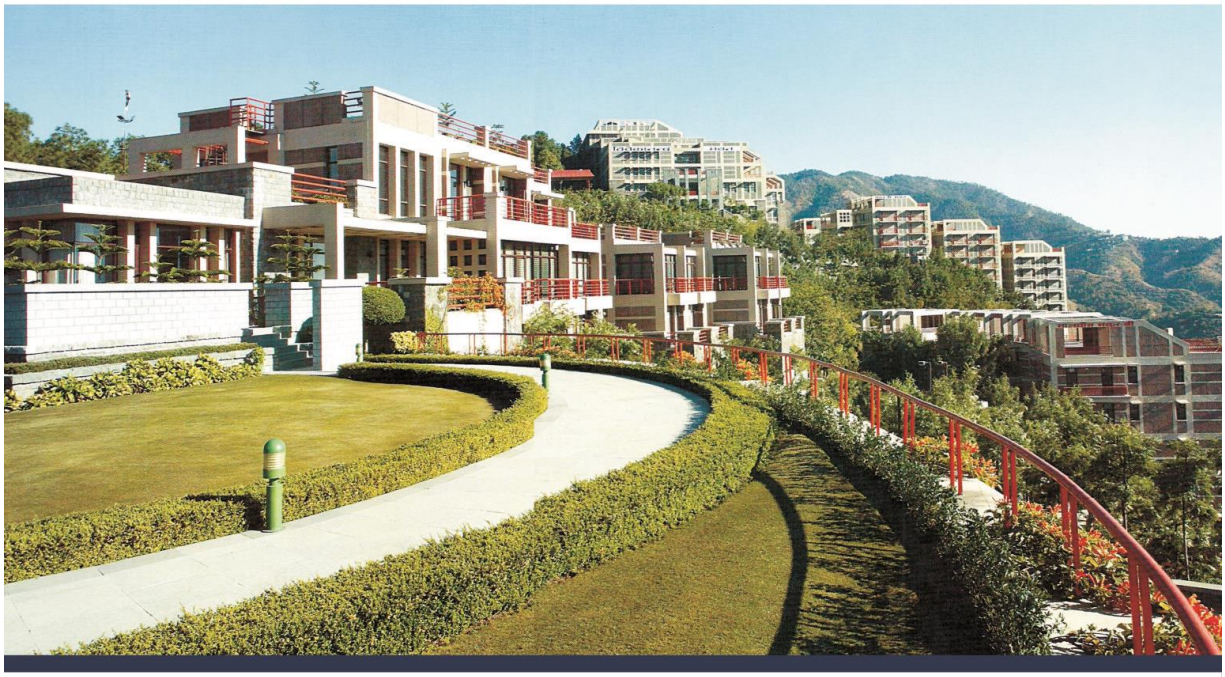
JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY



Annual Report 2016-2017

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY
WAKNAGHAT
Himachal Pradesh

ANNUAL REPORT
2016 - 2017

CONTENTS

BASIC INFORMATION IN BRIEF

Name	**:**	**Jaypee University of Information Technology Waknaghat** (Established by H.P. State Legislature vide Act No. 14 of 2002 and approved by University Grants Commission vide its Notification No. F.9-10/2002(CPP-I) dated December 9, 2002)
Year of Establishment	:	July 2002
Status	:	State University with effect from 23 May 2002
Location	:	Waknaghat, P.O. Waknaghat Tehsil – Kandaghat, Distt. Solan (H.P.)
Pin	:	173234
District	:	Solan
State	:	Himachal Pradesh
Chancellor	:	Sh. Acharya Dev Vrat Hon'ble Governor of Himachal Pradesh
Pro-Chancellor	:	Sh. Manoj Gaur Executive Chairman, Jaiprakash Associates Ltd
Vice Chancellor	:	Prof. Vinod Kumar
Registrar:		Brig. K.K. Marwah (Retd.) for the period of Report. Presently Maj Gen R Bassi, SM (Retd) *wef. 01Aug. 2017*
Tele/Fax/Website		
Vice Chancellor	:	(O) 01792-239201 (R) 01792-239279
Registrar	:	(O) 01792-245371/239203 (R) 01792-245367/239272
EPBAX	:	01792-257999 (30 lines)
Fax	:	01792-245362
Website	:	www.juit.ac.in

INTRODUCTION

About Jaiprakash Sewa Sansthan (JSS)

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

Thirty Two Schools, 6 ITIs, 1 Diploma College, 1 PG College, 1 College of Education and 4 Universityies imparting quality education to over 30,000 students.

Four higher technical education campuses have been established in the emerging areas of technology – the Jaypee Institute of Information Technology (JIIT), Noida [August 2001]; the Jaypee University of Information Technology (JUIT) at Waknaghat, Himachal Pradesh [July 2002]; the Jaypee University of Engineering & Technology (JUET) at Guna, Madhya Pradesh [July 2003] and 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 and.
- To harness human capital for sustainable competitive edge and social relevance.

Objectives of the University

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

Location and Area of Land

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

SALIENT FEATURES

Infrastructure

JUIT has been developed as a modern world class campus, with intellectually vibrant ambience in a serene and lush green environment. The state-of-the-art campus covers a total built up area of around 80,000 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 2017:-

    - Computer Science & Engg.
    - Electronics & Communication Engg.
    - Biotechnology
    - Civil Engineering
    - Information Technology

2. The University have been accredited by the National Assessment and Accreditation Council (**NAAC)** Peer team for five years w.e.f. 16 Sep 2011. The University has been visited by the NAAC Peer Team for its second cycle of accreditation from 18 to 20 Sep 2017.
.
3. 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.

- **Dual Degree Program Or M. Tech Programs**

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

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

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

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

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

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

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

  The program has been offered for students admitted in B. Tech 2002, in their 7th Semester, as per merit drawn based CGPA. Since academic session 2014, the students for this program are being admitted in the 1st Semester itself. The program includes courses related to Biotechnology including Bioprocess Engineering, Genetic and Molecular biology, Genetic Engineering, IPR Biosafety and Bioethics, Advanced Bioinformatics leading to both Bachelor's as well as Master's degrees having provided strong fundamentals and extensive training at the B.Tech level through various compulsory & elective subjects and extensiveproject and thesis work in the final year.

- **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, Nanotechnology & Structural Engineering from Academic Session 2010-11 and Biotechnology & Environmental Engineering from the session 2014-15.

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

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

- **M.Tech (Electronics and Communication Engineering)**

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

- **M.Tech (Computer Science & Engineering)**

  This Program offers a balanced emphasis on theoretical computer science, 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, technocrats in the field of environmental engineering having requisite skills to solve complicated and practical problems, develop effective communication skills and have the ability to work in multi-faceted and diverse groups. Beside elective subjects, The course has project work and thesis in the final year.

- **M.Tech (Structural Engineering)**

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

- **M.Tech (Nanotechnology)**

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

- **M. Tech (Applied and Computational Mathematics)**

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

- **Doctoral Programs (PhD)**

  The award of PhD degree by the University is in recognition of high academic achievements demonstrated by independent research and application of knowledge to the solution of technical and scientific problems. Creative and productive inquiry is the basic

requirement underlying research work. The academic program leading to the degree involves fulfilling course credit requirements, residential requirements and a thesis giving a critical account of the research carried out, in any of the areas listed below.

- **Electronics & Communication Engineering**

The Department of ECE offers PhD program in **Electronics & Communication Engineering.**The Department promotes strong exposure in the area of Digital Hardware Design using VHDL, VLSI Design, Signal and Speech Processing, Digital and Data Communication, Data Compression and Error Control Coding, Optical Communication, Satellite, Wireless and Mobile Communication Systems. Students are also exposed to core computer courses like Data Structures, Object Oriented Programming, Operating Systems and Computer Networks. Unique features of our department are designing electronic and communication systems using software tools such as MATLAB, PSPICE, Model-Sim and DSP kits.

- **Computer Science & Engineering**

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

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

- **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.

- **Civil Engineering**

The Department carries out research and development activities in the areas Rockfill material modelling, Constitutive modeling, FEM in Geotechnical Engineering, Soil plasticity, Slope stability problems (including seismic), Soil-nailing, Landfill design, Fluvial hydraulics, Scouring, Flow of water around hydraulic structures such as bridge piers and abutments, Concrete rheology, Development of HPC with Alcofine, micro-silica, etc., Composite materials, Prestressed concrete, Dynamic analysis of structures subjected to extreme loading, and earthquakes, Seismic evaluation of existing buildings, Active and passive control of tall structures against earthquakes, Smart structures, Air pollution, Estimation of NOx / CO concentrations, and Solid-waste management, Pavement Materials, Design and Maintenance, Optimization Techniques, and development of mini-standard penetration test.

- **Physics & 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.

- **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

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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.

- **Humanities and Social Sciences**

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

ACADEMIC DEPARTMENTS

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

The Department of Electronics and Communication Engineering (ECE) is playing a vital role in producing competent engineers of highest caliber ever since it was established in JUIT. The Electronics and Communication Engineering department emphasizes on technical skills, critical thinking and problem-solving skills. During the year under report, the department offered under-graduate, post-graduate and Ph.D. programs to cater ever challenging needs of technical excellence in all areas of electronics and communication engineering such as integrated electronics and circuits, telecommunications, Signal processing, VLSI, and Digital Communication. The ECE department created six research groups such as: 1) Signal Processing, 2) Embedded System and VLSI, 3) RF, Microwave and Antenna 4) Communication and Networking, 5) Biomedical Engineering and 6) Automation and Control to focus on research in advanced trends and applications in these fields. The department has distinguished faculty, all are research oriented and working on cutting edge technologies. In the year 2016-2017, the current faculty strength is 21 and 400 undergraduates, 23 postgraduates and 07 research scholars are registered in the department.

Department Vision and Mission

To become a centre of excellence and to produce high-quality, self-motivated, creative and ethical engineers and technologists those will contribute effectively to the universal science and contemporary education. The mission of Department is:

- To impart high quality engineering education and ethics to its students.
- To adopt the best pedagogical methods in order to maximize the knowledge transfer.
- To have adequate mechanisms to enhance the understanding of implementation of theoretical concepts in practical scenarios.
- To carry-out high quality research leading to the creation and commercialization of Intellectual Property.
- To provide the best facilities, infrastructure, and environment to the students, researchers and faculty members, creating an ambience conducive for excellence in technical education and research.

The educational objectives of the program are to produce graduates:

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

Academic Programmes

The department offers a comprehensive B Tech programme in Electronics and Communication Engineering and an intensive M Tech programme in Electronics and Communication Engineering, which focuses on developing analytical skills to enable fluent use mathematical techniques as a potential tool for engineering research. The department of ECE offers PhD program in Electronics and Communication Engineering, which provides exciting opportunities for research in emerging areas. The candidates are selected for admission to B. Tech. and M. Tech. programmes through JEE and GATE Score/PGET test, respectively. The selection for Ph. D. candidates is carried out through tests/ interviews. The number of students and scholars admitted to various programmes in July 2016 are provided in Table-1.

Table-1 Electronics and Communication Engineering student on roll (July, 2016).

S. No.	Program	I Year	II Year	III Year	IV Year	Total
1.	B. Tech	111	99	92	98	400
2.	M. Tech	07	16	-	-	23
3.	Ph.D.	-	-	-	-	07
4.	Total	118	115	92	98	430

Program Outcomes

With the successful completion of the program, the students would have the following attributes.

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

In the academic year 2016-17 the new courses introduced by the dept are provided in Table-2.

Table-2 New Courses Introduced.

S. No.	Course Code	Title
1.	16M1WEC231	Advanced Digital Image Processing
2.	17B1WEC732	Applied Medical Image Processing
3	17B1WEC731	Applied Medical Image Processing
4.	16B1WEC832	Spectral Analysis for Signal Processing
5.	17B1WEC733	Robotic Systems and Control
6.	17M1WEC331	VLSI in Biomedical Signal Processing
7.	17M1WEC332	Computational Intelligence and Applications

Laboratory Facilities

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

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

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

Research and Development Activities

The research at the department continued to flourish during the year under review. Around 2 Ph D students enrolled in academic year 2016-2017, in keeping with the national goal increasing the availability of the high quality researchers and teachers to industry and academia. In 2016-2017, our faculty and research scholars published one book, 24 papers in refereed journals and 19 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, Channelization (OVSF) Codes and Optimization in WCDMA, Wireless Sensor Networks, OFDM, MIMO-OFDM, Microstrip Antenna, Signal and Image Processing, Medical Image Processing, Wireless and Mobile Communications, Signal Processing Application, Low Power VLSI System and Hardware Design, Devices and IC Technology, High-Frequency Switches, MEMS Design and Technology, Next Generation Communication System, Terahertz Communication System, Terahertz Imaging and Sensing. The department received grants from various sources towards new projects during the year, apart from various ongoing projects.

Projects Sanctioned/Approved

Table-3 Several funded projects.

S. No.	Responsibility (PI/Co-PI)	Title of the Project	Funding Agency	Amount	Duration
1	Dr Ghanshyam Singh	Mathematical Modeling of Spectrum Sharing techniques in Cognitive Radio Network	ISRO	11.10 Lakhs	Ongoing (April 2015-Dec. 2017)
2	Dr Rajiv Kumar/ Dr. Piotr Cholda	Reliability Modeling and Optimized Planning of Risk-based Resilient Networks	DST	9.04 Lakhs	Ongoing (March 2015), 3 Year

List of Publications

I) Book:

i) Shweta Pandit, Ghanshyam Singh (2017). Spectrum Sharing in Cognitive Radio Networks: Medium Access Control Protocol Based Approach. USA: Springer International Publishing. [ISBN: 978-3-319-53146-5].

II) Journal(s):

i) Sunil Datt Sharma, Rajiv Saxena, Sanjeev Narayan Sharma (2017). Tandem Repeats Detection in DNA Sequences using Kaiser Window Based Adaptive S-Transform. Bio-Algorithms and Med-Systems, Online (),

ii) Indu Bala, Manjit Singh Bhamrah, Ghanshyam Singh (2017). Capacity in fading environment based on soft sensing information under spectrum sharing constraints. Wireless Network, 23 (2), 519-531.

iii) Prabhat Thakur, Alok Kumar, Shweta Pandit, Ghanshyam Singh, S N Satashia (2017). Advanced frame structures for hybrid spectrum access strategy in cognitive radio communication systems. IEEE Communication Letters, 21 (2), 410-413.

iv) Bindu Bharti, Ghanshyam Singh (2017). Analysis of capacity limits over fading environment with imperfect channel state information for cognitive radio network. Annals of Telecommunications, 72(7), 469-482.

v) Chitra Singh, K R Jha, Varinder Singh, Ghanshyam Singh (2017). Cross-polarization reduction of microstrip antenna using microwave absorbers. International Journal of RF and Microwave Computer-Aided Engineering, 27 (5), 1-10.

vi) Isha Malhotra, K R Jha, Ghanshyam Singh (2017). Analysis of highly directive photoconductive dipole antenna at terhertz frequency for sensing and imaging applications. Optics Communications, 397C, 129-139.

vii) Prabhat Thakur, Alok Kumar, Shweta Pandit, Ghanshyam Singh, S N Satashia (2017). Spectrum mobility in cognitive radio networks using spectrum prediction and monitoring techniques. Physical Communication, 24 (3), 1-8.

viii) U. Bashir, Kumud R. Jha, Ghanshyam Mishra, Ghanshyam Singh, Satish K. Sharma (2017). Octahedron shaped linearly polarized antenna for multi-standard services including RFID and IoT. IEEE Transaction Antenna and Propagation, 65 (7), 3364-3373.

ix) Shreya Sharma, Shruti Jain, Sahil Bhusri (2017). Two Class Classification of Breast Lesions using Statistical and Transform Domain features. Journal of Global Pharma Technology (JGPT), 9 (7), 18-24.

x) Shruti Jain (2017). Implementation of Marker Proteins Using Standardised Effect. Journal of Global Pharma Technology (JGPT), 9 (5), 22-27.

xi) Shruti Jain (2017). Parametric and Non Parametric Distribution Analysis of AkT for Cell Survival/Death. International Journal of Artificial Intelligence and Soft Computing, 6 (1), 43-55.

xii) Ashwani Sharma, Ghanshyam Singh, Deepak Bhatnagar, Ignacio J. Garcia Zuazola, Asier Perallos (2017). Magnetic field forming Using Planar Multicoil Antenna to Generate Orthogonal H-Field Components. IEEE Transactions on Antennas and Propagation, 65 (6), 2906-2915.

xiii) Meenakshi Sood (2017). Performance Analysis of Classifiers for Seizure Diagnosis for Single Channel EEG Data. Biomedical & Pharmacology Journal, 10 (2), 795-803.

xiv) Meenakshi Sood (2017). Efficacy of Artificial Neural Network for Financial Literacy Prediction. International Journal of Advanced Research in IT and Engineering., 6 (2), 1-8.

xv) Jitain Sharma, Sunil Datt Sharma (2016). Analysis of the multi-component signal using co-variance modified S-transform. International Journal of Advanced Information Science and Technology, 5(12), 22-24.

xvi) Aakanksha Sharma, Vivek K. Dwivedi, Ghanshyam Singh (2016). Channel capacity with suboptimal adaptation technique over Generalized-K fading using marginal moment generating function. Radioelectronics and Communication Systems, 59 (8), 325-334.

xvii) Prabhat Thakur, Ghanshyam Singh, S N Satasia (2016). Spectrum sharing in cognitive radio communication system using power constraints: A technical review. Perspectives in Science, 8 (), 651-653. Google Citation

xviii) Ashutosh Sharma, Rajiv Kumar, Poonam Koundal (2016). A Tuning-Based Approach for the Multi-Constrained Data-Path Transmission. International Journal of Control Theory and Automation (I J C T A), 9 (11), 5521-5528.

xix) Salman Raju Talluri, Sunil Vidya Bhooshan (2016). Effect of a Relatively Small Non-Linear Capacitor in the Unit Cell of Transmission Line Model on Scattering Parameters and Propagation Constant. International Journal of Applied Engineering Research , 11 (6), 3795-3798.

xx) Akanksha Dhiman, Ambesh Singh, Shwetanjali Dubey, Shruti Jain (2016). Design of Lead II ECG Waveform and Classification Performance for Morphological features using Different Classifiers on Lead II . Research Journal of Pharmaceutical, Biological and Chemical Sciences, 7 (4), 1226-1231.

xxi) Ritendra Mishra, Shruti Jain, Bharat Thakur, Yajvender Pal Verma, Chadalapaka Durgaprasad (2016). Performance Analysis of Piezoelectric Drum Transducers as Shoe-Based Energy Harvesters. International Journal of Electronics Letters, 4, 1-15.

xxii) Shailja Rana, Shruti Jain, Jitendra Virmani (2016). Classification of Focal Kidney lesions using Wavelet-Based Texture Descriptors. International Journal of Pharma and Bio Sciences, 7 (3 B), 646-652.

xxiii) Sahil Bhusri, Shruti Jain, Jitendra Virmani (2016). Classification of Breast Lesions using the Difference of Statistical Features. Research Journal of Pharmaceutical, Biological and Chemical Sciences, 7 (4), 1365-1372.

xxiv) Shailja Rana, Shruti Jain, Jitendra Virmani (2016). SVM-Based Characterization of Focal Kidney Lesions from B-Mode Ultrasound Images. Research Journal of Pharmaceutical, Biological and Chemical Sciences, 7 (4), 837-846.

III) Conference(s):

i) Ashutosh Sharma, Rajiv Kumar (2017). Routing Protocols in Wireless Sensor Networks: Issues and Challenges. Proceedings of the IEEE India Com 2017 [11th. : New Delhi : 01 - 03 March, 2017], pp.-.. .

ii) Parth Sethi, Rubal Sharma, Divyanshu Raghuvanshi, Meenakshi Sood (2017). Sign Language Analysis and Recognition to Aid Specially Abled Communicators. Proceedings of the International Conference on Computing for Sustainable Global Development, BVICAM. [4th: New Delhi: 1-3 March, 2017], pp.6294-6297-..

iii) Surbhi Sharma, Pankhuri Aggarwal, Aditya Parmar, Meenakshi Sood (2017). Sun tracking solar panel. Proceedings of the 4th International Conference on Computing for Sustainable Global Development, BVICAM. [4th: New Delhi: 1-3 March, 2017], pp.6304-6307-..

iv) Antriksh Ojha, Iresh Rastogi, Aeshna Chawla, Meenakshi Sood (2017). Prognostication of Epilepsy by EEG Signals using Wavelets. Proceedings of the International Conference on Computing for Sustainable Global Development, BVICAM, . [4th : New Delhi : 1-3 March, 2017], pp.-..

v) Bhawna Chandel, Iresh Rastogi, Meenakshi Sood (2017). Noise Removal from ECG Signal using Filters. Proceedings of the International Conference on Computing for Sustainable Global Development, BVICAM, . [4th : New Delhi : 1-3 March, 2017], pp.6263-6267-..

vi) Urvashi, Charu Bhardwaj, Meenakshi Sood (2017). Medical Image Compression using Compressed Sensing. Proceedings of the International Conference on Computing for Sustainable Global Development, BVICAM. [4th: New Delhi : 1-3 March, 2017], pp.6258-6262-..

vii) Kaushik Raj Singh, Ossein Sharma, Mansi Kathuria, Shruti Jain (2017). Design of Energy Harvesting Generators from Waste Heat of Home Chimney using Thermocouples. Proceedings of the International Conference on Computing for Sustainable Global Development, BVICAM [4th : New Delhi : 1-3 March, 2017], pp.6278-6281..

viii) Akanksha Maheshwari, Shubham Gupta, Shruti Jain (2017). Implementation of Carry Free Addition using Quaternary Signed Digit. Proceedings of the International Conference on Computing for Sustainable Global Development, BVICAM [4th: New Delhi : 1-3 March, 2017], pp.6268-6272..

ix) Nikita Bansal, Kanika Thakur, Priya Verma, Shruti Jain (2017). Hardware Optimization and Implementation of ECG circuit on FPGA. Proceedings of the International Conference on Computing for Sustainable Global Development, BVICAM [4th : New Delhi : 1-3 March, 2017], pp.6251-6254..

x) Sahil Bhusri, Shruti Jain (2017). Classification of Breast Lesions Using Texture Ratio Vector Technique. Proceedings of the International Conference on Computing for Sustainable Global Development, BVICAM [4th: New Delhi: 1-3 March, 2017], pp.6289-6293..

xi) Radhika Thakur, Shruti Jain (2017). FPGA Implementation of Adder Circuit using Quaternary Signed Digit Number System. Proceedings of the International Conference on Computing for Sustainable Global Development, BVICAM [4th: New Delhi: 1-3 March, 2017], pp.6273-6277..

xii) Amandeep, Shruti Jain, Sahil Bhusri (2017). CAD System for Non Small Cell Lung Carcinoma using Laws Mask Analysis. Proceedings of the International Conference on Computing for Sustainable Global Development, BVICAM [4th : New Delhi : 1-3 March, 2017], pp.6285-6288..

xiii) Shreya Sharma, Shruti Jain, Sahil Bhusri (2017). Classification of Breast Lesions using Gabor Wavelet Filter for Three Classes. Proceedings of the International Conference on Computing for Sustainable Global Development, BVICAM [4th : Jaypee University of Information technology, Waknaghat, Solan, H.P, India : 1-3 March, 2017], pp.6282-6284..

xiv) Charu Bhardwaj, Urvashi, Meenakshi Sood (2017). Performance evaluation of compressive signal sensing. Proceedings of the International Conference on Computing for Sustainable Global Development, BVICAM, [4th: New Delhi: 1-3 March 2017], pp.-..

xv) Prabhat Thakur, Alok Kumar, Shweta Pandit, Ghanshyam Singh, S N Satashia (2016). Frame structures for hybrid spectrum accessing strategy in cognitive radio communication system. Proceedings of the IEEE Int. Conference on Contemporary Computing (IC3 2016) [9th: India: 11-13 Aug. 2016], pp.1-6..

xvi) Prabhat Thakur, Alok Kumar, Shweta Pandit, Ghanshyam Singh, S N Satashia (2016). Performance improvement of cognitive radio network using spectrum prediction and monitoring techniques for spectrum mobility. Proceedings of the IEEE Int. Conference on Parallel, Distributed and Grid Computing (PDGC 2016), [4th: India: 22-24 Dec. 2016], pp.679-684..

xvii) Geetanjali, Prabhat Thakur, Hemraj Saini, Ghanshyam Singh (2016). Aspects of secure communication during spectrum handoff in cognitive radio networks. Proceedings of the Proc. IEEE International Conference on Signal Processing and Communication [(ICSC 2016): India: 26-28 Dec. 2016], pp.64-69.

xviii) Ashutosh, Rajiv Kumar (2016). Performance Comparison and Detailed Study of AODV, DSDV, DSR, TORA and OLSR Routing Protocols in Ad Hoc Networks. Proceedings of the International Conference on Parallel, Distributed and Grid Computing (PDGC) [4th: Jaypee University of Information Technology, Waknaghat, Solan, H.P.(India) : 22-24 December, 2016], pp.-..

xix) Sahil Bhusri, Shruti Jain (2016). Analysis of Breast Lesions Using Laws Mask Texture Features. Proceedings of the International Conference on Parallel, Distributed and Grid Computing (PDGC) [4th: Jaypee University of Information technology, Waknaghat, Solan, H.P, India: 22-24 December, 2016], pp.-..

