JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY

WAKNAGHAT

Himachal Pradesh

ANNUAL REPORT
2020 - 2021

CONTENTS

UNIVERSITY ESTABLISHMENT

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:		2002
Status	:	State Private University with effect from 23 May 2002
Location	:	Waknaghat, P.O. Waknaghat Tehsil – Kandaghat, Distt. Solan (H.P.)
Pin	:	173234
District	:	Solan
State	:	Himachal Pradesh
Chancellor	:	Shri Rajendra Vishwanath Arlekar Hon'ble Governor of Himachal Pradesh
Pro-Chancellor	:	Shri Manoj Gaur Executive Chairman, Jaiprakash Associates Ltd
Vice Chancellor		Prof (Dr) Vinod Kumar (relieved the appointment of VC on 11 August 2021 Afternoon)
		Prof (Dr) Rajendra Kumar Sharma w.e.f. 11 August 2021 Afternoon
Registrar	:	Maj Gen Rakesh Bassi, SM (Retd)

Tele/Fax/Website

Vice Chancellor	:	(O) 01792-239201 (R) 01792-239250
Registrar	:	(O) 01792-239203 (R) 01792-239272
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.

Four higher technical education campuses have been established in the emerging areas of technology – the Jaypee University of Information Technology (JUIT) at Waknaghat, Himachal Pradesh [July 2002]; the Jaypee Institute of Information Technology (JIIT), Noida [August 2001]; the Jaypee University of Engineering & Technology (JUET) at Guna, Madhya Pradesh [July 2003] and Jaypee University, Anoopshahr [July 2014].

Salient Features Of The University

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 w.e.f. July 2002 with Undergraduate (UG) programmes for award of BTech degrees in Biotechnology, Bioinformatics, Computer Science & Engineering, Electronics & Communication Engineering, Information Technology and Civil Engineering. Post Graduate and Doctoral programmes leading to award of MTech and PhD degrees were added subsequently and are being conducted in the University.

Vision

To become a Center of Excellence in the field of IT & related emerging areas in 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

1. To develop as a benchmark University in emerging technologies.
2. To provide state-of-the-art teaching learning process and a stimulating R&D environment.
3. 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.

Governance

The JUIT is governed in accordance with the JUIT Act and the Statutes. The statutory bodies are as follows:-

Governing Council

As per the Act of the University, the Governing Council is the supreme body of the University and its powers and functions shall be such as may be prescribed by the statutes. Responsibility for the general superintendence, direction and control of the affairs of the university is vested with the Governing Council. The composition of the Governing Council for the year 2020-21 is given at **Appendix-A**.

Executive Council and Finance Committee

The Executive Council is responsible for the general management and administration of the University. The composition of Executive Council and Finance Committee for the year 2020-21 is at **Appendices-B and C**.

Academic Council

The Academic Council is the premier and august body of the University, which decides and monitors the implementation of academic policies of the university. The powers and functions of the Council are defined in the University Act. 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 for the year 2020-21 is listed at **Appendix-D.**

Meetings of Various Statutory Bodies:

- Acadeamic Council   06 August 2020
- Acadeamic Council   29 December 2020
- Executive Council   29 December 2020
- Finance Committee   29 December 2020

Location and Area of Land

The University is located 3 km. off the Chandigarh-Shimla highway from Waknaghat. Land measuring 114.01 bighas comprising Khasra No. 408/4 and 429/185 situated in Village Rachhiana, Tehsil Kandaghat, District Solan, H.P. has been allotted on lease by the Govt of HP for JUIT.

Infrastructure

JUIT has been developed as a modern world-class campus, with intellectually vibrant ambience in serene and lush green environment. The state of the art campus covers a total built up area of around 73,864.81 sqm. 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-E**.

Education System

An academic year consists of two semesters. The education system is based on credit system alongwith continuous evaluation of students' performance. System provides flexibility in choice of courses of interest and to pursue the same at an optimum pace suited to student's ability and convenience. Each course is assigned certain number of credits depending upon the class contact hours. A specified number of credits, attainment of minimum CGPA and completion of Industrial Training satisfactorily are essential in order to qualify for a degree. The medium of instruction is English.

