Ph.D. Thesis in Biotechnology – under the supervision of Dr.Harish Changotra.
- xvi) **Tamanna Sharma** (2018) Ph.D. Thesis in Biotechnology – under the supervision of Dr.R.S.Chauhan
- xvii) **Deepak Mishra**(2018) Ph.D. Thesis in Bioinformatics – under the supervision of Dr.C.Rout

12. Awards/Placements/recognition achieved by Students:

1. **Eight Students (2017-18) of BT&BI** completed Internship at Research Internship at Department Chemical & Biological Engineering, South Dakota School of Mines and Technology, Rapid City, SD, USA
2. **Ankush ,Ph.D.** student from the Department of BT&BI, selected as Post Doctoral Fellow at World No. 1 Cancer Institute of Harvard University.
3. **Vineet Mehta** (PhD Scholar) received Excellent Young Researcher Award (1,50,000/- Korean Won, 27.10.2017) from Korean Brain Research Institute.
4. **Pallavi Raj Singh** B.Tech BT (131552,BATCH-2017) joined Ph.D. at IISc, Bangalore having Gate score of 130.She was selected in University of Tübingen, Germany, University Groningen, Netherlands, IIT Bombay, IIT Delhi, IIT Kanpur and IIT Hyderabad

5. **Mansi Arora** (141836,B. Tech Bioinformatics ,2018) has been selected in the M.Sc Experimental Medicine (Thesis) program in the laboratory of Dr. Mari T. Kaartinen at McGill University, Canada with full scholarship
6. **Somya Jaiswal, Divya and Chetansee** (2018) B.Tech BT & BTDD, have placed in Freyr Software company, Hyderabad
7. **Gorky** , NK. Rathinam, and RK. Sani, Genome to Phenome Relationships for Improving the Performance of Bioelectrochemical Systems, 2017 Western South Dakota Hydrology Conference (19th April 2018). - First Place in poster competition
8. **Gorky** , NK. Rathinam, and RK. Sani, Biosensors for assessing the toxicity of antineoplastic agents, 2017 Western South Dakota Hydrology Conference (19th April 2018). -Third Place
9. Seven students have qualified GATE from B.Tech Biotechnology 2018 Batch
10. **Vedika** 4th yr B. Tech Biotechnology got first position in declamation on National Science Day 2018 at Shimla, organized by HP State Science & Council
11. **Gaurav Patial** (131580) BTDD student got admission in the MS program of Bioeconomy and Policy Management in the University of Hohenhiem, Stuttgart, Germany.
12. **Shubham Sharma**(123820) BTDD selected for PhD in IIT Gandhinagar for 2018.
13. **Second prize in poster presentation** to Rhythem Sharma, Satyam Singh, and **Dr. Hemant Sood**. 2018 Effect of Polychromatic LED's on growth and development of Micropropagated Shoots of *Picrorhiza kurroa*. Student Research Convention organized by TIED cell and ACM JUIT on 9th-10th February, 2018 at JUIT Waknaghat, Solan
14. **First Prize prize in poster presentation** to Sharma K, Bhawanani S, **Gunjan Goel** . Evaluation of indigenous probiotic lactic acid bacteria to overcome gluten induced allergy. Student Research Convention, JUIT, Waknaghat, Feb 9-10, 2018.
15. **3rd prize in poster presentation to** Nupur S Munjal, Manu Sharma, Chittaranjan Rout, "Substituent structure-solubility relationship for prodrug designing with improved solubility profile", **got** in ICABB-2018 (31st January 2018 - 3rd February 2018) at JIIT Noida.
16. **Best Poster Award to** Ankush Bansal, Mehul Salaria, Tashil Sharma, Tsering Stobdan and Anil Kant. Comparative miRNA mining of Sea buckthorn male and female transcriptomes in National Conference on Seabuckthorn for Improving Health and Sustainable Development of Himalayan Region, held at Defence Institute of High Altitude Research (DIHAR-DRDO), Leh, J&K during Sep., 22-24, 2017.
17. **First Prize to** Mehul Salaria, Tashil Sharma, Ankush Bansal, Tsering Stobdan and Anil Kant, Comparative transcription factors mining of Sea buckthorn male and female flower buds in Indian Conference on Bioinformatics (Inbix'17), held at Birla Institute of Scientific Research, Jaipur during Nov., 7-9, 2017.
18. **First prize in poster presentation to** Siddhant Kalra B.Tech Bioinformatics B.Tech Bioinformatics, at Indian Conference on Bioinformatics (Inbix-2017), The first International Conference of Bioclues society, 07-09 Nov., 2017, BISR, Jaipur, India
19. **Dr Rishi Mahajan** has joined as National Post Doc Fellow under **Dr. Gunjan Goel** under SERB Scheme
20. **Kinam Gupta(133803)** 2013-17 – B.Tech. Biotechnology- Pursuing MS at Universitat Hiedelberg, Germany.

21. **Bishal Parashar**(131555) B.Tech. Biotechnology(2017) Pursuing M.Tech at Institute of Chemical Technology, Mumbai
22. **Nancy Singh** (131505, B.Tech Bioinformatics, 2017) has joined in MS Bioinformatics program in Saarland University Germany

13. JUIT PhD Students as SERB National Post Doctoral Fellows

1. Archit Sood (Biotechnology)
2. Neha Sharma (Biotechnology)

14. International Research Collaborations:

Sr. No	Name of Institute	Area of Collaboration
1	South Dakota School of Mines & Technology South Dakota	Environmental Biotechnology and Programme Exchange

15. Industrial Collaborations:

Sr. No	Name of Institute	Area of Collaboration
1	Minchy's beverages	Fermentation Technology

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.

Details of Research Scholar in Civil Engineering Department (2017-2018):

Sl. No.	Student Name	Roll No.	Supervisor(s)	DPMC Member	Broad Research Area
Completed					
1	Saurabh Rawat	126602	Dr. Ashok Kumar Gupta	Dr. Rajiv Ganguly Prof. Ashok Kumar Gupta Dr. Ashish Kumar Prof. P.B. Barman	Testing and Modelling of Soil Nailed Slopes
2	Rishi Rana	146601	Dr. Rajiv Ganguly Dr. Ashok Kumar Gupta	Dr. Rajiv Ganguly Prof. Ashok Kumar Gupta Prof. Veeresh Gali Dr. Ashish Kumar Prof. S.P. Ghreera	Municipal Solid Waste Characterization and Analysis in Tri-City
3	Saurav	126601	Dr. Ashok Kumar Gupta	Prof. Sudhir Syal Dr. Rajiv Ganguly Prof. Ashok Kumar Gupta Dr. Ashish Kumar	Experimental Studies of Strength and Durability Analysis of Concrete Incorporating Ultrafine Slag
Ongoing: 19					

Infrastructural Strengths

The Department of Civil Engineering is equipped with laboratories covering the areas of Fluid Mechanics, Concrete Technology, Highway Engineering, Environmental Engineering, Geotechnical Engineering, Surveying and CAD. Students are facilitated with latest equipment like Hobart Mixer (Germany), Acoustic Doppler Velocimeter (Vetrino), TOTAL Stations, computerized UTM, Spectrophotometer, Autoclave Vertical High Pressure apparatus, Luminescent Dissolved Oxygen Probe, etc. and also software tools such as MX-ROADs, ANSYS, PLAXIS-2D, STAAD.pro-2008, MATLAB, Primavera P6, AutoCAD 2014, GEO-5 and Estimator 2.0. Additionally, a Fluvial Hydraulics Research Lab has also been developed for conducting research in the field of river flow and scouring under a DST project.

List Of Laboratories

Sr.No	Laboratory	Major Equipments
1	Chemistry Laboratory	Double Distillation Unit , Autoclave , BOD Incubator , COD Reactor , Conductivity meter
2	CAD/software lab	STAAD.PRO 2005 , ESTIMATOR 2.0, PRIMAVERA CONTRACTOR , ANSYS Academic Advanced v11 , PLAXIS 2D SUITE Standalone , Bentley Civil Bundle of Perpetual Network Based , AutoCAD 2013 (Upgraded to Student 2014 version)Software Licence
3	Engineering Graphics lab	AutoCAD 2013 (Upgraded to Student 2014 version)Software Licence
4	Workshop Practices Lab	Lathe Machine, Milling Machine, Drilling Machine , Welding Machine, Circular saw for Wood Working,Pipe Cutting Machine, Electric Jack Plane.
5	Fluid Mechanics Lab	Open Channel Flume , Apparatus for conducting orifice experiments (Cd, Cc, Cv , Bernoulli's Theorem Apparatus , Triangular & rectangular notch tank apparatus
6	Concrete Lab	Universal Testing Machine, Compression Testing Machine capacity – 200ton Digital, Hobart Mixer MADE IN U.S.A./GERMANY, Flexural Testing Machine capacity – 20ton , Concrete Flow Table
7	Highway Engineering Lab	Los angles Abrasion testing machine, Marshall Test Apparatus (Digital),CBR Apparatus, Ductility testing machine , Merlin
8	Environmental Engineering Lab (shared with Chemistry Laboratory)	Spectrophotometer, Muffle Furnace, Multi parameter Apparatus(DO/BOD),Respirable Dust Sampler, Digestion Apparatus
9	Geotechnical Lab	Triaxial Shear Test Apparatus, Direct shear apparatus (Digital),Consolidation apparatus , DCPT , Standard penetration test Apparatus , Swell test apparatus
10	Structural Mechanics Lab	Elastic Beam and Continuous beam Apparatus , Three Hinged Arch Apparatus, Two Hinged Arch Apparatus , Force Table
11	Survey lab	Total Station SET-610,Total Station Trimble , Transit vernier theodolite , Auto Level , Tilting Level , Dumpy level
12	Research laboratories - Fluvial Hydraulics Lab	Open Channel Flume, Acoustic Doppler Velosimeter Nortek USA
13	Computational Research Lab	Lenovo P500 Workstation with 64 GB RAM ,4 GB NVIDIA QUADRO K4200 Graphics Card, 2 TB Storage

International Collaboration For Students

The MoU with the Rinker's School of Building Construction, University of Florida, Gainesville, Florida, USA is reinstated. Selected students are required to spend their 8th semester in the Rinker's School of Building Construction and complete the certification course in Construction Management.

R&D Activities

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

List of Sponsored Research Projects

(1) Project Title: *"Biogas production for sustainable energy generation in rural HP using one stage portable digester"*

Under: State Council for Science, Technology & Environment, HP.
Investigator(s): Dr. Sudhir Kumar (PI), and Dr. Ashish Kumar (Co-PI)
Grant: Rs. 7.87 lakhs.
Status: Ongoing (w.e.f 18.10.2016)

Consultancy Projects

S.No.	Name of the Firm	Description
1.	C&C construction Limited,The.-Theog	Steel Testing
2.	C&C construction Limited,The.-Theog	Steel Testing
3.	Shiv valley Highways provate limited	Coarse and Fine Aggregate testing
4.	C&C construction Limited,The.-Theog	Steel Testing

Faculty Activities

I) Outreach Activities

- i) Dr. Ashish Kumar and Mr. Anirban Dhulia participated in 25th HP State Level Children's Science Congress- 2017 held during 12-15 November 2017 at Dr. Y S Parmar University Horticulture and Forestry, Nauni, HP. Prime motto of this congress was to educate the students of Himachal Pradesh through mobile laboratories in the field of Engineering. Students were provided hands-on

- training for Surveying laboratory experiments, equipments, and information Civil Engineering.
- ii) Dr. Gyani Jail Singh and Dr. Anirban, Assistant Professors of Department of Civil engineering attended a science and engineering workshop at DAV Rampur, Shimla District on 1st September, 2017.

II) PUBLICATIONS

a) Books/Monographs/Book Chapters:

- i) Ankur Choudhary, Rajiv Ganguly, Ashok Kumar Gupta (2018). A Framework for Assessment of Existing Solid Waste Management Practices and Characterization of Municipal Solid Waste in Muzzafarnagar City, India. In Ahmet Ozan Gezerman, Burcu Didem Corbacioglu, Bhola R. Gurjar, Effective Solutions to Pollution Mitigation for Public Welfare (First Edition, pp. 1-18). : IGI-Global Productions. [ISBN : 9781522533795] .
- ii) Prachi Vasistha, Rajiv Ganguly, Ashok Kumar Gupta (2018). Biomedical Waste Generation and Management in Public Sector Hospital in Shimla City. In Singh V., Yadav S., Yadava R, Environmental Pollution (1st Ed., pp. 225-232). Singapore: Springer. [ISBN : 978-981-10-5791-5]
- iii) Ankur Choudhary, Rajiv Ganguly, Ashok Kumar Gupta (2018). A Framework for Assessment of Existing Solid Waste Management Practices and Characterization of Municipal Solid Waste in Muzzafarnagar City, India. In Ahmet Ozan Gezerman, Burcu Didem Corbacioglu, Bhola R. Gurjar, Effective Solutions to Pollution Mitigation for Public Welfare (First Edition, pp. 1-18). : IGI-Global Productions. [ISBN : 9781522533795] .
- iv) Anirban Dhulia , Rajiv Ganguly (2018). Critical Assessment of Existing Environmental Legislation and Policies in India, Its Benefits, Limitation, and Enforcement. In Chaudhery Mustansar Hussain, Handbook of Environmental Materials Management (1st edition, pp.). : Springer . [ISBN : 9783319585383] .
- v) Niraj Singh Parihar, Vijay Kumar Garlapati, Rajiv Ganguly (2018). Stabilization of Black Cotton Soil Using Waste Glass. In Chaudhery Mustansar Hussain, Handbook of Environmental Materials Management (1st, pp. 1-16). : Springer. [ISBN : 9783319585383] .
- vi) Prachi Vasistha, Rajiv Ganguly, Ashok Kumar Gupta (2018). Biomedical Waste Generation and Management in Public Sector Hospital in Shimla City. In Singh V., Yadav S., Yadava R, Environmental Pollution (1st Ed., pp. 225-232). Singapore: Springer. [ISBN : 978-981-10-5791-5] .
- vii) Niraj Singh Parihar, Vijay Kumar Garlapati, Rajiv Ganguly (2018). Stabilization of Black Cotton Soil Using Waste Glass. In Chaudhery Mustansar Hussain, Handbook of Environmental Materials Management (1st, pp. 1-16). : Springer. [ISBN : 9783319585383] .
- viii) Anirban Dhulia , Rajiv Ganguly (2018). Critical Assessment of Existing Environmental Legislation and Policies in India, Its

- Benefits, Limitation, and Enforcement. In Chaudhery Mustansar Hussain, Handbook of Environmental Materials Management (1st edition, pp.). : Springer . [ISBN : 9783319585383]
- ix) Umesh K singh, Z. Ahmad, Ashish Kumar (2017). Incipient Motion for Gravel Particles in Cohesive Mixture of Clay-silt-gravel. In, *Proc. International Symposium on River Sedimentation, River Sedimentation* (Wieprecht et al. (Eds) , pp. 424-429.). London: Taylor & Francis Group. [ISBN: 9781138029453] .
- x) Ashish Kumar (2017). Three-Dimensional Flow Measurements at Circular Pier. In Garg Vikas, Singh Vijay, Raj Vijay, *Development of Water Resources in India* (Water Science and Technology Library, Vol 75, pp.). Springer, Cham . [ISBN:978-3-319-55124-1]
- xi) Rajiv Ganguly, Vijay Kumar Garlapati (2017). Comparative Account of Carbon Footprints of Burning Gasoline and Ethanol. In Anuj Kumar Chandel, Marcos Henrique Luciano Silveira, *Advances in Sugarcane Biorefinery: Technologies, Commercialization, Policy Issues and Paradigm Shift for Bioethanol and By-Products* (pp. 241-252). Amsterdam: Elsevier. [ISBN: 9780128045343]

III) Details On Research Publications By Faculties:

In the academic year 2017-18 total 16 research papers were published in the International/National journals (No. in Scopus 16). 9 papers were published in International/ National Conferences.

a) Articles In Referred Journals

- i) Saurav, Ashok Kumar Gupta (2017). Experimental Study of Flexural Strength of Reinforced Concrete Beam Incorporating Ultrafine Slag. *International Journal of Engineering and Technology*, 8 (6), 2772-2778
- ii) Umesh K. Singh, Z. Ahmad, Ashish Kumar (2017). Formulation for Critical Shear Stress of Cohesive Sediment Mixture. *Current Science*, 113 (11), 2105-2111
- iii) Umesh K. Singh, Z. Ahmad, Ashish Kumar (2017). Incipient motion for gravel particles in clay-silt-gravel cohesive mixtures. *Journal of Soil and Sediments*, 1-12
- iii) Rajiv Ganguly, Ankush Thakur, Abhinav Chauhan (2017). Parametric Analysis of Industrial Wastewater - Case Studies in Himachal Pradesh. *Indian Journal of Environmental Protection*, 37 (10), 796-804
- iv) Saurabh Rawat, Ashok Kumar Gupta (2018). Testing and Modelling of Screw Nailed Soil Slopes. *Indian Geotechnical Journal*, 48 (1), 52-71
- v) Anchal Sharma, Rajiv Ganguly, Ashok Kumar Gupta (2018). Matrix method for evaluation of existing solid waste management system in Himachal Pradesh, India. *Journal of Material Cycles and Waste Management*, 20 (56), 1-9.