IV) Workshop Organized/Session Chaired

i) Shruti Jain: Organized one day Technical Event "R& D expo" in collaboration with IEEE student branch, JUIT and ACM, JUIT on *May 6, 2017* at Jaypee University of Information Technology, Himachal Pradesh, India.

ii) Shruti Jain: Organized Guest Lecturer on "VLSI Design and IOT", Shri Vivek Sheel Dutt and Shri Kirti of DKOP Labs Pvt. Ltd., Noida, on March 07, 2017, at Jaypee University of Information Technology, Himachal Pradesh, India.

iii) Shruti Jain: Organized one day workshop "Patent Filing & Geographical Indications" on Feb 27, 2017, at Jaypee University of Information Technology, Himachal Pradesh, India in collaboration with Himachal Pradesh Patent Information Centre, Shimla, H.P. (HPPIC).

iv) Shruti Jain: Organized three days Technical Event "*Murious XI*" in collaboration with IEEE student branch, JUIT and ACM, JUIT from February 10 - 12, 2017 at Jaypee University of Information Technology, Himachal Pradesh, India.

v) Shruti Jain: Organized Talk on "Tech Talk on Robotics", of Mr. Diwakar Vaish, Head of Robotics and Research, A-SET Training and Research Institutes on February 11, 2017, at Jaypee University of Information Technology, Himachal Pradesh, India.

vi) Shruti Jain: Organized one day workshop "*Innovation & Intellectual Property Rights*" on Dec 09, 2016, at Jaypee University of Information Technology, Himachal Pradesh, India in collaboration with Himachal Pradesh Patent Information Centre, Shimla, H.P. (HPPIC).

vii) Shruti Jain: Organized one day workshop "*Data Acquisition and Analysis system*" on Dec 01, 2016, at Jaypee University of Information Technology, Himachal Pradesh, India.

viii) Shruti Jain: Organized Guest Lecturer on "Biomedical Image Processing", of Dr. Jyotindra Singh Sahambi, Head of Electrical Engg Department, IIT Ropar on Sept 30, 2016, at Jaypee University of Information Technology, Himachal Pradesh, India.

ix) Shruti Jain: Organized Guest Lecturer on "Laser In Homeland Security And Defence" of Mr Hari Babu, Director Lastec, DRDO, Delhi on Sept 27, 2016, at Jaypee University of Information Technology, Himachal Pradesh, India.

x) Shruti Jain: Session Chair in 11th INDIACom: 4th 2017 International Conference on Computing for Sustainable Global Development, BVICAM, New Delhi, India, March 1-3, 2017.

xi) Shruti Jain: WORKSHOP AND TRAINING (2015-16)

Serial Number	Name of Workshop	Students Involved	Date	Number of Students Registered (includes Paid, Unpaid and Discounted)
1	Hand on 'C'	1st year	September 29 - 30, 2016	200+
2	Photoshop	Club Specific	October 3-5, 2016	30+
3	Web Development	Club Specific	October 12-14, 2016	35+
4	Premier Pro	All years	November 4, 2016	35+
5	PhP	All years	January 30-31, 2017	40+
6	Data Structure	1st year	February 17-18, 2017	50+
10	Murious XI	Diff Universities	February 10-12, 2017	200+

Special lectures delivered by the faculty in other institutions

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

S No.	Name of Faculty Member	Topic of Lecture	Institution	Date
1	Ghanshyam Singh	'Next Generation Communication System: Technological Advancement and Future Perspective'	At National Science Day at Faculty of Engineering VBS Purvanchal University, Jaunpur, India	28th Feb. , 2017
2	Ghanshyam Singh	'5TH Generation Communication System: A Cognitive Radio'	Jawahar Lal Nehru Gov. Engineering College Sunder Nagar, Mandi.	5th Sep. , 2016

V) Doctoral and M Tech Degree Awarded

i) Doctoral Degree

S. No.	Student Name	Topic	Guide Name
1	Harbinder Singh	New techniques for Multi-Exposure Image Function based on Known Edge Preserving Filters	Dr S V Bhooshan
2	Ritendra R Mishra	Energy Harvesting using Piezoelectric Elements to Power Microelectronic Devices	Dr Shruti Jain
3	Salman Raju Talluri	Analysis of Transmission Line Models with Non-Linear elements for Opposite Phase and Group Velocities	Dr S V Bhooshan

ii) M. Tech Degree

S. No.	Name	Topic	Supervisor
1	Mr Amandeep	Classification of Lung Carcinoma using Texture Features of Ultrasound Images	Dr. Shruti Jain
2	Ms. Shreya Sharma	Support Vector Machine Based Texture Feature Extraction Technique for Classification of Breast Cancer from Ultrasound Images	Dr. Shruti Jain
3	Ms. Radhika	FPGA Implementation of Arithmetic Operations Using Quaternary Signed Digit	Dr. Shruti Jain
4.	Kanishka Katoch	Analysis and design of dielectric resonator antenna at terahertz frequency for next generation communication system	Prof. G Singh
5.	Anandita Garg	Design and analysis of curved frequency selective surfaces for intelligent transport system	Prof. G Singh
6	Maneesh Kumar	Designing of Dual Band pass microwave filter	Dr. Salman Raju
7	Neelam Kumari	Design of a dual bandpass filter using parallel coupled lines	Dr. Salman Raju
8	Shivi Tikoo	Performance analysis of MIMO OFDM system in fading channel using relaying techniques	Dr. Shweta/ Dr. Pradeep Chauhan
9	Sanyogita Sharma	Implementation and Development of Signal Processing Tools for Genomic Data	Mr. Pardeep Garg
10	Urvashi	Performance evaluation of compression for Biomedical image using compressed sensing	Dr. Meenakshi Sood
11	Ashit Chander	Adaptation To Non Critical Failure and Performance Analysis of Optical WDM Networks	Dr. Rajiv Kumar
12	Kanika Sandal	Implementation and Development of the DSP Algorithm for Splice-Site Prediction in DNA Sequences	Mr. Pardeep Garg
13	Charu Bhardwaj	Performance evaluation of compression for image and video using compressive sensing techniques	Dr. Meenakshi Sood
15	Archana Thakur	Design of a 2D Planar Sensor antenna for Localization of RFID Tags	Dr. Ashwani Sharma/Dr. Pradeep Chauhan
16	Aarushi Kapil	Role of Transforms for Image Denoising	Mr. Pardeep Garg
17	Sonali Rana	Design of a RF Energy Harvesting antenna for women safety applications	Dr. Ashwani Sharma/Dr. Pradeep Chauhan
18	Bhawna Chandel	NOISE REMOVAL FROM ECG SIGNAL USING VARIOUS FILTERS	Dr. Meenakshi Sood

VI) Professional Activities of Students

i) Sunil Bhooshan, *Member, IEEE*
ii) Dr Shruti Jain, *Senior Member, IEEE*
iii) Dr Shruti Jain, *Member, IAENG*
iv) Dr Shruti Jain, *Life Member, Biomedical Engineering Society of India*
v) Dr Pradeep Kumar, *Life Member, IETE*
vi) Dr Rajiv Kumar, *Member, IEEE*
vii) Dr Rajiv Kumar, *Corporate Member, IETE*
viii) Dr Rajiv Kumar, *Life Member, ISTE*
ix) Dr Rajiv Kumar, *Life Member, System Society of India*
x) IEEE Student branch
xi) Annual Technical Fest-Murious
xii) Workshops (LabView, MATLAB…Robotics Workshop. Photoshop Workshop
xiii) Paper presentation in conferences, publication in journals/conferences

VII) Faculty and Their Expertise

S No	Faculty	Specializations
1	Sunil Bhooshan	Milli-meter Wave Dielectric Waveguides, DSP Filters, Signal Compression
2	Ghanshyam Singh	RF/Microwave Communication Systems, Terahertz, Communication, Imaging and Sensing, Next Generation Communication System.
3	Ashwani Sharma	Antenna Theory, Communication System
4	Mohit Garg	Control Systems and Robotics
4	Emjee Puthooran	Medical Instrumentation and Signal Processing, Image Processing, Soft Computing Techniques
5	Harsh Sohal	VLSI Design, FPGA based Algorithm Implementation
6	Nafis uddin Khan	Digital Signal and Image Processing, Fuzzy based Applications in Signal and Image Processing
7	Vikash Baghel	Radar Signal Processing, Adaptive Signal Processing, Spectral Analysis, Soft and Evolutionary Computing
8	Naveen Jaglan	Microwave Communications, Planar and Conformal Microstrip Antennas including Array Mutual Coupling, Artificial Materials (metamaterials, metamorphic), EBG, PBG, FSS, DGS, Novel Antennas, UWB Antennas, MIMO Systems.
9	Nishant Jain	Biomedical Signal Processing, Image Processing
10	Neeru Sharma	Communication System
11	Rajiv Kumar	Fault-Tolerance, Network Recovery, Control Systems
12	Shruti Jain	Bio Medical Signal Processing, VLSI
13	Meenakshi Sood	Biomedical Signal and Image Processing, Antenna Design Metamaterials

14	Munish Sood	Microwave Antennas
15	Pardeep Garg	Signal Processing, Genomic Signal Processing
16	Pragya Gupta	Semiconductor Material and Devices, Electromagnetic Field Theory, Digital Image Processing, Analog Electronics
17	Salman Raju Talluri	RF/ Microwave Engineering, Waveguide, Filter, Metamaterials
18	Shweta Pandit	Cognitive Radio, Wireless Communication
19	Sunil Dutt Sharma	Time-frequency analysis, Signal processing for biological signals, Micro-Doppler signature analysis
20	Alok Kumar	Communication system, Cognitive Radio, wireless sensor Network

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 enginineering disciplines.

Research Groups

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

Ubiquitous Computing

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

Faculty
Dr. Vivek Sehgal (Coordinator)
Dr Yashwant Singh
Dr. P.K. Gupta
Mr. Punit Gupta
Mr. Ravindara Bhatt
Ms. Nishtha Ahuja
Mr. Shailendra Shukla

Algorithms and Parallel Computing

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

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

Faculty
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.

Prof. Dr. SP Ghrera(coordinator)
Dr. Pardeep Kumar

Dr. Rajni Mohana
Mr. Amit Kumar Singh
Ms. Sanjana 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
Ms. Nishtha Ahuja
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)
Ms. Sanjana Singh
Mr. Suman Saha

Software Engineering and Information Systems

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

Faculty

Dr. P.K. Gupta (coordinator)
Dr. Rajni Mohana
Mr. Punit Gupta

Systems and Network Security

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

Faculty

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	• C Programming Lab (10B17CI171) • Objected Oriented Programming Lab (10B17CI371) • Object Oriented System & Programming Lab (10B17CI674) • Unix Programming Lab (10B17CI307) • Java Programming Lab (13B22CI583) • Algorithms Lab (10B17CI472) • Advanced Programming Lab • Data Structures and Computer Programming Lab (10B17CI271)
2	Software Engineering Lab	• Software Engineering Lab (10B17CI572) • Software systems Lab-I (10M17CI171) • Data Mining Lab (10B28CI682) • Software Testing & Debugging Lab (08B51CI101)
3	CUDA Lab	• Parallel Programming and High Performance Lab
4	Database Lab	• Database Systems Lab (10B17CI372) • Database Management Systems Lab (13B22CI381)
5	Multimedia Lab	• Computer Graphics Lab (11B1WCI671) • Multimedia Development Lab-I (10B28CI408) • Multimedia Development Lab-II (10B28CI683) • Multimedia Development Lab-III (13B22CI382)
6	Operating	• Operating system Lab (10B17CI571)

	system Lab	
7	Web Engineering Lab	• Web Technology Lab (10B28CI581) • Information Systems Lab (10B28CI681)
8	Microprocessor and Controllers Lab	• Microprocessor and Controllers Lab (10B17CI407)
9	Network and Communication Lab	• Computer Networks Lab (10B17CI671) • System and Network Programming Lab (10B17CI673)
10	Compiler Design Lab	• Compiler Design Lab (10B17CI672)

Jaypee University of Information Technology Waknaghat 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) Journals (11)

i) **Amit Kumar Singh** (April 2016) Improved hybrid algorithm for robust and imperceptible multiple watermarking using digital images, Journal of Multimedia Tools and Applications: An International Journal, DOI: 10.1007/s11042-016-3514-z, Springer. **(SCI Index, IF = 1.346)**

ii) Richa Pandey **, Amit Kumar Singh** , Basant Kumar and Anand Mohan (2016) Iris Based Secure NROI Multiple Eye Image Watermarking for Teleophthalmology, Journal of Multimedia Tools and Applications: An International Journal, 10.1007/s11042-016-3536-6 , Springer **(SCI Index, IF = 1.346)**

iii) Aditi Zear, **Amit Kumar Singh** , Pardeep Kumar (2016) Robust Watermarking Technique using Back Propagation Neural Network: A Security Protection Mechanism for Social Applications, International Journal of Information and Computer Security(IJICS) , Inderscience **(Scopus Indexed)**

iv) Neetu Faujdar, **Satya Prakash Ghrera** [2016], "Performance Evaluation of Parallel Count Sort using GPU Computing with CUDA", published in Indian Journal of Science and Technology, Vol 9(15), DOI: 10.17485/ijst/2016/v9i15/80080, April 2016, ISSN (Print) : 0974-6846, ISSN (Online) : 0974-5645. http://www.indjst.org/index.php/indjst/article/view/80080

v) Suman Saha, **Satya P. Ghrera** [2016], "Nearest Neighbor Search in the Metric Space of a Complex Network for Community Detection ", published in Journal "Information 2016", *7*(1), 17; doi:10.3390/info7010017 MDPI, Basel, Switzerland. http://www.mdpi.com/2078-2489/7/1/17

vi) Geetanjali Rathee, **Hemraj Saini** (2016). Security Concerns with Open Research Issues of Present Computer Network. ***International Journal of Computer Science and Information Security****, 14* (4), 406-432. **[IF(2013) : 0.476]** . Google Citation

vii) **Suman Saha**, Satya Prakash Ghrera (2016). Nearest Neighbor Search in the Metric Space of a Complex Network for Community Detection. ***Information****, 7* (1), 1-16. Google Citation

viii) **Suman Saha**, Satya Prakash Ghrera (2016). Low Rank Approximation for Community Detection in Large Complex Networks, Far East Journal of Electronics and Communications, 16 (2), ISSN: 09737006

ix) **Ravindara Bhatt** and Raja Datta, "A Two-tier Strategy for Priority based Critical Event Surveillance with Wireless Multimedia Sensors, "Springer Wireless Networks, Vol. 22, No. 1, pp. 267-284, 2016 (Impact factor 0.961).

x) **Ashima,Rajni Mohana,** (2016). Anaphora Resolution in Hindi: Issues and Directions. ***Indian Journal of Science and Technology****, 9* (32), -. Google Citation

xi) Ashima, **Rajni Mohana** (2016). Improving Anaphora Resolution by Resolving Gender and Number Agreement in Hindi Language using Rule based Approach. ***Indian Journal of Science and Technology****, 9* (32), -. Google Citation

II) Conferences: (6)

i) Aditi Zear, **Amit Kumar Singh** and Pardeep Kumar, " Digital Image Watermarking Techniques using Artificial Intelligence: New Trends in Information Security ", 1st International Conference on Computer and Electronics Engineering, pp. 6-12, Jan 9-10, 2016, Hyderabad, India.

ii) **Gupta p**, Agrawal D, Chabra J, Dhir P , IoT based Smart HealthCare Kit, International Conference on Computational Techniques in Information and Communication Technologies (ICCTICT), 2016(Accepted) (IEEE).

iii) **Gupta p**, Nigam S. "IoT based Intelligent Billboard using Data Mining" International conference on Innovation and Challenges in Cyber Security (ICICCS) 2016 (IEEE)

iv) **Gupta p**, Chhabra J "IoT based Smart Home Design using Power and Security Management", International conference on Innovation and Challenges in Cyber Security (ICICCS) 2016 (IEEE)

v) **Gupta P**, Ghrera SP, "Trust and Deadline Aware scheduling algorithm for Cloud Infrastructure using Ant Colony Optimization", International conference on Innovation and Challenges in Cyber Security (ICICCS) 2016 (IEEE)

vi) Vasudeva K, **Gupta P**," A Survey on Elastic Resource Allocation Algorithm for Cloud Infrastructure", International conference on Innovation and Challenges in Cyber Security (ICICCS) 2016 (IEEE)

III) Books - Nil

IV) Book Chapters(2)

i) Ashima, Sukhnandan Kaur, **Rajni Mohana** (2016). Anaphora Resolution in Hindi: a hybrid approach. In Corchado Rodriguez J., Mitra S., Thampi S., El-Alfy ES., *Advances in Intelligent Systems and Computing* (pp. 815-830). India: Springer International Publishing AG.. [ISBN : 978331947952165] . Google Search

ii) Geetanjali Rathee, **Hemraj Saini** (2016). A Secure Homomorphinc Routing Techniques in Wireless Mesh Networks (HRT for WMN) . In Suresh Chandra Satapathy, Jyotsna Kumar Mandal, Siba K. Udgata, Vikrant Bhateja, *Information Systems Design and Intelligent Applications* (pp. 437-444). India: Springer. [ISBN : 978-81-322-2750-2] . Google Search

V) International Conferences Organized

i) **The International Conference on Parallel, Distributed and Grid Computing (PDGC - 2016) Duration: 22-24 Dec. 2016**
Keynote Speakers:

a) **Prof.Raj K Bhatnagar University of Cincinnati, USA.**
Title: Exploiting parallelism of hadoop/spark kind of systems for data analytics algorithms.

Speaker: Professor of Computer Science Department of Electrical Engineering and Computing Systems Raj.Bhatnagar@uc.edu (513)556-4932

b) **Prof. R. Govindarajan**, **Supercomputer Education and Research Center (SERC) and Department of Computer Science and AutomationIndian Institute of Science (IISc) Bangalore, INDIA.**

Title : Challenges and Opportunities in Heterogeneous High Performance Computing Systems

Speaker: Supercomputer Education and Research Center (SERC) and Department of Computer Science and Automation Indian Institute of Science (IISc) Bangalore 560 012, INDIA
Phone: +91 (80) 2360 0654 (or) 2293 2737
Fax: +91 (80) 2360 2648
govind@serc•iisc•ernet•in (or)
govind@csa•iisc•ernet•in

c) **Santiago Caballé Llobet**, **Universitat Oberta de Catalunya, Barcelona, SPAIN**

Title : Applications of Distributed Computing for the Next Generation of On-line Education: Real World Use Cases

Speaker : Rambla Poblenou, 156. 08018 Barcelona, Spain
Office: #206
Electronic mail address: scaballe@uoc.edu

d) **Prof. R.K. Ghosh**, **Department of Computer Science and Engineering IIT, Kanpur, INDIA.**
Speaker: Professor, Department of Computer Science and Engineering

PhD (IIT Kharagpur)
Email: rkg[AT]cse.iitk.ac.in
Office Phone: 0512-259-7645
Number of Papers Received:

Papers Received=512
Papers accepted= 140
Acceptance rate=27.3%

Photographs:

(a) Inauguration of PGDC-2016, Chief Guest and Keynote Speakers

(b) Participants attending the keynote lecture

(c) Felicitation of the keynote at Inauguration of PGDC-2016

(c) Releasing of the Proceeding of PGDC-2016

VI) Conferences/Workshops/Symposia organized

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

VII) Conferences/ Workshops Attended

Staff training conducted by the university

Sr. No.	Name of Faculty	Type of the Event	Name of the Event	Year(s)
1	Dr. Hemraj Saini	Workshop	Workshop on College Cloud Ed. for VLabs by IIITH as Coordinator	9 to 12.05.2017
2	Dr. Hemraj Saini	Workshop	vLab Workshop with IITR Team as Coordinator	28 to 29.04.2017
3	Dr. Hemraj Saini	Workshop	vLAB State Level Workshop with IIT Delhi as coordinator	28 to 28.02.2017
4	Dr. Hemraj Saini	FDP & STTP	AICTE Recognized Short Term Course on Cyber Crime & Forensic Tools through ICT as Coordinator	06 to 10.02.2017
5	Dr. Hemraj Saini	Workshop	vLab Workshop with IITR Team as Coordinator	15 to 16.10.2016
6	Dr. Hemraj Saini	Workshop	vLab Workshop with IITD Team as Coordinator	24 to 25.09.2016
7	Dr. Hemraj Saini	Conference	2015 IEEE Third International Conference on Image Information Processing (ICIIP -2015)	21 to 24.12.2015
8	Dr. Punit Gupta	STTP	Staff Training Program (STP) on "LibraOffice Suit Writer, Math , Cal & Impress" :	8th June 2017
9	Dr. Punit Gupta	FDP & STTP	Short Term Course through ICT Cyber Crime and Forensic Tools	42772
10	Dr Hemraj Sainai, Dr. Punit Gupta	FDP	Faculty Development Program on Virtualization & Cloud Computing - Fundamentals & Practical Approach	24nd December 2015

11	Dr. Punit Gupta	Workshop	Spoken tutorial workshop on Java	42774
12	Dr. Punit Gupta	Workshop	Spoken tutorial workshop on Advanced Cpp	31-Jan-17
13	Dr. Punit Gupta	Workshop	Spoken tutorial workshop on C and Cpp	17-Jan-17
14	Dr. Punit Gupta	Workshop	Spoken tutorial workshop on Java	16-Jan-17
15	Dr. Punit Gupta	Workshop	Spoken tutorial workshop on PHP and MySQL	16-Jan-17
16	Dr. Punit Gupta	Workshop	Spoken tutorial workshop on Advanced Cpp	30-Sep-16
17	Dr. Punit Gupta	Workshop	Spoken tutorial workshop on C and Cpp	30-Sep-16
18	Dr. Punit Gupta	Workshop	Spoken tutorial workshop on Java	30-Sep-16
19	Dr. Punit Gupta	Workshop	Spoken tutorial workshop on Java	29-Sep-16
20	Dr. Punit Gupta	Workshop	Spoken tutorial workshop on C and Cpp	27-Sep-16
21	Dr. Punit Gupta	Workshop	Spoken tutorial workshop on Python	26-Sep-16
22	Dr. Punit Gupta	Workshop	Spoken tutorial workshop on PHP and MySQL	19-Sep-16
23	Dr. Punit Gupta	Workshop	Spoken tutorial workshop on Java	15-Mar-16
24	Dr. Punit Gupta	Workshop	Spoken tutorial workshop on Ruby	09-Mar-16
25	Dr. Punit Gupta	Workshop	Spoken tutorial workshop on Python	03-Mar-16
26	Dr. Punit Gupta	Workshop	Spoken tutorial workshop on PHP and MySQL	17-Feb-16
27	Dr. Punit Gupta	Workshop	Spoken tutorial workshop on PHP and MySQL	17-Feb-16
28	Dr. Punit Gupta	Workshop	Spoken tutorial workshop on Linux	21-Jan-16
29	Dr. Rajni Mohana	FDP	Statistica Workshop : 21st April, 2017	21st April, 2017
30	Dr pardeep kumar, Dr. Amit Kumar Singh	Conference	International Conference on parallel and distributed computing 2016	Dec 2016

Staff training Attended

Sr. No.	**Name of the Faculty**	**Details of the participation (Faculty development/training activities/STTPs)**
1	Ravindara Bhatt	TENCON 2016
2	Ravindara Bhatt	INDIACOM 2017
3	Yashdeep Singh	Short Term Course through ICT Cyber Crime and Forensic Tools 06-10 Feb, 2017

4	Ruhi Mahajan	Short Term Course through ICT Cyber Crime and Forensic Tools 06-10 Feb, 2018
5	Puneet Kumar Jain	Virtual Labs, Sponsoring agency-IIT Roorkee Place held-JUIT, Wakanaghat, 28-29/04/2017
6	Geetanjali	Short Term Course through ICT Cyber Crime and Forensic Tools 06-10 Feb, 2020
7	Arvind Kumar	Short Term Course through ICT Cyber Crime and Forensic Tools 06-10 Feb, 2021
8	Amol Vasudeva	Short Term Course through ICT Cyber Crime and Forensic Tools 06-10 Feb, 2022
9	Dr. Suman Saha	Short Term Course through ICT Cyber Crime and Forensic Tools 06-10 Feb, 2023
10	Dr. Shailendra Shukla	Short Term Course through ICT Cyber Crime and Forensic Tools 06-10 Feb, 2024
11	Dr. Ravindara Bhatt	Short Term Course through ICT Cyber Crime and Forensic Tools 06-10 Feb, 2025
12	Dr. Rajni Mohana	Short Term Course through ICT Cyber Crime and Forensic Tools 06-10 Feb, 2026
13	Dr. Punit Gupta	Short Term Course through ICT Cyber Crime and Forensic Tools 06-10 Feb, 2027
14	Dr. Pradeep Kumar Singh	Short Term Course through ICT Cyber Crime and Forensic Tools 06-10 Feb, 2028
15	Dr. Yashwant Singh	Short Term Course through ICT Cyber Crime and Forensic Tools 06-10 Feb, 2032
16	Dr. Vivek Sehgal	Short Term Course through ICT Cyber Crime and Forensic Tools 06-10 Feb, 2033
17	Dr. Hemraj Saini	Short Term Course through ICT Cyber Crime and Forensic Tools 06-10 Feb, 2034
18	Yashdeep Singh	Workshop on Virtual Labs: 28-29 April, 2017
19	Ruhi Mahajan	Workshop on Virtual Labs: 28-29 April, 2018
20	Geetanjali	Workshop on Virtual Labs: 28-29 April, 2020
21	Arvind Kumar	Workshop on Virtual Labs: 28-29 April, 2021
22	Amol Vasudeva	Workshop on Virtual Labs: 28-29 April, 2022
23	Dr. Suman Saha	Workshop on Virtual Labs: 28-29 April, 2023
24	Dr. Shailendra Shukla	Workshop on Virtual Labs: 28-29 April, 2024
25	Dr. Rajni Mohana	Workshop on Virtual Labs: 28-29 April, 2026
26	Dr. Punit Gupta	Workshop on Virtual Labs: 28-29 April, 2027
27	Dr. Yashwant Singh	Workshop on Virtual Labs: 28-29 April, 2030
28	Dr. Hemraj Saini	Workshop on Virtual Labs: 28-29 April, 2032
29	Ruhi Mahajan	Statistica Workshop : 21st April, 2017
30	Ruchi Verma	Statistica Workshop : 21st April, 2018

31	Dr. Rajni Mohana	Statistica Workshop : 21st April, 2019
32	Amol Vasudeva	Statistica Workshop : 21st April, 2020
33	Dr. Suman Saha	Statistica Workshop : 21st April, 2021
34	Dr. Shailendra Shukla	Statistica Workshop : 21st April, 2022
35	Dr. Yashwant Singh	Statistica Workshop : 21st April, 2023
36	Dr. Vivek Sehgal	Statistica Workshop : 21st April, 2024
37	Dr. Hemraj Saini	Statistica Workshop : 21st April, 2025
38	Prof. Dr. Satya Prakash Ghrera	Statistica Workshop : 21st April, 2026
39	Geetanjali	State Level Workshop on Virtual Labs: 28th Feb., 2017
40	Arvind Kumar	State Level Workshop on Virtual Labs: 28th Feb., 2018
41	Amol Vasudeva	State Level Workshop on Virtual Labs: 28th Feb., 2019
42	Dr. Suman Saha	State Level Workshop on Virtual Labs: 28th Feb., 2020
43	Dr. Shailendra Shukla	State Level Workshop on Virtual Labs: 28th Feb., 2021
44	Dr. Punit Gupta	State Level Workshop on Virtual Labs: 28th Feb., 2022
45	Dr. Hemraj Saini	State Level Workshop on Virtual Labs: 28th Feb., 2023
46	Prof. Dr. Satya Prakash Ghrera	State Level Workshop on Virtual Labs: 28th Feb., 2024
47	Yashdeep Singh	2016 Fourth International Conference on Parallel, Distributed and Grid Computing(PDGC) 22-24 December, 2016
48	Ruhi Mahajan	2016 Fourth International Conference on Parallel, Distributed and Grid Computing(PDGC) 22-24 December, 2016
49	Ruchi Verma	2016 Fourth International Conference on Parallel, Distributed and Grid Computing(PDGC) 22-24 December, 2016
50	Puneet Kumar Jain	2016 Fourth International Conference on Parallel, Distributed and Grid Computing(PDGC) 22-24 December, 2016
51	Geetanjali	2016 Fourth International Conference on Parallel, Distributed and Grid Computing(PDGC) 22-24 December, 2016
52	Arvind Kumar	2016 Fourth International Conference on Parallel, Distributed and Grid Computing(PDGC) 22
53	Amol Vasudeva	2016 Fourth International Conference on Parallel, Distributed and Grid Computing(PDGC) 22
54	Dr. Suman Saha	2016 Fourth International Conference on Parallel, Distributed and Grid Computing(PDGC) 22
55	Dr. Shailendra Shukla	2016 Fourth International Conference on Parallel, Distributed and Grid Computing(PDGC) 22
56	Dr. Ravindara Bhatt	2016 Fourth International Conference on Parallel, Distributed and Grid Computing(PDGC) 22

57	Dr. Rajni Mohana	2016 Fourth International Conference on Parallel, Distributed and Grid Computing(PDGC) 22
58	Dr. Punit Gupta	2016 Fourth International Conference on Parallel, Distributed and Grid Computing(PDGC) 22
59	Dr. Pradeep Kumar Singh	2016 Fourth International Conference on Parallel, Distributed and Grid Computing(PDGC) 22
60	Dr. Pradeep Kumar Gupta	2016 Fourth International Conference on Parallel, Distributed and Grid Computing(PDGC) 22
61	Dr. Pardeep Kumar	2016 Fourth International Conference on Parallel, Distributed and Grid Computing(PDGC) 22
62	Dr. Amit Kumar Singh	2016 Fourth International Conference on Parallel, Distributed and Grid Computing(PDGC) 22
63	Dr. Yashwant Singh	2016 Fourth International Conference on Parallel, Distributed and Grid Computing(PDGC) 22
64	Dr. Vivek Sehgal	2016 Fourth International Conference on Parallel, Distributed and Grid Computing(PDGC) 22
65	Dr. Hemraj Saini	2016 Fourth International Conference on Parallel, Distributed and Grid Computing(PDGC) 22
66	Prof. Dr. Satya Prakash Ghrera	2016 Fourth International Conference on Parallel, Distributed and Grid Computing(PDGC) 22
67	Amol Vasudeva	Second International Conference on Recent Innovations in Computer Science and Information Technology (RICSIT-2017), 19th May, 2017, UIIT Dept, HP University, Shimla.
68	Puneet Kumar Jain	E-yantra Workshop, Sponsoring agency-MHRD Place held-IIT Bombay, 9-10/12/2016
69	Puneet Kumar Jain	E-yantra Task based Training, Sponsoring agency-MHRD and IIT Bomaby Roorkee Place held-JUIT, Wakanaghat, 10/01/2017-5/4/2017

Faculty Specialisations

Srl	Position	Name	Specialisation
1	Assistant Prof(Grade-I)	Ms Ruhi Mahajan	NLP
2	Assistant Prof(Grade-I)	Ms Annie Singla	Databases
3	Assistant Prof(Grade-I)	Ms Nishtha	Mobile Computing
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	Web Application Engineering

		Singh	
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	Assistant Prof(Senior)	Dr Yashwant Singh	Wireless Sensor Networks
19	Associate Prof	Dr Vivek Sehgal	IOT

DEPARTMENT OF BIOTECHNOLOGY, BIOINFORMATICS & PHARMACY

Educational Programs

The Department offers 4 year B.Tech. programmes in Biotechnology and Bioinformatics, a dual degree 5 year M.Tech. programme in Biotechnology, 2 year M.Tech. programmes in Biotechnology and Computational Biology, and Ph.D. in Biotechnology/Bioinformatics. 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 projectwork which helps them to handle independent projects in academia and industry. Each student is affiliated to a faculty member to supervise the project work and also to provide guidance for effective and productive implementation of the project work. JUIT has a unique distinction of providing teaching/research assistantships to all its PhD scholars. Biotechnology researchers of the University are venturing into modern areas of research such as nano-biotechnology, synthetic biology, biosensors, stem cells and regenerative medicine, metabolic engineering, etc. so as to remain at the forefront of biotech education and research at the global level.