Accreditation

The University has been accredited by the National Assessment and Accreditation Council twice. The first was in 2011 and the second time was in 2017. The NAAC accreditation is valid upto 29 October 2022 with B+ Grading.

The NIRF Ranking of the University is 121 among all Engineering Institutes in the country in the year 2020-21.

The Biotechnology undergraduate programme of the University is accredited by National Board of Accreditation (NBA) under Washington Accord upto 30th June 2022.

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

Visit of Regulatory Body

The University was visited by Member HP Private Educational Institutions Regulatory Commission on 08 June 2020.

PROGRAMMES OF STUDY

1. ## UG Programmes

   JUIT offers Undergraduate programmes to award BTech degrees in the respective discipline:-

   a) Bioinformatics
   b) Biotechnology
   c) Civil Engineering
   d) Computer Science & Engineering
   e) Information Technology
   f) Electronics & Communication Engineering

   Industrial internship at the end of 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.

   The studies and examination of these BTech Programmes is on the basis of marks-cum-credit system and final evaluation by grading system. Each Academic year is divided in two semesters viz. Odd Semester (July to December) and Even Semester (January to June).

   ## Admission

   1. The admissions to BTech programme is governed by the rules of the UGC/MHRD or any other competent authority of the Govt. of India and as notified in the Admission Brochure of the respective academic year.

   2. The minimum academic qualification for admission to the programme is as laid down by AICTE.

   3. Minimum qualification for admission to the first year BTech is qualifying the Senior Secondary School Certificate (10+2) Examination or an equivalent examination with Physics and Mathematics as compulsory subjects from CBSE or any other recognized Board.

   4. Non-resident Indian (NRI) candidates shall also be eligible for admission in BTech in accordance with directives of the MHRD/UGC.

   5. For admission in Biotechnology & Bioinformatics programme

   a) Minimum qualification for admission is qualifying the Senior Secondary School Certificate (10+2) Examination or an equivalent examination with Physics and Biology/Biotechnology as compulsory subjects from CBSE or any other recognized Board.

b)   A candidate with Mathematics and Biology/Biotechnology with Physics at 10+2 level is also eligible for admission to the programme.

6.   A candidate who has qualified three year diploma programme/BE/BTech-1st year in related branch of engineering is eligible for admission to BTech – 2nd year through Lateral Entry. Mminimum qualification for such Lateral Entry is as per the prevalent norms of the Govt of India/UGC/MHRD or as approved in the Academic Council of the University.

2.   **Post Graduate Programs**

JUIT offers Post Graduate Programs towards award of MTech and MSc Degree in following discipline:-

MTech.

a)   Biotechnology
b)   Civil Engineering (Construction Management)
c)   Civil Engineering (Environmental Engineering)
d)   Civil Engineering (Structural Engineering)
e)   Computer Science & Engineering
f)   Computer Science & Engineering (Information Security)
g)   Electronics & Communication Engineering

MSc Biotechnology

a)   **MTech (Biotechnology)**

The Masters in Technology 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.

b)   **MTech Civil Engineering with Specialisation in Construction Management**

This two year program aims to impart 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.

c) MTech Civil Engineering with Specialization in Environmental Engineering

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

d) MTech Civil Engineering with Specialization in Structural Engineering

This two 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.

e) MTech (Computer Science & Engineering) & MTech (CSE with Specialization in Information Secutiry)

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 warehousing & mining, data base management, operating systems, computational models, cognitive science, soft computing and human computer interaction.

f) MTech (Electronics and Communication Engineering)

This 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 of mathematical techniques as a tool for engineering research.

g) MSc (Biotechnology)

One of the major objectives of MSc Biotechnology program is to generate human resource in the areas of basic and applied Biotechnology useful in industries and economical activities. The program is designed to impart skills in areas like Microbiology, Plant and Animal Tissue Culture, Molecular Biology, Recombinant DNA Techniques, Environment Biotechnology, Biomolecules, Bioprocess Technology, Basic Immunology Techniques and Clinical Diagnostics. The Department of Biotechnology, Govt. of India accepted JUIT proposal to fund this program (10 seats) for 2020-25.