- vi) Saurav, Ashok Kumar Gupta (2018). Experimental Investigation to Find the Optimum Dose of Steel Fibers in Concrete Incorporating Ultra Fine Slag. *Journal of Engineering Science and Technology*, 13 (1), 187-195
- vii) Rishi Rana, Rajiv Ganguly, Ashok Kumar Gupta (2018). Physico-chemical Characterization of Municipal Solid Waste from Tricity region of Northern India: a case study. *Journal of Material Cycles and Waste Management*, 20 (1), 678-689.
- viii) Rishi Rana, Rajiv Ganguly, Ashok Kumar Gupta (2018). Indexing method for assessment of pollution potential of leachate from non-engineered landfill sites and its effect on ground water quality. *Environmental Monitoring and Assessment* , 190 (Article ID: 46), 1-23
- ix) Deepika Sharma, Rajiv Ganguly (2018). Evaluation of Existing Solid Waste Management Practises for Solan city - India. *Journal of Solid Waste Technology and Management*, 44 (1), 32-42
- x) Vashisht R, Attri S, Sharma D, Abhilash Shukla , Gunjan Goel (2018). Monitoring biocalcification potential of *Lysinibacillus* sp. isolated from alluvial soils for improved compressive strength of concrete. *Microbiological Research*, 207 (), 226-231
- xi) Prannoy Thakur, Rajiv Ganguly, Anirban Dhulia (2018). Occupational Health Hazard Exposure among municipal solid waste workers in Himachal Pradesh, India. *Waste Management*, 78 (), 483-489.
- xii) Anchal Sharma, Ashok Kumar Gupta, Rajiv Ganguly (2018). Impact of open dumping of municipal solid waste on soil properties in mountainous region. *Journal of Rock Mechanics and Geotechnical Engineering*, 30 (2018), 1-15.
- xiii) Rajiv Ganguly, Anirban Dhulia, Shivam Agarwal, Aditya Upadhya (2018). Parametric Analysis of wastewater characteristics from treatment plants in Shimla city in Himachal Pradesh. *Indian Journal of Environmental Protection*, 38 (5), 379-388.
- xiv) Shukla R.P., Niraj Singh Parihar, Ashok Kumar Gupta (2018). Effect of potassium chloride on expansive soil.. *The Civil Engineering Journal*, 1 (3), 25-33
- xv) Niraj Singh Parihar, Shukla R.P. , Ashok Kumar Gupta (2018). Shear strength of expansive soil reinforced with polyester fibers. *Slovak Journal of Civil Engineering*, 26 (2), 1-8

b) Papers in Proceedings of Conferences/Symposia/Seminars

- i) Disha Thakur, Rajiv Ganguly, Ashok Kumar Gupta, Veeresh Gali (2017). Evaluation of Existing Solid Waste Management System in Una Town, India. *Proceedings of the International Conference on Solid Waste Management* [7th : PJTS Agricultural University, Rajendranagar, Hyderabad, Telangana, India : 15-17 December, 2017]
- ii) Ankita Kumari, Gorky, Ashish Kumar, Sudhir Kumar (2017). Biogas Production using Sludge with Co-digestion of the Pine Needle.
- iii) Ashish Kumar, Sudhir Kumar (2017). Ground water quality assessment and designing of portable water filter system.

- iv) Ashish Kumar, Ankur Chaudhury, Sudhir Kumar (2017). Development of MSW based sustainable biogas technology using single stage digesters in Himachal Pradesh.
- v) VeereshGali, Manisha Thakur, Ashok Kumar Gupta, Rajiv Ganguly (2017). Role of UASBs in River Water Quality Conservation in India. *Proceedings of the International Conference on Civil & Environmental Engineering (CEENVIRON-2017)* [Universiti Malaysia Perlis (UmiMAP), Malaysia : November 28-29, 2017]
- vi) Anchal Sharma, Rajiv Ganguly, Ashok Kumar Gupta (2017). Matrix Method for Evaluation of Existing Solid Waste Management Processes in Jalandhar city, Punjab, India. *Proceedings of the International Conference on Solid Waste Management* [7th: PJTS Agricultural University, Rajendranagar, Hyderabad, Telangana, India : 15-17 December, 2017], pp.-.. Google Citation
- vii) Gyani Jail Singh, S. Mandal, R. Kumar (2017). Effect of corner modifications on shear lag phenomenon in tubular tall buildings. *Proceedings of the Recent Trend in Civil Engineering and Water Resource Engineering (RTCWRE)* [Hyderabad, India: 10-11 August, 2017], pp.92-97.
- viii) Abhilash Shukla, S. Gurusideswar, Krishna Jonnalagadda, Prakash Nanthagopalan (2017). High Strain Rate Behaviour of Micro-Steel Fibre Reinforced Concrete under Tensile and Compressive Loading. *Proceedings of the International Conference on Composite Materials and Structures (ICCMS 2017)* [IIT, Hyderabad, India. : December 27-29, 2017], pp.225
- ix) Anirban Dhulia, Aakash Gupta, Anshul Shandil, Anshul Kashyap (2017). Strength properties of concrete by using crumb rubber as partial replacement of aggregates. *Proceedings of the International Conference on Emerging Trends in Engineering Innovations & Technology Management (ICET:EITM-2017)* [NIT Hamirpur, Hamirpur, Himachal Pradesh, India : December 16-18, 2017]
- x) K. Gupta, V Thakur, A Gupta (2018). Assessment of relative significance in delaying factors of hilly road construction. International Conference on Materials, Applied Physics and Engineering (ICMAE) [Indore, 3rd – 4th June, 2018].

c) Conferences / Symposia / Workshops / Seminars (Participated / Papers Presented) : Conducted/ Attended

i) Conference/Workshop attended by faculty outside JUIT:

- a) Mr. Anirban Dhulia attended three day conference, International Conference on Emerging Trends in Engineering Innovations & Technology Management (ICET:EITM 2017,) during 16th -18th December, 2017.

- b) Mr. Aakash Gupta attended International Conference on Materials, Applied Physics and Engineering (ICMAE) on June, 2018 in Indore.
- c) Mr. Aakash Gupta attended National Workshop on Statistical Techniques in Biological and Medical Sciences at JUIT during 4th – 9th June, 2018.
- d) Mr. Bibhas Paul attended one week workshop on “Wind Resistant Design of Structure’ from 17th July to 21st July, 2017 at IIT Roorkee.

d) Significant Awards/ Distinctions

a) Prof. Ashok Kumar Gupta

- i) Outstanding Reviewer award: International Journal of Geomechanics- ASCE
- ii) Outstanding Reviewer award: Journal of Rock Mechanics and Geotechnical Engineering - Elsevier
- iii) Outstanding Reviewer award: Karbala International Journal of Modern Science- Elsevier

e) Honorary Work (Editor, Reviewer, Committee Expert, Session Chair Etc.)

i) Invited Lectures:

- a) Mr Aakash Gupta, Assistant Professor of Civil engineering Department delivered an expert lecture on “Smart Highways” at Technocrats Group of Institutions, Bhopal; 30th April, 2018.
- b) Mr Niraj Singh Parihar Gupta, Assistant Professor of Civil engineering Department delivered an expert lecture on “Modern Geotechnical Engineering” at Technocrats Group of Institutions, Bhopal; 28th April, 2018.
- c) Dr. Rajiv Ganguly, Associate Professor, Department of Civil Engineering delivered and invited lecture entitled ‘Ambient Air Quality Status and its prediction in Tier-II city (Shimla) at Department of Environmental Science and Engineering at ISM Dhanbad on 17 October 2017.

f) On The Professional Review Boards Of The Following Journals:

i) Prof. Ashok Kumar Gupta

- International Journal of Geosynthetics and Ground Engineering- Springer
- Journal of Rock Mechanics and Geotechnical Engineering- Elsevier
- Journal of Geotechnical and Geo-environmental Engineering- ASCE
- KSCE Journal of Civil Engineering- Springer
- Scientia Iranica
- ASCE International Journal of Geo-mechanics
- Structures- Elsevier
- Canadian Geotechnical Journal

ii) **Dr. Ashish Kumar**

- Reviewer: Journal of Water Science Engineering (Elsevier publication)

iii) **Dr. Rajiv Ganguly**

- Environmental Engineering Research
- Atmospheric Environment
- Journal Material Cycle and Waste Management
- Journal of Hazardous Toxic and Radioactive Substances
- Journal Sustainable Transport Engineering
- Journal of Resource Conservation and Recycling
- Current Science

V) **Faculty Members and their Specializations (2017-2018):**

<i>S. No.</i>	<i>Name</i>	<i>Designation</i>	<i>Specialization</i>	<i>Research Area</i>
1	Dr. Ashok K. Gupta	Professor & Head	Geotechnical Engineering	Constitutive Modelling of Geological Materials, Rock Mechanics, FEM and Environmental geotechnique
2	Dr. Veeresh Gali	Professor	Environmental Engineering	Anaerobic Treatment of Phenolic and Toxic Wastewater
3	Dr. Ashish Kumar	Professor	Water Resources Engineering	Scouring Around Hydraulic Structures, Fluvial Hydraulics
4	Dr. Rajiv Ganguly	Associate Professor	Environmental Engineering	Air Pollution, Estimation of No _x / CO Concentrations
5	Dr. Gyani Jail Singh	Assistant Professor (Sr. Grade)	Structural Engineering	Structural Mechanics, Structural Design: RCC, Advanced RCC Design and Steel Structures.
6	Dr. Amardeep Bora	Assistant Professor (Sr. Grade)	Highway and Transportation Engineering	Traffic Operation, Waste Management in Pavement Construction, Level of Service in Indian Highways, Pavement Design and Analysis Pedestrian Operation.
7	Mr. Chandrapal Gautam	Assistant Professor (G-II)	Structural Engineering	Rehabilitation of Structure, Concrete Technology, Fracture Mechanics
8	Mr. Abhilash Shukla	Assistant Professor (G-II)	Structural Engineering	Structural Dynamics, Concrete Rheology, Blast-Resistant Materials.

9	Mr. Saurav	Assistant Professor (G-II)	Structural Engineering	Concrete Rheology, Development of HPC with Alcofine
10	Mr. Saurabh Rawat	Assistant Professor (G-II)	Geotechnical Engineering	Slope Stability Problems (Including Seismic), Soil-Nailing, Landfill Design
11	Mr. Neeraj Singh Parihar	Assistant Professor (G-II)	Geotechnical Engineering	Liquefaction, Slope Stability, Hazard Assessment
12	Mr. Bibhas Paul	Assistant Professor (G-I)	Structural Engineering	Structural Dynamics and Random Vibration, Structural Health Monitoring, Risk And Reliability Assessment of Structural Systems, Stability of Steel Structures, Finite Element Modelling
13	Mr. Kaushal Kumar	Assistant Professor (G-II)	Structural Engineering	Structural Dynamics and Earthquake Engineering; Seismic Hazard Analysis and Assessment; Service Life Assessment, Structural Modelling and Analysis
14	Mr. Anil Kumar	Assistant Professor (G-II)	Structural Engineering	Active Control Systems, Blast-Resistant Design, Structural Dynamics and Reliability
15	Ms. Poonam	Assistant Professor (G-II)	Structural Engineering	Base Isolation, Semi Active Isolation, Retrofitting of Structures
16	Mr. Aakash Gupta	Assistant Professor (G-I)	Highway and Transportation Engineering	Highway Engineering, Pavement Performance, Prediction Models and Their Use in Road Asset Management
17	Mr. Anirban Dhulia	Assistant Professor (G-I)	Environmental Engineering	Water and Wastewater Engineering, Microbial Fuel.

VI) Research Thrusts of the Department

Fluvial hydraulics, Development of High Performance Concrete, Rock-fill material modelling, Effects of dynamics loads on structures, Soil Nailing and Slope Stability, Solid Waste Management.

VII) Significant achievements of current students and alumni

i) Academic achievement by the students:

- 33 students of B Tech. final year Civil Engineering qualified the “Graduate Aptitude test in Engineering” (GATE) in 2018.
- Ankur Choudhary working in TIEDC have participated in Anveshan 2018 and obtained first prize in North Zone region and fourth position in National
- 2 students of B Tech. final year Civil Engineering selected for post graduation in National Institute of Construction Management and Research.

VIII) Extracurricular Activities:

Extracurricular events organised by Civil Engineering Consortium in the academic year 2017- 2018:

- Guest Lecture on Basic Surveying and Remote Sensing, 07th May, 2018: Civil Engineering Consortium (CEC) has organized a Guest Lecture on Basic Surveying and Remote Sensing by Dr R. D. Garg (Associate Professor, IIT Roorkee) on 07th May, 2018 which was attended by 95 students.



- REVIT Training, 16th - 22nd April, 2018: Civil Engineering Consortium (CEC) has organized one week training on REVIT which was conducted by Mr. Hemant Singh for Civil Engineering students from 16th -22nd April, 2018.



- Guest Lecture on entrepreneurship, 23rd March 2018: Civil Engineering Consortium (CEC) along with TIED Cell organized a Guest Lecture on 23rd March, 2018.



- Workshop on Design of Tall Buildings Workshop: 10th -11th March, 2018: Civil Engineering Consortium (CEC) have organized two day's workshop on "Design of Tall Buildings" which was conducted by Mr. Hemant from Innovian's Technologies for Civil Engineering students on 10th -11th March, 2018.



- CEC Industrial Tour: 3rd Feb, 2018: Civil Engineering Consortium (CEC) organized an industrial tour on 3rd Feb, 2018 under the guidance of Mr. Pankaj Gandhi (Manager HR), Ambuja Cement Plant.



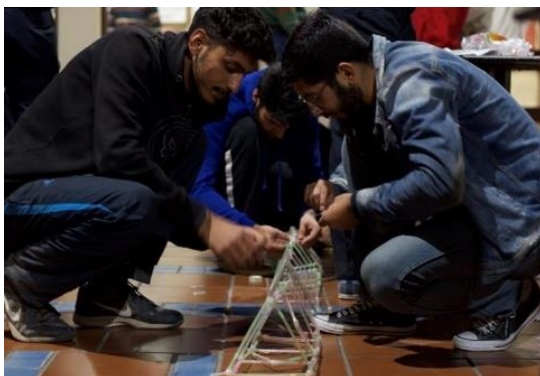
- Physical Fitness Circuit: 22nd Nov, 2017: Civil Engineering Consortium (CEC) has organized physical fitness circuit event on 22nd November, 2017.



- Music Entertainment Literature Arts (MELA) Quiz: 20th Nov, 2017: Civil Engineering Consortium has organized a Quiz based on Music Entertainment Literature Arts (MELA) which was held successfully on 20th November, 2017.



- Event Structure Made with Straws: 14th Nov, 2017: Civil Engineering Consortium (CEC) has organized an event Structure Made with Straws on 14th November, 2017 in which 58 students participated and the criteria of winning was decided by the strength and height of the structure made. Cash prize worth Rs.6000 were distributed.



DEPARTMENT OF PHYSICS & MATERIALS SCIENCE

Undergraduate (B. Tech.)

Department offers various interdisciplinary courses and projects at undergraduate level. The department is offering courses (core & elective) for odd and even semesters of the B.Tech. program on a wide spectrum of physics and materials based topics such as Wave optics, Laser physics, Statistical physics, Thermodynamics, Atomic physics, Electromagnetism, Solid state physics, Quantum physics, Biophysical techniques, Materials science, Optical fibers, Photonics and microwave devices, Nanotechnology, Viscosity, Surface tension, Thin film technology, *etc.*

Research (Ph. D.)

The Department has strong research interests in nano-materials, microstrip antenna, gas sensors, and compound semiconductors. The department has established laboratories for the synthesis of nano-materials and thin film devices. A microwave antenna laboratory is available for fabrication and simulation of antennas. Research is being carried out with doctoral students in the different fields.

All faculty members are actively involved in research in different key scientific and technological areas such as Chalcogenides (glass and quantum dots), Microwave and antenna design (numerical modeling, design and simulations), Nanotechnology (Nano ferrites, Carbon Nano structures, Quantum dots, *etc.*), Polymers & polymer nanocomposites, Optical properties of oxide materials, Dilute magnetic semiconductors, Gas sensors, Arsenic removal and water purification, Solar energy harvesting, *etc.*

The faculty of the department has established many research collaborations nationally such as Himachal Pradesh University Shimla, Panjab University Chandigarh, Panjabi University Patiala, Jadavpur University Kolkata, Indian Institute of Petroleum Dehradun, Bharat Heavy Electrical Limited Hyderabad, Jaypee Institute of Information Technology Noida, *etc.*

The faculty of the department has also established many research collaborations internationally such as Gwangju Institute of Science and Technology, Gwangju, Korea; National Sun Yat-sen University, Kaohsiung, 804, Taiwan; King Khalid University, SA; Jeddah University, Jeddah; Ain Shams University, Egypt; Port Said University, Port Said; Al-Azhar University, Assiut Branch, Assiut; Kyushu University, Fukuoka, Japan; National Taiwan University Taiwan; Tel Aviv University Israel.

In near future, the Department plans to extend these collaborations to Research Institutes and industries for fruitful realization and productivity of their research outcome. On account of this rigorous research, the Department has come out with research publications in esteemed international and national journals, and also presented their research efforts in many international and national conferences. Many students of the department have obtained their Ph.D degrees in the past and many more are currently pursuing their thesis work. To carry out advance research, financial grants (via sanctioned projects) have also been received from SERB-DST, HIMCOSTE, DST-DAAD, *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 such as Newton's Rings, Diffraction grating, polarimeter, radiation physics as Planck's photo cell, Hall Effect set up, Four probe set up, dielectric constant and capacitance measurements, Optical fibres set up, Hysteresis loop, Magnetostriction and Magneto resistance measurement devices.

In order to carry out research, the department has research laboratories. They are (i) Characterization laboratory with UV-VIS-IR & Photoluminescence setups for optical, and Keithley digital multimeter for electrical I-V measurements, Scanning tunnelling microscope, and Gas sensing set-up (ii) Materials Science laboratory with a thermal and e-gun vacuum coating unit for thin film deposition, (iii) Nanotechnology laboratory for chemical synthesis of nanomaterials and high temperature treatment (using a furnace), (iv) Electromagnetic analysis laboratory for antenna design, measurement facility, and it is equipped with latest simulations tools like, HFSS, Empire Xcel, IE3D & other mathematical tools with high end processors (v) Chemical Vapour Deposition laboratory for synthesis of nanomaterials.

Faculty Details:

Sr. No	Name of the faculty	Designation	Area of Specialization
1	Prof. P.B. Barman	Professor & Head	Materials Science
2	Prof. Sunil K. Khah	Professor	Electromagnetic Antenna Theory
3	Dr. Vineet Sharma	Associate Professor	Chalcogenide Glasses, Thin films
4	Dr. Pankaj Sharma	Associate Professor	Chalcogenides (Glasses & Quantum dots), Thin Films
5	Dr. Dheeraj Sharma	Assistant Professor (Senior Grade)	Polymer nanocomposites
6	Dr. Rajesh Kumar	Assistant Professor (Senior Grade)	Nanotechnology
7	Dr. Surajit Kumar Hazra	Assistant Professor (Senior Grade)	Materials & Sensors
8	Dr. Ragini Raj Singh	Assistant Professor (Senior Grade)	Quantum dot structures
9	Dr. Sanjiv Kumar Tiwari	Assistant Professor (Grade-II)	Semiconductors/optics

Faculty Activities:

I) Journal Publications (2017-18)

- i) Rohit Sharma, Prashant Thakur, Manoj Kumar, P.B. Barman, Pankaj Sharma, Vineet Sharma, Enhancement in A-B super-exchange interaction with Mn²⁺ substitution in Mg-Zn ferrites as a heating source in hyperthermia applications, *Ceramics International*, Vol 43 (16) (2017) 13661-13669.
- ii) R. Singh, R. Sharma, PB Barman, Dheeraj sharma, Superhydrophilic Poly (Styrene co acrylonitrile)-ZnO nanocomposite surfaces for UV shielding and self- cleaning applications, *Mater. Res. Express* Vol 4 (2017) 115302.