Programme objectives

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

Programme outcomes

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

3. The graduates develop capabilities of keeping abreast with the contemporary research and innovations in biotechnology, being inquisitive in understanding cutting edge areas of biotechnology, adopt, grasp and absorb knowledge across disciplines and ability to integrate within research areas of Biotechnology.
4. The graduates develop soft skills such as understanding of professional and ethical responsibilities, an ability to function on multi-disciplinary teams which help them in effective communication abilities.

Infrastructural Strengths

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

R&D Activities

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

The diversity of specializations and research pursuits of the faculty puts the department in a unique advantage of pursuing research in any area of biotechnology contrary to most of the departments or R&D institutes in India. As a result the faculty is engaged in research on diverse fields of research such as understanding molecular biology of kidney stone formation and cure thereof, cancer biomarkers development of molecular diagnostics for diseases and pathogens, animal cell cultures for bioassays and anti-cancer drug discovery, development of herbal-based anti-depressant formulations, low-cost micropropagation technologies for high value ornamentals, fruit plants and medicinal & aromatic plants, plant cell culture technologies for production of phytopharmaceuticals, bioprospecting of Himalayan bioresources for novel genes and metabolites of medicinal and nutritional importance, development of genome resources for

bioresources, transgenic plants with value addition, fermentation technologies for nutraceutical wines, refinements of bioprocesses towards green technologies, microbial bioremediation of environmental pollutants, bioleaching of E-waste, bioconversion of complex lignocellulosic waste into bio-ethanol, gene discovery through comparative and functional genomics, development & validation of molecular markers, DNA fingerprinting in forensics, computational drug designing for bacterial pathogens of biological warfare importance, development of computational prediction tools, development of bioinformatics pipelines & tools, and development of biological databases, etc. All these research programs provide B.Tech. Students an opportunity to "Learn While Doing"-the motto of our education system for producing world-class leaders in science &technology.

Sponsored Research Projects: no. 66
New: 3
Ongoing: 16
Completed: 50
Faculty Involved: 27

List of sponsored Research Projects

S. No.	Principal Investigator	Title	Duration	Funding Agency	Amount (Rs in Lacs)	Completed/ Ongoing
1	Dr. S. Naik	Cytogenetic evaluation, molecular characterization and improvement of some promising cultivars of turmeric and ginger through biotechnological methods	2003-2006	DST	10	Completed
2	Dr. S. Syal	Development of a bioremedial system for diesel contaminated sites in South-Western areas of H.P.	2005-2008	DST	2.5	Completed
3	Dr. C. Tandon	Biomolecules from Tamarind indicus and Terminalia arjuna influencing Mineralization/ Demineralization processes and their role in management of renal calculosis	2006-2009	DST	18	Completed

4	Dr. P.K. Naik	Study of population structure of Podophyllm hexandrum using biochemical and molecular markers	2006-2009	DST	14	Completed
5	Dr.S. Syal	Development of technologies for bioconversion of lignocellulosic waste from herbal industries for developing commercially viable products	2007-2009	AyurVet Ltd.	5	Completed
6	Dr.R.S.Chauhan	Bioprospecting of buckwheat (Fagopyrum tataricum) for novel genes & metabolites of medicinal and nutritional importance	2007-2011	DBT	40.6	Completed
7	Dr.R.S.Chauhan	Development of candidate gene markers for Jatropha by utilizing genome resources of caster bean	2007-2011	DBT	59.5	Completed
8	Dr.R.S.Chauhan	Identification of low curcin genotypes of Jatropha and their utilization in developing candidate gene markers	2008-2011	DRDO	19.2	Completed
9	Dr. C.Tandon	Development of a standardized herbal product for urolithiasis from Tribulus terrestris and Achyranthes aspera	2009-2011	DBT	26.2	Completed
10	Dr. S. Syal	Development of a bioleaching strategy for sustainable disposal and recycling of electronics-waste	200 8-2011	MoE	19.7	Completed
11	Dr.Uday Bhanu	Formulation of an antidepressant/stress reliever drug based on St John's Wort (Hypericum perforatum)	2009-2012	DRDO	15	Completed

12	Dr.C. Rout	Computational Identification, Evaluation and in vivo Validation of Vaccine Candidates from Bioweapon Toxins, and Selected Potential Bacterial Bioweapons (PBBWs)	2010-2012	DRDE	9.4	Completed
13	Dr. C.Tandon	Exploring the role of matrix protein(s) from calcium oxalate stones in nephrolithiasis and assessment of their molecular interactions with calcium oxalate monohydrate (COM) crystals in silico	2009-2011	ICMR	8.4	Completed
14	Dr. RS Chauhan	Identification of genetically superior strains of medicinal plants (P. kurroa and Valeriana jatamanshi) from North-Western Himalayas of India	2009-2012	Ministry of Health, GOI	16.5	Completed
15	Dr. PK Naik	Genetic characterization, chemical profiling and optimization of parameters for Artemisinin yield in Artemisia annua from the Ladakh region	2010-2012	DRDO	9.5	Completed
16	Dr. Poonan Sharma	Physico-chemical studies of drug-surfactant interactions in aqueous alcoholic solutions	2011-2013	DST	6.4	Completed
17	Dr. S. Tandon	The potential of human embryonic stem cells in developmental toxicity testing	2010-2012	DBT	17.2	Completed
18	Dr. G. Dey	Production of Nutrabeverages from	2010-2012	TRIFED	7	Completed

		Mahua Flowers				
19	Dr. RSChauhan	Elucidating missing links in the biosynthetic pathways of major medicinal constituents for utilization in the development of gene markers	2010-2015	DBT	198.7	Completed
20	Dr. Manu Sharma	Antioxidants and Lantadene A Hybrid compounds as anticancer agents	2010-2013	DBT	7.6	Completed
21	Dr. Manu Sharma	Design, synthesis and evaluation of Lantadene polyphenol conjugates as anticancer agents.	2010-2013	DST	12	Completed
22	Dr. Gopal Singh	Design, synthesis and evaluation of antibacterial peptidomimetics	2011-2014	DST	18	Completed
23	Dr. C. Tandon	Identification and functional characterization of proteins as key/rate-limiting enzymes in the biosynthesis of desired chemical constituents of target plant species	2010-2015	DBT	60.7	Completed
24	Dr.P.K. Naik	Identification of intermediate metabolites for linking missing links in the biosynthetic pathways of desired chemical constituents in target plant species	2010-2015	DBT	68.65	Completed
25	Dr. Hemant Sood	Identification of elite chemotypes and optimization of differential accumulation conditions for major & desired chemical constituents of three medicinal plants species	2010-15	DBT	60	Completed
26	Dr. Tiratha	Structural, functional	2012-15	DST	12.48	Completed

	Raj Singh	and evolutionary analysis of repair pathways with special relevance to human disease				
27	Dr. Harvinder Singh	Nucleotide diversity in granule bound starch synthase-I (GBSS-I) metabolic pathway genes and its association with starch quality in elite Indian rice genotypes	2011-2014	DST	16	Completed
28	Dr. Manu Sharma	Polyunsaturated fatty acids and Lantadene A conjugates as selective tumor targeting agents	2012-2015	ICMR	22	Completed
29	Dr. C. Tandon	Characterization of the antilithiatic proteins from Tamarindusindica and Terminaliaarjuna and evaluation of their cytoprotective role on oxalate-induced renal tubular epithelial cell injury	2012-2015	DST	50	Completed
30	Dr. Harvinder Singh	Genetic analysis to avoid inbreeding of the endangered western tragopan in the aviaries of Himachal Pradesh	2012-2015	DST	11.2	Completed
31	Dr. Rahul Srivastava	Identification of Macrophage Invasion Protein(s) of Atypical Mycobacteria M. fortuitum as Potential Drug Target and Inhibitors Thereof	2012-2015	DST	17.4	Completed
32	Mr. Dipankar Sengupta	Development of Business Intelligence Model of Army Personnel's at Higher Altitude	2012-2014	DRDO	9.9	Completed
33	Dr. GL Gupta	Development of a polyherbal preparation to treat ethanol	2012-2015	DST	24.85	Completed

		abstinence syndrome.				
34	Dr. Mamta Raghav	Probiotics to prevent infection of Cronobacter sakazakii in neonatal mouse model	2012-15	DBT	42.15	Completed
35	Dr. Gunjan Goel	Development of a multicompartment in vitro model of the human gastrointestinal tract	2012-15	DBT	45.4	Completed
36	Dr. RS Chauhan	Development of Gene Markers for High Seed Oil Content and Dissecting Molecular Basis of Female Flower Development in J. curcas Towards its Genetic Improvement for High Seed Yield	2013-2016	DBT	120	Completed
37	Dr. Gunjan Goel	Novel quorum sensing modulators against biofilm forming Cronobacter sakazakii	2013-16	DST	23.5	Completed
38	Dr. Anil Kant	Identification and validation of sex linked markers in seabuckthorn	2013-2015	DRDO	10	Completed
39	Dr. C.Tandon	Mass spectrometric identification of matrix protein(s) from calcium oxalate stones in nephrolithiasis and assessment of their activity oncalcium oxalate crystal-mediated stress in renal epithelial cells	2013-2016	ICMR	17	Completed
40	Dr. P.K. Naik	Toxicological evaluation of herbal formulations: (a) herbal performance enhancing capsules (PerfoMax), (b) herbal adaptogenic appetizer, (C) herbal tea	2012-2013	DRDO	8.5	Completed

		and (D) seabuckthron oil based soft gel capsule				
41	Dr. Jitendraa Vashistt	Identification, characterization of diarrhoeagenic pathogens in Himachal Pradesh	2013-2016	ICMR	16	Completed
42	Dr. Simran Tandon	Establishment of an assay using human embryonic stem cell derived cardiac precursors from KIND2 cells for cytotoxicity testing	2013-2015	DBT	45.67	Completed
43	Dr. Jayashree Ramana	Comparative genomics of diarrheal pathogens to identify vaccine candidates and study of various antibiotic resistance mechanisms.	2013-2016	DST	23.11	Completed
44	Dr. Harish Changotra	Identification of Single Nucleotide Polymorphisms in the transcriptional regulatory region of autophagy gene, ULK1 and their role in susceptibility to chronic hepatitis B virus infection	2013-2016	DBT	18	On going
45	Dr. RS Chauhan	DST-FIST	2012-2017	DST	150	On going
46	Dr. Aklank Jain	Ramanujan Fellowship	2012-2017	DST	73	On going
47	Dr. Harish Changotra	Autophagy genes (Atg16L1 and IRGM) single nucleotide polymorphisms in the	2013-16	DST	23	Completed

		susceptibility of chronic hepatitis B virus infection				
48	Dr. C.Tandon	Development of herbal product for urolithiasis from Tribulus terrestris	2013-2016	DBT	52.23	Completed
49	Dr. Rahul Shrivastava	Identification of Macrophage Invasion Protein(s) of Atypical Mycobacteria M. fortuitum as Potential Drug Target and Inhibitors Thereof	2013-2016	DST	17.4	Completed
50	Dr. C. Rout	Development of inhibitors to target glyoxylate and methylcitrate cycles essential for persistence of Mycobacterium tuberculosis	2013-2016	ICMR	36	On going
51	Dr. Gunjan Goel	Development of an in vitro gut model to study the survival of probiotics in mixed microbial consortia	2013-2016	DBT	34.5	Completed
52	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
53	Dr. Gunjan Goel	Elucidating the linkage between key limiting processes and microorganisms during anaerobic degradation of lignocellulosic waste	2014-2016	Indo-Russian	24	Completed
54	Dr. Manju Jain	Investigating the role of thymus in mediating host immune modulation in visceral leishmaniasis	2013-2016	DST	27	Completed

55	Dr. Anil Kant	Transcriptome analysis of seabuckthorn male and female flowers	2015-17	DRDO	10	On going
56	Dr. Gopal Singh Bisht	Synthesis of novel poly-N-substituted glycines (peptoids) based on cell selective antimicrobial peptides for Gram-negative bacterial infections	2015-2018	ICMR	24	On going
57	Dr. Hemant Sood	Molecular Dissection of Biosynthesis of Pharmacologically Important Phenol Glycosides in a High Value Medicinal Plant (Rhodiola imbricata) from Trans- Himalayan Region of Ladakh	2015-17	DRDO	10	On going
58	Dr. Hemant Sood	Socio Economic upliftment of high altitude farmers of Himachal Pradesh through transfer of micro-propagation technologies for high value medicinal herbs	2015-18	DST	14.5	On going
59	Dr. Jitendraa Vashistt	Identification of biofilm associated proteins of multidrug resistant Acinetobacter baumannii as potential drug target and inhibitors thereof.	2015-18	DST	23.30	On going
60	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	On going
61	Dr Tiratha Raj Singh	A Bioinformatic and experimental approach to investigate the	2015-2018	ICMR	25.66	On going

		interaction between acetylcholinesterase (AChE) and angiotensin-converting-enzyme (ACE) along with Alzheimer's disease associated proteins.				
62	Dr. RS Chauhan	Functional analysis and validation of picrosides biosynthetic pathway and development of gene markers for elite chemotypes of Picrorhizakurroa	2016-21	DBT	350	On going
63	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
64	Dr. Gopal Singh Bisht	Synthesis of Novel Poly-N Substituted Glycines (Peptoids) Based on Cell Selective Antimicrobial Peptides for Gram Negative and Gram Positive Bacterial Infections	2015-2018	ICMR	24.3 LAKH	On going
65	Dr. Poonam Sharma	Physico-chemical Study of Flavonoid - Surfactant Interaction: Utilization in Neomycin Topical Formulation	2017-2020	DST	22,50600/-	On going
66	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

Patents Granted

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

Published

1. Bisht GS, Lohan S, Non-Natural Short Cationic Antimicrobial Lipopeptides. (Patent application no. 1161/DEL/2014) (Publication Date: 06/11/2015).
2. Rout C, Chauhan A, Chauhan RS and Chauhan D, Automated Computer Aided Diagnosis (CAD) of Tuberculosis using Chest X-Ray. (Patent Application No. 396/DEL/2013) (Publication Date: 29/08/2014).
3. Sood H, Gulati S, Bakshi S, Sandhu BS, Kumar V and Chauhan RS, A process of enriching medicinal constituents in shoot cultures of Swertia chirayita. (Patent application No.362/DEL/2013)(Publication Date: 29/08/2014).
4. Sharma S, Sood H and Chauhan RS, INDITECH - A Novel Bioreactor. (Patent Application No. 1631/DEL/2012) (Publication Date: 25/07/2014) (Journal No.-29545).
5. Dey G, Negi B. 2010. A synbiotic formulation of sea buckthorn (Hippophae rhamnoides L.) berries with radical scavenging potential.(Patent Application No. 2714/DEL/2012) (Publication Date: 07/03/2014)
6. Sood H, Kumar V and Chauhan RS,Isolation and purification of Picroside-I and Picroside-II. (Patent Application No. 551/DEL/2012) (Publication Date: 14/02/2014) (Journal No.-07/2014).
7. Sharma M, Kumar SS, An economical and improved isolation process of antitumor triterpenoid Lantadene B from weed Lantana camara L., (Patent Application No. 1940/DEL/2012) (Publication Date: 14/02/2014).
8. Sharma M, Kumar SS, An improved process of conversion of Lantadene A & B to reduced Lantadene A & B. (Patent Application No. 2867/DEL/2011) (Publication Date: 05/04/2013).
9. Kumari M, Kumar S, Chauhan RS and Ravikanth K. 2011. Process for production of cellulase and pectinase from herbal industry residue. (Patent Application No. 139/DEL/2011) (Publication Date: 15/03/2013).
10. Tandon C and Aggarwal A, A novel anti-calcifying protein from Tribulus terrestris(Patent Application No. 2248/DEL/2011) (Publication Date: 15/02/2013).
11. Chauhan RS, Anwar T, Mathur A, Malhotra A, Mathur G, Thermo-halotolarent Lipase by a New Strain of Staphylococcus arlettae (Patent Application No. 1865/DEL/2010) (Publication Date: 15/03/2013).
12. Dey G, Negi B. Novel method for producing sea buckthorn wine and wine thereof. (Patent Application No. 499/DEL/2010) (Publication Date: 10/02/2012).
13. Chauhan RS, Sharma A, Sood P. Gene Markers for Selection and Development of High Oil Content Jatropha (Patent Application No. 292/DEL/2010) ((Publication Date: 02/09/2011).
14. Sood H and Chauhan RS, A process of enriching the amount of medicinal compound, Picroside-1 in shoots of medicinal herb, Picrorhiza kurroa. (Patent Application No. 163/DEL/2009) (Publication Date: 06/08/2010) (Journal No.-32/2010).

15. Chauhan RS, Kumar V, Sood H, Pandit S, Shitiz K, Biosynthetic pathway for the production of Picroside-I and Picroside-II and their Intermediates in Picrorhiza kurroa (Patent Application No. 1922/DEL/2012).
16. Kumar S, Verma R, Cellulase free xylanase production by thermophilic bacteria isolated from tattapani hot spring soil. (Application number awaited)

Outreach Activities

i) Dr.Sudhir Kumar:Outreach Activity at Nahan Science Congress, HP, November 15-17, 2016
ii) Dr.Sudhir Kumar:Outreach Activity at DAV Sundernagar and DAV Mandi, HP, May 06-07, 2017
iii) Dr.Sudhir Kumar, Dr.Raghothaman,:Outreach Activity at Govt. Girls Senior Secondary School, The Mall, Solan, HP
May 18, 2017
iv) Dr.Sudhir Kumar,Dr.Raghothaman:Outreach Activity at Y.S.School, Barnala, Punjab: May 30, 2017
v) Dr. Poonam Sharma:Outreach Activity at DAV School Bilaspur and Burmana, HP
vi) Dr. Poonam Sharma ,Dr.Raghothaman:An outreach activity was performed in Distt. level children science congress held at Dari Dharamshala from 7 to 9 Nov 2016.
vii) Dr. Poonam Sharma :Participated as resource person(Judge) in State level children science congress held at Nahan from 15-18 Nov 2016
viii) Dr.Udayabanu:A visit to the Central Potato Research Institute, Shimla was organized by Synapse for the 3rd year students of the Department on Apr 2016.
ix) Dr. Anil Kant: Organised Science and Engineering work shop at Laureate Public School Shimla on 12th July,2017
x) Dr. Rahul Srivastva:A visit to St. Marry School, Sundernagar, organized by Biotech and Bioinformatics Department for hands on experience to students on several experiments, systems and techniques such as plant tissue culture, gel electrophoresis for DNA, basic microbiology etc on June 2017.
xi) Dr. C. Rout:Taken Summer training trip to Kufri and Shimla
xii) Dr. Tiratharaj Singh:Delivered brief talks on bioinformatics and career opportunities in BI in many schools during 2016-17 for outreach activity of the university such as at Govt. Girls. Sr. Sec. School, The Mall, Solan, DAV schools Mandi and Sundarnagar, Laureate Public School, Shimla etc.
xiii) Dr. Saurabh bansal:Awareness campaign on 'Future prospective in Biotechnology and Bioinformatics after XIIth' was organized in Govt. Girls Sr. Sec. School, The Mall, Solan and in Govt. Sr. Sec. School, Kandaghat on Oct 16, 2016.
xiv) Dr. Saurabh bansal :A trip to Minchy's Food Products Ltd., Sadhupul, Solan was organized by Synapse on February 07th 2017 for the 1st year students.
xv) Dr. Saurabh bansal :An Interaction session on 'Career prospects in Biotechnology and Bioinformatics' was organized on 28th Nov, 2016 for the 3rd and 4th Year students by the Synapse.
xvi) Dr. Saurabh bansal :An Inter-department Biomodelling 2016' competitive event was organized on 26th Nov, 2016.

xvii) Dr. Saurabh bansal :A public speaking Contest for the North India region undergraduate students 'Voice for BT' was organized on 29th Sept, 2016 in association with Novozyme, Bangalore and Association of Biotechnology Led Enterprises (ABLE), India.

Visitors List (01 July 2015-30 June 2016)

S. No.	Name of Visitors	Affiliation	Date
1	Dr. Rajesh Sani	Associate Professor - Chemical and Biological Engineering, South Dakota School of Mines and Technology, SD, USA	30-Jul-16
2	Mr. Sandeep Singh Kohli	Co-Founder, Xlpat Labs, Chandigarh	30-Aug-16
3	Dr. M. Aslam	Advisor, DBT	17-Sep-16
4	Dr. Bhavnesh Kumar	Application Specialist, DSS Takara Bio India Pvt. Ltd.	23-Sep-16
5	Mr. G. S. Krishnan	Regional President, Novozymes South Asia Pvt. Ltd. Bangalore	28-29 Sept 2016
6	Dr. Mads Bjørnvad	Director, Head of R&D, Novozymes South Asia Pvt Ltd	28-29 Sept 2016
7	Mr. Narayan Suresh	COO, ABLE India	29-Sep-16
8	Mr. Divakar Rao	Advisor to Life Sciences Sector, Member-Vision Group on Biotechnology & Member-Governing Council, KSBDB, Govt of Karnataka, Bangalore	29 -30 Sept 2016
9	Dr. Rangaraj M. Rangayyan	Professor Emritius, Schulich School of Engineering, University of Calgary, 2500 University Drive N.W. Calgary, Alberta, Canada	19-Jan-17

Faculty Activities

I) Publications
II) Books/Monographs
III) Chapters in Books

i) Kumar, S.Bhalla, A.Bibra, M. Wang, J. Morisette, K. Raj, S.M. Salem, D. and Sani, R.K. (2016). ThermophilicBiohydrogen Production: Challenges at the Industrial Scale. Bioenergy Opportunities and Challenges Edited by R. NavaniethaKrishnaraj, Jong-Sung Yu. Apple Academic Press. [ISBN:] pp. 3-36.

ii) Thakur R and Shankar J. Strategies for gene expression in Prokaryotic and Eukaryotic system. V.C. Kalia, A.K. Saini (eds.), Metabolic Engineering for Bioactive Compounds, DOI 10.1007/978-981-10-5511-9_11 Springer (In Press 2017).

iii) Ankit Srivastava, Saurabh Bansal and Jata Shankar. Developments and diversity of proteins and enzymes. V.C. Kalia, A.K. Saini (eds.), Metabolic Engineering for

Bioactive Compounds, DOI 10.1007/978-981-10-5511-9_11 Springer (In Press 2017).

iv) Garlapati Vijay Kumar, Gour Rakesh Singh, Sharma Vipasha, Roy Lahshami Shri, Prashant Samudrala, Anil Kant and Banerjee Rintu (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]

v) Anuj Kumar Chandel, Lathika Bhatia, Vijay Kumar Garlapati, Lakshmi Shri Roy, Anju Arora (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] (2017)

vi) Vijay Kumar Garlapati, Rakesh Singh Gour, Vipasha Sharma, Lakshmi Shri Roy, Prashant Jeevan Kumar Samudrala, Anil Kant,Rintu Banerjee (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]

vii) Khandelwal, I. Sharma A. Agrawal P.K. and Shrivastava R. (2017). Bioinformatics Database Resources. In Shri Ram, Library and Information Services for Bioinformatics Education and Research: IGI Global. [ISBN : 9781522518716] pp. 45-90.

viii) Ahmed Moussa, Brigitte Vannier, Ragothaman Yennamalli, and Tiratha Raj Singh. For special issue on Bioinformatics in CSI Communications, published by Computer Society of India, October 2016, Pages 28-31.

ix) 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 Netherlands: Springer Netherlands. [ISBN : 9789402410433] pp. 337-352.

x) 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. IGI Global. [ISBN : 9781522518716]. pp. 112-129.

xi) Priya P Panigrahi, Tiratha Raj Singh (2017). Data Mining, Big Data, Data Analytics: Big Data Analytics in Bioinformatics. In , Library and Information Services for Bioinformatics Education and Research : IGI Global. [ISBN : 9781522518716] pp. 91-111

xii) Srivastava A, Bansal S*, Shankar J (2017) Developments and diversity of proteins and enzymes. In V.C. Kalia, A.K. Saini, R.V. Sharma, D.K. Sharma, Strategies for metabolic engineering in bioactive compounds and processes. Springer (In Press).

IV) Articles in Refereed Journals

i) Sahni, A. Kumar, A. Kumar, S.(2016). Chemo-biohydrometallurgy—A hybrid technology to recover metals from obsolete mobile SIM cards. Environmental Nanotechnology, Monitoring & Management. 6, 130-133

ii) Kumar, A. Devi, R. Kumar, S. (2016). Use of pine needles as substrate for biogas production. IJRER. 6(4), 1242-1247.

iii) Verma, R. Kumar, A. Kumar, S. (2016). CO_2 levels and coral reefs.Current Science. 111(08), 1288.

iv) Devi, R. Kumar, A. Kumar, S. (2016). Comparison of biogas production in ambienttemperature condition and under green house canopy. JCEET. 3(6), 495-499.

v) Thakur R. and Shankar J. (2017). Proteome profile of Aspergillus terreus conidia at germinating stage; Identification of probable virulent factors and enzymes from mycotoxin pathways. Mycopathologia doi:10.1007/s11046-017-0161-5 ISSN: 0301-486X

vi) Tiwari S., Gupta N., Udayabanu M, Shankar J. (2017) Anti-aspergillus properties of phytochemicals against aflatoxin producing Aspergillus flavus and Aspergillus parasiticus National Academy science letter doi: 10.1007/s40009-017-0569-y ISSN: 0250-541X

vii) Thakur R. and Shankar J. (2017). New treatment regime for Aspergillus mediated infections. Virology & Mycology Virol-mycol 6: 162. doi:10.4172/2161-0517.1000163 ISSN: 2161-0517

viii) Thakur R. and Shankar J. (2016). In silico identification of potential peptides or allergen shot candidates against Aspergillus fumigatus BioResearch Open Access. doi:10.1089/biores.2016.0035. ISSN: 2164-7860. 5(1): 330-341.

ix) Thakur R. and Shankar J. (2017). New treatment regime for Aspergillus mediated infections. Virology & Mycology 6: 162. doi:10.4172/2161-0517.1000163 ISSN: 2161-0517

x) Vikrant Abbot V., Poonam Sharma P., Saurabh Dhiman S. , Harun M. Patel H. M. , Malleshappa N. Noolvi M.N.and arun Bhardwaj V..(2017) Small hybrid heteroaromatics : resourceful biological tools in cancer research: RSc Advances, 7, 2017,28319-28349.

xi) ii) Bhardwaj V., Sharma P., Chauhan M. S., Chauhan S. (2016). Micellization, Interaction and Thermodynamic Study of Butylatedhydroxyanisole (synthetic antioxidant) and Sodium Dodecyl Sulfate in Aqueous-Ethanol Solution at 25, 30 and 35^0C. Journal of Saudi Chemical society, 20 (1), S109-S114

xii) Parashar A., Mehta V., Udayabanu M., (2017). Rutin alleviates chronic unpredictable stress-induced behavioral alterations and hippocampal damage in mice. Neurosci Lett. 656: 65-71.

xiii) Choudhary R., Malairaman U., Katyal A., (2017). Inhibition of 12/15 LOX ameliorates cognitive and cholinergic dysfunction in mouse model of hypobaric hypoxia via. attenuation of oxidative/nitrosative stress. Neuroscience. 359:308-324.

xiv) Kumar K., Sharma S., Vashishtha V., Bhardwaj P., Kumar A., Barhwal K., Hota S.K., Malairaman U., Singh B., (2016). Terminalia arjuna bark extract improves

diuresis and attenuates acute hypobaric hypoxia induced cerebral vascular leakage. J Ethnopharmacol. 180:43-53.

xv) Parashar A., Udayabanu M., (2017).Gut microbiota: Implications in Parkinson's disease. Parkinsonism & related disorders. 38: 1-7

xvi) Patel S.S., Tomar S., Sharma D., Mahindroo N., Udayabanu M., (2017) Targeting sonic hedgehog signaling in neurological disorders. Neuroscience and Biobehavioral Reviews. 74 (Pt A): 76-97.

xvii) Mehta V., Parashar A., Udayabanu M., (2017). Quercetin prevents chronic unpredictable stress induced behavioral dysfunction in mice by alleviating hippocampal oxidative and inflammatory stress. Physiology and Behavior. 171: 69-78.

xviii) Patel S.S., Udayabanu M., (2017). Effect of natural products on diabetes associated neurological disorders. Reviews In The Neurosciences. 28(3): 271-293.

xix) Mehta V., Parashar A., Sharma A., Singh T.R., Udayabanu M., (2017). Quercetin ameliorates chronic unpredicted stress-mediated memory dysfunction in male Swiss albino mice by attenuating insulin resistance and elevating hippocampal GLUT4 levels independent of insulin receptor expression. Hormones and Behavior. 89: 13-22.

xx) Patel S.S., Mahindroo N., Udayabanu M., (2016). Urtica dioica leaves modulates hippocampal smoothened-glioma associated oncogene-1 pathway and cognitive dysfunction in chronically stressed mice. Biomedicine & Pharmacotherapy. 83: 676-686.