Admission (MTech)

1. The University offers regular full time MTech Programmes through classroom teaching.

2. Candidates who have a Bachelor degree in engineering or equivalent/Masters' degree or equivalent/possessing Associate Membership of professional bodies in the discipline of the degree are eligible for admission. The details of eligibility criteria for admission to specific MTech programme are included in the admission brochure.

3. Candidate admitted to the MTech programme may be awarded a University Fellowship whose duration, amount, and applicable conditions are detailed under the heading Fellowship for MTech students.

4. Candidates having valid GATE Score are exempted from (PGET) Post Graduate Entrance Test. However, Non GATE candidates admission is subject to meeting the qualified marks of PGET & performance in interview.

5. The specific admission process and eligibility for admission to the MTech Program is available in the Admission Brochure of the respective year.

Admission (MSc)

1. The University offers regular fulltime MSc Program through classroom teaching.

2. Minimum qualification for applying to the first year MSc shall be Bachelors Degree in the concerned subject or equivalent with at least 55% aggregate marks or its equivalent CGPA from any recognized University / Institution or any other qualification as per UGC norms of eligibility.

3. Admission shall be done in the University based on merit list prepared on the basis of marks / grades obtained in the qualifying degree and / or based on marks obtained in the entrance examination conducted by the University.

4. The specific admission process and eligibility for admission to the MSc Program is available in the Admission Brochure of the respective year.

3. Doctor Of Philosophy (PhD) Programs

The University offers regular full time / part time PhD Programmes in following disciplines :-

a) Bioinformatics
b) Biotechnology
c) Civil Engineering
d) Computer Science & Engineering
e) Electronics & Communication Engineering
f) Humanities & Social Sciences
g) Mathematics
h) Physics and Materials Science

The Scholars are required to take up intensive research work under the guidance of a Supervisor on a specific problem for a minimum of three years in this program. The academic programme leading to the PhD degree is broad-based and involves course credit requirements. The Scholars are required to deliver seminars on their research progress regularly and publish their work. Finally, they are required to submit the thesis embodying their research findings for the award of PhD degree.

a) PhD Biotechnology, Bioinformatics

The department runs PhD program in biotechnology, bioinformatics and pharmaceutical sciences with a provision of fellowships @ Rs. 22,000/month to scholars 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 PhD 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. Fifteen PhDs have been awarded by the Department and a few are in their final stages of Thesis writing and submission.

b) PhD Civil Engineering

The Department carries out research and development activities in the areas rock fill material modelling, constitutive modelling, FEM in

geotechnical engineering, soil plasticity, slope stability problems (including seismic), soil-nailing, landfill design, fluvial hydraulics, scouring, flow of water around hydraulic structures such as bridge piers and abutments, concrete rheology, development of HPC with alcofine, micro-silica, etc., composite materials, prestressed concrete, dynamic analysis of structures subjected to extreme loading, and earthquakes, seismic evaluation of existing buildings, active and passive control of tall structures against earthquakes, smart structures, air pollution, estimation of NO_X / co concentrations, solid-waste management and pavement materials.

c) **PhD 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.

d) **PhD 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.

e) **PhD 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. The Department develops 'soft' skills in group and co-operative working, economics, finance, project management etc. Additionally, the department exposes students to entrepreneurship skills, HR management, customer relationship management, total quality management etc.

f) **PhD 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, wavelets and differential equations, Algebraic Coding Theory , sequence design, distributed source coding, fuzzy information measures, decision making, pattern recognition, Nonlinear Programming (Operations Research), Statistical Inference, Sampling Theory and Applied Statistics.

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

g) **PhD Physics & Materials Science**

The Department has strong research interests in nano-materials, microwaves and compound semiconductors. The Department has established five laboratories for the synthesis of nano-materials, thin film devices and characterizations. 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.

The award of the PhD degree 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.

Nano-structured semi-conducting thin films, electro-luminescent display devices, magnetic multi-layered thin films, ferrite based micro-strip antennas, opto-electronic materials, semi-conducting materials for microelectronic devices.