- iii) A. Dahshan, H.H. Hegazy, K.A. Aly, Pankaj Sharma, Semiconducting Ge-Se-Sb-Ag chalcogenides as prospective materials for thermoelectric applications, *Physica B: Physics of Condensed Matter*, Vol 526 (2017) 117–121.
- iv) Richa Khokhra, Bandna Bharti, Heung-No Lee & Rajesh Kumar, Visible and UV photo-detection in ZnO nanostructured thin films via simple tuning of solution method, *Scientific Reports* volume 7, Article number: 15032 (2017).
- v) Neha Kondal, Sanjiv Kumar Tiwari, Selectively enhanced oxygen vacancies in undoped polycrystalline ZnO as a consequence of multistep sintering” *Ceramic International*, 43, 10347-10352 (2017).
- vi) Hitanshu, Asha Kumari, Ragini Raj Singh, Tunable narrow emission in ZnS/CdS/ZnS quantum well structures prepared by aqueous route, *Optical Materials*, Volume 69, July 2017, Pages 23-29.
- vii) Rajender Singh, Karan Verma, Tejbir Singh, PB Barman and Dheeraj Sharma, UV shielding with visible transparency based properties of poly (styrene-co-acrylonitrile)/Ag doped ZnO nanocomposite, (2018) *Mater. Res. Express* 5 025035.
- viii) Rohit Sharma, Prashant Thakur, Manoj Kumar, P.B. Barman, Pankaj Sharma, Vineet Sharma, Mn²⁺ Doped Mg–Zn Ferrite Nanoparticles for Microwave Device Applications, *IEEE Electron Device Letters*, VOL. 39, NO. 6, JUNE 2018, 901-904.
- ix) Rohit Sharma, Prashant Thakur, Manoj Kumar, Pankaj Sharma, Vineet Sharma, Nanomaterials for high frequency device and photocatalytic applications: Mg-Zn-Ni ferrites, *Journal of Alloys and Compounds* 746 (2018) 532-539.
- x) Palwinder Singh, Ramandeep Kaur, Pankaj Sharma, Vineet Sharma, Anup Thakur, Effect of visible light on the structural and optical properties of (Ge₂Sb₂Te₅)_{100-x}Ag_x (x = 0, 1 and 3) thin films, *J Mater Sci: Mater Electron* 29 (2018) 1042–1047.
- xi) H.E. Atyia, S.S. Fouad, Pankaj Sharma, A.S. Farid, N.A. Hegab, Optical, dielectric and opto-electrical study of Se-Te-Ge glassy thin films, *Journal of Optoelectronics and Advanced Materials* Vol 20(5-6) (2018) 319-325.

II) Conference Publications (2017-18)

1. S Sharda, P Sharma and V Sharma, A Study of Thermal Stability and Crystallization Kinetics of SbSeGe Glassy Alloys, *International Conference on Materials, Alloys and Experimental Mechanics (ICMAEM-2017)* 3–4 July 2017, Narsimha Reddy Engineering College, Hyderabad, India Online ISSN: 1757-899X, Print ISSN: 1757-8981.
2. Cytotoxicity testing of bare CdSe quantum dots and their encapsulated structure, *National Conference on Advanced Materials and Nanotechnology (AMN-2018)*, March 15-17, 2018, Organized by Department of Physics and Material Science & Engineering, Jaypee Institute of Information Technology, Noida (INDIA), (ISSN-978-0-7354-1534-8).

III) Projects Received by the Department from various Government /Private Agencies (Ongoing Projects):

IV)

S. No.	PI	Title	Funding Agency	Amount (INR)	Duration
1.	Pankaj Sharma	Semiconducting chalcognide quantum dots for exploiting the power of solar energy	SERB-DST	16.99 lac	2015-2018
2	Rajesh Kumar	Formation of room temperature Ferrite thin films for the Application of Spintronic devices	DST-DAAD	11.72 lac	2017-2019
3	PK Singh/ Pankaj Sharma	IOT Enabled Fencing System to Control Monkey's Menace in Shimla (Urban Areas of Himachal Pradesh)	HIMCOSTE	7.5 lac	2017-2019
4	Vineet Sharma	Enhancing the thermal stability of Chalcogenide Phase-change materials for switching and memory applications	SERB-DST	20.0695 lac	2017-2020
5	P.B. Barman/S.K. Hazra	Catalytic nanoparticle based graphene devices for the selective detection of industrial gases	HIMCOSTE	7.98 lac	2017-2019
6	S.K. Hazra/P.B. Barman	Hydrogen storage using 2D chalcogenide and graphene layered materials	SERB-DST	32.2256 lac	2017-2020

V) Other activities:

S. No.	Name of faculty	Activity
1	Dr. Pankaj Sharma	(1) Guest lecture on "Dilute Magnetic Semiconductors: An Optical Overview" under Gyan Shrinkhala Series at School of Basic & Applied Sciences, Maharaja Agarsen University Baddi on 28th March, 2018. (2) In-Service Teacher Training Programme of Lecturers/PGT (Physics) Department of Higher Education Himachal Pradesh, held at SCERT Solan, w.e.f. 27 -11-2017 to 02-12-2017 (Title: Polymers : Types and Applications). (3) In-Service Teacher Training Programme of Lecturers/PGT (Physics) Department of Higher Education Himachal Pradesh, held at SCERT Solan, w.e.f. 27 -11-2017

		to 02-12-2017 (Title: Ceramics: Properties and their Applications)
2	Dr. Rajesh Kumar	<p>(1) Visited Department of Physics, University of Osnabruck for a period of 12-days in October 2017 to access HIGH END research Instruments in order to characterize samples prepared by Department of Physics and Materials Science, JUIT, Wajnaghat.</p> <p>(2) Visited GIST, South Korea, as a VISITING PROFESSOR, during the period 25th June - 14th July 2018</p> <p>(3) Prof. Joachim Wollschläger from University of Osnabruck, Germany visited Dr. Rajesh Kumar's lab for collaborative research (December 4-15, 2017).</p> <p>(4) Initiated MOU with SINTEF Industry Norway (in the field of renewable energy)</p>
3	Dr. Ragini Raj Singh	Interdepartmental project "Synthesis and Characterization of II-VI Group Quantum Dots and Their Antimicrobial Studies" done with department of Biotechnology and Bioinformatics.

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. It offers Ph.D. program. The Department is well equipped with software like MATLAB, 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. Total 5 students were pursuing Ph. D. during the academic session 2017-18.

Departmental research interests include Mathematical modeling and simulation, Nonlinear partial differential equations, Algebraic Coding Theory, Differential Geometry, Fuzzy Information Measures, Intuitionistic Fuzzy Information, Decision Making, Pattern Recognition, Optimization Theory, Inventory control and Nonlinear boundary value problems.

Faculty

S.No.	Name	Designation	Qualification	Specialization
1.	Karanjeet Singh	Professor & HoD	Ph. D.	Nonlinear partial differential equations
2.	R. S. Raja Durai	Associate Professor	Ph. D.	Algebraic Coding Theory
3.	Rakesh Kumar Bajaj	Associate Professor	Ph. D.	Fuzzy Information Measures, Intuitionistic Fuzzy Information Measures, Decision Making
4.	Neel Kanth	Assistant Professor (Sr. Grade)	Ph. D.	Numerical Analysis, Operations Research, Mathematical Modeling and simulation
5.	Pradeep Kumar Pandey	Assistant Professor (Sr. Grade)	Ph. D.	Differential Geometry, Geometry of Submanifolds
6.	Saurabh Srivastava	Assistant Professor (Grade-II)	Ph. D.	Optimization Theory, Inventory control
7.	Mandeep Singh	Assistant Professor (Grade-I)	Ph. D.	Nonlinear boundary value problems

Faculty Activities

I) Publication in Refereed Journals:

- i) Saurabh Srivastava: Deterministic Inventory Model for Items with Linear Demand, Variable Deterioration and Partial Backlogging, Int. J. Inventory Research, Vol. 4, No. 4, 2017.
- ii) N. Saini, Rakesh Kumar Bajaj, N Gandotra, R. P. Dwivedi: “Multi-criteria Decision Making with Triangular Intuitionistic Fuzzy Number based on Distance Measure & Parametric Entropy Approach”, Procedia Computer Science, Vol. 125 (Jan 2018), pp. 34-41. (Elsevier) [Scopus Indexed].

- iii) Meenakshi Devi, R. S. Raja Durai, Hongjun Xu: "Construction of high rate T-Direct codes," (Accepted: to appear in Journal of Computational and Applied Mathematics). <https://doi.org/10.1007/s40314-018-0665-8>.

II) Conference Proceedings:

- i) Tanuj Kumar and Rakesh Kumar Bajaj: "Expected value based ranking of intuitionistic fuzzy variables", Recent Advances in Fundamental and Applied Sciences, American Institute of Physics (AIP) Conference Proceedings, 1860, (July 2017) 020030- 1020030-11; doi: 10.1063/1.4990329. [Scopus Indexed].

III) Paper presentation:

- i) Neel Kanth: Presented a paper 'Mechanics Model for Rolling calendar used in Textile Industry' in international conference FIAM 2018 held at NIT Hamirpur, April 26-27, 2018.
- ii) Pradeep Kumar Pandey: Presented a paper "Holomorphic Functions on Manifolds", in International conference on Mathematical Sciences and Applications, G.G.V. Bilaspur, C.G., Feb. 23-25 2018.

IV) Workshops/QIPs Attended:

- i) Rakesh Kumar Bajaj: One Week AICTE recognized Short Term Course on "Cloud Computing through ICT" organized by NITTTR, Chandigarh and conducted by Department of Computer Science, JUIT Waknaghat, H.P. October 23 - 27, 2017.
- ii) Neel Kanth: Attended one week short term course on Software tools and Scientific Research: Mathematica and Latex, MNIT Jaipur, January 9-13, 2018.
- iii) R. S. Raja Durai: Attended and delivered an invited talk on "Statistical data analysis using SPSS" in the workshop of the Statistical Techniques in Biological and Medical Sciences (STBMS) held at Jaypee University of Information Technology, Solan - 173234, Himachal Pradesh, June 4-9, 2018.

V) Resource persons/ Invited Lectures:

- i) Rakesh Kumar Bajaj: Invited as a resource person for In-Service Training Programme for School Lecturers in Mathematics organized by State Council of Educational Research & Training (SCERT), Solan, H.P., August 1, 2017.
- ii) Neel Kanth: Delivered two lectures on the topic Linear programming and its Applications at State Council of Educational Research and Training (SCERT), Solan in In-service training program for Lecturers in Mathematics; August 2, 2017.

VI) Session Chair:

Neel Kanth: Chaired a session in international conference FIAM 2018 held at NIT Hamirpur, April 26-27, 2018.

VII) Workshops organized:

Department of Mathematics and BI /BT jointly organized one week workshop on Statistical Techniques in Biological and Medical Sciences-2018, at JUIT Waknaghat; June 4-9, 2018.

Students Currently Registered for PhD:

NAME	BROAD AREA OF RESEARCH
Neelam Gupta	Mathematical Modelling and Simulation
Abhishek Guleria	Fuzzy Information Measures
Sameer	Differential Geometry
Mahima Poonia	Nonlinear Partial Differential Equations
Preeti Devi	Nonlinear Partial Differential Equations

Students Awarded PhD:

Manoj Gaur (Ph.D. Awarded on Dec 4, 2017).

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 department 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	Designation	Area of Specialization
1	Dr Anupriya Kaur	Associate Professor & Head	Marketing
2	Dr Amit Srivastava	Associate Professor	International Business, Economics & Finance
3	Dr Tanu Sharma	Assistant Professor (Senior Grade)	Human Resource Management, Emotional Intelligence & Corporate Social responsibility
4	Dr Papiya Lahri	Assistant Professor (Grade II)	English language
5	Ms. Triambica Gaitam	Assistant Professor (Grade II)	Finance
6	Dr. Neena Jindal	Assistant Professor (Grade I)	Corporate Governance
7	Dr. Sakshi Khanna	Assistant Professor (Grade I)	Economics & Finance

Research Groups

Emotional Intelligence and Leadership Group

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. 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

Ms. Triambica Gautam

Dr Sakshi Khanna

Courses

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

Marketing Management Group

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

Faculty

Dr Anupriya Kaur

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 Papiya Lahri

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

Dr. 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

Language Laboratory

The department runs a well equipped Language Lab wherein a strong emphasis is laid on key English Language and Business Writing skills – listening, speaking, grammar, reading, writing, vocabulary, pronunciation, resume writing, technical writing etc. The lab is also

equipped with business analytics software. There are 31 computer systems in the lab with the required technical specifications. Following software are currently in use-

- SPSS-24.0-Statistical analysis
- Clarity Infinity Digital Language Lab (4.6) –Software package for Language lab

Ph.D Completed

Mr Priyam Dhani submitted her thesis entitled, “Emotional Intelligence, Personality and Job Performance: A Study of Indian Service Sector” ,May,2017 , Supervisor ,Dr Tanu Sharma

FACULTY ACTIVITIES

Journal Publication (July 2017 to June 2018)

- Priyam Dhani & Tanu Sharma (2018), “Emotional Intelligence and Personality Traits as Predictors of Job Performance of IT Employees”, International Journal of Human Capital and Information Technology Professionals (IJHCITP), Vol9 (3),Pg70-83
- Tanu Sharma & Sandeep Singh(2018), “ *Emotional Intelligence As A Tool For Hiring In Organizations*”, KAAV International Journal of economics, Commerce and Business management, Vol4(4), Pg 461-464
- Sandeep Singh, Tanu Sharma & Anil Sehrawat (2018) , “ *Role of Emotional Intelligence In Determining Occupational stress Of Indian Retail managers*”, KAAV International Journal of economics, Commerce and Business management, Vol4(4), Pg 62-67
- Neena Jindal, Sehrawat A., (2017) , “Usage of ICT and its barriers to sustainable E-Governance in North India”. KAAV International Journal of Economics, Commerce and Business Management , Vol.4 (4), 313-318
- Balraj Verma and Amit Srivastava,(2017), “Globalization & Economic Growth of India in Post-Liberalization Era”, International Journal of Enhanced Research in Management & Computer Applications, Vol 7, Issue 3, pp (243-249) (ISSN: 2319-7471)
- Madhvi and Amit Srivastava,(2017), “Prediction of Bank Failure Using Financial Ratios”, International Journal of Economic Research, 14(16) III, 421-430, (ISSN: 0972-9380)
- Madhvi and Amit Srivastava,(2017), “An Analysis of Efficiency and Profitability of Indian Banks Using DEA Approach”, International Journal of Applied Business and Economic Research, 15 (23) II, 331-339. (ISSN: 0972-7302)
- Madhvi and Amit Srivastava,(2017), “ Prediction of Bank Failure Using Financial Ratios”, International Journal of Economic Research, 14(16) III, 421-430, ISSN: 0972-9380.
- Sandeep Singh & Tanu Sharma,(2017) “*Affect of Adversity Quotient on the Occupational Stress of IT Managers in India*”, *Information Technology and Quantitative Management (ITQM2017)* Procedia Computer Science 122 ,86-93
- Priyam Dhani & Tanu Sharma(2017), “*Effect of Emotional Intelligence on Job Performance of IT employees: A gender study* ”, Information Technology and Quantitative Management (ITQM2017) Procedia Computer Science ,Vol., 122, pp180-185
- Priyam Dhani & Tanu Sharma (2017), “**The Impact of Individual’s Emotional Intelligence on His/Her Job Performance: An Empirical Study in Indian Context**”, *International Business Management, Vol. 11 (7):* pp 1419-1428,

Conference Publications (July 2017 to June 2018)

1. Sandeep Singh & Tanu Sharma,. (2018), “From HRM to Green HRM : The Paradigm Shift”, at RISE, NIT Hamirpur, February 2018.
2. Neena Jindal, Sehrawat A., (2017) , “Usage of ICT and its barriers to sustainable E-Governance in North India”. Paradigm Shift in Global Business Practices And socio Economic development”, VISHISHT School of Management, Indore, Dec. 09,2017
3. Tanu Sharma & Sandeep Singh(2017), “ *Emotional Intelligence As A Tool For Hiring In Organizations*”, 6th International Conference on , “ Paradigm Shift in Global Business Practices And socio Economic development”, VISHISHT School of Management, Indore, Dec. 09,2017
4. Sandeep Singh ,Tanu Sharma & Anil Sehrawat(2017), “*Role of Emotional Intelligence In Determining Occupational stress Of Indian Retail managers*”, 6th International Conference on , “ Paradigm Shift in Global Business Practices And socio Economic development”, VISHISHT School of Management, Indore, Dec. 09,2017
5. Sandeep Singh & Tanu Sharma (2017). Study on the Affect of Emotional Intelligence on Adversity Quotient of Service Sector Managers. at ICMRAA, Malaysia, December 2017
6. Sandeep Singh &, Tanu Sharma, “*Effect of Emotional Intelligence on Job Performance of IT employees: A gender study* ”, 2nd International Conference on “Information Technology and Quantitative Management (ITQM-2017)” , JBS Noida ,08-10 December 2017
7. Priyam Dhani &, Tanu Sharma, “*Effect of Emotional Intelligence on Job Performance of IT employees: A gender study* ”,JBS Noida, 2nd International Conference on “Information Technology and Quantitative Management (ITQM-2017)” from 08-10 December 2017

Books (July 2017 to June 2018)

- Lahiri, Papiya,(2018), *Seeds of Time*. Chennai: Notion Press, 2018. ISBN 978-1-64324-213-2
- Jindal , N. and Sharma, T. (2017), *Human rights in Democratic Countries – India, Pakistan,Srilanka,Iran,Russia and China*. Lambert Academic Publishing, 2017. ISBN No : 978-3-330-07584-9

Workshops Conducted

- Department of Humanities and Social Sciences organized 7th One-Week Self-Financed Workshop on “Tools and Techniques for Data Analysis in Management Research” during June 11-17, 2018. 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 30 participants (faculty members and research scholars) from different parts of India were participated in it.