xxi) Patel S.S., Gupta S., Udayabanu M., (2016) Urtica dioica modulates hippocampal insulin signaling and recognition memory deficit in streptozotocin induced diabetic mice. Metabolic Brain Disease. 31(3): 601-611.

xxii) Mehta V., Verma P., Sharma N., Sharma A., Thakur M., Udayabanu M., (2016). Quercetin, ascorbic acid, caffeine and ellagic acid are more efficient than rosiglitazone, metformin and glimepiride in interfering with pathways leading to the development of neurological complications associated with diabetes: A comparative in-vitro study. Bulletin of Faculty of Pharmacy, Cairo University. 55: 115-121.

xxiii) Sharma S., Sharma A., Mehta V., Chauhan R.S., Udayabanu M., Sood S., (2017). Efficient hydroalcoholic extraction for highest diosgenin content from Trillium govanianum (nag chhatri) and it’s in vitro anticancerous activity. Asian Journal of Pharmaceutical and Clinical Research. 9(4): 386-392.

xxiv) Tiwari R.K., Chanda S., Udayabanu M., (2017). Evaluation of in vitro- anti-oxidant potential of aqueous root extract of Clerodendrum serratum L. Asian Journal of Pharmaceutical and Clinical Research. 10(4): 402-404.

xxv) Arya Jagdish Singh, Singh Narendra, Arya Preeti Singh, Kant Anil (Feb.2017) Morphological variations and relationship among onion germplasm for quantitative and qualitative traits at trans-Himalaya Ladakh, India. Australian Journal of Crop Science, 11(03):329-337 (2017) doi: 10.21475/ajcs.17.11.03.pne369

xxvi) Jha, Durga., Jain, Vishakha., Sharma, Brinda, Kant Anil and Garlapati, V. K. (2017), Microalgae-based Pharmaceuticals and Nutraceuticals: An Emerging Field with Immense Market Potential. ChemBioEng Reviews 4(4): 257-272. doi:10.1002/cben.201600023

xxvii) Sampan Attri, Niharika Singh, Tiratha Raj Singh, Gunjan Goel (2017). Effect of in vitro gastric and pancreatic digestion on antioxidant potential of fruit juices. Food Bioscience. 17, 1-6.

xxviii) Ashwani Kumar, Tiratha Raj Singh (2017). A New Decision Tree to Solve the Puzzle of Alzheimers Disease Pathogenesis Through Standard Diagnosis Scoring System. Interdisciplinary Sciences: Computational Life Sciences. 9 (1), 107-115.

xxix) Mehta V, Parashar A, Sharma A, Tiratha Raj Singh, Udayabanu M (2017). Quercetin Ameliorates Chronic Unpredicted Stress-mediated Memory Dysfunction in Male Swiss Albino Mice by Attenuating Insulin Resistance and Elevating Hippocampal GLUT4 Levels Independent of Insulin Receptor Expression. Hormones and Behavior. 89, 13-22.

xxx) Ankita Shukla, Ahmed Moussa, Tiratha Raj Singh (2016). DREMECELS: A Curated Database for Base Excision and Mismatch Repair Mechanisms Associated Human Malignancies. PlosONE. 11(6), e0157031.

xxxi) Gour Rakesh Singh, Bairagi Madhusudan, Garlapati Vijay Kumar & Kant Anil (2017): Enhanced microalgal lipid production with media engineering of potassium nitrate as a nitrogen source, Bioengineered, DOI: 10.1080/21655979.2017.1316440

xxxii) Dolkar Phuntsog, Dolkar Diskit, Angmo Stanz, Kant Anil, Kumar Bhuvnesh, Stobdan, Tsering (Feb.2017). Sexual differences and seasonal variations in total phenolics and antioxidant properties in Hippophae rhamnoides leaves. Journal of Berry Research, vol. 7, no. 1, pp. 61-69, 2017. DOI 10.3233/JBR-170147

xxxiii) Bajpai Akanksha, Garlapati, Vijay Kumar, Gour Rakesh Singh and Kant Anil (2017) Evaluation of Microalgae from Himalayan region for nutraceutical activities. Int. J. Pharm Bio Sci; 8(2): (B) 174-178.

xxxiv) Gour Rakesh Singh, Chawla Aseem, Singh Harvinder, Chauhan Rajinder Sigh , Kant Anil (2016) Characterization and Screening of Native Scenedesmus sp. Isolates Suitable for Biofuel Feedstock. PLoS ONE 11(5): e0155321. doi:10.1371/journal.pone.0155321

xxxv)Jeevan Kumar S.P. , Vijay Kumar Garlapati, Archana Dash, Peter Scholz, Rintu Banerjee (2017) Sustainable Green Solvents and Techniques for Lipid Extraction from Microalgae: a review. Algal Research, 21: 138-147

xxxvi) Durga Jha., Vishakha Jain,., Brinda Sharma,, Anil Kant, Vijay Kumar Garlapati, . (2017), Microalgae-based Pharmaceuticals and Nutraceuticals: An Emerging Field with Immense Market Potential. ChemBioEng Reviews 4(4): 257-272. doi:10.1002/cben.201600023

xxxvii) Rakesh Singh Gour, Madhusudan Bairagi, Vijay Kumar Garlapati, Anil kant (2017) Enhanced microalgal lipid production with media engineering of potassium nitrate as a nitrogen source, Bioengineered, DOI: 10.1080/21655979.2017.1316440

xxxviii) Akanksha Bajpai, Vijay Kumar Garlapati, Rakesh Singh Gour, Anil Kant (2017) Evaluation of Microalgae from Himalayan region for nutraceutical activities. Int. J. Pharm Bio Sci; 8(2): (B) 174-178.

xxxix) Pawan Kumar, Varun Kumar, Vijay Kumar Garlapati (2016) Biosynthesis and pharmacological evaluation of shikonin-A highly valuable metabolite of North-

Western Himalayas: Mini Review. Medicinal Plants - International Journal of Phytomedicines and Related Industries, 8 (4): 267-274

xl) 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

xli) Jain S, Thakur N, Vashistt J, Grover N, Krishnan T, Changotra H. (2016). Predominance of unusual rotavirus G1P [6] strain in North India: An evidence from hospitalized children and adult diarrheal patients. Infection, Genetics and Evolution; 46:65-70.

xlii) Jain S, Vashistt J, Gupta K, Kumar A, Changotra H. (2016). Molecular Analysis of VP7 Gene of Rotavirus G1 Strains Isolated from North India. Current Microbiology; 73(6):781-9.

xliii) Vij A, Randhawa R, Parkash J, Changotra H (2016) Investigating regulatory signatures of human autophagy related gene 5 (ATG5) through functional in silico analysis. Meta gene; 9:237-48.

xliv) Randhawa R, Duseja A, Changotra H (2017) A novel Tetra-primer ARMS-PCR based assay for genotyping SNP rs12303764 (G/T) of human Unc-51 like kinase 1 gene. Molecular biology reports, 1; 44 (1):1-4

xlv) Vij A, Yennamalli RM, Changotra H (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. 30; 13:38-47.

xlvi) Agarwal S and Changotra H (2017) Association of PTPN22 +1858C>T Polymorphism and Susceptibility to Vitiligo: Systematic Review and Meta-Analysis. Indian Journal of Dermatology, Venereology and Leprology 83(2):183-189

xlvii) Nutan, Jain S, Tomar A, Changotra H, Vashistt J., (2016) Computational Tools: Indispensable Armamentarium of Medical Biotechnology. Indian Journal of Science and Technology. 30; 9(32).

xlviii) C. Chang, J. Lohman, H. Cao, K. Tan, J. Rudolf, M. Ma, W. Xu, C. Bingman, R. Yennamalli, L. Bigelow, G. Babnigg, X. Yan, A. Joachimiak, G. Phillips and B. Shen, "Crystal Structures of SgcE6 and SgcC, the Two-Component Monooxygenase That Catalyzes Hydroxylation of a Carrier Protein-Tethered Substrate during the Biosynthesis of the Enediyne Antitumor Antibiotic C-1027 inStreptomyces globisporus", Biochemistry, vol. 55, no. 36, pp. 5142-5154, 2016.

xlix) Vij, R. Yennamalli, H. Changotra. "Non-synonymous single nucleotide polymorphisms of ATG5 destabilize ATG12–ATG5/ATG16L1 complex: An enzyme with E3 like activity of ubiquitin conjugation system", Meta Gene, vol. 13, pp. 38-47, 2017.

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li) P. A. Srivastava, S. Kalra and R. Yennamalli. “Structural Bioinformatics and Big Data Analytics: A mini-review”, International Journal of Computational Biology, vol. 6, no. 1, pp. 25-30, 2017.

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liii) Shah MO, Mishra S, Yadav VK, Chauhan VK, Sarkar M, Sharma VK, Rout C (2017) Ziehl-Neelsen Sputum smear Microscopy image Database: A resource to facilitate automated bacilli detection for tuberculosis diagnosis, J Med Imaging, 4(2): 027503.
liv) Shah MO, Mishra S, Sarkar M, Rout C (2017) Identification of Robust Focus Measure Functions for the Automated Capturing of Focused Images from Ziehl-Neelsen Smear Microscopy Slide, Cytometry Part A, (doi: 10.1002/cyto.a.23142)
lv) Mishra D, Singh R, Rout C (2017) A facile amidation of chloroacetyl chloride using DBU, Int J ChemTech Res, 10 (3), 365-372.
lvi) Mahajan, R., Attri, S., Mehta, V., Udaybanu, M. and Goel, G. (2017).Microbe-bio-chemical insight: Reviewing interactions between dietary polyphenols and gut microbiota. Mini-Reviews in Medicinal Chemistry (In press
lvii) Singh, N., Raghav, M., Narula, S. and Goel, G. (2017). Profiling of virulence determinants in Cronobacter sakazakii isolates from different plant and environmental commodities. Current Microbiology, 74:560-565
lviii) Sharma, K., Mahajan, R., Attri, S. and Goel, G. (2017). Selection of indigenous Lactobacillus paracasei CD4 and Lactobacillus gastricus BTM 7 as probiotic: assessment of traits combined with Principal Component analysis. Journal of Applied Microbiology, 122:1310-1320
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lxiv) Mahajan, R. Nikitina, A., Litti, Y. Nozhevnikova A., Goel, G. (2016). Microbial diversity in an anaerobic digester with biogeographical proximity to geothermal active region. Environmental Technology, 37:2694-2702
lxv) Tamanna, Ramana J: Structural Insights into the Quinolone Resistance Mechanism of Shigella flexneri DNA Gyrase. Microbial Drug Resistance, 2016
lxvi) Tiratha Raj Singh, Ankita Shukla (2017). Bioinformatics to Systems Biology : A Journey of Knowledge Discovery. CSI Communications. 41 (4), 10-13.
lxvii) Ahmed Moussa, Brigitte Vannier, Raghu M. Yennamalli , Tiratha Raj Singh (2016). Recent Trends and Developments in Bioinformatics: Challenges and Opportunities. CSI Communications. 40 (7), 28-31.
lxviii) Jain S, Thakur N, Vashistt J, Grover N, Krishnan T, Changotra H. (2016). Predominance of unusual rotavirus G1P [6] strain in North India: An evidence from

hospitalized children and adult diarrheal patients. Infection, Genetics and Evolution; 46:65-70.

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V) Under revision/ Communicated

i) Kumar, A. Saini, H.S. Kumar, S. (2017).Bioleaching of gold and silver from waste printed circuit boards by Pseudomonas balearicaSAE1.Current Microbiology. (Minor Revision

ii) Kumar, A. Saini, H.S. Kumar, S. (2017). E-waste heterogeneity: a challenge in metals extraction process design. Toxicology and Environmental Chemistry. (Under Review).

iii) Kumar, A. Saini, H.S. Kumar, S. (2017). Enhancement of gold and silver recovery from waste computer printed circuit boards by Pseudomonas balearica SAE1. 3 Biotech. (Communicated)

iv) Thakur R. and Shankar J. Structural-functional analysis of deleterious nsSNPs in dectin-1 receptor and their impact on the binding capability with beta-(1-3) glucan of pathogenic fungi: A molecular dynamic approach (Under review)

v) Tiwari S. and Shankar J. Docking analysis of hexanoic acid and quercetin with seven domains of polyketide synthase-A provided insight into quercetin mediated aflatoxin biosynthesis inhibition in Aspergillus flavus. Mycology: An International Journal of Fungal Biology . (Under review)

vi) Tiwari S. and Shankar J. Integrated proteome and HPLC analysis revealed quercetin mediated inhibition of aflatoxin B1 biosynthesis in Aspergillus flavus. Functional and Integrative genomics. (Under review)

vii) Mehta V., Singh T.R., 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. (Communicated).

viii) Sharma A., Mehta V.,Parashar A., Udayabanu M., (2017).Combinational effect of Paclitaxel and Clotrimazole on human breast cancer: proof for synergistic interaction. Synergy. (Communicated).

ix) Sharma A., Chaudhary A., Udayabanu M., (2017). CTAB and CTAC conjugated Gold Nanoparticles; distinct surface chemistry mediatedrelative cellular interaction and cytotoxicity. Colloid and Interface Science Communications. (Communicated).

x) Parashar A., Mehta V., Udayabanu M., (2017). Rutin ameliorates chronic unpredictable stress mediated behavioral dysfunction by modulating hippocampal insulin signaling pathway in male Swiss albino mice. Brain Research Bulletin. (Communicated)

xi) Raghu M. Yennamalli , Shanmugasundaram Sambandam, Suguna Shanmugasundaram, Pulkit Anupam Srivastava, Sheena D. Sarswati, Vijay Kumar

Garlapati (2017) A novel recombinant approach for Casoplatelin production and its insilico structural studies. Biotechnology Progress (Communicated)

xii) Surendra Kumar Parashar, Narendra Nath Dutta, Vijay Kumar Garlapati (2017) Emphasis of crowding, confinement and diffusional effects on esterification by CLEC and Sol-Gel lipases: A comparative study. Engineering in Life Sciences (Under Revision)

xiii) Pawan Agrawal, Rahul Shrivastava, Vijay Kumar Garlapati (2017) Evaluation of new endophytic fungi from Cupressus torulosa leaves for decolourization ability of textile synthetic dyes. Biotechnology Reports (Under Revision)

xiv) Munjal NS, Sharma M, Rout C (2017) Development of QSPR strategy for the solubility prediction. Computer Aided Drug Design (Revision)

xv) Mishra S, Shah MI, Sarkar M, Chaudhary N, Sharma S, Sheikh M, Rout C Integrated medical data resource and meta-analysis for differential patterns in interstitial lung diseases (ILDs) from North-Western Himalayan region: ILD-DB, PLOS ONE

xvi) Mishra S, Shah MI, Sarkar M, Rout C (2017) Integrated Analysis of Non-Coding RNAs for the Identification of Promising Biomarkers in Interstitial Lung Diseases. JTB

VI) Gene Bank submissions:

i) Gustavo C. Cerqueira¶, Jata Shankar¶, Jennifer R. Wortman, Karl V. Clemons, David A. Stevens. Short Read Archive (SRA-NCBI) under the following accession identifiers: SRX1201397, SRX1201396, SRX1201395, SRX1201394, SRX1201392 (Unreleased).

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iv) Thakur N, Changotra H, Grover N and Vashistt J (2017) Vibrio sp. strain cholera 16S ribosomal RNA gene, partial sequence. [Accession Number: KX891575]

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vi) Thakur N, Grover N, Changotra H and Vashistt J (2017) Escherichia coli heat-labile enterotoxin protein beta chain OS gene, partial cds. [Accession Number: KX911254]

vii) Jain S and Changotra H (2016) VP4 and VP7 sequences of Rotavirus clinical isolates (JU-SOL-173, JU-SHI-14, JU-SOL-5, JU-SOL58, and JU-SOL-77) from patients having diarrhea from Himachal Pradesh. [Accession Number: KP938512 to KP938519, KM880063 and KM880064 (Total GenBank Acc. No. =

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x) Poonam, Sood, S., Shrivastava, R. [Mycobacteium fortuitum ATCC 6841] Probable Anthranilate Synthase Subunit I of Mycobacteium fortuitum. [BankIt1971940 Seq KY250521]
xi) Poonam, Sood, S., Shrivastava, R. [Mycobacteium fortuitum ATCC 6841] Probable X-Pro dipeptidase. [BankIt1971887 Seq KY250518]
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xv) Chauhan,D., Srivastava,P.A., Yennamalli,R.M. and Priyadarshini,R.
xvi) Deinococcus indicus strain DR1, whole genome shotgun sequencing project. GenBank: NHMK00000000.1
xvii) Sharma, K. and Goel, G. (2016). Weissella confusa strain C1 16S ribosomal RNA gene, partial sequence. [Accession number: KX583605.1]
xviii) Sharma, K. and Goel, G. (2016). Brevibacillus thermoruber strain HM34 16S ribosomal RNA gene, partial sequence. [Accession number: KX583604.1]
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xxi) Sharma, K. and Goel, G. (2016). Brevibacillus thermoruber strain CD13 16S ribosomal RNA gene, partial sequence. [Accession number: KX583601.1]
xxii) Sharma, K. and Goel, G. (2016). Brevibacillus aydinogluensis strain BTM9 16S ribosomal RNA gene, partial sequence. [Accession number: KX583600.1]
xxiii) Vashisht, R., Attri, S., Sharma, D., Shukla, A. and Goel, G. (2017). Lysinibacillus sp. strain 13 16S ribosomal RNA gene, partial sequence. [Accession number: MF164037.1]
xxiv) Sharma, K. and Goel, G. (2017). Lactobacillus sp. strain K84 16S ribosomal RNA gene, partial sequence. [Accession number: MF455228.1]
xxv) Sharma, K. and Goel, G. (2017). Lactobacillus sp. strain K90 16S ribosomal RNA gene, partial sequence. [Accession number: MF455229.1]
xxvi) Sharma, K. and Goel, G. (2017). Lactobacillus sp. strain K94 16S ribosomal RNA gene, partial sequence. [Accession number: MF455252.1]
xxvii) Sharma, K. and Goel, G. (2017). Pediococcus sp. strain K98 16S ribosomal RNA gene, partial sequence. [Accession number: MF457590.1]

VII) **Papers in Proceedings of Conferences/Symposia/Seminars**

i) Thakur N, Changotra H and Vashistt J (2017). Next generation sequencing: An amalgam of disease biology and computer algorithms for comprehensive exploration of infectious agents. IEEE INDIACom-2017, 1st-3rd March 2017, New Delhi, India

ii) 1. Shah MI, Mishra S, Sarkar M, Rout C. (2016) Automatic Detection and Classification of Tuberculosis Bacilli from ZN-stained Sputum Smear Images using Watershed Segmentation. In the proceedings of International Conference on Signal Processing (ICSP)-2016, Vidisha, Madhya Pradesh, India, Nov. 7-9

iii) 2. Mishra , Shah MI, Sarkar M, Chaudhary N, Sharma S, Rout C (2016) Clinical and radiological decision support system prototype for characterisation of interstitial lung disease (ILDs). In the proceedings of International Conference on Signal Processing (ICSP)-2016, Vidisha, Madhya Pradesh, India, Nov. 7-9

VIII) Abstracts in Proceedings of Conferences/Symposia/Seminars

i) Kumar, A., Saini, H.S., Kumar, S. (2017). Bioleaching of e-waste for precious recovery using cyanogenic bacteria. In International Conference on Innovative Research in Engineering, Science & Technology, April 7-8, 2017 at Eternal University, Baru Sahib, Himachal Pradesh, India,

ii) Sethi P., Verma R., Kumar S. (2017). Bioprospecting for xylanse producing bacteria with potent application in lignocellulosic conversion. In International Conference on Innovative Research in Engineering, Science & Technology, April 7-8, 2017 at Eternal University, Baru Sahib, Himachal Pradesh, India.

iii) Kumari, A., Gorky, Kumar, A., Kumar, S.(2017). Biogas production using sludge with codigestion of pine needles. In International Conference on Innovative Research in Engineering, Science & Technology, April 7-8, 2017 at Eternal University, Baru Sahib, Himachal Pradesh, India.

iv) Kumar, S., & Kumar, A. (2017). Participated in a seminar on Renewable Energy: Sustaining a Green Future." Organized by HP State Council for Science, Technology and Environment, March 23, 2017 at Shimla, India.

v) Kumar, S., Jain, S., Singh, P., K. (2017).Participated in day workshop onIPR organized by HP Patent Information Centre,November 25, 2017 atHFRI, Panthaghati, Shimla, India

vi) Kumar, A.,Patial, G., Saini, H.,S., Kumar, S. (2016). Development of sustainable bioleaching technology for precious metals recovery from e-waste. In National Seminar on issues of E-waste Management, December 17 2016 at Govt. Degree College, Arki, Solan, Himachal Pradesh, India,

vii) Tiwari S. and Shankar J. Proteome profile of germinating Aspergillus flavus conidia on corn flour supplement. National Conference on Fungal Biotechnology and 43rd Annula meeting of the Mycological Society of India. Nov., 16-18 2016. Jaipur India

viii) Mehta A., Kango P. and Shankar J. Antimicrobial activity of phytochemicals against Aspergillus terreus and Aspergillus niger. National Conference on Fungal Biotechnology and 43rd Annula meeting of the Mycological Society of India. Nov., 16-18 2016. Jaipur India

ix) Shankar J., Thakur R., Hoda S., Tiwari S., Vijayaraghavan P. 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 talk presented)

x) Sharma, D., Thakur, N., Vashishtt, J., and Bisht, GS. (2017) Antimicrobial evaluation of copper oxide nanoparticles synthesized using leaf extract of Terminalia Chebula. International conference, Feburary 2-4 at JIIT, Noida,

xi) Poonam, Vashishtt, J., Bisht, GS., Shrivastava, R. (2017). Ribosomal maturation factor RimP as potential drug target for M. fortuitum. International conference on Advances in Plant and Microbial Biotechnology Feburary 2-4 at JIIT, Noida [Jaypee Institute of Information Technology, Noida,

xii) Sharma, D., and Bisht, GS. (2016) Lipid based peptidomimetics. NCRACS 2016, proceedings of national conference, 11th November 2016 at MMU Maullana, Ambala

xiii) Sharma, D., and Bisht, GS. (2016) Green synthesis of copper oxide nanoparticles using leaf extract of Callistemon viminalis. RAFAS, International conference, 25th November 2016 held at LPU, Jalandhar

xiv) Ashwina, Akshay, Saurabh, Poonam Sharma (2017). Comparative Interaction Study of Amylase and Surfactants for Potential Detergent Formulation. Proceedings of the National Conference [Maharaja Agarsen University, Baddi, H. P. India. : 4 March 2017

xv) Anmol, Anubhav, Poonam Sharma (2017). Analysis of Surfactant Micelles and their Interaction with Antimicrobial Drug i.e. Ltraconazole for Potential Pharmaceutical Application.. Proceedings of the National Conference [Maharaja Agarsen University, Baddi (HP) : 4 March 2017].

xvi) Anil Kant and Rakesh Singh Gour 2016 Characterization and Screening of Native microalgae species from HP Suitable for Biofuel Feedstock. International Conference on Molecular Biology of Stress Responses in Phototrophs (MBSR 2016) Nov. 12-14, 2016, Indira Gandhi National Tribal University Amarkantak,

xvii) 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.

xviii) Changotra H (2016). Host genetics and hepatitis B virus infection. Proceedings of the International Symposium on Genomic Medicine: personalized care for me and you, October 18, 2016 at Doaba College, Jalandhar, Punjab, India.

xix) Singh S, Seam RK, Gupta MK, Changotra H (2017). Association of G393S Variant of E2F1 gene with Lung and HNC cancer risk in North Indian Population. Proceedings of the 20th Punjab Science Congress, 7-9 February 2017 at IET Bhaddal, Ropar, Punjab, India.

xx) Sharma A, Changotra H (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 at IET Bhaddal, Ropar, Punjab, India.

xxi) Sharma A, Duseja A, Changotra H (2017). Association of IRGM gene variant rs4958842 with Hepatitis B infection in North Indian population. Proceedings of the 20th Punjab Science Congress, 7-9 February 2017 at IET Bhaddal, Ropar, Punjab, India.

xxii) Vij A, Changotra H (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), 25 February, 2017 at Jawaharlal Nehru University, New Delhi, India.

xxiii) Sharma A, Duseja A, Changotra H (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], 2-4 March, 2017 at Indian Institute of Sciences, Bangalore, India.

xxiv) Singh S, Seam RK, Gupta MK, Raghu M. Yennamalli, Changotra H (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], 2-4 March, 2017 at Indian Institute of Sciences, Bangalore, India.

xxv) Poonam, Vashistt, J., Bisht, GS., Shrivastava, R. (2017). Ribosomal maturation factor RimP as potential drug target for M. fortuitum. International Conference on Advances in Plant and Microbial Biotechnology PMB-2017, February 2-4, 2017 at Noida, India.

xxvi) Thakur, N., Khanna, C., Sharma, P., Kapil, A., Shrivastava, R., Vashistt, J. (2017). Exploring correlation between biofilm formation ability and resistance potential of Acinetobacter baumannii strains isolated from different clinical sources. International Conference on Advances in Plant and Microbial Biotechnology PMB-2017, February 2-4, 2017 at Noida, India.

xxvii) Gupta, K., Poonam, Vashistt, J., Shrivastava, R. (2016). Analysis of transposon mutants' library in search of genes responsible for biofilm formation in a Mycobacterium fortuitum. 57th Annual Conference of AMI & International Symposium; On Microbes and Biosphere: What's New and What's Next, November 24-27, 2016 at Guwahati, India.

xxviii) Prasher, B., Chauhan, D., Sood, S., Shrivastava, R. (2016). Expression of cyclopropane mycolic acid synthase pcaA is essential for survival of M. fortuitum under in vitro stress conditions. 57th International Annual Conference of the Association of Microbiologists of India International Symposium on "Microbes and Biosphere: What's New What's Next, November 24-27, 2016 at Guwahati, India.

xxix) Shrivastava, R. (2016). Identification of novel genes responsible M. fortuitum drug resistance. UK -India Workshop on 'Tackling the emergence of antimicrobial resistance: increasing virulence and facilitating research network', November 7-10, 2016 at Chandigarh, India.

xxx) Poonam, Agrawal, PK., Shrivastava, R. (2016). Antimycobacterial Activity of Leaf Extracts of Medicinal Plants against M. smegmatis. National Conference on Recent Advances in Green Technology, September 29-30, 2016 at Shimla, India.

xxxi) Bhatnagar, M., Choudhary, S., Singh, M., Attri, S. and Goel, G. (2017). Antioxidant activity of soymilk fermented with indigenous lactic cultures. Advances in Food Science and Technology, 24-25 March, 2017, Eternal University, Baru Sahib, HP.

xxxii) Goel, G. (2017). Inhibition of Quorum Sensing Mechanism: a possible application in inhibition of biofilm formation by food borne pathogen. Advances in Food Science and technology, 24-25 March, 2017, Eternal University, Baru Sahib, HP.

xxxiii) Chauhan, S., Sharma, K. and Goel G.(2017). Antimicrobial activity of cell free supernatant of indigenous lactic acid bacteria against Cronobacter Sakazakii. Advances in Food Science and Technology, 24-25 March, 2017, Eternal University, Baru Sahib, H.P.

xxxiv) Agarwal, R., Agarwal, S. and Goel, G. (2017). Technological characterization of indigenous yeast strain from traditional starter 'Malera'. Advances in Food Science and Technology, 24-25 March, 2017, Eternal University, Baru Sahib, H.P.

xxxv) Attri, S., Chauchan, S., Sharma, A. and Goel, G. (2016). Evaluation of influence of seabuckthorn berries extract on the gut microbiota biodiversity using PCR-DGGE approach. International Conference on biodiversity: Current Scenario and future strategies, 6-8 Oct, 2016, St. Beads College, Shimla.

xxxvi) Sharma, K. and Goel, G. (2016). Biodiversity of lactic acid bacteria in Himachal fermented food (Babroo) and its screening for various probiotic attributes. International Conference on biodiversity: Current Scenario and future strategies. 6-8 Oct, 2016, St. Beads College, Shimla.

xxxvii) Attri, S. and Goel. G. (2016). In vitro fermentation of Sea buckthorn (Hippophae rhamnoides L.) berries extract by human colonic microbiota. International Conference on Agricultural Sciences and Food Technologies for Sustainable Productivity and Nutritional Security, 25-27 Aug 2016, UAS Bangalore.