Admission

Minimum Qualifications:

a) Regular (Not Distance Mode) MTech Degree of a University or equivalent for PhD in Engineering/Technology in respective branch with 60% aggregate Marks or CGPA not less than 6 on scale of 10.

b) Regular (Not Distance Mode) Master's Degree of a University for PhD in Sciences / Humanities / Social Sciences / Management in respective discipline or equivalent with 60% Aggregate marks or CGPA not less than 6 on scale of 10.

c) Consistently good academic record/performance with 1st division i.e. 60% aggregate marks or equivalent CGPA of not less that 6 on a scale of 10 at post graduate level for Scholars admitted after PG programs at (a) to (b) above.

d) Consistently good academic record / performance with 1st division with Distinction all through; i.e. 80% aggregate marks or equivalent CGPA of not less that 8.0 on a scale of 10 at undergraduate level for students from IIT's/NIT/IISER/IIIT's.

e) Candidates having qualified UGC / CSIR NET / SLET are exempted from PhD Entrance Test. Non NET / SLET candidates admission is subject to meeting the marks requirement of PhD Entrance Test and performance in interview.

f) The specific admission process and eligibility for admission to the PhD Program is available in the Admission Brochure of the respective year.

ACADEMIC DEPARTMENTS

DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

Department Vision and Mission

- **Vision**

  To become a center of excellence; to produce high quality, self motivated, creative, ethical engineers and technologists contributing effectively to universal science and contemporary education.

- **Mission**

  M1. To impart high quality electronics and communication engineering education and professional ethics to students.

  M2. To adopt the best pedagogical methods in order to maximize knowledge transfer.

  M3. To have adequate mechanisms to enhance understanding of implementation of theoretical concepts in practical scenarios.

  M4. To carry out high quality research leading to the creation of knowledge and of intellectual property.

  M5. To provide the best facility, infrastructure, and environment to its students, researchers and faculty members, creating an ambience conducive for excellence in technical education and research.

- **Faculty Details**

S No	Faculty	Qualification	Specializations
1	Rajiv Kumar	PhD	Fault-Tolerance, Network Reliability & Networked Control Systems
2	Shruti Jain	PhD	Bio Medical Signal Processing, VLSI Design
3	Neeru Sharma	PhD	Wireless Communication
4	Salman Raju	PhD	RF & Microwave Engineering, Digital Filter Design
5	Sunil Datt Sharma	PhD	Signal Processing & Applications
6	Shweta Pandit	PhD	Cognitive Radio, Wireless Communication
7	Nafis Uddin Khan	PhD	Signal and Image Processing

8	Naveen Jaglan	PhD	Microwave Communication, Planar and Conformal Microstrip Antennas
9	Harsh Sohal	PhD	VLSI Design, FPGA based Algorithm Implementation
10	Nishant Jain	PhD	Biomedical Signal Processing, Image Processing
11	Emjee Puthooran	PhD	Medical Instrumentation and Signal Processing, Image Processing, Soft Computing Techniques
12	Vikas Baghel	PhD	Radar Signal Processing, Adaptive Signal Processing, Soft and Evolutionary Computing
13	Alok Kumar	PhD	Communication Systems, Cognitive Radio, Wireless Sensor Networks
14	Pragya Gupta	MTech	Communication Engineering, Image Processing
15	Pradeep Garg	MTech	Genomic Signal Processing
16	Munish Sood	MTech MBA (HR)	Computer Vision, Deep Learning
17	Anuj Kumar Maurya	MTech	Microelectronics, CMOS technology, IC design and its fabrication and Digital logic design
18	Pankaj Kumar	MTech	Analog VLSI Design, Hybrid IC Technology, Solid state devices, Network and systems

- **Programs**

  Undergraduate Programs

  The department offers a comprehensive BTech 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 candidates are selected for admission to BTech through JEE. 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.

- **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. The infrastructure and lab facilities are upgraded from time to time and provide adequate

opportunities for students and researchers to learn and innovate. Various softwares are available in the department like MATLAB, LABVIEW, PSPICE, XILINX VIVADO, ORCAD, and LABView. For the enhancement of quality of Lab work, ECE department has also adopted Virtual Lab platform in most of the labs. This platform is also very helpful for conducting the experiments in an online mode. Recently, ECE department introduced Python programming for the Automatic Control System lab.