CENTRES

LEARNING RESOURCE CENTER (LIBRARY)

Learning Resource Center (LRC) is the backbone of academic and research activities of the University and has been catering to the information needs of the faculty members, students, staffs and research scholars.

LRC is a separate block of three storied building embedded to main academic block which accommodates **295** students at a time in order to carry any activity related to study and research. The LRC has **38671** volumes of books and **1394** back volume of journals 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, Dictionaries, Theses, Standards, etc. LRC has been subscribing to **19** International Journals, **48** National Journals, and **41** National and International magazines in order to supplement teaching and research activities of the university. The Non-book materials include audio/video cassettes, CD-ROM discs, DVD-ROM discs etc.

LRC is also subscribing to various online databases such as IEEE, ACM, Springer, ASCE, ASTM, IET, SIAM, MathSciNet, World eBook Library, South Asia Archive etc. These e-resources accommodate over 41+Lakh full-text e-books, and other electronic resources such as Journals, Conference Proceedings, Transactions, Magazines and Reports are accessible over IP range of the campus. LRC has also acquired NPTEL (National Programme on Technology Enhanced Learning) course contents from IIT Kanpur and hosting it on a high capacity server for providing seamless access to users within the campus. There are 65 dedicated computer nodes and are fully connected with LAN & WiFi Internet facility. 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 system is fully computerized and bar-coded with latest version of Library Management Software known as 'Liberty'-Internet based library automation software). The library has a separate dynamic website. The collection of the library can be browsed, searched and explored with the help of OPAC (Online Public Access Catalogue) anywhere in the campus. Library has been providing dedicated terminals to access OPAC throughout the library premises.

LRC remains open from 9.00 AM to 12:00 PM midnight except holidays. LRC has also implemented an integrated electromagnetic security system from 3M, USA for keeping a check on print materials movement of the LRC. The LRC has an institutional repository by using Dspace an Open Source Software for maintaining scholarly output of the university. Library is extending various quality services such as subject support, research support, maintaining JUIT publications database, providing anti-plagiarism detection by using Turnitin software, locker facility for research scholars and various alert services.

LRC is an 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 is also participating actively in Shodhganga (a reservoir of Theses), Shodhgangotri- a repository of Synopses/Research Proposals for PhD) and ESS-an e-resource subscription consortium of INFLIBNET.

LRC has also become an active member of National Digital Library of India (NDL) to provide free access to educational contents.

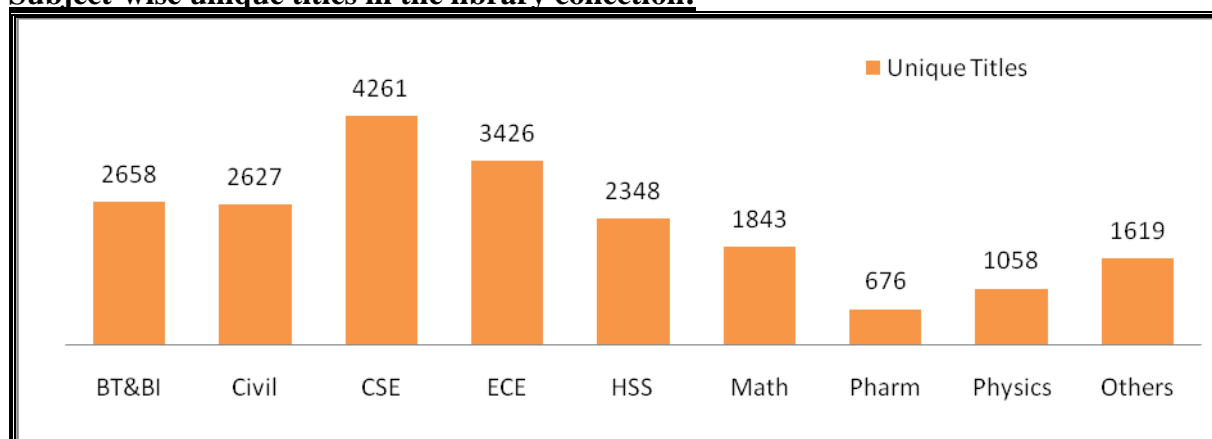
Resource Collection

- Unique Titles : **20516**
- Total Copies : **38671**

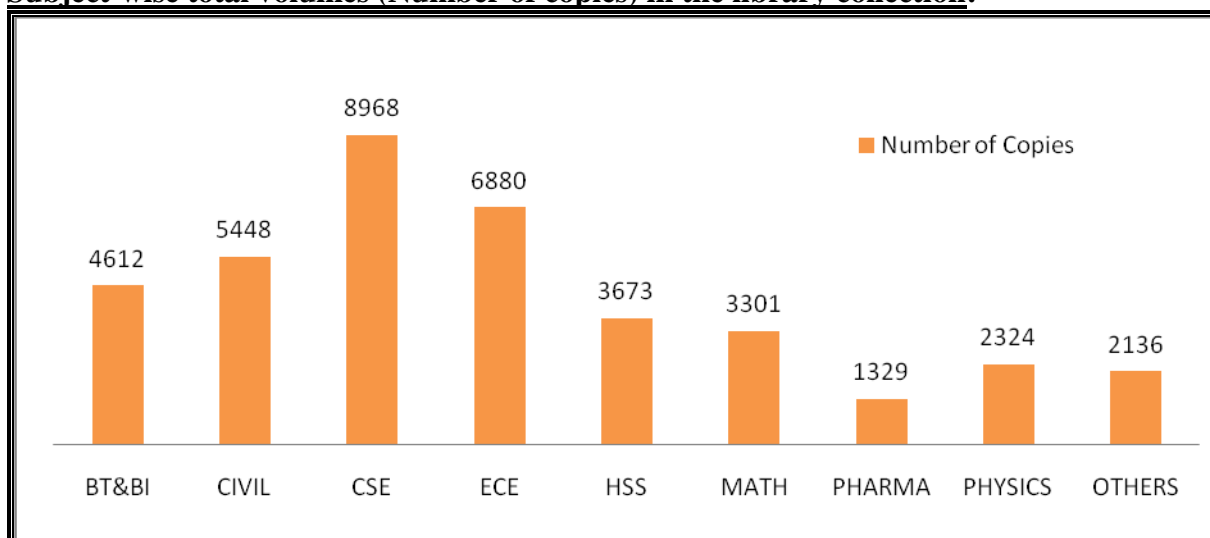
Subject-wise Book Collection:

S. No.	Departments	Titles	Copies
1	Bioinformatics & biotechnology	2658	4612
2	Civil Engineering	2627	5448
3	Computer Science Engineering	4261	8968
4	Electronics & Communication Engineering	3426	6880
5	Humanities & Social Sciences	2348	3673
6	Mathematics	1843	3301
7	Pharmacy	676	1329
8	Physics	1058	2324
9	Others	1619	2136
	Grand Total	20516	38671

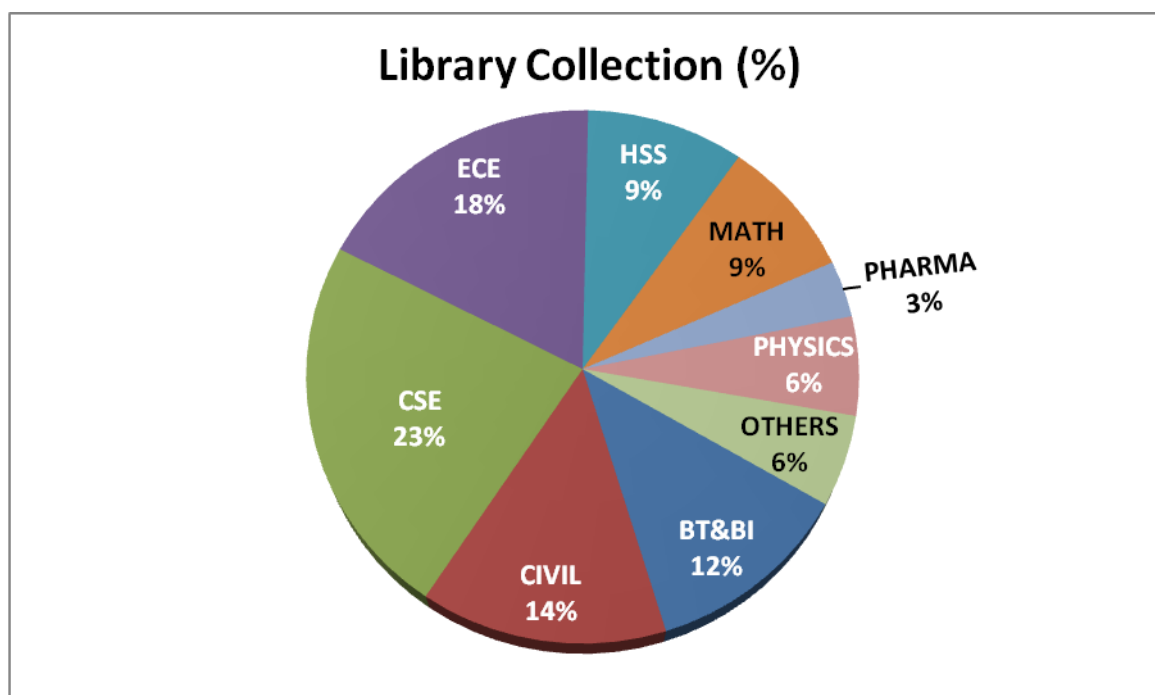
Subject-wise unique titles in the library collection:



Subject-wise total volumes (Number of copies) in the library collection:



Subject-wise coverage of total library collection in percentage (%):



BT&BI=Biotechnology and Bioinformatics; CIVIL=Civil Engineering; CSE=Computer Science and Engineering; ECE=Electronics and Communication Engineering; HSS=Humanities and Social Sciences; MATH=Mathematics; PHARMA=Pharmacy; PHYSICS=Physics and Material Science; OTHERS=General books.

Online Databases Accessible at JUIT:

S. No	Database	E-Books	No. of Journals	Conference proceeding and other reports	Total
1	Association of Computer Machinery (ACM)	-	66	1082	1148
2	American Society of Civil Engineers (ASCE)	-	37	-	37
3	Institute of Electrical and Electronics Engineers (IEEE)	-	207	3855	4062
4	Springer	-	1700	-	1700
5	ASTM Digital Library	-	9	1715	1724
6	IET Digital Library	-	31	1494	1525
7	Society for Industrial & Applied Mathematics (SIAM)	372	-	-	372
8	World eBook Library	41+ Lakh	-	-	41+ Lakh
9	South Asia Archive	2595	388	213	3196
10	MathSciNet	Searchable database of reviews, abstracts, and bibliographic information			

Other Collections: 4348

Type of Resource	Number
Print Journals (International)	19
Print Journals (National)	48
Print Magazines	41
Back Volume Journals	1394
Ph.D Theses	147
Dissertations (M.Tech & Dual Degree)	662
Project Reports (B.Tech)	2023
*Newspapers	14

***Multiple copies of each newspaper are being subscribed.**

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 3500 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 14 heavy duty Network Printers and 1 Line matrix printers.

- **Hardware configuration**

<u>Server Details</u>			
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.	2
2	IBM X Series 226	Intel® XEON 3.0 GHz 4 GB RAM 140 GB SCIC HDD with RAID Support.	1
3	IBM System X 3400	Intel® XEON 2.0 GHz 4 GB RAM 956.32 GB SCIC HDD with RAID Support.	6
4	IBM server X 3100 M4	Intel® XEON E31220 @ 3.10 GHZ 8 GB DDR IV RAM 1200 GB SCIC HDD with RAID 5 Support , 17 inch TFT monitor	3
5	CR 1000i	10 10/100/1000 Gigabit ports with 3.5 Gbps firewall throughput and 600 Mbps anti-virus throughput	2
6	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 monitor	6
7	HP ML 110G SERVER	Intel XEON QUAD Core X3430 Processor, 4 GB DDR III RAM 250 GB HDD sata , 18.5 inch TFT monitor	2

8	Dell	Dell Precision Tower 3420 with Intel Xeon E3-1225 3.3 ghz,8gb ddr4,19 inch tft and mouse	10
9	IBM X3300	IBM server x3300 m4 server 16 gb ram,1200 gb hdd with raid 5 card	1
10	HP rack server	hp dl 60 gen 9 intel xeon e5 (2.1 ghz/8core/20 mb/85w) Additional processor 2620 v4 2.1 ghz,8 core & 20 mb l3,16 gb X3 ram,HPE 240 smart HBA,hpe 6 tb hdd X4	1
11	HP rack server	hp dl 60 gen 9 intel xeon e5 (2.1 ghz/8core/20 mb/85w) Additional processor 2620 v4 2.1 ghz,8 core & 20 mb l3,16 gb X3 ram,HPE 240 smart HBA,hpe 3 tb hdd X3	2
12	HP rack server	hp dl 60 gen 9 intel xeon e5 (2.1 ghz/8core/20 mb/85w) Additional processor 2620 v4 2.1 ghz,8 core & 20 mb l3,16 gb X3 ram,HPE 240 smart HBA,hpe 2 tb hdd X3	1
Total Number of Server			37

Desktop Details

S.No	Brand	CONFIGURATIONS	QTY
1	IBM	P IV with 3 GHz, 80 GB HDD & 512 MB RAM and 17 inch monitor	99
2	IBM	Core 2 due 2.4 Ghz, 160 GB HDD & 1 GB RAM 17 inch Monitor	52
3	IBM	P4 2.8 Ghz,40 GB HDD,512 MB RAM & 15 inch Monitor	9
4	IBM	P4 3.06 Ghz,80 GB HDD,512 MB RAM & 15 inch Monitor	10
5	IBM	Celeron 2.4 Ghz,40 GB HDD,256 MB RAM & 15 inch Monitor	10
6	IBM	Dule core 1.8 Ghz,80 GB HDD ,1 GB RAM & 17 inch Monitor	40
7	IBM	Dule core 1.8 Ghz,80 GB HDD ,512 MB RAM & 17 inch Monitor	15
8	IBM	INTEL CORE 2 DUO,160 GB HDD,4 GB RAM & 17 inch Monitor	2
9	IBM	INTEL CORE 2 DUO,160 GB HDD,2 GB RAM & 17 inch Monitor	50
10	IBM	INTEL CORE 2 DUO,160 GB HDD,2 GB RAM & 17 inch Monitor	125

11	IBM	core i3-530 (2.92 GHz) with 2 GB RAM ,250 GB Sata HDD,18.5 inch TFT Monitor	90
12	IBM	Core I3- 2100 3.10 GHz with 2 GB RAM ,320 GB Sata HDD,18.5 inch TFT Monitor	80
13	IBM	Core I3- 2100 3.10 GHz with 4 GB RAM ,500 GB Sata HDD,dvd rom,18.5 inch TFT Monitor	120
14	HP	Intel core i5-6500 3.2 G 6M 2133 4C CPU with 18.5 inch TFT ,KB and Mouse	190
15	Dell	Desktop Dell i5 7th gen,8 gb ram,1 tb HDD with 18.5 inch tft	300
Total Number of computers			1192

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
49	Xilinx UEF-VIVADO_SYSTEM	25
	Base2 100	7
	Atlys Spartan-6 FPGA Development Board	1
50	8.1 V Clarity Snet Language Lab software 1 teacher + 30 User	30 user
	Tense Buster V9 for 20 user	20 user
	Business writing for 30 user	30 user
51	SPSS Base 24.0	1
	SPSS Advance Statistics	1
	SPSS regression	1
	SPSS Neural Network	1
	SPSS conjoint	1
	SPSS Amos 24.0	1
	SPSS Categories	1
52	Acrobat Pro 2017	10
53	Windows server 2016 pro	4

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, 26 Cisco switches, 17 Cisco AP ,6 HP AP and 16 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 (27 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:

JUIT endeavors worldwide collaborations with universities, research laboratories and industries with a view to making the best academic expertise. The JUIT has tie ups with following Universities and Institutions:

1. University of Florida, International Center, Florida, USA.
2. College of Informtion Science & Technology, University of Nebraska at Omaha.
3. South Dakota School of Mines and Technology, USA.
4. MoU with Youth Development Fund Bhutan.
5. MoU with National School of Applied Sciences (ENSAYg), Tangierorocco, Morocco.
6. Tampere University of Applied Sciences, Finland - MOU valid upto October, 2019
7. Pushchino State Natural Science Institute, Russia – MOU valid upto August, 2022.
8. The Institute of Electrical & Electronics Engineers, Incorporated, (IEEE) New York – MOU signed in May 2012 – Term of engagement not disclosed.

ACADEMIC ADMINISTRATION

Admission Process

1) UG Program

Admissions in the academic session 2017-18 were carried out through a common counseling process conducted by the University. Admissions to the Undergraduate Programs were on the basis of All India Rank of JEE (Mains) – 2017.

50% seats in B. Tech. (Biotechnology) and B. Tech. (Bioinformatics) were on the basis of All India Rank of JEE (Mains) – 2017 and rest 50% were offered on the basis of merit of 10+2 marks. However, seats were inter transferable in either category.

2) PG Programme

Admission to PG programs (M.Tech.) were offered to the eligible candidates having valid GATE score and through PGET-2017 conducted by University for non GATE qualified candidates followed by an interview by the PG Program Selection Board.

3) Doctoral Programme

Admission to the Ph.D. programs were done through Entrance Examination conducted by the University followed by an interview of the shortlisted candidates qualified in entrance examination based on their inter se merit among the shortlisted candidates.

4) Students Enrollment

The University over the period of 17 years has gained strength and confidence of the masses. The number and quality of intake has shown a remarkable improvement. The status of student strength as on 30 Sep. 2017 is given below.

STUDENT STRENGTH AS ON 30 SEP 2018

<u>Year of Study</u>	<u>U.G. Prog.</u>	<u>P.G. Prog.</u>	<u>Integrated Dual Degree Prog.</u>
5 th Year	08		11
4 th Year	452		04
3 rd Year	492	1	
2 nd Year	440	51	
1 st Year	421	27	

Ph.D. Scholars Registered during the Academic Session 2017 – 18 : 154

FACULTY AND SCHOLARSHIPS

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 eminent academicians and 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-C.