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

i) Dr Anil Kant (2016). BIRAC-ICGEB Workshop on Development and Improvement of strains for biomolecule production. DBT-BIRAC and International Centre for Genetic Engineering and Biotechnology (ICGEB) Sept-8-10, 2016.

ii) Attended the TIFAC and HPSCSTE sponsored workshop on "Patent Filing & Geographical Indiactions" organized by Jaypee University of Information Technology, Waknaghat, HP-173234, India on 27th February 2017.

iii) Attended the TIFAC and HPSCSTE sponsored workshop on "Innovation and Intellectual Property Rights" organized by Jaypee University of Information Technology, Waknaghat, HP-173234, India on 9th December 2016.

iv) Rahul Shrivastava (2017). Organized One week Aptitude Training and Placement Workshop - for students from all Departments. [JUIT, Solan, H.P: 31 Aug - 5 Sep, 2016].

v) Rahul Shrivastava (2017). Organized CV and Personal Interview Grooming Workshop "Insights of Group Discussion & Personal Interview". [JUIT, Solan, H.P: 18 Sep, 2016].

vi) Rahul Shrivastava (2017). Organized One day workshop on Career Prospects in Biotechnology and Bioinformatics. [JUIT, Solan, H.P: 28 Nov, 2016].

vii) Rahul Shrivastava (2017). Organized Mock Test Series "Infinity" to enhance the aptitude and reasoning of Students. [JUIT, Solan, H.P: (4 tests) Oct-Nov, 2016].

viii) Rahul Shrivastava (2017). Participated in Workshop on "Tackling the emergence of antimicrobial resistance: increasing virulence and facilitating research network". [IMTECH, Chandigarh: 7-10 Nov, 2016].

ix) Rahul Shrivastava (2017). Participated in one day Workshop on "Innovation and Intellectual Property Rights''. [JUIT, Solan, H.P: 9 Dec, 2016].

x) Rahul Shrivastava (2017). Participated in one day Workshop on "Patent Filing and geographical Indications". [JUIT, Solan, H.P: 27 Feb, 2017].

xi) Sheena Sarswati, Priya Bharval, Ragothaman M. Yennamalli (2017). Structural Dynamics of Lytic Polysaccharide Monooxygenases using Elastic Network

Models. Proceedings of the Annual Symposium of the Indian Biophysical Society (IBS 2017) [IISER, Mohali : 23-25 March, 2017], pp.-.. Google Citation

xii) Nancy Singh, Sunil Datt Sharma, Ragothaman M. Yennamalli (2017). Identification of Structural Elements in miRNA using Signal Processing Method. Proceedings of the Annual Symposium of the Indian Biophysical Society (IBS 2017) [IISER, Mohali : 23-25 March, 2017], pp.-.. Google Citation

xiii) Dr. C.Rout Participated in GIAN, MHRD, Govt. of India course on Biomedical Image Analysis [IIT, Roorkee: 9th -13th January, 2017

xiv) Dr. C.Rout Participated and Coordinated the Workshop on virtual Labs (Hands-on Laboratory Experiments) Organized by IIT, Roorkee at JUIT, Waknaghat [15-16 October, 2016]

xv) Dr. C.Rout Participated in College Cloud Edition for vLabs Workshop Organized by IIIT, Hyderabad at JUIT, Waknaghat [28th – 29th April, 2017]

xvi) Dr. C.Rout Participated and Coordinated in Workshop on virtual Labs Organized by IIT, Roorkee at JUIT, Waknaghat [10th – 12th May, 2017]

xvii) Dr. Saurabh Bansal: Participant in workshop on 'Bio-entrepreneurship and Bio-enterprise Creation' at IISER Mohali, 2-3 Sept, 2016.

X) Invited Lectures

i) Dr. Sudhir Kumar: "Electronic-waste Management" in a workshop at Govt. College Sanjauli, Shimla, Himachal Pradesh on 16 March 2017.

ii) Dr. Sudhir Kumar: "Electronic waste: Impact and Management" in "National Seminar on issues of E-waste Management" at Govt. Degree College, Arki, Solan, Himachal Pradesh on 17 December 2016.

iii) Dr. Sudhir Kumar: "Extremophilicxylanases for efficient conversion of lignocellulosic biomass" in the second international conference on '"Recent advances in Bio-energy research"- at S.S.S. National Institute of Renewable Energy, Kapurthala, Pb. (An Autonomous Institution of the Ministry of New and Renewable Energy, Govt. of India) on 25 to 27 February 2016.

iv) Jata Shankar . 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 talk presented)

v) Dr. Anil Kant: "Characterization and Screening of Native microalgae species from HP Suitable for Biofuel Feedstock" in International conference on Molecular Biology of stress response in phototrophs; IGNTU Amarkantak MP, Nov. 12-14, 2016

vi) Member Mentoring Committee, Doaba College, Jalandhar for Department of Biotechnology, Government of India, Life Sciences Star College Scheme, 2013 – 2017

vii) Host Genetics and Hepatitis B Virus infection. International symposium on Genomic Medicine: personalized care for me and you, Doaba College Jalandhar, Punjab, India, 18 October 2016

viii) Dr. Rahul Shrivastava: 'Identification of novel genes responsible M. fortuitum drug resistance' in UK -India Workshop on "Tackling the emergence of antimicrobial

resistance: increasing virulence and facilitating research network" at IMTECH Chandigarh on 7-10th November 2016.

ix) Dr. Ragothaman Yennamalli. Resource Person for 22nd DBT sponsored workshop on "Molecular modelling for disease causing proteins and drug targeting" on 23rd November, 2016 at Himachal Pradesh University, Summer Hill, Shimla.

x) Dr. Chittaranjan Rout: "Biological Information Resources & Databases and their usage" and "Sequence Retrieval and Analysis", and conducted "Hands on Practice" on the above two topics in DBT Sponsored Training Programme on "Application of Bioinformatics Tools in Plant Sciences" Organized at Department of Biotechnology, Dr. Y.S. Parmar University of Horticulture & Forestry on 26th October, 2016.

xi) Dr. Tiratha Raj Singh: "Application of Bioinformatics tools in plant sciences" in National Workshop at Dr. Y.S. Parmar University of horticulture and Forestry, Nauni, Solan on 27th Oct., 2016.

xii) Dr. Tiratha Raj Singh "Annotation of Complex Biological Networks Through Simple Network Motifs" in National Symposium of Bioinformatics and Computational Systems Biology (NSBCSB) at Central University of Himachal Pradesh, Dharmshala during 12-14 Nov., 2016.

xiii) Dr. Jitendra Vashisht:Online lectures delivered for Medical Sciences PG students; Biophysics (UGC –PG pathshala)

xiv) Jitendraa Vashistt Paper12. Membrane Biophysics (Module 1): Components and Architecture of Cell Membrane: Details and online lectures are available on http://epgp.inflibnet.ac.in under Medical sciences

XI) Awards/recognition achieved

i) Travel Grant from DST for 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) Frank A. Beach Award by Society for Behavioral Neuroendocrinology for research article: "Mehta V., Parashar A., Sharma A., Singh T.R., Udayabanu M., (2017). Quercetin ameliorates chronic unpredicted stress-mediated memory dysfunction in male Swiss albino mice by attenuating insulin resistance and elevating hippocampal GLUT4 levels independent of insulin receptor expression. Hormones and Behavior. 89: 13-22.

iii) Best Poster Award Dr. Rahul Srivastava: Best Poster Award at National conference on Recent Advances in Green Technology for the poster presented: "Antimycobacterial activity of leaf extracts of medicinal plants against M. Smegmatis".

iv) The Department of Biotechnology (DBT), Government of India and the Indo-US Science and Technology Forum (IUSSTF) has awarded Dr Raghu Yennamalli from the Department Of Biotechnology and Bioinformatics of JUIT the prestigious Bioenergy-Awards for Cutting Edge Research (B-ACER) Program 2017 for 3 months in the University of Wisconsin-Madison, USA.

v) Dr. Gunjan Goel:Best oral Presentation Award at National Conference on Advances in Food Science and Technology (AFST 2017), Eternal University, Himachal Pradesh

vi) Dr. Jitendra Vashisht:Paper Coordinator for Membrane Biophysics-e-portal generation UGC (MHRD, INDIA)

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

i) Dr. Vijay Kumar Garlapati

- 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
- Serving as a Reviewer for
- Resources, Conservation & Recycling
- Bioresource Technology
- ACS Sustainable Chemistry & Engineering
- Bioengineering and Bioscience
- Member in American Chemical Society (ACS) (31174379)
- Member in Asian Federation of Biotechnology (AFOB)

ii) Dr. Jitendraa Vashistt

Reviewer:

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

iii) Dr. Sudhir Syal

- Waste Management
- Environmental Science and Pollution Research
- Science of the Total Environment
- Waste Management and Research
- Environmental Technology
- Journal of Environmental Chemical Engineering
- FEMS Yeast Research
- Environmental Monitoring and Assessment
- Indian Journal of Biotechnology
- Process Biochemistry

iv) Technology Extension

- Fabrication and Installation of Biogas Digester (1500 litres) – Govt. Primary School, Pooghat – Bani, Kandaghat, Solan. (Establishment – 28 December 2016) Sponsored by HP State Council for Science and Environment.
- Fabrication and Installation of Biogas Digester (1500 litres) – Govt. Primary School, Dar Ki Anji, Dharampur, Solan. (Establishment – 08 June 2017) Sponsored by HP State Council for Science and Environment.

v) Dr. Rahul Srivastava

- Reviewer for the following journals:
- Journal of the American Academy of Dermatology (Elsevier) – (Sep'2016 and Dec'2016)
- JAAD Case Reports (Elsevier) – In 2013 & 2014 – On Reviewer Board
- PLoS ONE (Nov'2016)

vi) 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

vii) Dr. Harish Changotra

- 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: Cellular and Molecular Life Sciences (IF 5.9), Critical Reviews in Microbiology (IF 8.2), Vaccine (IF 3.5), Journal of Clinical Virology (IF 3.0), PLoS one (IF 3.0), World Journal of Gastroenterology (IF 2.5), Gene (IF 2.5), BMC Immunology (IF 2.5), Journal of Plant Biochemistry and Biotechnology (IF 1.5), BMC Research Notes, International Journal of Biology, European Journal of Molecular Biology, International Journal of Preventive Medicine,

viii) Dr. Hemant Sood

- Reviewer: Springer Plus (Scopus index Thomson Reuters)

ix) Dr. J. Ramanna

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

x) Dr. Udaybanu

- 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.

xi) Dr. Tiratha Raj Singh:

- Academic Editor, PLOSONE.
- Managing Editor, IJCB.
- Provided Reviewing Services to many International Journals of repute such as : Bioinformatics, BMC Bioinformatics, PlosOne, Molecular Cancer, Gene, Molecular Ecology Resources, IJBRA, IS:CLS etc.

xii) Dr. Jata Shankar

- BMC Genomics,
- Gene,
- OMIC Journal of Integrative Biology,
- International Properties on Food,
- Computational Biology and Chemistry,
- Infection and Drug Resistance,
- Biotechnology Research International Journal,
- Annual Research & Review in Biology,
- International Journal of Bioinformatics Research and Applications

xiii) Dr. Y. Ragothaman

- Reviewer for Structure (Cell press),
- PLOS Computational Biology,
- PLOS One,
- Journal of Emerging Investigators,
- Bioinformation,
- International Journal for Computational Biology,
- Journal of Clinical Medicine,
- International Journal of Biological Macromolecules,
- Biochemistry and Biophysics Reports

- Indian Biophysical Society: Life Member
- Biophysical Society, USA: Member

xiv) Dr. C. Rout

- Associate Editor and Editorial Board Member of the Journal "ANNALS of Applied Chemistry"

xv) Dr. Saurabh Bansal

- Member of Editorial Board for the journal–Journal of Biotechnology, Bioinformatics and Bioengineering (http://www.sciknow.org/journals/editor/id/jbbb)
- Reviewer of Project Grant: Review a DST-SERB project titled 'Role of outer membrane proteins in the development of antibiotic resistance in Salmonella spp. ECR/2016/000766' on 05-Aug-2016.
- Reviewer assignment of peer reviewed journals: Journals of Plant Biochemistry and Biotechnology (Springer)

XIII) Faculty Members and their Specialization

Sr. No	Name of Faculty Members	Specializations
1	Dr. Sudhir Kumar Syal	Environmental Biotechnology
2	Dr. Anil Kant Thakur	Plant Biotechnology, Molecular Biology
3	Dr. Jitender Vashistt	Bacterial Resistance, Clinical Proteomics
4	Dr. Saurabh Bansal	Protein engineering, Enzymology
5	Dr. Jata Shanker	Fungal biology, Functional genomics
6	Dr. Harish Changotra	Molecular Virology
7	Dr. Poonam Sharma	Chemistry
8	Dr. Hemant Sood	Plant Biotechnology
9	Dr. Vijay Kumar Garlapati	Bioprocess Engineering
10	Dr. Gunjan Goel	Microbiology and Food Biotechnology
11	Dr. Rahul Shrivastva	Microbial Pathogenesis, Mycobacteriology
12	Dr. C. Rout	Drug and Vaccine Designing, and Health Informatics
13	Dr. Tiratha Raj Singh	Bioinformatics, Functional genomics, Molecular Evolution and Systems Biology
14	Dr. Jayashree Ramana	Computational study of antibiotic resistance in infectious pathogens
15	Dr. Gopal Singh Bisht	Medicinal Chemistry
16	Dr. UdayBanu	Neuropharmacology
17	Dr. Abhishek	Nanobiotechnology
18	Dr.Y.M. Raghothaman	Structural Bioinformatics

XIV) PhD degrees awarded

i) Tarun Kumar Patel (2017) Ph.D. Thesis in Biotechnology-under the Joint-supervision of Dr. Jata Shankar
ii) Sita Sharan Patel (2017) PhD. 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) Kusum (2017) Ph.D. Thesis in Bioinformatics – under the supervision of Dr. Jayashree Ramana

DEPARTMENT OF CIVIL ENGINEERING

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

Infrastructural Strengths

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

- CAD Lab
- Concrete Technology Lab
- Environmental Engineering Lab
- Fluid Mechanics Lab
- Geotechnical Engineering Lab
- Highway Engineering Lab
- Surveying Lab
- Workshop Practices Lab
- Fluvial Hydraulics Lab
- Engineering Drawing Hall
- Structural Mechanics Lab
- CE Computational Lab (under development)

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
Completed:	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)

(2) **Project Title:** ***"****Effect of Stream-Wise Spacing of Circular Bridge Piers on Flow Characteristics and Local Scour"*
Under: Fast Track Scheme for Young Scientists, Department of Science and Technology, (DST) New Delhi.
Principal Investigator: Dr. Ashish Kumar
Status: Completed in 2016.

Outreach Activities

i) Dr. Ashish Kumar participated in 24th HP State Level Children's Science Congress- 2016 held during 15-17 November 2016 at Nahan, 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 Engg.

ii) Mr. Santu Kar, Mr. Aakash Gupta, and Mr. Anirban Dhulia, Assistant Professors of Department of Civil engineering attended short-term course on Theory and practices in construction project management under QIP from 12-12-2016 to 16-12-2016 at IIT Jammu. The purpose of course was to have an exposure on current development and Innovations in the field of construction Management.

iii) Dr. Ashish Kumar attended IPR Workshop on Patent Filing & Geographical Indications - 27 Feb. 2017. at JUIT Waknaghat.

iv) Mr Saurav, Assistant Professor of Department of Civil engineering delivered an expert lecture on "Concrete Technology" at Kashi Institute of Technology, Mirzamurad, Varanasi; 13th October 2016.

v) Mr Saurav, Assistant Professor of Department of Civil engineering chaired a technical session on Introduction to structural engineering in One day Symposium at Kashi Institute of Technology, Mirzamurad, Varanasi; 13th October 2016.

vi) Dr. Ashish Kumar attended Himachal Pradesh State Meet on "Promoting Space technology based Tools and Applications in Governance & Development" on 23 Sept, 2016, at HP Secretariat, Shimla, HP.

vii) Dr. Rajiv Ganguly attended Himachal Pradesh State Meet on "Promoting Space technology based Tools and Applications in Governance & Development" on 23 Sept, 2016, at HP Secretariat, Shimla, HP.

Mr. Saurav in One-day Symposium at Kashi Institute of Technology, Mirzamurad, Varanasi; 13th October 2016.

I) Publications

a. Books/Monographs:

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

b. Details on research publications by faculties:

2. In the academic year 2015-16 total 11 research papers were published in the International/National journals (No. in Scopus 10). 10 papers were published in International/ National Conferences.

b) Articles in Refereed Journals

i) Ruchi Devi, Ashish Kumar and Sudhir Kumar (2016). "Use of Pine needles as substrate for Biogas production." International Journal of Renewable energy research, Vol. 6, No. 4, pp. 1242–1247. [Scopus Indexed].

ii) Rishi Rana, Rajiv Ganguly , Ashok Kumar Gupta (2017) 'Evaluation of Solid Waste Management in Satellite Towns of Mohali and Panchkula - India.' *Journal of Solid Waste Technology and Management.(Article Accepted for Publication)*

iii) Rawat, S., and Gupta, A. K. (2016). "Analysis of a Nailed Soil Slope Using Limit Equilibrium and Finite Element Methods." *International Journal of Geosynthetics and Ground Engineering*, *2*(4), 34. [Springer]

iv) Rawat, S., and Gupta, A. K. (2017). "Numerical Modelling of Pullout of Helical Soil – Nail." *Journal of Rock Mechanics and Geotechnical Engineering*. [Scopus Indexed]

v) Rawat, S., and Gupta, A. K. (2017). "Testing and Modelling of Screw Nailed Soil Slopes." *Indian Geotechnical Journal*, 1-20. [Scopus Indexed]

vi) Rajesh Prasad Shukla, Niraj Singh Parihar (2016), "Stabilization of Black Cotton Soil Using Micro-fine Slag.", J. Inst. Eng. India Ser. A, Vol. 97(3), pp. 299–306.

vii) Rajiv Ganguly , Satyarth (2016) 'Interrelationships amongst pollutants and their predictions in Shimla city: India. Journal of Industrial Pollution Control, Vol. 32(2), pp. 466-479 . [Scopus Indexed].

viii) Rajiv Ganguly , Sabnam Thapa (2016) 'An assessment of ambient air quality of Shimla City'. Current Science, Vol. 111(3), pp. 509-516 . [SCI Indexed, IF (2015/16) – 0.967].

II) Papers in Proceedings of Conferences/Symposia/Seminars

i) Umesh K singh, Z. Ahmad, Ashish Kumar and M. Pandey (2016). "Turbulence characteristics of flow over degraded bed of clay-silt-sand-gravel mixture." Proc. of International Conference on Hydraulics, Water Resources and Coastal Engineering (Hydro2016), CWPRS Pune, India 8th – 10th December 2016

ii) Anchal Sharma, Rajiv Ganguly , Ashok Kumar Gupta (2017) 'Characterization of Municipal Solid Waste in Sundernagar, Himachal Pradesh, India' in 2 nd International Conference on Recent Advances in Chemical, Environmental and Energy Engineering (RACEEE-2017) held during February 23-24, 2017 at SSN College of Engineering, Chennai, India. Book of Abstracts, pg 55.

iii) Rajiv Ganguly , Prachi Vasistha, Ashok Kumar Gupta (2017) 'Design of an incinerator to treat combined biomedical wastes generated from four major hospitals in Chandigarh and Shimla city, India' in 2 nd International Conference on Recent Advances in Chemical, Environmental and Energy Engineering (RACEEE-2017) held during February 23-24, 2017 at SSN College of Engineering, Chennai, India. Book of Abstracts, pg 48.

iv) Umesh K singh, Z. Ahmad and Ashish Kumar (2016). "Incipient motion for gravel particles in cohesive mixture of clay-silt-gravel." Proc. International Symposium on River Sedimentation, River Sedimentation – Wieprecht et al. (Eds) © 2017 Taylor & Francis Group, London, ISBN 978-1-138-02945-3, September 19 – 22, 2016 in Stuttgart, Germany. pp. 424-429.

v) Rajesh Prasad Shukla ,Niraj Singh Parihar and Ashok Kumar Gupta (2016). "The effect of geotextiles on low plastic sandy clay." 6th Asian Regional Conference on Geosynthetics - Geosynthetics for Infrastructure Development, 8-11 November 2016, New Delhi, India. Pp. 251-259.

III) CONFERENCES / SYMPOSIA / WORKSHOPS / SEMINARS (PARTICIPATED / PAPERS PRESENTED) : CONDUCTED/ ATTENDED

i) Conference/Workshop/Symposium organised by Civil Engineering Department:

NIL

ii) Conference/Workshop attended by faculty outside JUIT:

i) Dr. Rajiv Ganguly attended d Four Day on Workshop on Urban Air Pollution in Indian and UK cities: Characterization and Prediction of Chemically Reactive Pollutants at IIT Delhi from 28th November to 1st December 2016.

ii) Dr. Ashish Kumar attended the 24th HP State Level Children's Science Congress- 2016 held during 15-17 November 2016 at Nahan, HP.

iii) Dr. Ashish Kumar and Dr. Rajiv Ganguly attended One Day IPR workshop on "Innovation and Intellectual Property Rights" on 9th December, 2016 at JUIT Waknaghat.

iii) Significant Awards/ Distinctions

iv) Honorary Work (Editor, Reviewer, Committee Expert, Session Chair etc.)

a. Prof. Ashok Kumar Gupta:

i) Editorial Board Member of the following journals:

- The Scientific World Journal (Civil Engineering)
- American Journal of Remote Sensing
- International Journal of Civil, Structural, Environmental and Infrastructure Engineering Research and Development - IJCSEIERD
- Journal of Civil, Structural, Environmental, Water resources and Infrastructure Engineering Research (JCSEWIER)
- Science PG Journal - Advances in Materials

b. On the Professional Review Boards of the following journals:

- Journal of Geotechnical and Geoenvironmental Engineering, ASCE
- International Journal of Geomechanics, ASCE
- KSCE Journal of Civil Engineering- Springer
- International Journal on Advances in Materials
- International Journal of Civil Engineering Research and Development **(**IJCERD**)**
- Journal of Civil Engineering and Research **(**JCER**)**
- Scientia Iranica
- KSCE Journal of Civil Engineering
- ASCE International Journal of Geo-mechanics

c. Dr. Ashish Kumar

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

IV) Faculty Members and their Specializations (2016-2017)**:**

S. No.	***Name***	***Designation***	***Specialization***	***Research Area***
1	Dr. Ashok K. Gupta	Professor & Head	Geotechnical Engineering	Constitutive modeling of Geological materials, Rock Mechanics and FEM
2	Dr. Veeresh Gali	Professor	Environmental Engineering	Anaerobic treatment of Phenolic and Toxic wastewater
3	Dr. Ashish Kumar	Associate Professor	Water Resources Engineering	Scouring around hydraulic structures, Fluvial Hydraulics
4	Dr. Rajeev Ganguly	Associate Professor	Environmental Engineering	Air pollution, Estimation of NOx / 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	Mr. Chandrapal Gautam	Assistant Professor (G-II)	Structural Engineering	Rehabilitation of structure, Concrete technology, Fracture Mechanics
7	Mr. Abhilash Shukla	Assistant Professor (G-II)	Structural Engineering	Structural dynamics, Concrete rheology, Blast-resistant materials.
8	Mr. Saurav	Assistant Professor (G-II)	Structural Engineering	Concrete rheology, Development of HPC with Alcofine
9	Mr. Saurabh Rawat	Assistant Professor (G-II)	Geotechnical Engineering	Slope stability problems (including seismic), Soil-nailing, Landfill design
10	Mr. Lav Singh	Assistant Professor (G-II)	Structural Engineering	Structural Analysis and Dynamics, Bridge Engineering, Concrete Technology
11	Mr. Neeraj Singh Parihar	Assistant Professor (G-II)	Geotechnical Engineering	Liquefaction, Slope Stability, Hazard assessment
12	Mr. Santu Kar	Assistant Professor (G-I)	Construction Technology and	Risk Management and Delay Analysis in

			Management	Construction Project, Green Building, Smart City, Concrete Microstructure
13	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 Modeling
14	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
15	Mr. Anil Kumar	Assistant Professor (G-II)	Structural Engineering	Active control systems, Blast-resistant design, Structural dynamics and reliability
16	Ms. Poonam	Assistant Professor (G-II)	Structural Engineering	Base Isolation, Semi active Isolation, Retrofitting of structures
17	Mr. Aakash Gupta	Assistant Professor (G-I)	Highway & Transportation Engineering	Highway Engineering, Pavement Performance, Prediction Models and their use in Road Asset Management
18	Mr. Anirban Dhulia	Assistant Professor (G-I)	Environmental Engineering	Water and Wastewater Engineering , Algae Assisted Microbial Fuel.

V) Research Thrusts of the Department

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

VI) Significant achievements of current students and alumni

i) Academic achievement by the students:

- 28 students of B Tech. final year Civil Engineering qualified the "Graduate Aptitude test in Engineering" (GATE) in 2017. Until now, about 100 students from this Department have qualified GATE.
- Alumnus Mr. Gaurav Singla (2008 - 2012 batch) has qualified UPSC Engineering Services exam with All India Rank 46, and chose to serve Indian Railways.
- Some alumni are pursuing PhD from universities abroad, Purdue University is one of them.
- Mr. Sanchit Sharma qualified SSB and joined Indian Army.

VII) Extracurricular Activities:

Extracurricular events organised by Civil Engineering Consortium in the academic year 2016- 2017:

- Youplay
- Faculty cricket match
- Tambola
- Blind drive
- Arm wrestling
- Know your compatibility
- Chess
- Jenga.

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, Thin film technology, Biosensors, *etc*.

Research (Ph. D.)

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.

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.

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. Department is going to set up a new laboratory for B.Tech. courses.

In order to carry out research, the department has additional five 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 (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	Assistant Professor (Senior Grade)	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 (2016-17)

i) Bandna Bharti, Santosh Kumar, Heung-No Lee, Rajesh Kumar, *Formation of oxygen vacancies and Ti^{3+} state in TiO_2 thin film and enhanced optical properties by air plasma treatment*, Scientific Reports, 6 (2016) 32355.

ii) Subhash Chand, Nagesh Thakur, S.C. Katyal, P.B. Barman, Vineet Sharma, Pankaj Sharma, *Recent Developments on the Synthesis, Structural and Optical Properties of Chalcogenide Quantum Dots,* Solar Energy Materials and Solar Cells, 168 (2017) 183–200.

iii) Palwinder Singh, Ramandeep Kaur, Pankaj Sharma, Vineet Sharma, Monu Mishra, Govind Gupta, Anup Thakur, *Optical Band Gap Tuning of Ag Doped $Ge_2Sb_2Te_5$ Thin Films,* Journal of Materials Science: Materials in Electronics, 28 (2017) 11300–11305.

iv) Prashant Thakur, Rohit Sharma, Vineet Sharma, Pankaj Sharma, *Structural, Morphological and Optical Properties of $Mn_{0.5}Zn_{0.5}Fe_2O_4$ Nano Ferrites: Effect of Sintering Temperature,* Materials Chemistry and Physics, 193 (2017) 285-289.

v) Palwinder Singh, Pankaj Sharma, Vineet Sharma, Anup Thakur, *Linear and non-linear optical properties of Ag doped $Ge_2Sb_2Te_5$ thin films estimated by single transmission spectra,* Semiconductor Science and Technology, 32(4) (2017) 045015 (10pp).

vi) Rohit Sharma, Prashant Thakur, Pankaj Sharma, Vineet Sharma, *Ferrimagnetic Ni^{2+} doped Mg-Zn Spinel Ferrite Nanoparticles for High Density Information Storage,* Journal of Alloys and Compounds, 704 (2017) 7-17.

vii) Prashant Thakur, Rohit Sharma, Vineet Sharma, P.B. Barman, Manoj Kumar, Dipto Barman, S.C. Katyal, Pankaj Sharma, *Gd^{3+} doped Mn-Zn soft ferrite nanoparticles: Superparamagnetism and its correlation with other physical properties,* Journal of Magnetism and Magnetic Materials, 432 (2017) 208–217.

viii) Nainjeet Singh Negi, Kanchan Bala, Pankaj Sharma, Ravinder Kumar Kotnala, *Multiferroic and magnetoelectric properties of $MnFe_2O_4/(Pb_{0.8}Sr_{0.2})TiO_3$ composite films,* Philosophical Magazine, 97 (4) (2017) 269-283.

ix) Pankaj Sharma, Neha Sharma, Sunanda Sharda, S.C. Katyal, and Vineet Sharma, *Recent developments on the optical properties of thin films of chalcogenide glasses,* Progress in Solid State Chemistry, 44 (4) (2016) 131-141.

x) Kanchan Bala, Pankaj Sharma, Nainjeet Singh Negi, *Investigation on multiferroic, optical and photoluminescence properties of $CoFe_2O_4/(Pb_{1-x}Sr_x)TiO3$ nanostructured composite thin films,* Solid State Sciences, 61 (2016) 63–69.

xi) D. Dutta, J. Das, S.K. Hazra, C.K. Sarkar, S. Basu, *Influence of graphene growth temperature by chemical vapour deposition on the hydrogen response of palladium-graphene junction*, J Mater Sci: Mater Electron, 28 (2017) 13217-13228.

xii) D. Dutta, J. Das, S.K. Hazra, S. Basu, *Influence of Metal Contacts on Graphene Based Chemical Sensor Devices*. Journal of Microelectronics and Solid State Devices, 3(3) (2016) 1–9.

xiii) D. Dutta, E. Bontempi, Y. You, S. Sinha, J. Das, S.K. Hazra, C.K. Sarkar, S. Basu, *Surface topography and hydrogen sensor response of APCVD grown multilayer graphene thin films*, J Mater Sci: Mater Electron, 28(1) (2016), 157-166.

xiv) Kaushik Annam, Sunil Kumar Khah, Steven Dooley, Charles Cerny, Guru Subramanyam, *Experimental design of bandstop filters based on unconventional defected ground structures*, Microwave and Optical Technology Letters, 58(12) (2016) 2969.

xv) Jonny Dhiman, Sunil Kumar Khah, *Multifunctional shared aperture antenna for L and S band*, Advanced Computational Techniques in Electromagnetics, 2016(1) (2016) 1-6.

xvi) Rajender Singh, P. B. Barman, Dheeraj Sharma, *Synthesis, structural and optical properties of Ag doped ZnO nanoparticles with enhanced photocatalytic properties by photo degradation of organic dyes*, J Mater Sci: Mater Electron, 28 (2017) 5705–5717.

xvii) Neha Kondal and Sanjiv Kumar Tiwari, *Origin of Polychromatic Emission and Defect Distribution within Annealed ZnO Nanoparticles*, Material research Bulletin, 88, (2017)156-165.

xviii) Neha Kondal and Sanjiv Kumar Tiwari, *Selectively Enhanced Oxygen Vacancies in Undoped Polycrystalline ZnO as a Consequence of Multi step sintering*, Ceramic International, 43 (2017)10347-10352.

xix) Asha Kumari, Ragini Raj Singh, *Encapsulation of Highly Confined CdSe Quantum Dots for Defect Free Luminescence and Improved Stability*, Physica E: Low-dimensional Systems and Nanostructures, 89 (2017) 77-85.

xx) Hitanshu Kumar, Asha Kumari, Ragini Raj Singh, *Tunable narrow emission in ZnS/CdS/ZnS quantum well structures prepared by aqueous route.* Optical Materials, 69 (2017) 23-29.