- **Placement**

  For the academic year 2020-21, there were 41 eligible participating students for placement and all got placed in various companies like Infosys, Wipro, Cognizant, Ericsson, Genpact, BYJU'S, Amazon, etc. There were a total of 55 offers to these students.

- **New Courses introduced during the year**

  Following new courses were introduced during the academic session   2020-21

S No	Title of New Course
1	IoT and Applications
2	Low Power CMOS VLSI Circuit Design
3	Data Science using Python
4	Machine Learning for Wireless Communications
5	Signal Processing for Machine Learning
6	Artificial Intelligence Techniques for Genomic Signal Processing
7	Image Sensing and Reconstruction

Following MOOC courses were introduced during the academic year 2020-21

S No	Title of New Course	Course Code
1	Design of Photovoltaic systems	20B2WEC701
2	Spread Spectrum Communications and Jamming	20B2WEC801
3	Statistical Signal Processing	20B2WEC802
4	Signals and Systems	20B2WEC402
5	Deep Learning For Computer Vision	20P2WEC201
6	Fuzzy Sets, Logic and Systems & Applications	20B2WEC803

7	Applied Linear Algebra for Signal Processing, Data Analytics and Machine Learning	20B2WEC804
8	Computer Vision and Image Processing-Fundamentals and Applications	20P2WEC331
9	Basic Electronics	20B2WEC401

Post Graduate Programs

The department offers an intensive MTech programme in Electronics and Communication Engineering. The candidates are selected based on the GATE score or an entrance test along with a personal interview. The program covers a number of areas like Mobile, Wireless, Satellite, Optical and Computer Communication Systems and Networks; Signal Processing, Spread Spectrum Communication and Error Control Coding Techniques; Microelectronics and VLSI Design; 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 of mathematical techniques in engineering research.

The department of ECE offers a new graduate course in Electronics and Communication Engineering with specialization in IoT and its curriculum is passed by the academic council in December 2020.

PhD Program

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.

PhD completed 06 students completed their PhDs in the academic year 2019-20.

S.No	Name	Title of Thesis
1	Urvashi	Block Adaptive Compression Models For Preserving Diagnostic Quality Of Volumetric Medical Image Sequences
2	Charu Bhardwaj	A Computational Framework For Diabetic Retinopathy Severity Grading Categorization Using Ophthalmic Image Processing
3	Kirti	A Low Power Wearable ECG Module For Heart Rate Variability Classification System
4	Ekta Thakur	Design & Development Of Compact MIMO/ Diversity Band Notched UWB Antennas
5	Navdeep Prashar	Electrocardiogram Analysis For Robust Optimal Thresholding System Design
6	Dinesh Kumar	Proactive Connection Recovery Strategies For Survivable Elastic Optical Networks

PhD Enrolled

For the academic year 2020-21, nine new scholars enrolled in PhD program.

S.No	Roll No.	Name
1	206001	Vandana Devi
2	206002	Aakanksha Sharma
3	206003	Himani Bhardwaj
4	206004	Diksha Thakur
5	206005	Ravi Kant Sharma
6	206006	Deepak Kumar
7	206007	Akshay Kanwar
8	206008	Munish Bhardwaj
9	206009	Abhilasha Sharma

- **Lab Staff with qualification**

S. No	Name	Qualification	Designation
1	Ajay Kumar Singh	PhD	Sr. Lab Engineer
2	Dhirendra Kumar Singh	BTech	Sr. Lab Engineer
3	Jyotsna Bajaj	MTech	Sr. Lab Engineer
4	Pramod Kumar	BTech	Sr. Lab Engineer
5	Kamlesh Kumar Srivastava	BSc, B Tech	Lab Engineer
7	Shambhoo Nath	ITIDiploma in ECE	Lab Technician
8	Abhishek Ray	Diploma in ECE	Lab Assistant
9	Deep Narayan Tripathi	Diploma in ECE	Lab Assistant
10	Ghanshyam	Diploma in ECE	Lab Assistant

- **Patent Filed and Granted:**

S No	Title of Research Project	Members	Application No
1	A Method of Character Recognition In A Textual Document	S. V. Bhushan, V. Kumar, R. Khanna et al	Granted Patent No. : 369042 Application No. : 1632/DEL/2012
2	Portable Thermal Gradient Apparatus for Recovery of Waste Heat	Shruti Jain, Meenakshi Sood, Pramod Kumar	Cbr no : 19316 Design Application No : 334586-001 Filled on : October 23, 2020, 19:01:53