Scholarships

1. **Prof. William C Webster Merit & Means Scholarship:** Eligible students get a tuition fee waiver for a year upto a maximum of Rs.95000/- The scholarship was started in the year 2004-05.
2. **The Jaypee India Scholars Fund:** This 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.1.30 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 a student maintains 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 3 years 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 JEE conducted by CBSE, shall be provided free education for the entire duration of under graduate program.
4. **Students from Bhutan under Scholarship Scheme** – The Tuition fee & Hostel charges from students from Bhutan is exempted.
5. **Teaching Assistantship for M. Tech. Students**
6. **Research Fellowship for Ph.D. Students**

JUIT YOUTH CLUB (JYC)

This is the official student body of University and it conducts various events. The body consists of 9 clubs and 5 committees which organize various fests & activities throughout the year for Extra Co Curricular development the enjoyment and entertainment of the students of university.

ALUMNI MEET

Adding another chapter to Jaypee University of Information Technology “**Alumni Meet 2018**” organized by Alumni Affairs Committee revived the bonanza of memories. All the alumni were invited to revisit the reminiscence of those memories which were perched in the place they left them. It was an event conducted from 16th-17th March 2018.

Cultural Night (16th March 2018)

The festivity of event began with the pomp and show of Cultural Evening being organized on 16th March, 2018. The cultural night began with the ethical mark of “Lamp Lighting” ceremony Saurabh Bansal.

Welcome and Interactive Session (17th March 2018)

On the Alumni Meet celebrations, Day 2 began with formal welcoming of all the Alumni by the Registrar and Dean of Students Maj Gen Rakesh Bassi (Retd.). Dr. Saurabh Bansal (Alumni Head) addressed the alumni and welcomed them to their alma mater. The motivating lecture and presentation of Dr. Ashish Kumar towards the new initiatives taken by TIED Cell of JUIT added a spark. The event was marked by vote of thanks by student coordinators of Alumni Affairs Committee: Parushi Sharma and Nikesh Chauhan. From 12 noon onwards, session of interaction began and the students asked several queries regarding placements, internships and career fields. It was an informal interaction and added various fun elements. A high tea was planned as refreshment to all the alumni, dignitaries and students which lead to discussions on various issues amongst students and interaction among the Vice chancellor, Director and alumni.

Dhun (Musical Evening)

Adding glamour to the extravaganza of celebrations of Alumni Meet, a snapshot of musical beats were portrayed. Dhun, a Musical Evening was organized at Dhyan Kaksh to rejuvenate the unplugged night sessions of our alumni.

Gala Dinner

“Fondest memories are made when gathered around table”. After the musical evening, all the alumni were invited to have dinner with dignitaries of university at Eutopia on 17th March 2018. A formal welcome, interactions, various fun games and memento distribution marked the evening at its best. The splendid food and drinks along with heating the dance floor with the beats will be memorable

Alumni Affairs Committee Student Co-ordinators : Parushi Sharma & Nikesh Chauhan
Faculty Coordinators : Saurabh Bansal



HEALTH CLUB

YOGA CAMP

A dynamic beautiful nurturing gathering of people of all ages and abilities who love yoga camping, educational fun week in a wonderful area BBC in JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY. A five day yoga camp was organized in the JUIT from 3rd oct 2017 to 7th oct 2017. The camp was attended by the students, faculty members and staff members of JUIT with great passion. The five days camp focused on the asanas and pranayaam techniques for improvement of physical health, mental concentration and mind and body harmony. The five day yoga camp culminated with celebration of yoga week at JUIT on 3rd oct 2017. On this occasion, the importance and benefits of Yoga were elaborated by the Yoga teachers of AYURVEDA SH. HIRADASS and DR MANJESH SHARMA also emphasized upon the importance of yoga specifically for the students. Dr. HEMA KASHYAP and DR BINDU stressed upon the need of yoga and meditation to keep the body and mind healthy.

INTERACTIVE SESSION ON HEALTHY LIFESTYLE

On 4 October 2017, HEALTH CLUB OF JYC had arranged a Interactive session on 'Healthy Lifestyle' with Dr Tejasvi vijay Azad(District Ayurvedic medical officer), Dr Rajinder Sharma (sub divisional Ayurvedic), Dr Arvid Gupta and Dr Seema Gupta (medical officers) and Dr Hema and Dr Bindu (ayurvedic consultant).Having a productive interaction with the students and faculty before the session about the life style, and their habits in hostels etc was important as it helped to make the session personalized for the group attending it.

UMEED

On 18 November at 7 in OC a painting competition to aware students about cancer. Expressions of a Cancer Journey is a biennial art competition that invites individuals from the JUIT who prepare different art forms painting which is distributed to IGMC, Shimla cancer patients and Safdarjung Delhi cancer patients who was diagnosed with any type of cancer well - to express, through art and narrative, the life-affirming changes that give their cancer journeys meaning. Much of the submitted artwork has traveled across the Safdarjung Delhi exhibitions at hospitals and patient advocacy groups that have inspired thousands of people along the way.

ANTI TOBACCO RALLY AND NUKKAD

On 14 Nov 2017 at 5:30 was an anti-tobacco rally from Vivekananda to temple lawn and in lawn health club and environment club members were performed a nukkad to aware students that tobacco is primary agent to cause CANCER.

BLOOD DONATION CAMP

ON 15 Nov 2017 at 10 Blood Donation Camp was held with collaboration with Leo omega club Blood Donation is service to mankind, By Donating Blood we help a needy and save a precious life. Igmc Shimla and Regional hospital khadhaghat doctors were there to facilitate the blood donation camp.

AWARENESS OF CANCER BY USING NOTICE BOARD

In consecutive 3 weeks different facts and figures in innovative ideas showed on notice boards to aware students and faculties about cancer and to prerequisite precautions to the cancer and any other disease due to our unhealthy lifestyles.

AIDS DAY CELEBRATION

On 1 December 2017 health club had arranged a interactive session on 'major causes of aids 'Dr Arvid Gupta and Dr Seema Gupta (medical officers) and juit dispensary doctors Having a productive interaction with the students and faculty before the session about the AIDS, and their causing agents, precautions etc was important as it helped to make the session personalized for the group attending it.

WORLD HEALTH DAY

On 7th april 2018 health club arranged fun events in open cafeteria like basic quiz related to first aid and health issues.

MURIOUS XII

Technical Talks

The fest started with some interactive talking sessions with some very dynamic personalities Dr.Pramod Shrestha, Dr.J.K Chhabra and Mr. Sandeep Sood Joint director CDAC, Mohali sharing their valuable experiences with the students and introducing them to new opportunities in the field of technology.

Dr.Pramod Shrestha the first mechanical engineer of Nepal accompanied with Col Yogesh Sharma very enthusiastically interacted with all the students .He introduced them to the future of technology shared his experience of working in different spheres of engineering along with fields of management.

Mr. Sanjay Sood, Joint Director, CDAC Mohali

A State awardee with over 20 years' experience in international & national consulting, executive & program management, managing virtual teams + start-ups (divisional and institutional) and training. Worked with country Governments, International Organizations and Multilateral Funding Agencies.

He discussed in detail with students on Telemedicine which is the use of telecommunication and information technology to provide clinical health care from a distance. It has been used to overcome distance barriers and to improve access to medical services that would often not be consistently available in distant rural communities.

Dr. J.K Chhabra Prof NIT Kurukshetra

Former H.O.D of Computer Science Department at NIT Kurukshetra has published more than 120 papers in reputed International & National Conferences & Journals from IEEE, ACM More than 25 papers in SCI Journals and more than 60.

He talked to students about the latest technologies and the future boon that we are to witness in the sphere of technical development.



WORKSHOPS

Internet of Things: On day three Workshop on Artificial Intelligence was conducted very well by CDAC, Mohali institute under the expert guidance of Ms.Harsimranjeet Kaur and her staff. They briefed the Student about what is artificial intelligence various scopes and future in this technology and the how it is going to become a part of our daily routine.



BULLSEYE

One of the top institute which provides coaching in MBA/CAT, GRE, GMAT Mrs.Guneet Kaur councelled the students about the various career options after their graduation. How to prepare for their interviews the current demand of skills in the working sector and how to prepare yourself for appearing in exams like CAT/GMAT/GRE



JUIT YOUTH PARLIAMENT

The JYC Literary Club organized JUIT Youth Parliament on 18th and 19th of November,2017. The event showcased the working of the Parliamentary house LOK SABHA with the agenda "Comprehensive Review on the Policy of Demonetisation". The event included delegates representing various Members of Parliament, Students as members of Press , Photographers and caricaturists. This two-day event saw the participation of students from all the branches irrespective of which year they are studying in. There were participants from various other colleges including St BEDES, Shimla and MCM, Chandigarh.The event was graced by some

experienced Executive Board Members who helped the first timers to blend in with others and improve the already experienced ones. The two days of vigorous debating, discussions and politics finally ended with the ruling party delegates proposing a bill which was scraped out by the opposition, thus bringing the event to an end.

Finally certificates and cash prizes were awarded under the following categories

- Best Delegate
- Honourable mention
- Best Photographer
- Best Editor
- Best Caricaturist
- Special Mentions

LITERARY CLUB COORDINATORS

Mayank Sharma, Saesha Verma

PARAKRAM

Parakram, Sports Festival of JUIT Wagnaghat was organized during 4th-5th November 2017. Parakram is one of the largest sports festivals in Himachal Pradesh with participation from about 35 colleges (unprecedented growth in a very short span of time). With a participation of around 700 students, including the IITs, NITs and other major institutes around the country offering an unparalleled competitive environment. Parakram has emerged as a brand in itself and has seen strong participation, the recent past has deservedly witnessed the apotheosis of PARAKRAM.

PARAKRAM offers a platform for students from all over India to showcase their talent and compete with the best upcoming sport persons in the country in a highly charged and competitive ambience with highly equipped sports facilities. The festival comprises of a plethora of events from Motivational Talks, Fun events and Sport Quizzes to various sports events like Volleyball, Basketball, Badminton, Table Tennis, Handball, Chess and Lan Gaming

Results

JUIT performed brilliantly and secured position as
HANDBALL(BOYS)-GOLD
VOLLEYBALL(GIRLS)-SILVER
BASKETBALL(GIRLS)-SILVER

“Winning isn’t everything, it’s the only thing”

Other teams who won were:

1. VOLLEYBALL

CHITKARA PUNJAB(GIRLS)-GOLD
JUIT (GIRLS)-SILVER
MAU(BOYS)-GOLD
MMU(BOYS)-SILVER

2. **BASKETBALL**

MMU(BOYS)-GOLD
CHITKARA PUNJAB(BOYS)-SILVER
THAPAR UNIVERSITY(GIRLS)-GOLD
JUIT(GIRLS)-SILVER

3. **BADMINTON**

CHITKARA PUNJAB(BOYS)-GOLD
CHITKARA PUNJAB(GIRLS)-GOLD
JIIT(GIRLS)-SILVER

4. **TABLE TENNIS**

CHITKARA PUNJAB(BOYS)-GOLD
CHITKARA PUNJAB(GIRLS)-GOLD

5. **CHESS**

CHITKARA PUNJAB

6. **HANDBALL**

JUIT(BOYS)-GOLD

Closing Ceremony & Prize Distribution ceremony

“There will be always a winner or a team, you should not portray others like losers.”

“Winning or loosing is the part of the game”

The most important part you took the challenge and dared to face such fierce competition.

PARAKRAM'17 was ended with the closing ceremony on 5th November 2017. Prof.(Dr.)Vinod kumar, Prof.(Dr.) Samir Dev Gupta, Maj Gen Rakesh Bassi (retd.) were the Chief Guest of honour. The crowd appreciated the personalities very well and even we were pleased to see their interests for sports and various events. Prizes, medals and trophies were distributed to the Winners in all the Sporting events and the fun events. PARAKRAM was declared closed at 11:30 midnight. The show was FUN and we played the music and audience rocked the dance floor.



MOVIE CLUB

India vs. Australia T20 - 7 Oct, 17: The first match was live streamed in this session.

Lucknow Central - 28 Oct, 17: First entertainment movie for the session 2017-18 attracted quite a large crowd.

India vs. New Zealand T20 - 1 Nov, 17: T20 series between India and New Zealand was live streamed.

India vs. New Zealand T20 - 7 Nov, 17: Second match of the series was live streamed.

Movie Making Workshop - 23&24 Nov, 17: We demonstrated and taught various movie making techniques the methodologies related to video editing and movie making. The workshop was conducted for two days.

Fukrey Returns - 20 Jan, 18: Second entertainment movie presented in the auditorium for the session.

Scribbling Day Condense Semester - 28 Jan, 18: Farewell documentary for the outgoing condensed semester students was compiled and screened

Padman - 26 Feb, 18: Third entertainment movie for the session was screened. This movie attracted quite a number of students as well as the faculty.

India vs. Sri Lanka T20 - 12 Mar, 18: India, Bangladesh and Sri Lanka tri-series match live screened.

India vs. Bangladesh T20 - 14 Mar, 18: India, Bangladesh and Sri Lanka tri-series match live screened.

India vs. Bangladesh T20 - 18 Mar, 18: India, Bangladesh and Sri Lanka tri-series match live screened.

Le-fiestus: Movie Club organized many activities and competitions during Le- Fiestus and which included many fun events for the faculty as well as for the students.

The club decorated the wall with a grand chart and presented it with all efforts. The activities also included tambola competition, JUIT Idol, Dubsmash Chamion etc.

Scribbling Day Final Semester - 11 May, 18: Farewell documentary for the outgoing final year students was compiled and screened.

India vs. Pakistan ODI - 19 Sept, 18: One day International match between India and Pakistan live streamed.



EVENTS AT A GLANCE

JUIT Youth Club(JYC), the official student body of Jaypee University of Information Technology ,conducts various events. 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 5.0

The hidden chefs of JUIT came into action. The air was filled with mouth watering aroma. The JYC Cultural Club organized MASTERCHEF 4.0 (Taste of Home) at the Open Cafe. The event was sponsored by Sunny's Take Away. The event was a great success as a large number of students from all the years participated in teams and presented 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 participants were judged on the basis of taste, innovation and presentation



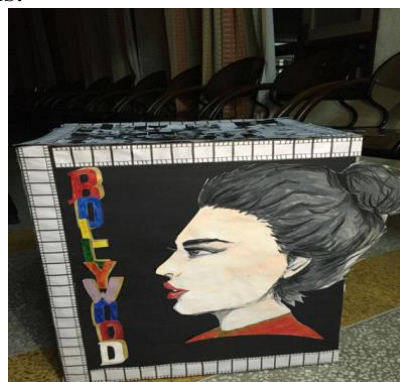
GOONJ

'Goonj' the much awaited event and biggest musical night of the year was held by Arts club and Cultural club in auditorium. The performances was ranged from 'soothing instrumental music to English pop to hard rock to romantic melodies including some band performances .If you have a natural aptitude and appreciation for it, then music simply draws you to it and connects ,Students from different years came together to perform and give a time to the audience that was phenomenal.. 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.



GEETA IN HOUSE-BLACK AND WHITE.

Geeta in house was organised by cultural club.Theme for the event was bollywood.The girls were elevated for the event . Food stalls were displayed in tv lounge by all the JYC clubs . The event was enjoyed by all the girls.



LE-FIESTUS 2K18 : COMICON

Le Fiestus, the annual social and cultural festival of JUIT, Solan presented its 2018 edition from 27th to 29th April 2018. As we evolve to continuously learn and adapt different ideas and thoughts, 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.

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 rap enriched with the myriad of cultural flavors. So come and experience the night of the young talents. The members of the club also performed on medley music.

WAR OF BANDS: It is the fusion of bands to creating a reverberating environment in the serene hills of JUIT.

Nikhil D'SOUZA

Nikhil's genre and musical style can be loosely defined as eclectic acoustic guitar-based pop. His songs have a full melodic quality to them due to his use of alternative tunings (favoured by such artists as Nick Drake and Jeff Buckley). Nikhil's major musical influences are Sting and Jeff Buckley. He was the South Asia Soloist Winner at SUTASI '09. He sang various songs: -HAR KISI KO, ANJANA ANJANI, PARINDA, and many more...

MR. AND MS. LE FIESTUS:

Mr. and Ms. Le Fiestus was organized by cultural club on the third day of the fest. The students participated with great enthusiasm. Adhisree Bansal was awarded as Ms. Le Fiestus 2018 and Soham Ahuja was Mr. Le Fiestus 2018.

THE PUNJABI NIGHT: AKHIL PASREJA

A Punjabi singer who has earned so much name in Punjabi music industry today that any of his songs bring 15 to 20 million views in just one day as soon as it arrives on YouTube. He has achieved a lot of fan following as he comes to the Punjabi music industry and today he is a successful Punjabi. He sang various

songs: -KHAAB, SUPNE, AKH LAGDI and many more.

DJ NIGHT :JULIA BLISS



GOVERNANCE

Governing Council

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

Academic Council

- 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.
- The composition of the Academic Council is listed at Appendix-D

FINANCIAL STATUS

The Audited Balance Sheet is attached as Appendix-E.