II) Conference Publications (2016-17)

Asha Kumari, Ragini Raj Singh, *Cytotoxicity Testing of Bare CdSe Quantum Dots and Their Encapsulated Structure*, International conference on Recent Advances in Fundamental and Applied Sciences Nov 25-26, 2016, LPU University, Jalandhar, Punjab, India.

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

S. No.	PI	Title	Funding Agency	Amount (INR)	Duration
1.	Ragini Raj Singh	Development, characterization & processing of quantum dots for imaging in near infrared (NIR) range	DST	24.8 lac	2014-2017 (3-Financial years)

2.	Pankaj Sharma	Semiconducting chalcognide quantum dots for exploiting the power of solar energy	DST	16.99 lac	2015-2018 (3- Financial years)

IV) <u>Other activities:</u>

S. No.	Name of faculty	Activity
1	Dr. Vineet Sharma	Judge for Scientific Report Competition in 24th **Himachal Pradesh Children Science Congress** (CSC 2016) during 15-18 November, 2016 at Nahan (H.P.)
2	Dr. Dheeraj Sharma	Judge for Scientific Report Competition in 24th **Himachal Pradesh Children Science Congress** (CSC 2016) during 15-18 November, 2016 at Nahan (H.P.)
3	Dr. Pankaj Sharma	Judge for Scientific Report Competition in 24th **Himachal Pradesh Children Science Congress** (CSC 2016) during 15-18 November, 2016 at Nahan (H.P.)
4	Dr. Pankaj Sharma	**Invited talk at WORKSHOP ON FRONTIERS IN PHYSICS (AWFP-2017)**, organized by Department of Physics, Himachal Pradesh University, Shimla (17-18 MARCH 2017) (Title of talk: Optical Band Gap Tuning of Pure and Transition Metal Doped Cadmium Sulphide Nano films).
5	Dr. Ragini Raj Singh	**Science and Engineering Workshop,** DAV School Sunder Nagar, H.P. & DAV School Mandi, H.P. during 06-05-2017 to 07-05-2017

DEPARTMENT OF MATHEMATICS

The Department of Mathematics was established from the very inception of the University mainly to cater the needs of B. Tech. programs. The Department is well equipped with software like MATLAB, 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. Currently 5 students are registered for Ph. D. degree.

Departmental research interests are in Applied group theoretic techniques, Discrete symmetries, Mathematical modeling and simulation, non-linear partial differential equations, Differential Geometry, Algebraic Coding Theory, Fuzzy Information Measures, Intuitionistic Fuzzy Information, Decision Making, Pattern Recognition.

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, Image and video processing
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

Faculty Activities

I) Publication in Referred Journals:

i) Manoj Gaur, and K. Singh. "Symmetry analysis of time fractional Potential Burgers' equation." **Mathematical Communications**. (*Science Citation Index Expanded, Scopus, Mathematical Reviews, MathSciNet*),vol.22, No.1, 1-11, June 2017.

ii) Manoj Gaur, and K. Singh. "Symmetry classification and exact solutions of a variable coefficient space-time fractional potential Burgers' equation." (2016) **International Journal of Differential Equations.** (*Scopus, Mathematical Reviews, MathSciNet*), http://dx.doi.org/10.1155/2016/4270724

iii) Neel Kanth, B.K Pathak, Artificial Neural Network for Modeling the Uniform Load on Nip Width of Machine Calendering, **Journal of Information and Optimization Sciences**, ISSN No:0252-2667(print),2169-1003(online), Vol37(6),pp.861-871,2016.

II) Conference Proceedings:

i) Pradeep Kumar Pandey: Physical applications of the geometry of differentiable manifolds, AIP Conference Proceedings 1802, 020012 (2017); doi: 10.1063/1.4973262. Scopus (SNIP: 0.236).

ii) R. S. Raja Durai, "Multiple-rate Maximum Rank Distance Codes": in Proceedings of the 14th *International Symposium on Information Theory and Its Applications* (ISITA), 30th October – 2nd November 2016, Monterey, California, USA.

III) Workshops/QIPs Attended

R. S. Raja Durai, Attended the QIP on ``Stochastic Modeling and Optimal Control of Engineering Systems" held at QIP Centre of IIT Roorkee during June 22 - 26, May 2017.

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:

1. Madan Mohan Sati (Ph.D. Awarded on 15-Apr-2017).
2. Manoj Gaur (Thesis submitted on 10th Dec 2016).

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 With Their Specialisation

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 Gauitam	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

Facilities

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

Ph.D Completed

- Neena Jindal, Information And Communication Technology : A Framework For Good Governance In Reference To Selected States Of India

- Abhilasha Chauhan, Destination Image Of Selected Tourist Destinations: Measurement, Analysis & Implications

- Sakshi Khanna, An Empirical Analysis Of The Association Between Capital Structure And Financial Performance Of Indian Firms In The Context Of The Equity Market

Faculty Activities

I) Journals/Book Chapter Publications:

i) Singh, S., Sharma, T., (2017),Emotional Intelligence and Educational Leadership, In Dr S. M. Anas Iqbal (EDS.) Transformation in Business Governance, Delhi: Shroff Publisher & Distributors Pvt. Ltd., pp 174-177.ISBN: 978-93-5213-495-3

ii) Kumari, S., Sharma, T. and Sehrawat, A. (2017), **Community Perception and Expectations on Corporate Social Responsibility: A Comparative Case Study on Ambuja and ACC Limited.** Prabandhan: Indian Journal of Management, Vol. 10 (5), 37-48.

iii) Kumari, S., Sehrawat, A. and Sharma, T. (2017), Corporate Social Responsibility Practices and Their Impact on the Community: A Case Study of Ambuja Cement Ltd. *Prabandhan: Indian Journal of Management*, Vol. 10 (1), 54-66.

iv) Priyam Dhani, Tanu Sharma: Relationship between EI and Personality; A Study in Indian Context. *International Business Management, Vol.* ll (5): 1133-1139, 2017

v) Dhani,P.,Sharma T (2016), "Emotional Intelligence: History, Models and Measures", International Journal Of Science Technology and Management,ISSN:2394-1537,Vol05,Issue 07,July2016$5^{th}$ International Conference on Science, Technology and Management30July, India International Center, New Delhi

vi) Jindal, N., Sehrawat, A. and Medury, Y. (2016), Status of User-Centric E-governance Practices in North India. Prabandhan: Indian Journal of Management, Vol. 9 (4), 18-29.

vii) Madhvi, Gautam, A., & Srivastava, A. (2017). Is NPA and Stock Return Related: An Empirical Study of Back Testing Model. Purushartha , 10 (1), 89-96.

viii) Madhvi, & Srivastava, A. (2017). Measuring Efficiency of Commercial Banks in India – A DEA Study. British Journal of Economics, Finance and Management Sciences , 13 (2), 82-92.

ix) Verma, R., Nitin, & Srivastava, A. (2016). On Behavioural Responses and Different Shades of Flaming in Social Media and Computer Mediated Communication. International Journal of Human Capital and Information Technology Professionals , 7 (4), 33-49.

x) Anupriya Kaur and Mrinalini Singh Thakur International Journal of Humanities and Social Science Invention, Volume 6 Issue 6|,June. 2017, pp.76-80

xi) Preeti Thakur, Anupriya Kaur (2017) Online Consumer Attitude Formation And Change, International Journal of Science Technology and Management,Vol.06, Issue 01, pp.150-157.

II) Conference Publications:

i) Dhani ,P.,Sharma T. (2017),Gender Differences in Emotional Intelligence and Job Performance of Service Sector Employees in India , IIRAJ 2ND-International Conference (ICCI-SEM-2017),Bhubaneswar , India, 28th May,2017.ISBN:978-93-86352-48-4.

ii) Sharma ,T., Singh, S.,(2017), " Cultural Intelligence : The essential Intelligence", 17th International Business Horizon INBUSH ERA WORLD SUMMIT2017, Amity University ,Uttar Pradesh, India. 8th-10th Feburary,2017.

iii) Sharma, T., (2016), "An Insight into CSR and Sustainable Development" , 7th International Conference on Innovative Research in Engineering Science and Management (ICIRESM-16), The Institutions of Electronic and Telecommunication Engineers (IETE), Delhi, India

Workshops Conducted

Department of Humanities and Social Sciences organized 6th One-Week Self-Financed Workshop on "Tools and Techniques for Data Analysis in Management Research" during June 20-25, 2016. 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 22 participants (faculty members and research scholars) from different parts of India were participated in it.

III) Resource Person/ Invited Lectures

i) Keynote speakers Dr. Anupriya Kaur,PROTOTHON-17 held on 16 May 2017 by TIED cell, JUIT.

ii) Keynote speakers DrAmit Srivastava,PROTOTHON-17 held on 16 May 2017 by TIED cell, JUIT.

iii) Dr Anupriya Kaur, Session Chair- ICEBM 2017 (BITS Pilani)

CENTRES

LEARNING RESOURCE CENTRE (LIBRARY)

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

LRC is a separate block of three storied building embedded to main academic block which can accommodate **295 s**tudents at a time in order to carry any activity related to study and research. The LRC has around **35441** volumes of books and **1394** back volume of journals which covering the disciplines of Computer Science and Engineering, Electronics and Communication Engineering, Information Technology, Civil & Environmental Engineering, Biotechnology, Bioinformatics, Pharmacy, Mathematics, Physics & Material Science, Management, and languages. The Collection comprises of Print monograph such as Textbooks, Reference Books, Encyclopedias, Handbooks, Dictionaries, Theses, Standards, etc. LRC has been subscribing to 17 International Journals, 47 National Journals, 41 National and International magazines in order to supplement teaching and research activity of the university. The Non-book materials include audio/video cassettes, CD-ROM discs, DVD-ROM discs etc.

LRC is also subscribing to various online databases such as IEEE, ACM, Springer, ASCE, ASTM, IET, SIAM etc. Over 8266 full-texts e-books, electronic resources of Journals, Conference Proceedings, Transactions, Magazines and Reports are available for reading throughout the campus. 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. There are 65 dedicated computer nodes and are fully connected with Internet and LAN of the campus. Students, faculty, research scholars can use computer facility in LRC for the purpose of browsing internet, accessing journals, reading course materials during the opening hours of the LRC. LRC resources are fully computerized and bar-coded with latest version of Library Management Software known as '**Liberty'** (**a fully internet based library automation software**). All the resources of LRC can be viewed, searched through Internet OPAC or dedicated terminal for OPAC throughout the campus over Internet. LRC remains open from 8:45 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 materials movement of the LRC. The LRC has an institutional repository by using Dspace, 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 databases, providing anti plagiarism detection by using Turnitin software, locker facility for research scholars and various alert services.

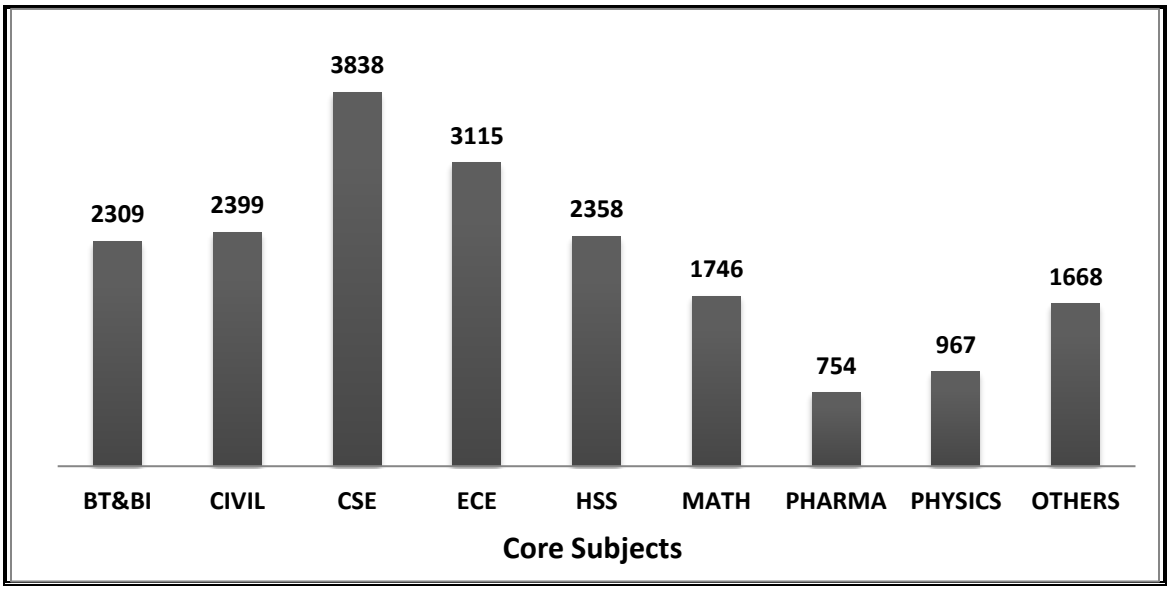
Resource Collection

- Unique Titles : 19154
- Total Copies : 35441

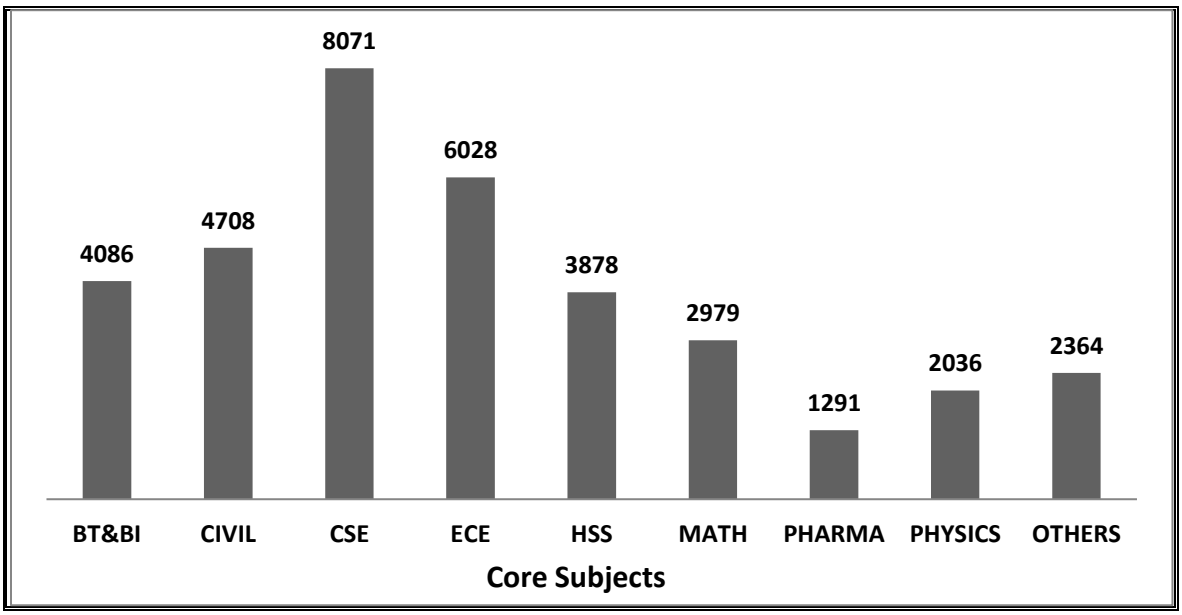
Subject-wise Book Collection:

S. No.	Departments	Unique Titles	Total Volumes
1	Bioinformatics & Biotechnology	2309	4086
2	Civil Engineering	2399	4708
3	Computer Science Engineering	3838	8071
4	Electronics & Communication Engineering	3115	6028
5	Humanities & Social Sciences	2358	3878
6	Mathematics	1746	2979
7	Pharmacy	754	1291
8	Physics and Materials Science	967	2036
9	Others	1668	2364
	Grand Total	19154	35441

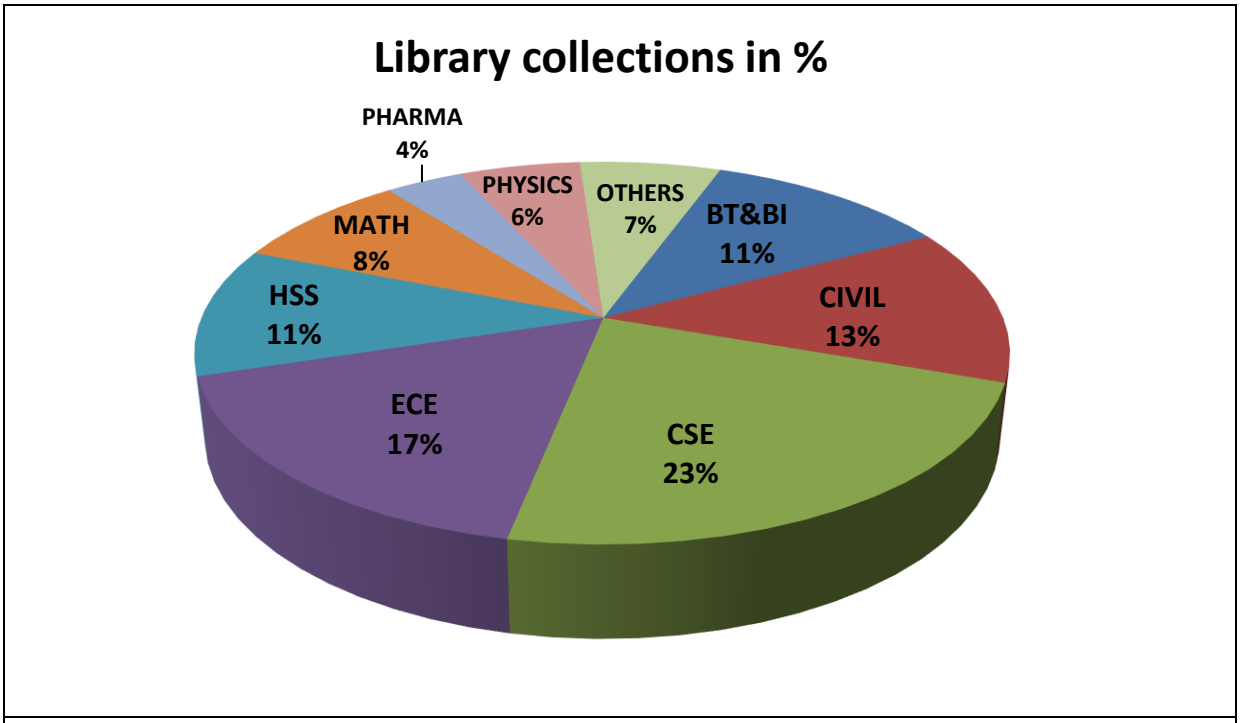
Subject-wise unique titles in the library collection:



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:

Database	URL	E-Books	No. of Journals	Conference proceeding and other reports	Total
Association of Computer Machinery (ACM)	8	-	66	1082	1148
American Society of Civil Engineers (ASCE)	http://ascelibrary.org	-	37	-	37
Institute of Electrical and Electronics Engineers (IEEE)	http://ieeexplore.ieee.org/	-	179	2695	2874
Springer	http://springerlink.com	-	586	-	586
ASTM Digital Library	https://compass.astm.org	-	9	1715	1724
IET Digital Library	http://digital-library.theiet.org	-	31	1494	1525
Society for Industrial & Applied Mathematics (SIAM)	http://portal.igpublish.com/iglibrary/search/main?0	372	-	-	372
	Total	372	908	6986	8266

Other Collections: 4027

Type of Resource	Number
Print Journals (International)	17
Print Journals (National)	47
Print Magazines	41
Back Volume Journals	1394
Ph.D Theses	118
Dissertations (M.Tech & Dual Degree)	600
Project Reports (B.Tech)	1796
*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**

Server Details

S.No	Server	Configuration	Quantity
1	IBM X Series 235	Intel® XEON 2.4 GHz 4 GB RAM 73 GB SCIC HDD with RAID Support.	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 X Series 200	Intel® P3 1.2 GHz 2 GB RAM 20 GB SCIC HDD with RAID Support.	1
5	IBM X Series 232	Intel® P3 1.2 GHz 1.2 GB RAM 204 GB SCIC HDD	1
6	IBM X Series 206	Intel® P4 3.0 GHz 1.2 GB RAM 68 GB SCIC HDD	1
7	Lenovo workstation	Lenovo worlstation E5-1603	1

8	CR 1000ia	10 10/100/1000 Gigabit ports with 3.5 Gbps firewall throughput and 600 Mbps anti-virus throughput	2
9	IBM X Series 3500	Intel® XEON 2.26 GHz 6 GB DDR III RAM 1200 GB SCIC HDD with RAID 5 Support , 17 inch TFT moniter	3
10	IBM Server X3100	IBM Server intel XEON X3100 with 8 GB DDR3 ,500 GB HDD and TFT screen	3
11	IBM x-3400 M3	Server IBM Model x-3400 M3 with intel xeon quad core processor,8 GB RAM,300 GB X 4 HDD,18.5 inch TFT	1
12	HP	HP ML 110G6 Server Intel Xeon Quad Core X3430 Processor with 4 gb RAM ,250 GB Sata HDD and 18.5 TFT Screen	2
13	IBM X3300	IBM server x3300 m4 server 16 gb ram,1200 gb hdd with raid 5 card	1
14	Dell	Dell Precision Tower 3420 with Intel Xeon E3-1225 3.3 ghz,8gb ddr4,19 inch tft and mouse	10
		Total Number Of Servers	**35**

Desktop Details

S.No	Brand	CONFIGURATIONS	QTY
1	IBM	P IV with 3 GHz, 80 GB HDD & 512 MB RAM and 17 inch monitor	112
2	IBM	Core 2 due 2.4 Ghz, 160 GB HDD & 1 GB RAM 17 inch Monitor	52
3	IBM	P4 1.8 Ghz,40 GB HDD,512 MB RAM & 15 inch Monitor	12
4	IBM	P4 2.8 Ghz,40 GB HDD,512 MB RAM & 15 inch Monitor	14
5	IBM	P4 3.06 Ghz,80 GB HDD,512 MB RAM & 15 inch Monitor	10
6	IBM	Celeron 2.4 Ghz,40 GB HDD,256 MB RAM & 15 inch Monitor	10
7	IBM	Dule core 1.8 Ghz,80 GB HDD ,1 GB RAM & 17 inch Monitor	40
8	IBM	Dule core 1.8 Ghz,80 GB HDD ,512 MB RAM & 17 inch Monitor	15

9	IBM	INTEL CORE 2 DUO,160 GB HDD,4 GB RAM & 17 inch Monitor	2
10	IBM	INTEL CORE 2 DUO,160 GB HDD,2 GB RAM & 17 inch Monitor	50
11	IBM	INTEL CORE 2 DUO,160 GB HDD,2 GB RAM & 17 inch Monitor	125
12	IBM	core i3-530 (2.92 GHz) with 2 GB RAM ,250 GB Sata HDD,18.5 inch TFT Monitor	90
13	IBM	Core I3- 2100 3.10 GHz with 2 GB RAM ,320 GB Sata HDD,18.5 inch TFT Monitor	80
14	IBM	Core I3- 2100 3.10 GHz with 4 GB RAM ,500 GB Sata HDD,dvd rom,18.5 inch TFT Monitor	120
15	HP	Intel core i5-6500 3.2 G 6M 2133 4C CPU with 18.5 inch TFT ,KB and Mouse	190
16	Dell	Desktop Dell i5 7th gen,8 gb ram,1 tb HDD with 18.5 inch tft	300
		Total Number of computers	1222

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**

- **Database Services**

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

- **Network Services**

The University Local Area Network (LAN) is a state of the art switched network with Fiber Optical and enhanced CAT5e/CAT6 UTP Backbone. It consists of more than 3500 network access points spread using 73-3 com switches, 3 Cisco Routers, 23 Cisco switches, 17 Cisco AP ,6 HP AP and 15 VLANs.

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

Internet connection has been provided through a router. We have 1 Gbps (1: 1) leased circuit from BSNL and Railtel (10 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 nwith universities, research laboratories and industries with a view to makingthe 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. MoU with SAP AG, Germany on SAP University Alliances Academic Educational Material Utilization contract for Teaching Purpose.

4. Technion – Isrea Institute of Technology, Isreal.

5. South Dakota School of Mines and Technology, USA

6. Center for Industrial Microbiology, Food Industries.

7. Research Institute Nguyen Trai, Thanh Zual, Hanoi. Vietnam.

8. Arkansas State University, USA.

9. MoU with Youth Development Fund Bhutan.

10. MoU with National School of Applied Sciences (ENSAYg), Tangierorocco.

11. MoU with Defence Institute of High Altitude Research (Formerly Field Research Laboratory) of DRDO, Govt. of India.

ACADEMIC ADMINISTRATION

Admission Process

- **UG Program:**

  Admissions in the academic session 2016-17 were carried out through a counselling process conducted by the University, based on all India merit in JEE ranking.

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

- **PG Programme**

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

- **PhD:**

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

- **Students Enrollment**

  The University over the period of 16 years has gained strength and confidence of the masses. The number and quality of intake has shown a remarkable improvement. The current state of student strength is given below.

Year of Study		UG Prog.	PG (M. Tech) Prog.	Dual Degree	Integ. Dual Degree
a.	5th Years	08		11	
b.	4th Year	456			04
c.	3rd Year	492			
d.	2nd Year	440	51		
e.	1st Year	436	27		

Ph.D. Scholars in the University at present are: 148

FACULTY AND SCHOLARSHIPS

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.

Cleanliness Drive

On 2nd October 2016 a cleanliness drive was organized by the Environment Club of JYC. This drive was conducted to mark the 2nd October, Swachchta Day. Hon'ble Vice Chancellor, Dr. Vinod Kumar along the Director, Dr. Samir Dev Gupta and Registrar Brig. K.K. Marwah took part in the Cleaniliness Drive. The drive was initiated by a rally that took place from the main gate of the college to the Vasant Bhawan. After the rally, trees were planted by the Vice Chancellor, Director and Registrar to support the cause of keeping the surroundings green. Later, all the students were provided with gloves and they engaged in the cleaning of the campus. Difficult to reach areas were cleaned thoroughly. The feeling of satisfaction of having done something for the environment filled the air. All the garbage collected was then thrown into the regularly placed dustbins. Subsequently, hand wash, water and refreshments were provided to the students.

VC Planting a sapling

Master Chef

The Saturday evening on 15th October 2016 at JUIT was embarked with an eventful cookery competition called MasterChef. A potent event to bring out those innovative chefs in JUIT engineers.

A healthy and fair competition was held. The students took part enthusiastically and came up with best of their dishes.

A prize distribution ceremony marked the culmination of the event.

DHUN 2016

On Sunday, 16th October 2016, -**'DHUN' Unplugged** was organized by the Arts Club of JYC. It showcased the performances of the various acoustic artists of JUIT.