3	Artificial Intelligence and Voice Based Patients Monitoring System	SriRamManish Kumar, Firos A, Aruna M, Shruti Jain, Meenakshi Sood, Samson Isaac, Siva Sathyanarayana, Satheesh Gopisetti, Prabakaran R, Thamaraiselvam S, Sabarimuthu M	TEMP/E-1/53405/2020-CHE Patent Application Number: 202041048080 Published on : Nov 13, 2020
4	Design of Household Waste Heat Harvesting System	Shruti Jain, Meenakshi Sood	TEMP/E-1/4172/2021-DEL Patent Application Number: 202111003968 Published on : Feb 12, 2021

Copyright Received

S No	Title of the Work	Members	Registration No
1	A Handbook to Use Digital Circuit Simulation Tools	Cherry Bhargava, Rajkumar Sarma and Shruti Jain.	L-83855/2019
2	Novel Signed Floating-Point MAC (SFMAC) Architecture	Cherry Bhargava, Rajkumar Sarma and Shruti Jain.	L-91179/2020

- **Conferences, Seminars and Workshops/Faculty development program**

  Conferences

  - **Conferences Organised**

Dates	Subject	Venue	Participation Faculty Name	Remarks
July 13-15, 2020	Conference General Chair : 1st International Conference in Mobile Radio Communications and 5G Networks MRCN-2020, (Springer) (online mode)	University Institute of Engineering and Technology, Kurukshetra University, Kurukshetra	Dr. Shruti Jain	

Dates	Subject	Venue	Faculty Name	Remarks
Dec 24-25, 2020	Conference General Chair : 2nd International Conference Soft Computing for Intelligent Systems (ICSCIS 2020) is approved by editorial board. Will publish in the proceedings of book series "Algorithms for Intelligent Systems", (Springer) (online mode)	University Institute of Engineering and Technology, Kurukshetra University, Kurukshetra	Dr Shruti Jain	
April 28-29, 2021	Conference General Chair : International Conference in Emerging Convergent Technologies and Biological Systems (ETBS 2021), Kurukshetra, (Springer)	University Institute of Engineering and Technology, Kurukshetra University, Kurukshetra	Dr Shruti Jain	

- **Conferences Attended**

Dates	Subject	Venue	Faculty Name	Remarks
Jul 2-4, 2020.	IEEE International Conference on Computational Performance Evaluation (ComPE),	North - Eastern Hill University, Shillong, Meghalaya, India	Dr Shruti Jain	
July 13-15, 2020	1st International Conference in Mobile Radio Communications and 5G Networks MRCN-2020, (Springer) (online mode)	University Institute of Engineering and Technology, Kurukshetra University, Kurukshetra	Dr Shruti Jain	

November 06-08, 2020	2020 Sixth International Conference on Parallel, Distributed and Grid Computing (PDGC), (online mode)	Jaypee University of Information Technology, Waknaghat, India	Dr Shruti Jain, Dr Nafis Uddin Khan	
24th-25th December 2020	2nd International Conference on Soft Computing for Intelligent Systems, (SCIS-2020) from (online mode)	University Institute of Engineering and Technology, Kurukshetra University, Kurukshetra	Dr Shruti Jain	
April 09-10, 2021	4th Edition of International Conference on Communications and Cyber-Physical Engineering .	CMR Engineering College, Hyderabad, India	Dr Shruti Jain	
April 28-29, 2021	International Conference in Emerging Convergent Technologies and Biological Systems (ETBS 2021), (Springer)	University Institute of Engineering and Technology, Kurukshetra University, Kurukshetra	Dr Shruti Jain	
May 08-09, 2021	The 4th International Conference on Recent Innovations in Computing (ICRIC-2021),	Central University of Jammu, J & K.	Dr Shruti Jain	
September 5 -6, 2020	Congress on Intelligent Systems (CIS 2020), World Conference in virtual format	--	Dr Nafis Uddin Khan	