TRAINING & PLACEMENT

- 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.
- 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.
- The Placement summary for last year is attached at Appendix-F

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY				
Waknaghat Solan (H.P.)				
Summary (Plinth Area)				
Sl. No.	Particulars	Area (In Sqft)	Area (In Sqm)	Total No. of Floor
1	Institution and administrative area			Phase-1 =6 Floor Phase-2 =7Floor Phase-3 =7Floor Phase-4 =6Floor 2 Floor 5 Floor
	Academic Block	151970.99	14123.70	
	Auditorium & Stage	14251.66	1324.50	
	Animal House Lab	2754.56	256.00	
	Civil Lab	14396.66	1337.98	
	TOTAL	183373.87	17042.18	
2	Faculty housing			
	Faculty Block A Type	19238.51	1787.97	9
	Faculty Block B Type	0	0	
	F01	13250.22	1231.43	8+Mumty
	F02	29119.93	2706.31	8+Mumty
	F03	13246.25	1231.06	8+Mumty
	Faculty Block C Type	0	0	
	C01	11552.33	1073.64	8+Mumty
	C02	11618.23	1079.76	8+Mumty
	C03	10922.13	1015.07	7+Mumty
	Guest House	15360.92	1427.59	4 Floor
	E Type Faculty	11038.46	1025.88	4 Floor
	D Type Faculty	22410.39	2082.75	10 Floor
	TOTAL	157757.37	14661.46	
3	Student housing (HOSTAL)			
	H-1	13009.31	1209.04	8+Mumty
	H-2	12473.38	1159.24	7+Mumty
	H-3	6724.28	624.93	5+Mumty
	H-4	14276.75	1326.84	8+Mumty
	H-5	22794.00	2118.40	12+Mumty
	H-6	12402.10	1152.61	8
	H-7	11235.89	1044.23	7+Mumty
	H-8	9865.34	916.85	6+Mumty
	H-9	9809.99	911.71	6+Mumty
	H-10	9984.01	927.88	6+Mumty
	H-11	14215.70	1321.16	8+Mumty
	Girls Hostel 12A	23571.95	2190.70	10+Mumty
	Girls Hostel 12B	18494.80	1718.85	9+Mumty
	Girls Hostel 12C	20541.28	1909.04	9+Mumty
	Girls Hostel 12D	17733.94	1648.14	9+Mumty
H-14A	9314.86	865.69	9	
H-14B	14015.34	1302.54	8+Mumty	

	H-14C	24250.39	2253.75	11
	H-14D	20008.18	1859.50	10+Mumty
	H-15A	19720.51	1832.76	11
	H-15B	14649.87	1361.51	8+Mumty
	H-15C	18457.16	1715.35	10
	H-15D	16253.46	1510.54	8+Mumty
	Student Lounge	1427.10	132.63	2
	TOTAL	355229.59	33013.89	
4	Dormitory (For supporting staff/Worker)			
	Worker Dormitory-1	17404.73	1617.54	4 Floor
	Worker Dormitory-2 (F Block)	7243.63	673.20	4 Floor
	TOTAL	24648.36	2290.74	
5	Miscellaneous Structures			
	Annapurna	21699.04	2016.64	
	Uploading Bay (Annapurna)	2035.14	189.14	2 Floor
	Telephone Exchange	9827.22	913.31	5 Floor
	ESS	21517.40	1999.76	5 Floor
	Plant Room / Green Room	6364.13	591.46	1 Floor
	Mandir	3030.61	281.66	1 Floor
	Dispensary	2711.12	251.96	3 Floor
	S.T.P	995.85	92.55	1 Floor
	Store	3512.40	326.43	1 Floor
	Laundry	2083.45	193.63	1 Floor
	TOTAL	73776.36	6856.54	
	G Total	794785.55	73864.81	

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

APPENDIX 'B'**DETAILS OF TEACHING STAFF**

S. No.	Name	Designation	Dept.	Qualifications
1	Prof. Vinod Kumar	Vice Chancellor	-	Ph.D.
2	Dr. Samir Dev Gupta	Director & Academic Head & Dean (A&R)	-	Ph.D.
3	Sunil Vidya Bhooshan	Professor & HOD	ECE	Ph.D.
4	Ghanshyam Singh	Professor	ECE	Ph.D.
5	Rajiv Kumar	Associate Professor	ECE	Ph.D.
6	Shruti Jain	Associate Professor	ECE	Ph.D.
7	Neeru Sharma	Assistant Professor (SG)	ECE	Ph.D.
8	Meenakshi Sood	Assistant Professor (SG)	ECE	Ph.D.
9	Shweta Pandit	Assistant Professor (SG)	ECE	Ph.D.
10	Sunil Datt Sharma	Assistant Professor (SG)	ECE	Ph.D.
11	Nafis uddin khan	Assistant Professor (SG)	ECE	Ph.D.
12	Ashwani Sharma	Assistant Professor (SG)	ECE	Ph.D.
13	Harsh Sohal	Assistant Professor (SG)	ECE	Ph.D.
14	Emjee Puthooran	Assistant Professor (SG)	ECE	Ph.D.
15	Vikas Baghel	Assistant Professor (SG)	ECE	Ph.D.
16	Pragya Gupta	Assistant Professor (GR-II)	ECE	M. Tech
17	Salman Raju Talluri	Assistant Professor (GR-II)	ECE	Ph.D.
18	Pardeep Garg	Assistant Professor (GR-II)	ECE	M. Tech
19	Alok Kumar	Assistant Professor (GR-II)	ECE	M. Tech
20	Naveen Jaglan	Assistant Professor (GR-II)	ECE	M. Tech
21	Munish Sood	Assistant Professor (GR-II)	ECE	M. Tech
22	Nishant Jain	Assistant Professor (GR-II)	ECE	M. Tech
23	Mohit Garg	Assistant Professor (GR-I)	ECE	M. Tech
24	Ajay Kumar Agrawal	Assistant Professor (GR-I)	ECE	M. Tech
25	Brig. S.P. Ghrera (Retd.)	Professor & HOD	CSE/IT	Ph.D.
26	Vivek Sehgal	Associate Professor	CSE/IT	Ph.D.
27	Hemraj Saini	Associate Professor	CSE/IT	Ph.D.
28	Pardeep	Assistant Professor (SG)	CSE/IT	Ph.D.
29	Pradeep Kumar Gupta	Assistant Professor (SG)	CSE/IT	Ph.D.
30	Rajni Mohna	Assistant Professor (SG)	CSE/IT	Ph.D.

31	Pradeep Kumar Singh	Assistant Professor (SG)	CSE/IT	Ph.D.
32	Ravindara Bhatt	Assistant Professor (SG)	CSE/IT	Ph.D.
33	Amit Kumar Singh	Assistant Professor (SG)	CSE/IT	Ph.D.
34	Shailendra Shukla	Assistant Professor (SG)	CSE/IT	Ph.D.
35	Yugal Kumar	Assistant Professor (SG)	CSE/IT	Ph.D.
36	Suman Saha	Assistant Professor (SG)	CSE/IT	Ph.D.
37	Punit Gupta	Assistant Professor (SG)	CSE/IT	Ph.D.
38	Ekta Gandotra	Assistant Professor (SG)	CSE/IT	Ph.D.
39	Rajinder Sandhu	Assistant Professor (SG)	CSE/IT	Ph.D.
40	Arvind Kumar	Assistant Professor (GR-II)	CSE/IT	M. Tech
41	Amol Vasudeva	Assistant Professor (GR-II)	CSE/IT	M. Tech
42	Ramanpreet Kaur	Assistant Professor (GR-II)	CSE/IT	M. Tech
43	Puneet Kumar Jain	Assistant Professor (GR-II)	CSE/IT	M. Tech
44	Geetanjali	Assistant Professor (GR-II)	CSE/IT	M. Tech
45	Amit Kumar	Assistant Professor (GR-II)	CSE/IT	M. Tech
46	Rizwan Ur Rehman	Assistant Professor (GR-II)	CSE/IT	M. Tech
47	Nitin Kumar	Assistant Professor (GR-II)	CSE/IT	M. Tech
48	Soumendu Chakraborty	Assistant Professor (GR-II)	CSE/IT	M. Tech
49	Ruchi Verma	Assistant Professor (GR-I)	CSE/IT	Ph.D.
50	Ruhi Mahajan	Assistant Professor (GR-I)	CSE/IT	M. Tech
51	Yashdeep Singh	Assistant Professor (GR-I)	CSE/IT	M. Tech
52	Sudhir Syal	Associate Professor & Acting HOD	BI/BT	Ph.D.
53	Chittranjan Rout	Associate Professor	BI/BT	Ph.D.
54	Harish Changotra	Associate Professor	BI/BT	Ph.D.
55	Gunjan Goel	Associate Professor	BI/BT	Ph.D.
56	Jata Shankar	Assistant Professor (SG)	BI/BT	Ph.D.
57	Anil Kant	Assistant Professor (SG)	BI/BT	Ph.D.
58	Rahul Shrivastava	Assistant Professor (SG)	BI/BT	Ph.D.
59	Tiratha Raj Singh	Assistant Professor (SG)	BI/BT	Ph.D.
60	Hemant Sood	Assistant Professor (SG)	BI/BT	Ph.D.
61	Poonam Sharma	Assistant Professor (SG)	BI/BT	Ph.D.
62	Jayashree Ramana	Assistant Professor (SG)	BI/BT	Ph.D.
63	Jitendraa Vashist	Assistant Professor (SG)	BI/BT	Ph.D.
64	Garlapati Vijay Kumar	Assistant Professor (SG)	BI/BT	Ph.D.
65	Y.M. Ragothaman	Assistant Professor (GR-II)	BI/BT	Ph.D.
66	Saurabh Bansal	Assistant Professor (GR-II)	BI/BT	Ph.D.

67	Narendra Kumar	Assistant Professor (GR-II)	BI/BT	Ph.D.
68	Ashok Kumar	Assistant Professor (GR-II)	BI/BT	Ph.D.
69	Abhishek Chaudhary	Assistant Professor (GR-I)	BI/BT	Ph.D.
70	Gopal Singh Bisht	Assistant Professor (SG)	PHR	Ph.D.
71	Uday Banu M	Assistant Professor (SG)	PHR	Ph.D.
72	Ashok K. Gupta	Professor & HOD	CE	Ph.D.
73	V. S. Gali	Professor	CE	Ph.D.
74	Rajiv Ganguly	Associate Professor	CE	Ph.D.
75	Ashish Kumar	Associate Professor	CE	Ph.D.
76	Gyani Jail Singh	Assistant Professor (SG)	CE	Ph.D.
77	Chandrapal Gautam	Assistant Professor (GR-II)	CE	M. Tech
78	Abhilash Shukla	Assistant Professor (GR-II)	CE	M. Tech
79	Saurabh Rawat	Assistant Professor (GR-II)	CE	M. Tech
80	Saurav	Assistant Professor (GR-II)	CE	M. Tech
81	Niraj Singh Parihar	Assistant Professor (GR-II)	CE	M. Tech
82	Kaushal Kumar	Assistant Professor (GR-II)	CE	M. Tech
83	Anil Kumar	Assistant Professor (GR-II)	CE	M. Tech
84	Poonam	Assistant Professor (GR-II)	CE	M. Tech
85	Amardeep	Assistant Professor (GR-II)	CE	Ph.D.
86	Bibhas Paul	Assistant Professor (GR-I)	CE	M. Tech
87	Aakash Gupta	Assistant Professor (GR-I)	CE	M. Tech
88	Anirban Dhulia	Assistant Professor (GR-I)	CE	M. Tech
89	P.B. Barman	Professor & HOD	PMS	Ph.D.
90	Sunil K. Khah	Professor & CoE	PMS	Ph.D.
91	Vineet Sharma	Associate Professor	PMS	Ph.D.
92	Pankaj Sharma	Assistant Professor (SG)	PMS	Ph.D.
93	Dheeraj Sharma	Assistant Professor (SG)	PMS	Ph.D.
94	Rajesh Kumar	Assistant Professor (SG)	PMS	Ph.D.
95	S.K.Hazra	Assistant Professor (SG)	PMS	Ph.D.
96	Ragni Raj Singh	Assistant Professor (SG)	PMS	Ph.D.
97	Sanjiv Kumar Tiwari	Assistant Professor (GR-II)	PMS	Ph.D.
98	Karanjeet Singh	Professor & HOD	MA	Ph.D.
99	R S Raja Durai	Associate Professor	MA	Ph.D.
100	R K Bajaj	Associate Professor	MA	Ph.D.
101	Neelkanth	Assistant Professor (SG)	MA	Ph.D.
102	Pradeep K Pandey	Assistant Professor (SG)	MA	Ph.D.

103	Saurabh Srivastava	Assistant Professor (GR-II)	MA	Ph.D.
104	Mandeep Singh	Assistant Professor (GR-I)	MA	Ph.D.
105	Anupriya Kaur	Associate Professor & HOD	HSS	Ph.D.
106	Amit Srivastava	Associate Professor	HSS	Ph.D.
107	Tanu Sharma	Assistant Professor (SG)	HSS	Ph.D.
108	Triambica Gautam	Assistant Professor (GR-II)	HSS	MBA, UGC Net
109	Papiya Lahiri	Assistant Professor (GR-II)	HSS	Ph.D.
110	Neena Jindal	Assistant Professor (GR-I)	HSS	Ph.D.
111	Sakshi Khanna	Assistant Professor (GR-I)	HSS	Ph.D.

UNIVERSITY RESULTS OF PAST FOUR YEARS

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

RESULT OF THE BATCH 2011-2015

<u>Branch</u>	<u>No. of Students</u>	<u>No. of students Passed</u>	<u>Pass Percentage</u>
<u>B. TECH.</u>			
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) BIOTECHNOLOGY

BT	22	22	100%
<u>B.PHARM</u>	03	02	67%
<u>M. PHARMA</u>	28	28	100%
<u>M.TECH</u>			
ECE	14	14	100%
CSE	22	22	100%
Structural Enggineering	12	12	100%
Biotechnology	08	08	100%

RESULT OF THE BATCH 2012-2016

<u>Branch</u>	<u>No. of Students</u>	<u>No. of students Passed</u>	<u>Pass Percentage</u>
<u>B. TECH.</u>			
ECE	114	112	98%
CSE	130	128	98.4%
IT	21	21	100%
BI	19	19	100%
BT	24	24	100%

CE	97	95	98%
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DUAL DEGREE (B.TECH-M.TECH) BIOTECHNOLOGY

BT	16	16	100%
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M.TECH

ECE	10	10	100%
CSE	10	10	100%
Structural Enggineering	17	17	100%
Biotechnology	06	06	100%
Construction Management	09	09	100%
Environmental Engineering	09	08	88%

RESULT OF THE BATCH 2013-2017

<u>Branch</u>	<u>No. of Students</u>	<u>No. of students Passed</u>	<u>Pass Percentage</u>
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B. TECH.

ECE	98	96	98%
CSE	127	121	95%
IT	21	20	95%
BI	25	22	88%
BT	30	28	93%
CE	115	108	94%

DUAL DEGREE (B.TECH-M.TECH) BIOTECHNOLOGY

BT	9	9	100%
ECE	1	1	100%
CSE	3	3	100%

M.TECH

ECE	16	15	93%
CSE	16	16	100%
Structural Enggineering	14	14	100%
Biotechnology	04	04	100%
Construction Management	14	14	100%
Environmental Engineering	11	9	81%

RESULT OF THE BATCH 2014-2018

<u>Branch</u>	<u>No. of Students</u>	<u>No. of students Passed</u>	<u>Pass Percentage</u>
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B. TECH.

ECE	91	82	89%
CSE	164	162	99%
IT	46	45	99%
BI	13	12	92%
BT	46	28	93%
CE	92	85	92%

DUAL DEGREE (B.TECH-M.TECH) BIOTECHNOLOGY

BT	11	11	100%
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M.TECH

ECE	07	07	100%
CSE	05	05	100%
Structural Engineering	14	14	100%
Biotechnology Construction	06	06	100%
Management	12	12	100%
Environmental Engineering	07	07	100%

GOVERNING COUNCIL**1. Pro-Chancellor**

Shri Manoj Gaur Chairman
Executive Chairman
Jaiprakash Associates Ltd.

2. Two Members of Trust nominated by the Pro-Chancellor

i) Shri Sunil Sharma Member
Executive Vice Chairman
Jaiprakash Associates Ltd.

ii) Shri Sunny Gaur Member
Managing Director (Cement)
Jaiprakash Associates Ltd.

3. Two Representatives of the Collaborating Universities

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

2. Prof. Sartaj Sahni Member
Distinguished Professor
University of Florida at Gainesville, USA

4. Three Distinguished Academicians/Professionals nominated by the Chancellor in consultation with the Pro-Chancellor

a) Prof. Onkar Singh Member
Vice Chancellor
MMM University of Technology, Gorakhpur

ii) Prof. P.K. Jain
Director
IIITDM, Jabalpur

3. Prof. Manoj Arora Member
Vice-Chancellor/Director
PEC Technical University, Chandigarh

5. Two Experts Representing other Disciplines such as Finance, Law and Management nominated by the Pro-Chancellor

i) Sh. S.S. Mittal Member
Advocate, Shimla

- ii) Sh. Pankaj Gaur
Jt. Managing Director (Construction)
Jaiprakash Associates Ltd. Member
- 2. Vice Chancellor of the University**
Prof. Vinod Kumar Member
- 3. One Head of Another Institute/Laboratory of the Trust**
Prof. S.C. Saxena
Vice Chancellor
JIIT, Noida
- 4. Two Deans of the University by Rotation**
- i) Prof. Samir Dev Gupta Member
- ii) Vacant Member
- 5. Three Secretaries of Government of Himachal Pradesh**
- i) Secretary (IT), Govt. of HP Member
- i) Secretary (Education), Govt. of HP Member
- ii) Secretary (Technical Education), Govt. of HP Member
- 6. Three Representatives of the Industr Nominated by the Pro-Chancellor**
- i) Sh. Alok Gaur
Head, HR Department
Jaiprakash Associates Ltd.
- ii) Sh. C.S. Verma
Former Chairman
Steel Authority of India
(4086, Pocket C4, Vasant Cillas, Vasant Kunj,
New Delhi – 110070)
- iii) Sh. B. Prasada Rao
Former Chairman & Managing Director, BHEL
699, Mahavir Prasad Block
Asian Games Village Complex
New Delhi - 110049
- 7. Non-Member Secretary**
Maj Gen Rakesh Bassi, SM (Retd)
Registrar & Dean of Students

EXECUTIVE COUNCIL

- 1. The Vice Chancellor of the University** **Chairman**

Prof. (Dr.) Vinod Kumar

- 2. Two Members of Governing Council nominated by the Pro-Chancellor**

i) Sh. Sunil Sharma
Executive Vice Chairman
Jaiprakash Associates Ltd.

ii) Sh. S.S. Mittal
Advocate
Shimla

- 3. One Dean of the University**

Prof. Samir Dev Gupta
Dean (Academic & Research)

- 4. One Academician of repute nominated by the Pro-Chancellor**

Prof. S.C. Saxena
Vice Chancellor
Jaypee Institute of Information Technology (JIIT)
Noida

- 5. Non- Member Secretary**

Maj Gen Rakesh Bassi, SM (Retd)
Registrar & Dean of Students

FINANCE COMMITTEE

1. **The Vice Chancellor of the University** **Chairman**
Prof. (Dr.) Vinod Kumar
2. **One Nominee of the Pro-Chancellor**
Sh. Sunil Sharma
Executive Vice chairman
Jaiprakash Associates Ltd
3. **One Nominee of the Governing Council**
Maj Gen Rakesh Bassi, SM (Retd)
Registrar & Dean of Students
4. **One Dean (by rotation) on the basis of Seniority**
Prof. Samir Dev Gupta
Dean (Academic & Research)
5. **The Finance Officer of the University shall be Non-Member Secretary**
Sh. Hemant Vyas
Finance Officer

BOARD OF STUDIES

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

ACADEMIC COUNCIL OF THE UNIVERSITY

1. The Vice Chancellor of the University - Chairman

Prof. (Dr.) Vinod Kumar

2. Two Professors other than Heads of Departments by Rotation and by Seniority

- i) Prof.(Dr.) Sunil Kumar Khah – Physics & Material Science
- ii) Prof. (Dr.) Veeresh Gali – Civil

3. Two Distinguished Academicians to be nominated by Pro- Chancellor

- i) Prof. Manoj Arora,
Vice Chancellor
PEC University, Chandigarh
- ii) Prof. Padam Kumar,
Dean (R&D)
Jaypee Institute of Information Technology (JIIT), Noida

4. Two Industry Professionals to be nominated by the Pro-Chancellor

- i) Sh. Sunil Sharma
Executive Vice Chairman
Jaiprakash Associates Ltd.
- ii) Sh. Vinod Sharma
Executive President
Jaiprakash Associates Ltd.