The event began around 6:30 pm and it with the welcome speech provided a platform to around 35 artists who exhibited their talent of singing and playing various musical instruments. The participants sung songs from various origins and the highlight of the event was that there were two performances by the Bhutanis who sung their traditional songs. The event was also attended by the faculty members including the JYC faculty coordinator Mr Pardeep Garg.

Navratri Utsav

The auspicious day, NAVRATRI , was enthusiastically celebrated in the university . The event was a great success organized by the CULTURAL CLUB. The temple walls were beautifully covered by lights and the floor decorated by colorful rangoli. The event took head start by Lamp lightening in front of the idol of MA DURGA . This was followed by devotional songs sung by melodious voices of JUIT , that were enough to blend the crowd in a devotional atmosphere . The staff and the students became one in that temple. It was one great step in university to come back to the roots, the real us.

GOONJ

JYC-Arts club and Cultural Club of JYC organised Goonj, the musical night on the eve of 27th October 2016. Dr. Samir Dev Gupta Director and Academic Head, JUIT, graced the occasion and lit the lamp.The musical extravaganza was enjoyed by the students.

Performance by all the students were splendid as they delivered a soulful rendition. They were appreciated by one and all. Six Strings delivered an alluring performance which mesmerised the crowd. The bands from various universities also showcased their talent. The energy displayed by Out of the Blue band was unbeatable. They not only danced to foot tapping beats themselves, they also made others sway.

The western group performances by F. Society managed to spell-bound the audience while the performance by Urban Bhangra Crew presented the Punjabi culture of the show that made the audience dance to the foot-tapping numbers. Many scintillating items included Himachali folk dance presented by the Pakke Pahadiye, the dance group added flavour to the occasion.

PARAKRAM-2016

JUIT organized its annual sports fest, PARAKRAM-2016 on 12th, 13th and 14th of November 2016. It was a three day fest conducted by JYC with students participating enthusiastically from different colleges and universities. Over 17 colleges took part in the fest, comprising 250 students. 60 participants from our college participated in various sports. The main events were basketball, volleyball, table tennis, handball and badminton.

Winners:

Basketball (boys) –THAPAR
Basketball (girls) – JUIT
Volleyball (boys) – MAU
Volleyball(girls)- JUIT
Table Tennis (boys) – CHITKARA, RAJPURA
Table Tennis(girls)-CHITKARA, RAJPURA
Badminton (boys) – CHITKARA, RAJPURA
Badminton (girls)-JUIT
Handball-JUIT
Chess- JUIT

JUIT remained the overall winner of PARAKRAM-2016 with 4 gold medals.
Apart from the main events, fun events such as BLUR, counter strike , bluff, tug of war, mini militia, robotics race, FIFA, pain, clash royale and piano tile were also organized. On 14th November, all the participants and winners were awarded with mementos, certificates and cash prizes respectively during the closing ceremony.

Ballads of Nature

JYC- Alumni Affairs Committee organized a formal book launch ceremony of one of our alumnus Mr. Sanjeev Bansal on ***28th November, 2016*** . The event began with the auspicious lamp lighting ceremony. Honorable Vice Chancellor Ms. Neena Jindal honored the chief dignitary of the evening ***The writer and poet Mr. Sanjeev Bansal.***

AVSAR

AVSAR an event organised by the environment club of JYC.It is opportunity for the people of this university to give happiness to people behind the eight ball in areas where they need our help for their livelihood. This AVSAR is given to the JUIT family since 2014. This year, the event was organised from **24th to 26th of November 2016**. The family gave exceptionally great response which led to the success of the donation drive. People donated whatever was absolutely for them and could have been of great use for the poor and needy.

Donations came in the form of newspapers, old clothes, footwear, bags, books, plastic.

Jaypee Youth Parliament (JYP)

The JUIT Youth Parliament ’16 was held on the 26th and the 27th of November, 2016. The conference was aimed at providing an accurate simulation of the proceedings and the various codes of conduct to be followed by the Members of Parliament of the Republic of India. The conference included two councils, the first council being Lok Sabha carried an agenda of The Comprehensive Review of India’s Higher Secondary and Tertiary Education System, which was a direct opportunity for students to come up with relevant and holistic solutions to the problems faced by the Indian Education System.

The second council was a Futuristic Rajya Sabha which envisaged a world of the future in which climate change had caused excessive damage to the ecosystem and fatally threatened human existence. Students were provided with a proactive platform to present their problem-solving approach and come up with ideas to potentially reverse the ill effects of this calamity.

The councils were headed by two executive boards comprising personnel from various backgrounds and the perfect expertise to moderate a debate of the scale of such an event. The event was a grand success both in participation and in imparting excellent education to the youth about the functioning of India’s legislature.

GEETA IN-HOUSE

The Geeta In-house was organized by JUIT Youth Club on 25th January, 2017. The theme decided for this year's party was Bollywood. Being an exclusive and anticipated event for the girls, it was most awaited .It is a night where girls can enjoy, dance, play fun games and eat self cooked food. This year's in-house was no exception.

All the clubs and committees came together for this event to make it successful. The preparation started with the making of delicious dishes such as chocolate fudge, pasta, momos, sandwich, gol gappe, coffee, etc. Fun events such as paper dance, and pseudo shots were organized. Photo booth was put up by the photography club.


BAAR
DEKHO

Good Bye Alma Mater

(Scribbling day)

Parting ways has never been easy. The feeling of separation from your friends brings emotional sadness. To bid good bye, the students attending condensed semester had their traditional Scribbling Day on 30th January, 2017. On this day students gathered in auditorium. They were shown a short documentary prepared by JYC-Movie club to bid farewell to all the condensed semester's students. Final year students came in uniform shirts and got back all scribbled, penned by the loved ones and not-so-loved-ones as well. It's amazing how parting words have the power to shape our memories of the people we shared a part of life with!

On this day all the fourth year students scribbled the shirts of their friends and batch mates. Those shirts will now become a memory which will bring smile to all the nostalgic faces. The students also tapped their feet to the never ending beats of music. At the end of the day what all students had was a box full of memories to cherish forever.

MURIOUS XI

The Technical Fest of Jaypee University of Information Technology, **Murious XI** was organized by CREATECH in collaboration with IEEE-JUIT Student Branch and ACM-JUIT Student Chapter. The three day fest was organized during 10th – 12th February 2017.

Murious XI began with the cultural night, "Synchrotron" on 10th February 2017. **Dr. Dinesh Tyagi,** Chief Executive Officer of CSC e-GOVERNANCE Services India Limited was the Chief

Guest of the night. The night also showcased the Bot dance of Manav (the first made in India robot by Mr. Diwaker Vaish).

The night was followed by the beginning of the technical events on 11th February 2017. A **Tech Talk** by **Mr. Diwaker Vaish** was conducted where he displayed his various projects and shared his experiences.

This was followed by the Video chat of **Mr. Ritvik Srivastava**, who is the CEO of Gazifab.

Various events were also conducted on the second day of Murious Xl. Jeopardy Quiz, the brainstorming event for the students who want to exhibit the knowledge at the right time and in the right place. Many fun events such as Virtual Cricket Auction, Maze of Lethe, Robo pin, etc. were also conducted which saw a huge participation of the enthusiastic students.

For the students with innovative ideas and projects, Exposicion (Hardware) and Exposicion (Software) were conducted where the students were given the platform to present their ideas to everyone.

Many robotics events such as Robo Race, Robo Soccer and Maze bot were organized on 12th February 2017. In Robo Race the bot was supposed to overcome all hurdles in the minimum possible time. In Robo Soccer, soccer was played by the wireless bots. In maze bot, the maze solving skills of the participants were taken to the next level where the participants were to escape the maze with the bots in minimum possible time.

For all the coders the events Codez and HackerCup were organisd. These events helped the participants to show their coding talents.

RoboExpo the **exhibition of Mr. Diwaker Vaish's** projects was also set up for all the learners. Adrenaline, a two day event, was also organized for those who love to play. Adrenaline included the games: BLUR, FIFA 16, PAIN, CS 1.6 and CS Go.

In all the events, winners were awarded with prizes and certificates. Students' coordinators and Volunteers were awarded with appreciation certificates. Murious XI was a huge success.

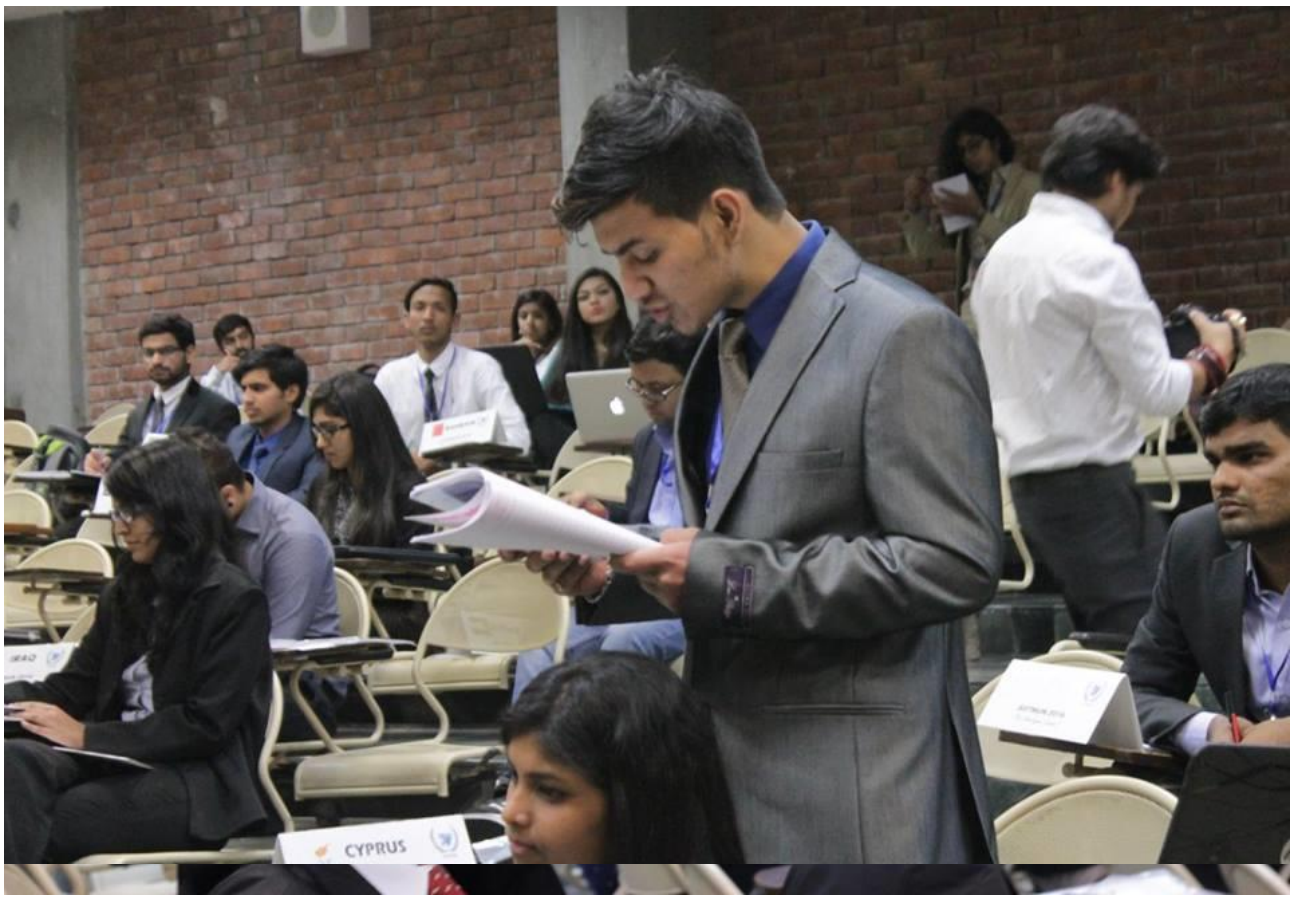
CREATECH, The Technical Team, JUIT

IEEE-JUIT Student Branch
ACM-JUIT

Model United Nation (MUN)

The JUITMUN ’17 was held on the 18th and 19th of March, 2017. It was the biggest event of its category in Himachal Pradesh and was conducted in partnership with the United Nations Information Centre (UNIC) for India and Bhutan. This event was conducted with a view to educate the youth about the functioning of the world’s largest forum for the various nations - The United Nations Organization. The two day conference was attended by various schools and colleges of the region and saw mass participation and interest in gaining knowledge about the UNO.

The conference consisted of two councils. The first council was the United Nations Human Rights Commission which aimed to dispel the menace that is Human Trafficking through the out of the box solutions provided by the students, who acted as delegates of various countries. The second council was the United Nations Convention on the Law of the Sea which was conceptualised with the agenda to solve international maritime and territorial disputes. Both the councils witnessed two days of rigorous debating, policy and alliance making, and finally churning out a resolution which could be brought into effect in the real world. The conference was a major success in all aspects and was revered by all participating institutions.



LE FIESTUS 2017

(Knight in the Shining Armour)

The vision of JUIT’s annual cultural fest, Le Fiestus was organised on 28th, 29th and 30th April 2017. The evening themed as **Knight in the Shining Armour** embellished the sanctity of our University.

Day-1

Cultural Night

The Cultural night began with the auspicious lamp lightning ceremony followed by words of wisdom by the VC speech by the President and Secretary of JYC. The show had a bunch of dances packed for the audience along with "Vogue", the fashion show. The participants showed great enthusiasm.

Day-2

The day began with a Saraswati pooja organized in the academic block. Events by Movie club were organised in the academic block which had in store events for the faculty and students both. Meanwhile in the Mughals various fun stalls were put up by the Clubs of JYC.

Later that evening, as Gajendra Verma (Bollywood Artist) took the stage, the audience was awed. With a brief touch of simplicity and flavour, Mr.Verma made everyone dance to his fusion of *Shape of You* and *Mann Mera*. Rain came in a while, people did enjoy the rain dancing for few minutes but heavy showers started and Zephyrtone wasn't lucky enough to perform.

Day-3

Events were organised by the clubs in the academic block and fun events in the Mughals in the afternoon. Later competitions like Monodanza and Mr. & Ms. Le Fiestus were organised in the Auditorium, which was followed by the prize distribution ceremony and the most awaited ramp of JYC members.


© Photography Club


FIESTUS '17

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 standing committees 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 4 years is attached at Appendix-F

Appendix-A

DETAILS OF LAND

EXISTING BUILDING AREA STATEMENT			
		Built Up Area	
S.No.	**Particular**	**Qty. in Sft.**	**Qty. in Mtr.**
1	Academic Block	1,41,877.43	13,185.63
2	Hostel Block		
	Student Lounge	1,427.10	132.63
	H-1	13,009.31	1,209.04
	H-2	12,473.38	1,159.24
	H-3	6,724.28	624.93
	H-4	14,276.75	1,326.84
	H-5	22,794.00	2,118.40
	H-5	12,402.10	1,152.61
	H-7	11,235.89	1,044.23
	H-8	9,865.34	916.85
	H-9	9,809.99	911.71
	H-10	9,984.01	927.88
	H-11	14,215.70	1,321.16
	Girls Hosta 12A	23,571.95	2,190.70
	Girls Hostel 12B	18,494.80	1,718.85
	Girls Hostel 12C	20,541.28	19,909.04
	Girls Hostel 12D	17,722.94	1,671.11
	Annapurna	10,618.08	986.81
	Unloading Bay	2,035.14	189.14
	H-14A	9,314.86	865.69
	H-14B		

		14,015.34	1,302.54
	H-14C	24,250.39	2,253.75
	H-14D	20,008.18	1,859.50
	H-15A	19,720.51	1,832.76
	H-15B	14,649.70	1,361.51
	H-15C	18,457.16	1,715.35
	H-15D	16,253.46	1,510.54
3	Telephone Exchange	9,827.22	913.31
4	ESS	21,517.40	1,999.76
5	Faculty Block (B Type)		
	F-01	13,250.22	1,231.43
	F-02	29,119.93	2,706.31
	F-03	13,246.25	12,131.06
6	Faculty Block C (C Type)		
	C-01	11,552.33	1,073.64
	C-02	11,618.23	1,079.76
	C-03	10,922.13	1,015.07
7	Guest House	15,360.92	1,427.59
8	Auditorium & Stage	14,251.66	1,324.50
9	Mandir	3,030.61	281.66
10	Dispensary	2,711.12	251.96
11	Faculty House (A Type)	19,238.51	1,787.97
12	Workers Dormitory-I	12,629.46	1,173.74
13	E Type Faculty	34,916.20	3,245.00
14	D Type Faculty	20,444.00	1,900.00
15	workers Dormitory II	19,002.16	1,766.00

16	Basket Ball Field & Volley Ball Field	1,200.00	111.52
17	Badminton Court	170.00	15.80
18	Store	3,512.40	326.43
19	Animal Lab	2,754.56	256.00
20	Civil Lab	14,396.66	1,337.98
21	Laundry	2,083.45	193.63
	TOTAL BUILT UP AREA	**7,96,504.49**	**1,02,948.56**

NOTE

- Residential for Students 1791 (1205 Boys & 586 Girls)
- Residential for Faculty HODs (8), Professors (26), Associate Professors (8) Assistant Professors (6) Lecturers (36)

Special Features

- Fully networked campus, including student hostels and faculty residences with 4 Mb leased line and 24 hour internet connectivity
- Learning Resource Centre – stocked with latest technical journals and reference books, and open from 8 am till 12 pm at night

Other Infrastructural Facilities

Facilities provided to students include the following:

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

APPENDIX 'B'

DETAILS OF TEACHING STAFF

S.No.	Employee Code	Name	Designation	Qualifications
1	496	Prof. Vinod Kumar	Vice Chancellor	Ph.D.
2	479	Dr. Samir Dev Gupta	Director & Academic Head & Dean (A&R	Ph.D.
ELECTRONICS & COMMUNICATION ENGINEERING				
1	6	Sunil Vidya Bhooshan	Prof. & HOD,	Ph.D.
2	119	Ghanshyam Singh	Professor	Ph.D.
3	124	Pradeep Kumar	Associate Professor	Ph.D.
4	89	Rajiv Kumar	Asstt. Professor (SG)	Ph.D.
5	195	Shruti Jain	Asstt. Professor (SG)	Ph.D.
6	177	Neeru Sharma	Asstt. Professor (SG)	Ph.D.
7	332	Meenakshi Sood	Asstt. Professor (SG)	Ph.D.
8	481	Shweta Pandit	Asstt. Professor (SG)	Ph.D.
9	482	Sunil Datt Sharma	Asstt. Professor (SG)	Ph.D.
10	254	Pragya Gupta	Asstt. Professor (GR-II)	M.Tech
11	199	Vanita Rana	Asstt. Professor (GR-II)	M.E.
12	298	Salman Raju Talluri	Asstt. Professor (GR-II)	M.Tech
13	297	Pardeep Garg	Asstt. Professor (GR-II)	M.Tech
14	487	Alok Kumar	Asstt. Professor (Gr-II)	M. Tech
15	501	Ashwani Sharma	Asstt. Professor (Gr-II)	M.S.
16	139	Munish Sud	Asstt. Professor (GR-I)	M. Tech
17	506	Piyush Okas	Asstt. Professor (GR-I)	M. Tech
18	512	Mohit Garg	Asstt. Professor (GR-I)	M. Tech
19	419	Ajay Kumar Agrawal	Asstt. Professor (GR-I)	M. Tech

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING/INFORMATION TECHNOLOGY				
1	141	Brig. S.P. Ghrera (Retd.)	Professor	Ph.D.
2	168	Vivek Sehgal	Associate Professor	Ph.D.
3	190	Yashwant Singh	Associate Professor	Ph.D.
4	400	Hemraj Saini	Asstt. Professor (SG)	Ph.D.
5	200	Pardeep	Asstt. Professor (SG)	Ph.D.
6	201	Pradeep Kumar Gupta	Asstt. Professor (SG)	Ph.D.
7	287	Rajni Mohna	Asstt. Professor (SG)	Ph.D.
8	488	Pradeep Kumar Singh	Asstt. Professor (SG)	Ph.D.
9	128	Ravindara Bhatt	Asstt. Professor (SG)	Ph.D.
10	196	Amit Kumar Singh	Assstt. Professor (SG)	Ph.D
11	441	Shailendra Shukla	Asstt. Professor (SG)	Ph.D
12	238	Suman Saha	Asstt. Professor (GR-II)	M.Tech
13	364	Arvind Kumar	Asstt. Professor (GR-II)	M.Tech
14	100	Amol Vasudeva	Asstt. Professor (GR-II)	M. Tech
15	382	Ramanpreet Kaur	Asstt. Professor (GR-II)	M. Tech
16	408	Punit Gupta	Asstt. Professor (GR-II)	M. Tech
17	511	Puneet Kumar Jain	Asstt.Professor (GR-II)	M. Tech
18	371	Ruchi Verma	Assistant Profess (GR-I)	M. Tech
19	446	Nishtha Ahuja	Assistant Profess (GR-I)	M. Tech
20	452	Annie Singla	Assistant Professor (GR-I)	M. Tech
21	489	Ruhi Mahajan	Assistant Professor (GR-I)	M. Tech
22	513	Yashdeep Singh	Assistant Professor (GR-I)	M.Tech

DEPARTMENT OF BIOINFORMATICS/BIOTECHNOLOGY				
1	138	R.S. Chauhan	Professor	Ph.D.
2	155	Sudhir Syal	Associate Professor	Ph.D.
3	87	Chittranjan Rout	Associate Professor	Ph.D.
4	349	Harish Changotra	Associate Professor	Ph.D.
5	423	Jata Shankar	Asstt. Professor (SG)	Ph.D.
6	129	Anil Kant	Asstt. Professor (SG)	Ph.D.
7	277	Rahul Shrivastava	Asstt. Professor (SG)	Ph.D.
8	308	Tiratha Raj Singh	Asstt. Professor (SG)	Ph.D.
9	259	Hemant Sood	Asstt. Professor (SG)	Ph.D.
10	405	Gunjan Goel	Asstt. Professor (SG)	Ph.D.
11	265	Poonam Sharma	Asstt. Professor (SG)	Ph.D.
12	309	Jayashree Ramana	Asstt. Professor (SG)	Ph.D.
13	362	Jitendraa Vashistt	Asstt. Professor (SG)	Ph.D.
14	318	Garlapati Vijay Kumar	Asstt. Professor (GR-II)	Ph.D.
15	483	Y.M. Raghothaman	Asstt. Professor (GR-II)	Ph.D.
16	380	Saurabh Bansal	Asstt. Professor (GR-II)	Ph.D.
17	505	Abhishek Chaudhary	Assistant Professor (GR-I)	Ph.D.
DEPARTMENT OF PHARMACY				
1	282	Gopal Singh Bisht	Asstt. Professor (SG)	Ph.D.
2	290	Uday Banu M	Asstt. Professor (SG)	Ph.D.
3	294	Ahmed Nawaz Khan	Asstt. Professor (GR-I)	M. Pharm

DEPRTMENT OF CIVIL ENGINEERING				
1	189	Ashok K. Gupta	Professor	Ph.D.
2	397	V. S. Gali	Professor	Ph.D.
3	440	Rajiv Ganguly	Associate Professor	Ph.D.
4	120	Ashish Kumar	Associate Professor	Ph.D
5	360	Chandrapal Gautam	Asstt. Professor (GR-II)	M. Tech
6	357	Abhilash Shukla	Asstt. Professor (GR-II)	M. Tech
7	391	Saurabh Rawat	Asstt. Professor (GR-II)	M. Tech
8	393	Saurav	Asstt. Professor (GR-II)	M. Tech
9	417	Lav Singh	Asstt. Professor (GR-II)	M. Tech
10	427	Niraj Singh Parihar	Asstt. Professor (GR-II)	M. Tech
11	454	Santu Kar	Assistant Professor (GR-I)	M. Tech
12	485	Bibhas Paul	Assistant Professor (GR-I)	M.Tech
13	503	Aakash Gupta	Assistant Professor (GR-I)	M. Tech
14	504	Sh. Anirban Dhulia	Assistant Professor (GR-I)	N.Tech
DEPARTMENT OF PHYSICS				
1	101	P.B. Barman	Professor	Ph.D.
2	1	Sunil K. Khah	Professor	Ph.D.
3	93	Vineet Sharma	Associate Professor	Ph.D
4	172	Pankaj Sharma	Asstt. Professor (SG)	Ph.D
5	95	Dheeraj Sharma	Asstt. Professor (Sr. Grade)	Ph.D.
6	83	Rajesh Kumar	Asstt. Professor (Sr. Grade)	Ph.D.
7	329	S.K.Hazra	Asstt. Professor (GR-II)	Ph.D
8	370	Ragni Raj Singh	Asstt. Professor (GR-II)	Ph.D
9	378	Sanjiv Kumar Tiwari	Asstt. Professor (GR-II)	Ph.D.
DEPARTMENT OF MATHEMATICS				
1	160	Karanjeet Singh	Professor & HOD	Ph.D.
2	204	R S Raja Durai	Associate Professor	Ph.D.
3	94	R K Bajaj	Associate Professor	Ph.D.
4	293	Neelkanth	Asstt. Professor (SG)	Ph.D.
5	333	Pradeep K Pandey	Asstt. Professor (SG)	Ph.D.

DEPARTMENT OF HUMANITIES & SOCIAL SCIENCES				
1	63	Anupriya Kaur	Associate Professor	Ph.D.
2	366	Anil Sehrawat	Associate Professor	Ph.D.
3	A00004	Amit Srivastava	Asstt. Professor (SG)	Ph.D.
4	112	Tanu Shrma	Asstt. Professor (SG)	Ph.D.
5	170	Triambica Gautam	Asstt. Professor (GR-II)	MBA, UGC Net
6	151	Neena Jindal	Associate Lecturer	M.Phil

Appendix-C

UNIVERSITY RESULTS OF PAST FOUR YEARS

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

RESULT OF THE BATCH 2009-2013

Branch	No. of Students	No. of students Passed	Pass Percentage
B. TECH.			
ECE	112	106	95
CSE	122	118	97
IT	47	45	94
BT	23	22	90
BI	12	12	88
CE	33	27	84
PHARMACY			
B. Pharma	30	28	85
M. Tech.			
ECE	20	20	100
CSE	14	14	100
Construction Management	04	04	100
Computational Biology	04	04	100
Structural Engineering	02	02	100
Nanotechnology	03	03	100
Dual BT	01	01	100

RESULT OF THE BATCH 2010-2014

Branch	No. of Students	No. of students Passed	Pass Percentage
B. TECH.			
ECE	128	117	91.40
CSE	147	139	94.50
IT	41	41	100.00
CE	98	90	91.80
BI	12	10	83.30
BT	14	14	100.00

PHARMACY

B. Pharma	06	03	50.00
M.Pharma	40	40	100.00

M. Tech.

ECE	11	11	100.00
CSE	17	17	100.00
Construction Management	01	01	100.00
Computational Biology	05	05	100.00
Structural Engineering	01	01	100.00
Dual BT	31	30	96.70

RESULT OF THE BATCH 2011-2015

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

RESULT OF THE BATCH 2012-2016

Branch	No. of Students	No. of students Passed	Pass Percentage
B. TECH.			
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%

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

BT	16	16	100%

M.TECH

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

RESULT OF THE BATCH 2013-2017

Branch	**No. of Students**	**No. of students Passed**	**Pass Percentage**
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) BIOTECHOLOGY

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

M.TECH

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

Appendix-D

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 Gainsville, USA

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

e) 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 — Member
Jt. Managing Director (Construction)
Jaiprakash Associates Ltd.

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) Prof. R.S. Chauhan — 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
Brig. K.K. Marwah (Retd.)
Registrar

Appendix-D

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

Brig. K.K. Marwah (Retd.)
Registrar

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. <u>One Nominee of the Governing Council</u>

Brig. K.K. Marwah (Retd.)
Registrar of the University

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

<u>BOARD OF STUDIES</u>

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

Appendix-D

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) Prof. R.S. Chauhan
Dean (Biotechnology)

7. Heads of the Departments/Centres of the University

i) Prof. (Dr.) S.V. Bhooshan, HOD-ECE
ii) Prof. (Dr.) Karanjeet Singh, HOD, Mathematics

iii) Prof. (Dr.) P.B. Barman, HOD, Physics & Material Science
iv) Prof. (Dr.) R.S. Chauhan, 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

Brig. K.K. Marwah (Retd.)
Registrar of the University

Appendix-E

BALANCE SHEET FOR THE FINANCIAL YEAR 2016-17

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 **31/03/2017** 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 **31/03/2017** and

(ii) in the case of the profit and loss account, of the profit or loss of its accounting year ending on **31/03/2017**

The prescribed particulars are annexed hereto.