March 19-20, 2021	First International Conference on Advances in Smart Sensor, Signal Processing and Communication Technology (ICASSCT 2021)	Goa University, India	Pardeep Garg, Dr Sunil Datt Sharma	

Seminars/Webinars

- **Webinars Attended**

Dates	Subject	Faculty Name	Remarks
May 14, 2021	Digital Transformation using Artificial Intelligence/Machine Learning in Electronics Manufacturing	Dr Vikas Baghel	
Aug 8, 2020	Issues and Trends in Contemporary Indian Education	Dr Vikas Baghel	
Aug 21, 2020	Design Thinking for Innovation	Dr Vikas Baghel	
Aug 29, 2020	Interdisciplinary approaches to improve resiliency at scales for humans and ecosystems to thrive	Dr Vikas Baghel	
Sept 05, 2020	An Introduction to AR-VR (Augmented Reality Virtual Reality) and the way transforming the world we live in	Dr Shruti Jain, Dr Vikas Baghel, Mr. Pardeep Garg, Anuj Kumar Maurya, Mr Pankaj Kumar, Dr Shweta Pandit	Webinar organized by ECE Department of JUIT Waknaghat
Sept 10, 2020	Research and Innovation to Lead the smart World	Anuj Kumar Maurya	
Sept 19, 2020	Telecom Technologies, their evolution and RF optimization of KPIs	Dr Shweta Pandit, Mr Pardeep Garg, Anuj Kumar Maurya,	

Nov 06, 2020.	International Webinar Series on Research and Technological Advancements in Biomedical and Healthcare Sector (Webinar 4: Clinical Bioinformatics: Bridging the Gateway to Precision Medicine)	Dr Naveen Jaglan	organized by Centre of Excellence in Health Care Technologies and Informatics (CEHTI), Department of Biotechnology and Bioinformatics, JUIT
Oct 24, 2020	Analysis and Classification of Breast Abnormalities using Ultrasound Images	Mr Pankaj Kumar	
Oct 10, 2020	Recent Trends in Contemporary India	Mr Pardeep Garg, Mr Pankaj Kumar	
Oct 03, 2020	Advanced Driver Assistance Systems (ADAS)	Mr Pankaj Kumar	
Sept 10, 2020	Research and Innovation to lead the smart world	Mr Pankaj Kumar	
May 20, 2021	New Generation Cyber Crimes and Security	Pardeep Garg	Conducted by Information Security Education and Awareness (ISEA) in association with CDAC Hyderabad.
March 18, 2021	Building Research Universities in India	Dr Shweta Pandit, Mr Pardeep Garg	Expert talk by Prof. Pankaj Jalote, Founding Director and Distinguished Professor, IIIT Delhi and conducted by JUET Guna.
Oct. 17, 2020	Patents, Innovations and Start ups	Dr Shruti Jain, Mr Pardeep Garg	Expert lecture organized by IPR Cell of JUIT Waknaghat.
Oct. 17, 2020	Women Empowerment	Dr Shruti Jain, Mr Pardeep Garg	Expert lecture organized by IPR Cell of JUIT Waknaghat.

Oct. 9, 2020	E-waste and HealthCare	Mr Pardeep Garg	Webinar organized by CEHTI, BT&BI Department of JUIT Waknaghat.
Oct. 3, 2020	Advanced Driver Assistance Systems	Mr Pardeep Garg	Webinar organized by ECE Department of JUIT Waknaghat.
Sept. 15, 2020	Recent Trends in Computer Aided Diagnosis	Mr Pardeep Garg	Webinar organized by Dr. NGP Institute of Technology.
Sept. 9, 2020	Personal Branding & Joining: Importance and Applications of Material Development	Mr Pardeep Garg	Webinar organized by Dr. NGP Institute of Technology.
Sept. 8, 2020	Flexible Sensors for Biomedical Applications	Dr Shweta Pandit, Mr Pardeep Garg	Webinar organized by CEHTI, BT&BI Department of JUIT Waknaghat.
Sept. 4, 2020	Rethinking Creativity and Innovation & role of Nutraceuticals in the Management of Diseases	Pardeep Garg	Webinar organized by Dr. NGP Institute of Technology.
Sept. 1, 2020	Safety of Women and Thermal Energy Storage System for Solar Sector	Pardeep Garg	Webinar organized by Dr. NGP Institute of Technology.
Aug. 22, 2020	Design with security and ethics	Pardeep Garg	Webinar organized by SEECE and IEEE STB GU.
Aug. 18, 2020	Initiative to create awareness about meaningful internships	Pardeep Garg	Held by INTERNSHALA
Aug. 14, 2020	Entrepreneurship: An Opportunity for Young Aspirants	Pardeep Garg	Webinar organized by TIEDC of JUIT Waknaghat.
Aug. 12, 2020	Disrupting Technologies & Trends of the Future-How can you Prepare for this Uncertain New Normal	Pardeep Garg	Webinar organized by St. Joseph's College of Engineering, Chennai.