5. One Member from amongst the Heads of other Institution of the Trust

Prof. S.C. Saxena
Vice Chancellor
Jaypee Institute of Information Technology (JIIT), Noida

6. The Deans of all Faculty of the University

- i) Prof. Samir Dev Gupta
Dean (Academic & Research)
- ii) Vacant

7. Heads of the Departments/Centres of the University

- i) Prof. (Dr.) M.J. Nigam, HOD-ECE
- ii) Prof. (Dr.) Karanjeet Singh, HOD, Mathematics

- iii) Prof. (Dr.) P.B. Barman, HOD, Physics & Material Science
- iv) Prof. (Dr.) Sudhir Kumar, HOD, BT & BI
- v) Prof. (Dr.) Brig. S.P. Gherera (Retd.), HOD, CSE & IT
- vi) Prof. (Dr.) Ashok Kumar Gupta, HOD, Civil

Non-Member Secretary

Maj Gen Rakesh Bassi, SM (Retd)
Registrar & Dean of Students

BALANCE SHEET FOR
THE
FINANCIAL YEAR 2017-18

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 **31/03/2018** 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 **31/03/2018** and

(ii) in the case of the profit and loss account, of the profit or loss of its accounting year ending on **31/03/2018**

The prescribed particulars are annexed hereto.

Place **NEW DELHI**

Date **13/10/2018**

Name

ASHOK KUMAR JAIN

Membership Number

090563

FRN (Firm Registration Number)

0000112N

Address

**Delhi Gulmohar Park B-4, NEW
DELHI DELHI 110049 INDIA**

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 (₹)		441699595
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. (₹)	Yes	77556402
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 (₹)	Not Applicable	
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	No	

	it was to be accumulated or set apart, or in the year immediately following the expiry thereof? If so, the details thereof	
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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 **NEW DELHI**
Date **13/10/2018**

Name **ASHOK KUMAR JAIN**
Membership Number **090563**
FRN (Firm Registration Number) **0000112N**
Address **Delhi Gulmohar Park B-4, NEW DELHI DELHI 110049 INDIA**

Form Filing Details	
Revision/Original	Original

FORM NO. 10BB

[See rule 16CC]

Audit report under section 10(23C) of the Income-tax Act, 1961, in the case of any fund or trust or institution or any university or other educational institution or any hospital or other medical institution referred to in sub-clause (iv) or sub-clause (v) or sub-clause (vi) or sub-clause (via) of section 10(23C).

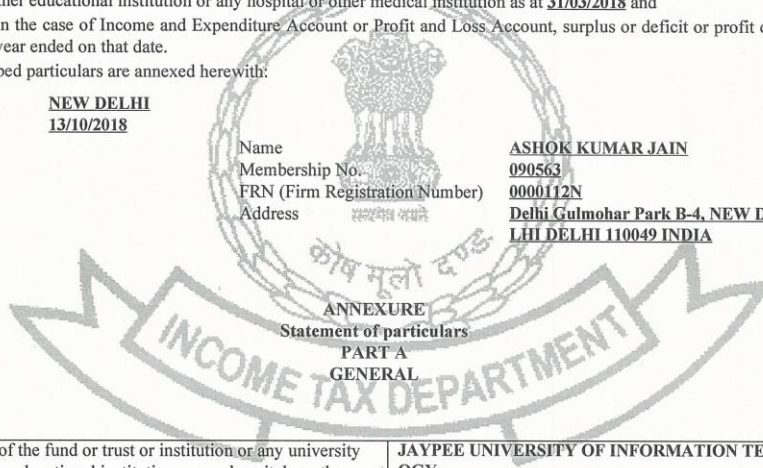
- (i) We have examined the Balance Sheet as at 31/03/2018 and the Income and Expenditure or Profit and Loss Account for the year ended on that date attached herewith of **JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY , AAATJ4059Q** (name and PAN of fund or trust or institution or any university or other educational institution or any hospital or other medical institution).
- (ii) We certify that the Balance Sheet and the Income and Expenditure Account or Profit and Loss Account are in agreement with the books of account maintained by the head office at **HIMACHAL PRADESH** and branches.
- (iii) Subject to comments below
- (a) We have obtained all the information and explanations which to the best of our knowledge and belief were necessary for the purpose of the audit.
- (b) In our opinion, proper books of account have been kept by the head office and branches of the above-named fund, or trust, or institution or any university or other educational institution or any hospital or other medical institution so far as appears from our examination of the books of account.
- (c) In our opinion and to the best of our information and according to the information given to us, the said accounts read with notes thereon, if any, give a true and fair view -
- (1) In the case of the Balance Sheet, of the state of affairs of the above-named fund, or trust, or institution or any university or other educational institution or any hospital or other medical institution as at 31/03/2018 and
- (2) In the case of Income and Expenditure Account or Profit and Loss Account, surplus or deficit or profit or loss for the year ended on that date.

The prescribed particulars are annexed herewith:

Place **NEW DELHI**
Date **13/10/2018**

Name **ASHOK KUMAR JAIN**
Membership No. **090563**
FRN (Firm Registration Number) **0000112N**
Address **Delhi Gulmohar Park B-4, NEW DELHI DELHI 110049 INDIA**

Comments



1.	Name of the fund or trust or institution or any university or other educational institution or any hospital or other medical institution.	JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY
2.	Address	
	Flat/ Door/ Block No.	JUIT
	Name of premises/ Building/ Village	
	Road/ Street /Post Office	
	Area/ Locality	Waknaghat, Solan
	Town/ City / District	Himachal Pradesh
	State	HIMACHAL PRADESH
	Pin Code	173234
3.	Permanent Account Number	AAATJ4059Q
4.	Assessment Year	2018 - 19
5.	Sub-clause of section 10(23C) under which the fund or trust or institution or any university or other educational institution or any hospital or other medical institution is seeking exemption.	(vi)
6.	Number and date of notification/approval of the fund or trust or institution or any university or other educational institution or any hospital or other medical institution.	
	Number of notification /approval	Date of notification/approval
	CCIT/HP/10(23C)03/2008-09	2009-09-18

PART B -

APPLICATION OF INCOME FOR CHARITABLE OR RELIGIOUS OR EDUCATIONAL OR PHILANTHROPIC PURPOSES

7.	Nature of charitable/ religious/ educational/ philanthropic activity [as referred to in sub-clauses (iv),(v),(vi) or (via) of section 10(23C)]	State Private University functioning for the promotion and furtherance of education in the state of Himachal Pradesh
8.	Total income of the previous year of the fund or trust or institution or any university or other educational institution or any hospital or other medical institution (₹)	519255997
9.	Amount of income of the previous year applied during the year wholly and exclusively to the objects for which it is established (₹)	441699595
10.	Amount of income of the previous year accumulated for application, wholly and exclusively, to the objects for which it is established, to the extent it does not exceed 15% of income of that year. (₹)	77556402
11.	Amount of income, exceeding 15% of income of the year, accumulated in accordance with clause (a) of the third proviso to section 10(23C). (₹)	0
12.	(a) Whether, during the previous year, any part of the income, not exceeding 15% of income accumulated in any earlier year, was applied for purposes other than to the objects for which it is established or has ceased to be accumulated for application thereto?	No
	(b) If the answer to (a) above is 'yes', then give details of income so applied or ceased to be so accumulated	
13.	(a) Whether, during the previous year, any part of the income of any earlier year exceeding 15% of the income, that was accumulated in accordance with clause (a) of the third proviso to section 10(23C) in that year, was applied for purposes other than to the objects for which it is established or has ceased to be accumulated for application thereto?	No
	(b) If the answer to (a) above is 'yes', then give details of income so applied or ceased to be so accumulated	
14.	(a) Whether, during the previous year, any part of the income of any earlier year exceeding 15% of the income, that was accumulated in accordance with clause (a) of the third proviso to section 10(23C) in that year, was not utilised for purposes for which it was accumulated during the period for which it was to be accumulated?	No
	(b) If the answer to (a) above is 'yes', then give details thereof, together with amount of income not so utilised.	

**PART C -
OTHER INFORMATION**

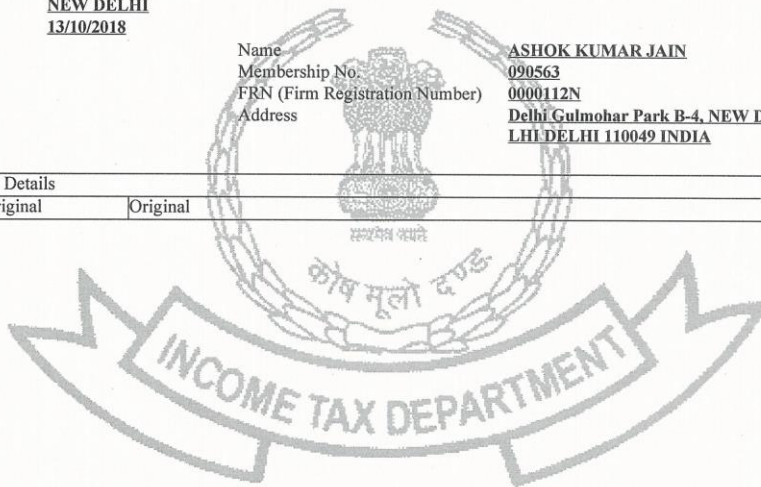
15.	(a) Whether any funds, other than the assets or voluntary contributions referred to in clause (b) of the third proviso to section 10(23C), were invested or deposited for any period during the previous year, otherwise than in the forms and modes specified in sub-section (5) of section 11.	No
	(b)	
16.	In relation to any income being profits and gains of business, -	
	(a) whether the business was incidental to the attainment of the objectives of the fund or trust or institution or university or other educational institution or hospital or other medical institution?	Not Applicable
	(b) whether separate books of account were maintained in respect of such business?	Not Applicable
	(c) if the answer to (a) and/or (b) above is 'no', then state the amount of such income. (₹)	
17.	(a) whether during the previous year, any part of the accumulated income was paid or credited to any trust or institution registered under section 12AA or to any fund or trust or institution or any university or other educational institution or any hospital or other medical institution referred to in sub-clause (iv) or sub-clause	No

	(v) or sub-clause (vi) or sub-clause (via) of clause (23C) of section 10?	
	(b) if the answer to (a) above is 'yes', then give details thereof, together with the amount of income so paid or credited.	
18	(a) Whether any voluntary contribution, other than voluntary contribution in cash or voluntary contribution of the nature referred to in clause (b) of the third proviso to section 10(23C), was held during the previous year, otherwise than in any of the forms or modes specified in sub-section (5) of section 11, after the expiry of one year from the end of the previous year in which such voluntary contribution was received?	No
	(b) if the answer to (a) above is 'yes', then give details thereof, including the amount of such voluntary contribution.	
19	(a) whether any anonymous donation referred to in section 115 BBC was received during the year? (See notes 2 & 3)	No
	(b) if the answer to (a) above is 'yes', then state the amount of such anonymous donation. (₹)	

Place **NEW DELHI**
Date **13/10/2018**

Name **ASHOK KUMAR JAIN**
Membership No. **090563**
FRN (Firm Registration Number) **0000112N**
Address **Delhi Gulmohar Park B-4, NEW DE
LHI DELHI 110049 INDIA**

Form Filing Details	
Revision/Original	Original



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

Balance Sheet as on 31.03.2018

Amount (₹) 31.03.2017	LIABILITIES	Amount (₹) 31.03.2018	ASSETS	Amount (₹) 31.03.2018
50,000,000	CORPUS FUND	50,000,000	FIXED ASSETS	601,298,341
10,155,000	For University	10,155,000	Opening Balance	577,654,770
60,155,000	For Research Promotion (UBSK)	60,155,000	Addition during the year	23,643,571
			Disposed off during the current period	-
103,866,817	GENERAL FUND	208,729,339	Less : up to date Depreciation	655,163,546
104,862,522	Opening Balance	67,567,407	Gross Block	429,765,968
	Add - Surplus brought from Income & Expenditure A/C	67,567,407	Net Block	225,407,578
208,729,339		276,296,746		
13,532,088	RESEARCH PROJECTS FUND	4,431,339	CAPITAL WORK IN PROGRESS	-
8,914,614	Opening Balance	14,731,978	CURRENT ASSETS, LOANS & ADVANCES	313,586,536
(17,957,856)	Add : Received during the year	(12,155,950)	Cash & Bank Balance	289,286,693
(67,507)	Less : Expenses during the year	(475,610)	Advances and Receivables in Cash or in Kind	27,773,275
4,431,339	Less : Refund during the year	6,531,757		
100,408,449	SECURED LOAN	96,231,892	Prepaid Expenses	2,949,720
	Term Loan Yes Bank Ltd.-Noida (Refer Note - 4)		Security Deposits	2,195,186
48,205,561	CURRENT LIABILITIES & PROVISIONS	56,852,101	Stock-in-Hand	9,109,688
114,844,280	Sundry Creditors	108,608,220		
	Other Liabilities		Total Assets	622,663,877
18,281,325	CAUTION MONEY	18,801,430		
4,469,950	Opening Balance	3,920,000		
(3,949,845)	Add : Received during the year	(4,733,269)		
	Less : Refund during the year			
	(Due for payment during next one year Rs. 43,31,000/-)			
18,801,430		17,988,161		
555,575,398	Total Liabilities	622,663,877		



REGISTRAR,
Jaypee University of Information Technology,
Waknaghat, Distt. Solan (H.P.)
MAJ GEN RAKESH BASSI, SM (RETD)
REGISTRAR



For: DASS GUPTA & ASSOCIATES
CHARTERED ACCOUNTANTS
REG. NO.: 000775
PARTNER
(ASHOK KUMAR)
MEMBERSHIP NO.: 000775
PLACE:- New Delhi
DATE : 13.10.2018

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

**Jaypee University of Information Technology
Waknaghat, Distt. Solan, H.P.
Income & Expenditure Account for the year ended on 31.03.2018**

Amount (₹) 31.03.2017	EXPENDITURE	Amount (₹) 31.03.2018	INCOME	Amount (₹) 31.03.2018
79,166,635	Institutional Expenses	SCH. "J" 84,268,914	Collection from Students	SCH. "M" 499,404,110
186,076,596	Salary & Allowances	SCH. "K" 201,960,453	Interest received on FDs	SCH. "N" 17,587,609
108,601,965	Students Hostel Expenses	SCH. "L" 126,368,659	Other Income	SCH. "O" 2,264,278
31,584,392	Depreciation	SCH. "A" 39,090,564		
405,429,588	Total Expenditure	451,688,590		
104,862,522	Surplus Transferred to General Fund A/C.	67,567,407		
510,292,110	TOTAL	519,255,997	TOTAL	519,255,997

Significant Accounting policies and notes on accounts as per Schedule 'P' forming part of Income & Expenditure Account.
As per our report of even date attached

For DASS GUPTA & ASSOCIATES
CHARTERED ACCOUNTANTS
REG. NO. 009112N
(ASHOK KUMAR JAIN)
PARTNER
MEMBERSHIP NO.: 09705634V

PLACE:- New Delhi
DATE : 13.10.2018

Vice Chancellor
(VINOD KUMAR)
VICE CHANCELLOR

Registrar

REGISTRAR,
Jaypee University of Information Technology
Waknaghat, Distt. Solan (H.P.)
MAJ GEN RAKESH BASSI, SM (RETD)
REGISTRAR

(HEMANT VYAS)
FINANCE OFFICER

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY
FINANCIAL YEAR 2017-18
Details of Fixed Assets as on 31.03.2018

SCHEDULE : "A"