Place	**NEW DELHI**
Date	**26/10/2017**
Name	**ASHOK KUMAR JAIN**
Membership Number	**090563**
FRN (Firm Registration Number)	**000112N**
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 (₹)	425224604
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 60067507
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) (₹)	25000000
6.		Whether the amount of income mentioned in item 5 above has been invested or deposited in the manner laid down in section 11(2)(b) ? If so, the details thereof.	Not Applicable
7.		Whether any part of the income in respect of which an option was exercised under clause (2) of the Explanation to section 11(1) in any earlier year is deemed to be income of the previous year under section 11(1B) ? If so, the details thereof (₹)	No
8.		Whether, during the previous year, any part of income accumulated or set apart for specified purposes under section 11(2) in any earlier year-	
	(a)	has been applied for purposes other than charitable or religious purposes or has ceased to be accumulated or set apart for application thereto, or	No
	(b)	has ceased to remain invested in any security referred to in section 11(2)(b)(i) or deposited in any account referred to in section 11(2)(b)(ii) or section 11(2)(b)(iii), or	No
	(c)	has not been utilised for purposes for which it was accumulated or set apart during the period for which	No

		it was to be accumulated or set apart, or in the year immediately following the expiry thereof? If so, the details thereof	

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

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

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

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

Place **NEW DELHI**
Date **26/10/2017**

Name	**ASHOK KUMAR JAIN**
Membership Number	**090563**
FRN (Firm Registration Number)	**000112N**
Address	**Delhi Gulmohar Park B-4, NEW DELHI DELHI 110049 INDIA**

Form Filing Details	
Revision/Original	Original

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

Balance Sheet as on 31.03.2017

Amount (₹) 31.03.2016	LIABILITIES		Amount (₹) 31.03.2017	Amount (₹) 31.03.2016	ASSETS		Amount (₹) 31.03.2017
	CORPUS FUND				**FIXED ASSETS**		
5,00,00,000	For University		5,00,00,000	56,17,51,317	Opening Balance		57,76,54,770
1,01,55,000	For Research Promotion (UBSK)		1,01,55,000	1,59,57,453	Addition during the year		2,36,43,571
6,01,55,000			**6,01,55,000**	(54,000)	Disposed off during the current period		-
				57,76,54,770	**Gross Block**	SCH. "A"	**60,12,98,341**
	GENERAL FUND			35,90,81,013	Less : up to date Depreciation		39,06,65,405
6,23,84,606	Opening Balance		10,38,66,817	**21,85,73,757**	**Net Block**		**21,06,32,936**
4,14,82,211	**Add - Surplus brought from Income & Expenditure A/C**		10,48,62,522				
10,38,66,817			**20,87,29,339**				
				-	**CAPITAL WORK IN PROGRESS**	SCH. "B"	**1,36,27,900**
	RESEARCH PROJECT'S FUND				**CURRENT ASSETS, LOANS & ADVANCES**		
56,65,428	Opening Balance		1,35,32,088				
2,66,08,328	Add : Received during the year		89,14,614				
(1,81,21,128)	Less : Expenses during the year		(1,79,57,856)	**20,07,44,192**	Cash & Bank Balance	SCH. "C"	**28,92,86,693**
(6,20,540)	Less : Refund during the year		(57,507)				
1,35,32,088			**44,31,339**	**96,85,488**	Advances and Receivables in Cash or in Kind	SCH. "D"	**2,77,73,275**
				31,94,683	Prepaid Expenses	SCH. "E"	**29,49,720**
	SECURED LOAN						
-	Term Loan Yes Bank Ltd.-Noida (Refer Note - 4)		**10,04,08,449**	**21,95,186**	Security Deposits	SCH. "F"	**21,95,186**
	CURRENT LIABILITIES & PROVISIONS			**61,24,252**	Stock- in- Hand	SCH. "G"	**91,09,688**
9,02,51,577	Sundry Creditors	SCH. "H"	**4,82,05,561**				
15,44,30,751	Other Liabilities	SCH. "I"	**11,48,44,280**				
	CAUTION MONEY						
1,80,28,818	Opening Balance		1,82,81,325				
49,40,000	Add : Received during the year		44,69,950				
(46,87,493)	Less : Refund during the year		(39,49,845)				
-	(Due for payment during next one year Rs. 41,58,000/-)						
1,82,81,325			**1,88,01,430**				
44,05,17,558	**Total Liabilities**		**55,55,75,398**	**44,05,17,558**	**Total Assets**		**55,55,75,398**

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

For DASS GUPTA & ASSOCIATES
CHARTERED ACCOUNTANTS
REG.NO.:000112N

(ASHOK KUMAR JAIN)
PARTNER
MEMBERSHIP NO.:090563

PLACE:-New Delhi
DATE : 26.10.2017

(VINOD KUMAR)
VICE CHANCELLOR

MAJ GEN RAKESH BASSI,SM (RETD.)
REGISTRAR

(HEMANT VYAS)
FINANCE OFFICER

Jaypee University of Information Technology
Waknaghat, Distt. Solan, H.P.
Income & Expenditure Account for the year ended on 31.03.2017

Amount (₹) 31.03.2016	EXPENDITURE		Amount (₹) 31.03.2017	Amount (₹) 31.03.2016	INCOME		Amount (₹) 31.03.2017
11,02,70,837	Institutional Expenses	SCH. "J"	**8,66,40,637**	47,43,16,023	Collection from Students	SCH. "M"	**49,52,20,029**
19,78,67,425	Salary & Allowances	SCH. "K"	**18,95,43,695**	1,23,32,077	Interest received on FDs	SCH. "N"	**1,35,51,267**
10,76,10,484	Students Hostel Expenses	SCH. "L"	**9,76,60,864**	25,84,180	Other Income	SCH. "O"	**15,20,814**
3,20,01,323	Depreciation	SCH. "A"	**3,15,84,392**				
44,77,50,069	**Total Expenditure**		**40,54,29,588**				
4,14,82,211	**Surplus** Transferred to General Fund A/C.		**10,48,62,522**				
48,92,32,280	TOTAL		**51,02,92,110**	**48,92,32,280**	TOTAL		**51,02,92,110**

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.000112N

(ASHOK KUMAR JAIN)
PARTNER
MEMBERSHIP NO.:090563

PLACE:- New Delhi
DATE : 26.10.2017

(VINOD KUMAR)
VICE CHANCELLOR

MAJ GEN RAKESH BASSI,SM (RETD.)
REGISTRAR

(HEMANT VYAS)
FINANCE OFFICER

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY
FINANCIAL YEAR 2016-17

SCHEDULE : "A" : FIXED ASSETS

Amount (₹)

		GROSS BLOCK					DEPRECIATION			NET BLOCK	
Block of Assets	Rate of Dep.	Op. Balance as on 01.04.2016	Addition during the year		Disposed off during the year	As on 31.03.2017	Op. Balance as on 01.04.2016	For the Year	Up to 31.03.2017	As on 31.03.2016	As on 31.03.2017
Classification of Assets			180 Days or more	Less than 180 Days							
Buildings	10%	13,00,41,908		28,86,248		13,29,28,156	3,95,15,946	91,96,910	4,87,12,856	9,05,25,962	8,42,15,300
Library Books/Software Library	15%	6,39,06,853	50,977	10,17,310		6,49,75,140	4,19,41,563	33,78,739	4,53,20,302	2,19,65,290	1,96,54,838
Electronic Lab Equipments	15%	1,99,33,408	2,84,513	13,42,557		2,15,60,478	1,39,65,920	10,38,492	1,50,04,412	59,67,488	65,56,066
Bio Informatics Lab Equipments	15%	2,76,15,868		10,84,515		2,87,00,383	1,84,35,235	14,58,434	1,98,93,669	91,80,633	88,06,714
Physics Lab Equipments	15%	1,06,53,725	2,39,582	1,20,985		1,10,14,292	71,60,775	5,68,954	77,29,729	34,92,950	32,84,563
Computer Lab Equipments	60%	9,30,59,909	2,25,441	95,02,230		10,27,87,580	9,16,41,161	38,37,182	9,54,78,343	14,18,748	73,09,237
Imported Bio Lab Equipments	15%	2,20,31,080				2,20,31,080	1,64,14,706	8,42,456	1,72,57,162	56,16,374	47,73,918
Imported Electronic Lab Equipments	15%	33,58,810				33,58,810	29,89,948	55,329	30,45,277	3,68,862	3,13,533
Imported Computer Lab Equipments	60%	7,37,191				7,37,191	7,37,182	5	7,37,187	9	4
Imported Office Equipments	15%	87,905				87,905	67,545	3,054	70,599	20,360	17,306
Civil Lab Equipments	15%	97,70,817		12,49,250		1,10,20,067	57,60,990	6,95,168	64,56,158	40,09,827	45,63,909
Software-Computer	60%	30,64,905				30,64,905	30,50,761	8,486	30,59,247	14,144	5,658
Software -Math	15%	3,24,350				3,24,350	2,35,968	13,257	2,49,225	88,382	75,125
Software-Civil	15%	22,64,478				22,64,478	12,58,759	1,50,858	14,09,617	10,05,719	8,54,861
Software -Language Lab	15%	8,20,116		7,84,212		16,04,328	5,65,407	97,022	6,62,429	2,54,709	9,41,899
Office Equipments	15%	1,37,95,780	4,24,028	5,34,249		1,47,54,057	76,13,524	10,31,011	86,44,535	61,82,256	61,09,522
Miscellaneous Assets	15%	42,37,027		3,13,360		45,50,387	30,31,529	2,04,327	32,35,856	12,05,498	13,14,531
Gymnasium Equipments	15%	29,93,655		21,000		30,14,655	15,37,161	2,20,049	17,57,210	14,56,494	12,57,445
Furniture & Fixtures	10%	5,61,57,414	1,76,540	16,30,897		5,79,64,851	2,98,01,621	27,34,778	3,25,36,399	2,63,55,793	2,54,28,452
Vehicles	15%	1,12,71,394				1,12,71,394	85,53,808	4,07,638	89,61,446	27,17,586	23,09,948
Imported Kitchen Equipments	15%	2,78,308				2,78,308	2,02,472	11,375	2,13,847	75,836	64,461
Kitchen Equipments	15%	53,17,430		6,60,894		59,78,324	32,40,266	3,61,142	36,01,408	20,77,164	23,76,916
Plant & Machinery	15%	5,05,12,064		10,67,490		5,15,79,554	3,83,64,018	19,02,269	4,02,66,287	1,21,48,046	1,13,13,267
Electrical Equipments	15%	82,79,906	20,888	6,405		83,07,199	57,96,674	3,76,098	61,72,772	24,83,232	21,34,427
Mechanical Lab Equipments	15%	27,37,255				27,37,255	16,82,380	1,58,231	18,40,611	10,54,875	8,96,644
Research Equipments	15%	3,44,03,214				3,44,03,214	1,55,15,694	28,33,128	1,83,48,822	1,88,87,520	1,60,54,392
GROSS TOTAL		57,76,54,770	14,21,969	2,22,21,602	-	60,12,98,341	35,90,81,013	3,15,84,392	39,06,65,405	21,85,73,757	21,06,32,936
PREVIOUS YEAR		56,17,51,317	12,38,023	1,47,19,430	54,000	57,76,54,770	32,70,79,690	3,20,01,323	35,90,81,013	23,46,71,629	21,85,73,757

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY
FINANCIAL YEAR 2016-17

SCHEDULE - "B" : CAPITAL WORK IN PROGRESS

Amount (₹)

Particulars	Opening Balance as on 01.04.2016	Addition during the Year	Capitalized during the Year	Expensed Out during the Year	Closing Balance as on 31.03.2017
Capital Goods In Store	-	1,36,27,900	-	-	1,36,27,900
Gross Total	**-**	**1,36,27,900**	**-**	**-**	**1,36,27,900**

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY
FINANCIAL YEAR 2016-17

SCHEDULE - "C" : CASH & BANK BALANCE

S.No	Particulars	Amount (₹) 31.03.2017	Amount (₹) 31.03.2016
I	**Cash in Hand**	1,68,325	2,24,523
II	**Balance with Schedule Banks**		
	In Current Account :		
	- State Bank of Patiala, Waknaghat	21,21,510	7,60,300
	- Punjab National Bank, Shimla	5,78,099	4,24,512
	- Oriental Bank of Commerce, Solan	1,76,173	3,91,477
	- Punjab National Bank, Waknaghat	1,55,25,905	41,67,523
	- Yes Bank Ltd., Noida	13,29,230	-
	- Cheque / DD in hand	1,18,49,635	-
	Balance with Schedule Banks		
	In Saving Account :		
	- Punjab National Bank, Samirpur	1,49,442	11,53,434
III	**Fixed Deposits with Banks**		
	- State Bank of Patiala, Wakanaghat	3,19,98,000	8,81,01,997
	- Punjab National Bank, Shimla	10,92,072	10,42,812
	- Punjab National Bank, Waknaghat	8,00,98,000	-
	- Oriental Bank of Commerce, Solan	11,75,00,000	8,37,33,164
	- Punjab National Bank, Samirpur	22,10,631	8,05,966
	- Yes Bank Ltd., Noida (under Lien)	27,09,589	-
	- Interest Accrued on FDR	24,10,633	17,98,522
IV	**Earmarked Deposits with Banks**		
	- Syndicate Bank UBSK, Noida (C/A)	1,52,334	1,52,448
	- Syndicate Bank UBSK, Noida (FDR)	1,81,87,613	1,46,82,579
	- Interest Accrued on FDR	10,29,502	33,04,935
	TOTAL	**28,92,86,693**	**20,07,44,192**

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY
FINANCIAL YEAR 2016-17

SCHEDULE - "D" : ADVANCE AND RECEIVABLES IN CASH OR IN KIND

Particulars		Amount (₹) 31.03.2017	Amount (₹) 31.03.2016
Advances To:-			
- Staff		1,11,368	24,625
- Suppliers/Agencies		2,43,668	12,06,225
- Other Educational Trust		1,41,07,937	-
Receivables From:-			
- Students		5,80,000	17,25,325
- Income Tax Department as on 31.03.17		31,24,608	23,48,417
- 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 2016-17	Rs. 8,01,289		
- Assessment Year 2017-18	Rs. 8,06,550		
- Excise & Taxation Department (VAT)		38,17,348	38,17,348
- Excise & Taxation Department (Entry Tax)		2,15,346	2,15,346
- Income Tax Department Appeal		55,73,000	-
- Provident Fund Exps Receivable (PF)		-	3,48,202
TOTAL		**2,77,73,275**	**96,85,488**

DASS GUPTA & ASSOCIATES CHARTERED ACCOUNTANTS NEW DELHI

Jaypee University of Information Technology Finance Officer

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY Vice Chancellor

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY
FINANCIAL YEAR 2016-17

SCHEDULE - "E" : PREPAID EXPENSES

Particulars	Amount (₹) 31.03.2017	Amount (₹) 31.03.2016
AMC for Equipments	5,42,814	10,91,438
Insurance	1,29,521	2,13,329
Subscription for Journals & Digital Library	22,77,385	18,89,916
TOTAL	**29,49,720**	**31,94,683**

DASS GUPTA & ASSOCIATES CHARTERED ACCOUNTANTS NEW DELHI

Finance Officer

Chancellor

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY

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JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY
FINANCIAL YEAR 2016-17

SCHEDULE - "F" : SECURITY DEPOSITS

Particulars	Amount (₹) 31.03.2017	Amount (₹) 31.03.2016
For Electricity Charges	20,83,514	20,83,514
For LPG	1,00,300	1,00,300
For Telephones	11,372	11,372
TOTAL	**21,95,186**	**21,95,186**

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY
FINANCIAL YEAR 2016-17

SCHEDULE - "G" : STOCK-IN-HAND

Particulars	Amount (₹) 31.03.2017	Amount (₹) 31.03.2016
Annapurna Grocery & Eatables	16,47,699	9,40,425
Medicines	48,068	33,314
Diesel	10,21,127	6,43,177
General Hardware Items	25,89,305	22,17,987
Electrical Items	33,97,540	21,24,548
Material In Transit	3,51,491	-
Spares for Vehicles	54,458	1,64,801
TOTAL	**91,09,688**	**61,24,252**

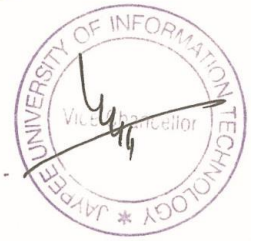
DASS GUPTA & ASSOCIATES CHARTERED ACCOUNTANTS NEW DELHI

Finance Officer

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY
FINANCIAL YEAR 2016-17

SCHEDULE - "H" : SUNDRY CREDITORS

Particulars	Amount (₹) 31.03.2017	Amount (₹) 31.03.2016
- For Goods Supplied	50,84,989	48,70,679
- For Services Rendered	68,96,898	5,21,74,806
- For Retention	5,36,792	2,67,187
- For Statutory Liabilities	3,56,86,882	3,29,38,905
TOTAL	**4,82,05,561**	**9,02,51,577**



JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY
FINANCIAL YEAR 2016-17

SCHEDULE - "I" : OTHER LIABILITIES

Particulars	Amount (₹) 31.03.2017	Amount (₹) 31.03.2016
Uncleared Cheques/In hand	94,16,673	51,61,759
Due to Sponsoring Trust	-	3,72,08,122
Fee in Advance	9,51,62,582	9,07,05,311
JYC Students Fund	17,84,632	15,14,087
Expenses Payable	60,30,810	78,91,082
Salary and Allowances Payable	-	90,75,981
T.D.S. Payable	24,49,583	28,74,409
TOTAL	**11,48,44,280**	**15,44,30,751**

DASS GUPTA & ASSOCIATES CHARTERED ACCOUNTANTS NEW DELHI

Jaypee University of Information Technology Finance Officer

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY Vice Chancellor

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY
FINANCIAL YEAR 2016-17

SCHEDULE - "J" : INSTITUTIONAL EXPENSES

Particulars	Amount (₹) 31.03.2017	Amount (₹) 31.03.2016
Admission Exps. including Advertisement	22,56,549	14,50,298
Audit Fee	2,36,000	2,30,000
Conference & Seminar Expenses	1,18,902	3,43,297
Convocation Expenses	91,910	-
Contribution towards Research & Development	24,473	14,56,936
E-Journals & Periodicals	62,86,015	62,58,420
Electricity Expenses	88,45,658	98,13,994
Honorarium to Faculty & Remuneration of Visiting Faculty	4,86,238	4,73,230
Institute Promotional Expenses	5,78,985	3,03,104
Insurance Expenses	4,40,419	2,70,734
Internet Charges	17,57,318	18,34,922
Interest & Finance Charges	1,24,46,771	-
Laboratory Expenses	52,99,019	17,52,429
Lease Rent	21,584	39,294
Legal & Professional Charges	3,67,769	2,77,870
Misc. Expenses	3,12,499	2,43,493
Payment to Technical Personnel	87,14,687	84,33,827
Placement Expenses	4,06,115	9,25,179
Postage & Telegram	1,18,153	1,25,189
Printing & Stationery	17,52,618	24,29,314
Recruitment Expenses	2,67,617	61,221
Debt Obligation Principal Amount	-	3,54,92,307
Interest Paid Amount	-	48,33,293

SCHEDULE - "J" (Continued)

Particulars	Amount (₹) 31.03.2017	Amount (₹) 31.03.2016
Scholarship to Students	70,95,963	88,70,456
Security Expenses	24,91,479	20,70,125
Staff Welfare	11,22,789	7,27,615
Telephone Expenses	2,08,563	2,99,435
Travelling & Conveyance	5,74,856	3,94,165
Water Expenses	36,86,092	37,92,104
Repair & Maintenance		
- Civil Maintenance	65,99,114	27,09,428
- Equipment & Machinery	30,13,996	37,69,049
- Furniture & Fixture	12,42,738	9,14,652
- Horticulture Exps.	16,76,012	28,84,250
- Institute House Keeping	26,13,716	39,09,287
- Others	25,14,468	1,86,077
- Vehicles	22,61,410	26,42,304
- Water Supply Scheme	7,10,142	53,539
TOTAL INSTITUTIONAL EXPENSES	**8,66,40,637**	**11,02,70,837**

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY
FINANCIAL YEAR 2016-17

SCHEDULE - "K" : SALARY & ALLOWANCES

Particulars	Amount (₹) 31.03.2017	Amount (₹) 31.03.2016
Teaching Staff :		
Salary	8,76,35,896	9,07,57,487
Conveyance Allowance	63,27,506	63,72,661
H.R.A.	56,23,987	58,22,061
Medical Reimbursement	35,01,789	32,24,030
Leave Travel Assistance	32,99,960	31,98,547
Contribution to Provident Fund	1,11,54,042	1,06,56,262
Provision for Gratuity	74,68,671	88,90,209
Other Allowances	1,74,90,463	1,84,94,462
Notice Pay	4,90,800	19,13,660
Sub - Total	**14,29,93,114**	**14,93,29,379**
Non-Teaching Staff :		
Salary	3,08,85,679	2,97,11,639
Conveyance Allowance	19,42,656	16,96,992
H.R.A.	25,40,343	22,58,602
Medical Reimbursement	12,76,239	12,09,282
Leave Travel Assistance	12,36,551	12,03,850
Contribution to Provident Fund	40,67,165	39,72,025
Provision for Gratuity	23,84,813	60,09,117
Other Allowances	22,17,135	24,76,539
Sub - Total	**4,65,50,581**	**4,85,38,046**
TOTAL	**18,95,43,695**	**19,78,67,425**

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY
FINANCIAL YEAR 2016-17

SCHEDULE - "L" : STUDENTS HOSTEL EXPENSES

Particulars	Amount (₹) 31.03.2017	Amount (₹) 31.03.2016
Grocery & Eatables Consumed	3,99,80,524	5,02,37,439
Security Expenses	57,92,102	48,30,292
Electricity Charges	1,32,68,487	1,36,08,687
Water Charges	93,11,209	95,82,823
Housekeeping Expenses	65,22,982	71,29,808
Dispensary Expenses	43,45,438	24,47,462
Students Welfare Expenses	5,51,832	9,88,280
Messing Staff Expenses	69,01,678	74,15,749
Repair & Maintenance	74,92,759	78,32,669
Laundry Expenses	34,93,853	35,37,275
TOTAL	**9,76,60,864**	**10,76,10,484**

DASS GUPTA & ASSOCIATES CHARTERED ACCOUNTANTS NEW DELHI

Jaypee University of Information Technology Finance Officer

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY Vice Chancellor

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY
FINANCIAL YEAR 2016-17

SCHEDULE - "M" : COLLECTIONS FROM STUDENTS

Particulars	Amount (₹) 31.03.2017	Amount (₹) 31.03.2016
Fees From Students:		
Tuition Fee	21,74,66,769	20,51,68,221
Hostel Fee	15,46,22,301	14,95,46,453
Development Fee	10,67,62,037	10,33,70,968
Sub Total :	**47,88,51,107**	**45,80,85,642**
Other Collection:-		
Misc Charges	10,49,130	13,52,860
Admission Form Charges	20,39,671	15,82,941
Tuck Shop Charges	39,81,101	40,86,725
Mess Charges	92,99,020	92,07,855
Sub Total :	**1,63,68,922**	**1,62,30,381**
TOTAL	**49,52,20,029**	**47,43,16,023**

DASS GUPTA & ASSOCIATES CHARTERED ACCOUNTANTS NEW DELHI

University of Information Technology Finance Officer

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY Vice Chancellor

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY
FINANCIAL YEAR 2016-17

SCHEDULE - "N" : INTEREST RECEIVED ON FDR'S

Particulars	Amount (₹) 31.03.2017	Amount (₹) 31.03.2016
Oriental Bank of Commerce - Solan	55,24,886	43,12,998
Punjab National Bank - Shimla	76,803	75,671
Punjab National Bank - Waknaghat	16,08,392	11,85,815
State Bank of Patiala - Waknaghat	46,93,999	52,43,903
Syndicate Bank - Noida (UBSK)	13,66,223	13,76,506
Yes Bank Ltd.- Noida	1,39,350	-
Punjab National Bank - Samirpur	1,41,614	1,37,184
TOTAL	**1,35,51,267**	**1,23,32,077**

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY
FINANCIAL YEAR 2016-17

SCHEDULE - "O" : OTHER INCOME

Particulars	Amount (₹) 31.03.2017	Amount (₹) 31.03.2016
Other Miscellaneous Income	2,05,530	3,52,746
Notice Pay Recovery	6,89,003	8,58,968
Overhead Charges for Research Projects	3,52,862	12,41,706
Registration Charges for Conference & Seminars	2,73,419	1,30,760
TOTAL	**15,20,814**	**25,84,180**

DASS GUPTA & ASSOCIATES CHARTERED ACCOUNTANTS NEW DELHI

Jaypee University of Information Technology Finance Officer

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY Vice Chancellor

Appendix-F

TRAINING & PLACEMENT DATA

Campus Placement 2008-12 Batch

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

Campus Placement 2009-13 Batch

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

Campus Placement 2010-14

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

2011-2015 Batch Placements

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

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

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

2012-2016 Batch Placements

- **Highest package offered of 27.5 Lakhs per annum by Amazon.com**
- **354 offers received for 310 eligible students**
- **Of the 86 companies for campus placement of JUIT students, 34 Companies offered CTC > Rs 5 Lakhs pa**

PLACEMENT STATUS : JUIT, SOLAN 2012-16					
Branch	**Total Participating Students**	**Total No. of Offers**	**% of Total Offers**	**Absolute offers**	**% of absolute offers**
CSE	111	164	148%	101	91%
ECE	94	125	133%	80	85%
IT	18	20	111%	15	83%
BT	32	27	84%	23	72%
CIVIL	55	18	33%	16	29%
Total	**310**	**354**	**114%**	**235**	76%

KEY RECRUITERS FOR BATCH – 2016			
S. No.	**COMPANY**	**S. No.**	**COMPANY**
1	Aarkem	32	Kuliza
2	Abyeti Technologies	33	MAZ Digital
3	Amazon	34	Medd-healthcare
4	App Garage	35	Mtree
5	Appinventiv Technologies	36	Naukri.com
6	Aricent	37	NEC Technologies
7	Barclays	38	Newgen Software Technologies
8	Belzabar Software	39	NKG Infra limited
9	Browserstack	40	NovoInvent Software
10	Code Brew Labs	41	NTT DATA
11	Cognizant	42	Paradigm Business Ventures
12	Continental Automotive	43	Parity Infotech Solutions
13	ConveGenius Edu Solutions	44	Paytm
14	Deloitte	45	Phronesis Partners
15	Effectual Knowledge Services	46	Polaris
16	Energy Infratech	47	Press play
17	ERA Construction	48	RNA Life Sciences
18	Ernst & Young	49	Roots Analysis
19	Evalueserve	50	SAP Labs
20	Grail Research	51	Scrap Labs
21	Grofers	52	ST Micro electronics
22	Hashedin Technologies	53	Steria
23	HP Enterprises	54	Think and Learn
24	Incedo	55	TT Consultants Pvt. Ltd.
25	IndiaMART	56	TTND
26	Indus Valley Partners	57	Vinsol
27	Infosys	58	Wipro
28	INNOVACCER	59	XL Catlin
29	Khosla Labs	60	Yamha Motors

30	KRITIKAL SECURESCAN	61	Zomato
31	Kronos	62	Zycus Infotech

STUDENTS WHO WERE SELECTED FOR HIGHER STUDIES ABROAD

University of Nebraska, USA				
Student Exchange Programme				
S.No	**Roll No.**	**Name**	**Branch**	**Degree**
1.	121513	Sunandini Sharma	BI	B.Tech
2.	121521	Khushboo Jindal	BI	B.Tech

University of Florida, USA				
Student Exchange Programme				
S.No	Roll No.	Name	Branch	Degree
1.	121260	Lakshay Arora	CSE	B.Tech
2.	121266	Pulkit Kumar Dhir	CSE	B.Tech
3.	121271	Priya Goyal	CSE	B.Tech
4.	121279	Karan Sharma	CSE	B.Tech
5.	121311	Sagar Rajani	CSE	B.Tech
6.	121263	Shikhir Kalia	CSE	B.Tech
7.	121223	Himanshu Singla	CSE	B.Tech
8.	121288	Rishabh Sharma	CSE	B.Tech
9.	123218	Ankit Aggarwal	CSE	B.Tech
10.	121218	Aishwarya Saxena	CSE	B.Tech
11.	121248	Abhimanyu Singh	CSE	B.Tech

2013-2017 Batch Placements

Branch	**Total Participating Students**	**Company Selections**	**Other Selections***	**Total Placements / Selections#**
CSE	111	149	22	171
ECE	71	73	11	84
IT	13	12	1	13
BT	14	4	9	13
BI	12	6	1	7
CIVIL	46	7	28	35
Total	267	251	72	323

Other Selections include - Higher Study Includes MS / PhD Offers in India and Abroad in Reputed Organizations, International Internship, PSUs, GATE, GRE, CAT, TOEFL Exams etc

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY

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