Block of Assets	Rate of Dep.	Op. Balance as on 01.04.2017	GROSS BLOCK			DEPRECIATION			NET BLOCK		
			180 Days or more	Addition during the year	Disposed off during the year	As on 31.03.2018	For the Year	Up to 31.03.2018	As on 31.03.2017	As on 31.03.2018	
Classification of Assets											
Buildings	10%	132,828,156		2,430,338		135,358,494	48,712,856	8,543,047	57,255,903	84,215,300	78,102,597
Library Books	15%	64,702,140	138,283	1,575,741		66,416,164	45,144,086	3,072,631	48,216,717	19,558,054	18,199,447
Electronic Lab Equipments	15%	18,959,804	753,716			19,713,520	13,415,106	944,762	14,359,868	5,544,698	5,353,652
Bio Informatics Lab Equipments	15%	26,755,495	507,640	108,371		27,371,506	18,887,881	1,284,416	20,152,297	7,867,614	7,219,209
Physica Lab Equipments	15%	10,579,169	613,169			11,192,338	7,494,240	554,715	8,048,955	3,084,929	3,143,383
Computer Lab Equipments	40%	102,787,590	13,384,289	1,579,384		117,731,253	95,278,343	8,585,287	104,083,630	7,309,237	13,667,623
Imported Bio Lab Equipments	15%	22,031,080				22,031,080	17,257,162	716,068	17,973,250	4,773,918	4,057,830
Imported Electronic Lab Equipments	15%	3,358,810				3,358,810	3,045,277	47,030	3,092,307	313,533	286,593
Imported Computer Lab Equipments	40%	737,191				737,191	737,187	- 2	737,189	4	2
Imported Office Equipments	15%	87,905				87,905	70,569	2,596	73,195	17,306	14,710
Civil Lab Equipments	15%	11,020,067	687,940			11,708,007	6,456,198	736,182	7,192,340	4,563,909	4,515,667
Software-Computer	40%	3,064,905	135,464			3,200,369	3,059,247	29,356	3,088,603	5,658	111,766
Software -Math	40%	324,350				324,350	249,225	30,050	279,275	75,125	45,075
Software-Civil	40%	2,264,478				2,264,478	1,409,617	341,944	1,751,561	854,861	512,917
Software -Language Lab	40%	1,137,938				1,137,938	569,186	227,501	796,687	568,752	341,251
Software -Biotech Lab	40%	1,944,888				1,944,888	1,005,788	375,640	1,381,428	939,100	663,469
Software -Electronics Lab	40%	2,600,674				2,600,674	1,589,306	404,547	1,993,653	1,011,368	606,874
Software -Library	40%	273,000				273,000	176,216	38,714	214,930	96,784	58,070
Software -Physics Lab	40%	435,123				435,123	235,489	79,654	315,343	199,634	119,780
Software -PD Lab	40%	466,390				466,390	93,243	149,259	242,502	373,147	223,888
Office Equipments	15%	14,754,057	2,312,115	879,363		17,945,535	8,644,535	1,329,198	9,973,733	6,109,522	7,977,802
Miscellaneous Assets	15%	4,550,387	184,179	10,600		4,745,066	3,235,856	225,594	3,461,450	1,314,531	1,283,616
Gymnasium Equipments	15%	3,014,655				3,014,655	1,757,210	188,617	1,945,827	1,257,445	1,068,828
Furniture & Fixtures	10%	57,984,851	1,328,801	185,382		59,479,034	32,536,399	2,694,994	35,221,393	25,428,452	24,257,641
Vehicles	15%	11,271,384		9,385,239		20,656,623	8,961,446	1,050,385	10,011,831	REGISTRAR, 2309948 Jaypee University of Information Technology Waknailat, Distt. Sonbhat (U.P.)	10,644,802
Imported Kitchen Equipments	15%	278,308				278,308	213,847	9,669	223,516	4,171,048	3,775,856
Kitchen Equipments	15%	5,976,324	872,782	1,095,798		7,946,904	3,601,408	569,640	4,171,048	2,376,916	2,289,336
Plant & Machinery	15%	51,579,554	15,337,099	249,216		67,165,869	40,266,287	4,016,246	44,282,533	11,313,267	22,883,336
Electrical Equipments	15%	8,307,199		130,396		8,437,595	6,172,772	329,944	6,502,716	2,134,427	1,934,879
Mechanical Lab Equipments	15%	2,137,255				2,137,255	1,840,611	134,497	1,975,108	896,644	762,147
Research Equipments	15%	34,403,214				34,403,214	18,348,822	2,408,159	20,756,981	16,054,392	13,646,253
GROSS TOTAL		601,239,341	35,412,073	18,453,132		655,104,546	390,665,405	39,090,564	428,755,968	210,632,936	225,407,578
PREVIOUS YEAR		577,654,770	1,421,969	22,221,602		601,298,341	359,081,013	31,584,392	390,665,405	218,873,757	210,632,936



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Information Technology



JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY
FINANCIAL YEAR 2017-18
Capital Work in Progress

SCHEDULE - "B"

Amount (₹)

Particulars	Opening Balance as on 01.04.2017	Addition during the Year	Capitalized during the Year	Expensed Out during the Year	Closing Balance as on 31.03.2018
Capital Goods In Store	13,627,900	-	13,627,900	-	-
Gross Total	13,627,900	-	13,627,900	-	-



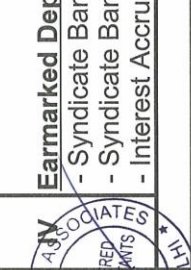
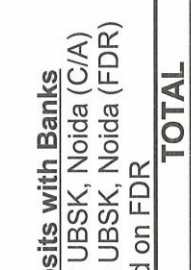
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 Waknaghat, Distt. Solan (H.P.)



JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY
FINANCIAL YEAR 2017-18
Cash and Bank Balance

SCHEDULE - "C"

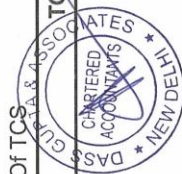
S.No	Particulars	Amount (₹) 31.03.2018	Amount (₹) 31.03.2017
I	Cash in Hand	75,962	168,325
II	Balance with Schedule Banks		
	In Current Account:		
	- State Bank of Patiala, Wagnaghat	-	2,121,510
	- State Bank of India, Wagnaghat	255,202	-
	- Punjab National Bank, Shimla	309,447	578,099
	- Oriental Bank of Commerce, Solan	227,535	176,173
	- Punjab National Bank, Wagnaghat	3,444,554	15,525,905
	- Yes Bank Ltd., Noida	1,339,458	1,329,230
	- Cheque / DD in hand	5,438,000	11,849,635
	Balance with Schedule Banks		
	In Saving Account:		
	- Punjab National Bank, Samirpur	155,025	149,442
III	Fixed Deposits with Banks		
	- State Bank of Patiala, Wakanaghat	-	31,998,000
	- State Bank of India, Wakanaghat	14,400,000	-
	- Punjab National Bank, Shimla	1,145,291	1,092,072
	- Punjab National Bank, Wagnaghat	121,200,000	80,098,000
	- Oriental Bank of Commerce, Solan	136,900,000	117,500,000
	- Punjab National Bank, Samirpur	2,346,695	2,210,631
	- Interest Accrued but not due	6,715,701	2,410,633
	Earmarked Deposits with Banks		
	- Syndicate Bank UBSK, Noida (C/A)	152,040	152,334
	- Syndicate Bank UBSK, Noida (FDR)	18,187,613	18,187,613
	- Interest Accrued on FDR	1,294,013	1,029,502
	TOTAL	313,586,536	289,286,693



JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY
FINANCIAL YEAR 2017-18
ADVANCES AND RECEIVABLES IN CASH OR IN KIND

SCHEDULE - "D"

Particulars	Amount (₹) 31.03.2018	Amount (₹) 31.03.2017
Advances To:-		
- Staff	933,512	111,368
- Suppliers/Agencies	201,015	243,668
- Other Educational Trust	55,916,768	14,107,937
Receivables From:-		
- Students	501,500	580,000
- Income Tax Department as on 31.03.18	4,082,347	3,124,608
- Assessment Year 2008-09	Rs. 20,219	
- Assessment Year 2009-10	Rs. 1,62,119	
- Assessment Year 2010-11	Rs. 6,61,804	
- Assessment Year 2011-12	Rs. 97,434	
- Assessment Year 2012-13	Rs. 93,910	
- Assessment Year 2013-14	Rs. 1,09,376	
- Assessment Year 2015-16	Rs. 3,71,907	
- Assessment Year 2017-18	Rs. 8,06,550	
- Assessment Year 2018-19	Rs. 17,59,028	
- Excise & Taxation Department (VAT)	3,817,348	3,817,348
- Excise & Taxation Department (Entry Tax)	215,346	215,346
- Income Tax Department Appeal	5,573,000	5,573,000
- Receivable Of TCS	83,490	-
TOTAL	71,324,326	27,773,275



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

**JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY
FINANCIAL YEAR 2017-18
PREPAID EXPENSES**

SCHEDULE - "E"

Particulars	Amount (₹) 31.03.2018	Amount (₹) 31.03.2017
AMC for Equipments	971,936	542,814
Insurance	258,617	129,521
Subscription for Journals & Digital Library	1,967,166	2,277,385
TOTAL PREPAID EXPENSES	3,197,719	2,949,720



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



**JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY
FINANCIAL YEAR 2017-18
SECURITY DEPOSITS**

SCHEDULE - "F"

Particulars	Amount (₹)	
	31.03.2018	31.03.2017
For Electricity Charges	2,083,514	2,083,514
For LPG	119,800	100,300
For Labour Office Solan	10,000	-
For Telephones	11,372	11,372
TOTAL SECURITY DEPOSITS	2,224,686	2,195,186



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Waknaghat, Distt. Solan (H.P.)

**JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY
FINANCIAL YEAR 2017-18
STOCK-IN-HAND**

SCHEDULE - "G"

Particulars	Amount (₹) 31.03.2018	Amount (₹) 31.03.2017
Annapura Grocery & Eatables	1,217,907	1,647,699
Medicines	77,778	48,068
Diesel	734,111	1,021,127
General Hardware Items	2,023,346	2,589,305
Electrical Items	2,810,975	3,397,540
Material In Transit	-	351,491
Spares for Vehicles	58,915	54,458
TOTAL STOCK IN HAND	6,923,032	9,109,688



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

**JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY
FINANCIAL YEAR 2017-18
SUNDRY CREDITORS**

SCHEDULE - "H"

Particulars	Amount (₹)	
	31.03.2018	31.03.2017
- For Goods Supplied	4,668,013	5,084,989
- For Services Rendered	10,140,971	6,896,898
- For Retention	884,747	536,792
- For Statutory Liabilities	41,158,370	35,686,882
TOTAL SUNDRY CREDITORS	56,852,101	48,205,561



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



**JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY
FINANCIAL YEAR 2017-18
OTHER LIABILITIES**

SCHEDULE - "I"

Particulars	Amount (₹) 31.03.2018	Amount (₹) 31.03.2017
Uncleared Cheques	3,062,288	9,416,673
Fee in Advance	94,005,869	95,162,582
JYC Students Fund	1,706,636	1,784,632
Expenses Payable	7,793,402	6,030,810
Salary and Allowances Payable	23,113	-
T.D.S. Payable	2,016,912	2,449,583
TOTAL OTHER LIABILITIES	108,608,220	114,844,280



[Signature]
DIGISTRAR,
Jaypee University of Information Technology
Waknaghat, Distt. Solan (H.P.)



JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY
FINANCIAL YEAR 2017-18
INSTITUTIONAL EXPENSES

SCHEDULE - "J"

Particulars	Amount (₹) 31.03.2018	Amount (₹) 31.03.2017
Admission Exps. including Advertisement	3,995,098	2,256,549
Audit Fee	236,000	236,000
Conference & Seminar Expenses	213,497	118,902
Convocation Expenses	40,685	91,910
Contribution towards Research & Development	-	24,473
E-Journals & Periodicals	4,530,247	6,286,015
Electricity Expenses	4,209,673	4,422,829
Honorarium to Faculty & Remuneration of Visiting Faculty	1,004,630	486,238
Institute Promotional Expenses	516,242	578,985
Insurance Expenses	454,838	440,419
Internet Charges	549,748	1,757,318
Interest & Finance Charges	9,364,606	12,446,771
Laboratory Expenses	2,260,383	5,299,019
Lease Rent	21,584	21,584
Legal & Professional Charges	730,429	367,769
Misc. Expenses	256,618	312,499
Payment to Technical Personnel	6,921,377	6,100,281
Placement Expenses	476,619	406,115
Postage & Telegram	109,423	118,153
Prior Period Exps.	35,110	-
Printing & Stationery	1,905,585	1,752,618
Recruitment Expenses	689,806	267,617

[Signature]

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



SCHEDULE - "J" (Continued)

Particulars	Amount (₹) 31.03.2018	Amount (₹) 31.03.2017
Scholarship to Students	7,915,236	7,095,963
Security Expenses	3,873,099	2,491,479
Staff Welfare	1,249,475	1,122,789
Telephone Expenses	210,909	208,563
Travelling & Conveyance	943,656	574,856
Water Expenses	2,357,521	3,249,325
Repair & Maintenance		
- Civil Maintenance	9,150,866	6,599,114
- Equipment & Machinery	6,323,700	3,013,996
- Furniture & Fixture	1,417,594	1,242,738
- Horticulture Exps.	1,822,589	1,676,012
- Institute House Keeping	3,175,036	2,613,716
- Others	3,532,939	2,514,468
- Vehicles	3,516,399	2,261,410
- Water Supply Scheme	257,697	710,142
TOTAL INSTITUTIONAL EXPENSES	84,268,914	79,166,635



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

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY
FINANCIAL YEAR 2017-18
SALARY & ALLOWANCES

SCHEDULE - "K"

Particulars	Amount (₹) 31.03.2018	Amount (₹) 31.03.2017
Teaching Staff :		
Salary	95,255,602	87,635,896
Conveyance Allowance	7,118,820	6,327,506
H.R.A.	6,097,352	5,623,987
Medical Reimbursement	3,746,471	3,501,789
Leave Travel Assistance	3,654,261	3,299,960
Contribution to Provident Fund	12,044,295	11,154,042
Provision for Gratuity	7,192,468	7,468,671
Other Allowances	19,185,115	17,490,463
Notice Pay	-	490,800
Sub - Total	154,294,384	142,993,114
Non-Teaching Staff :		
Salary	30,936,274	28,317,957
Conveyance Allowance	1,964,199	1,811,950
H.R.A.	2,711,278	2,362,383
Medical Reimbursement	1,260,927	1,165,089
Leave Travel Assistance	1,151,007	1,125,401
Contribution to Provident Fund	4,029,752	3,759,038
Provision for Gratuity	2,694,086	2,384,813
Other Allowances	2,918,546	2,156,851
Sub - Total	47,666,069	43,083,482
TOTAL SALARY & ALLOWANCES	201,960,453	186,076,596



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JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY
FINANCIAL YEAR 2017-18
STUDENTS HOSTEL EXPENSES

SCHEDULE - "L"

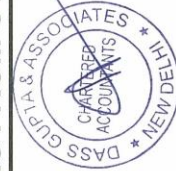
Particulars	Amount (₹)	Amount (₹)
	31.03.2018	31.03.2017
Grocery & Eatables Consumed	41,517,286	39,980,524
Security Expenses	9,037,234	5,792,102
Electricity Charges	16,838,692	17,691,316
Water Charges	7,072,564	9,747,976
Housekeeping Expenses	7,954,221	6,522,982
Dispensary Expenses	4,389,184	4,345,438
Students Welfare Expenses	1,696,047	551,832
Messing Staff Expenses	9,214,189	6,901,678
Salary Annapurna & Technical Staff	6,741,792	6,081,505
Repair & Maintenance	18,546,934	7,492,759
Laundry Expenses	3,360,516	3,493,853
TOTAL STUDENTS HOSTEL EXPENSES	126,368,659	108,601,965



**JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY
FINANCIAL YEAR 2017-18
COLLECTIONS FROM STUDENTS**

SCHEDULE - "M"

Particulars	Amount (₹) 31.03.2018	Amount (₹) 31.03.2017
Fees From Students:		
Tuition Fee	310,825,273	217,466,769
Hostel Fee	149,717,721	154,622,301
Development Fee	21,546,579	106,762,037
Sub Total :	482,089,573	478,851,107
Other Collection:-		
Misc. Charges	1,767,973	1,049,130
Admission Form Charges	1,912,755	2,039,671
Tuck Shop Charges	3,703,377	3,981,101
Mess Charges	9,930,432	9,299,020
Sub Total :	17,314,537	16,368,922
TOTAL COLLECTIONS FROM STUDENTS	499,404,110	495,220,029



**JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY
FINANCIAL YEAR 2017-18
INTEREST RECEIVED ON FDRs**

SCHEDULE - "N"

Particulars	Amount (₹)	
	31.03.2018	31.03.2017
Oriental Bank of Commerce - Solan	8,262,550	5,524,886
Punjab National Bank - Shimla	78,956	76,803
Punjab National Bank - Wagnaghat	3,955,091	1,608,392
State Bank of India - Wagnaghat	3,520,735	4,693,999
Syndicate Bank - Noida (UBSK)	1,437,792	1,366,223
Yes Bank Ltd.- Noida	175,648	139,350
Punjab National Bank - Samirpur	156,837	141,614
TOTAL INTEREST RECEIVED	17,587,609	13,551,267



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JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY
FINANCIAL YEAR 2017-18
OTHER INCOME

SCHEDULE - "O"

Particulars	Amount (₹) 31.03.2018	Amount (₹) 31.03.2017
Other Miscellaneous Income	228,037	205,530
Notice Pay Recovery	1,033,579	689,003
Overhead Charges for Research Projects	625,911	352,862
Registration Charges for Conference & Seminars	242,295	273,419
Sundry Balance Written Off	134,456	-
TOTAL OTHER INCOME	2,264,278	1,520,814



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TRAINING & PLACEMENT DATA*Placement Highlights-JUIT Solan B.Tech–2018*

- Highest Salary – **17.75 Lacs by Amazon Web Services**
- 2nd Highest Salary – **14.5 Lacs by Magnitude Software**

Key Recruiters:

- **06 Cos.** with CTC between **10 & 17.75 Lacs** (Amazon, Directi, Amazon Web Services, Magnitude, SquadRun ...to name a few)
- **11 Cos.** with CTC between **8 & 10 Lacs** (Morgan Stanley, SAP Labs, SmartPrix, Byjus, Ola Cabs, XL Catlin, Delhivery, Sumo Logic...to name a few)
- **26 Cos.** with CTC between **5 & 8 Lacs** (Paytm, Cognizant, Indiamart, Zycus, Yamaha Motors, Shuttl...to name a few)
- **69 Cos.** with CTC between **3 & 5 Lacs** (Infosys, Wipro, Cognizant, NTT Data, HCL Technologies, MTree, Newgen, Naukri.com, Gemalto, RTDS, Incedo, Sopra,...to name a few)
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PLACEMENT STATUS : JUIT Solan 2014-18				
Branch	Eligible Participating Students	No. of Absolute Offers	% of Absolute Offers	Remarks (Placement in addition to Absolute Offers)
CSE	116	104	90%	3 students joined MBA
ECE	41	29	71%	7 students opted for entrepreneurship
IT	27	22	81%	3 students opted for higher studies
BT/BI	22	11	50%	7 students selected in GATE , 2 students opted for higher studies
CIVIL	33	8	25%	28 students selected in GATE, 5 opted for higher studies
Total	239	174	72%	55 students in addition to 174 opted for higher studies, GATE, MBA and entrepreneurship

Note:-

1. A large number of students have opted for higher studies in India and abroad through GATE and other competitive examinations.
2. Placement is in progress for all branches for 2018 batch.
3. For any query please write to pankaj.kumar@juit.ac.in