Aug. 10, 2020	Antenna Analysis and Design Considerations in Practical Aspects & Wearable Technologies in Healthcare	Pardeep Garg	Webinar organized by Dr. NGP Institute of Technology.
Aug. 7, 2020	Strategies for Effective Teaching	Dr. Rajiv Kumar, Dr Shruti Jain, Dr NafisUddin Khan, Dr Neeru Sharma, Dr Shweta Pandit, DrSalman Raju, Dr SunilDatt Sharma, Dr Shweta Pandit, Dr Vikas Baghel, Dr Harsh Sohal, Dr Nishant Jain, Dr Naveen Jaglan, Dr Emjee Puthooran, Dr Alok Kumar, Ms Pragya Gupta, Mr Pardeep Garg, Mr Munish Sood.	Expert talk by Prof. G. S. Hoora (University of Maryland) organized by ECE Department of JUIT Waknaghat.
July 24, 2020	A Reinforcement Learning Framework for Mobile Relay Beamforming	Dr Emjee Puthooran	
July 23, 2020	When to trust a self-driving car	Dr Emjee Puthooran	
Aug. 6, 2020	Human Touch through Technology & Antiviral Activity of Nanoparticles	Pardeep Garg	Webinar organized by Dr. NGP Institute of Technology.
July 23, 2020	Demystifying Data Science AI & ML	Pardeep Garg	Webinar organized by Institution's Innovation Council of Dr. NGP Institute of Technology.
July 17, 2020	Demystifying Machine Learning and Deep Learning	Pardeep Garg	Organized by ECE Department of JECRC Jaipur given by Dr. Kuldeep Singh

Workshops

- ### Workshops Organized

Dates	Subject	Venue	Participation	Remarks
Aug. 7, 2020	Strategies for effective teaching	Online, JUIT	Dr Rajiv Kumar	
Sept. 19, 2021	Career Perspectives in Electronics and Communication	Online, JUIT	Dr Rajiv Kumar	
Sept. 27, 2020	Data Science and Importance	Online, JUIT	Dr Rajiv Kumar	
Sept. 27, 2020	Robotics and Industry 4.0	Online, JUIT	Dr Rajiv Kumar	
Jan. 2, 2021	Cloud Computing and Applications	Online, JUIT	Dr Rajiv Kumar	
March 22, 2021	Digital Twins and Augmented Reality	Online, JUIT	Dr Rajiv Kumar	
March 08-13, 2021	Organized one week workshop on Women innovation and IPR	IPR Cell, JUIT, Solan	Dr Shruti Jain	
Feb 22-27, 2021	Organized "e-essay competition", by Caste based Discrimination Committee	JUIT, Solan	Dr Shruti Jain	
Aug 20-28, 2020	Organized Let's skill up : Graphic Designing and Android Development by Rtr. Vatsal Singh, Rtr. Dev Tyagi	Rotaract Club, (online mode)	Dr Shruti Jain	
June 14-21, 2020	Organized Logo designing competition of Rotaract club, Waknaghat	Rotaract Club, (online mode)	Dr Shruti Jain	
Dec23-27, 2020	Organized State of the Arts by Rotaract club, Waknaghat		Dr Shruti Jain	
April 24-25, 2021	Organized Technical Event "Murious X5" in collaboration with IEEE student branch, JUIT and ACM, JUIT	Jaypee University of Information Technology, Himachal Pradesh(online mode)	Dr Shruti Jain	

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April 30 – May 2, 2021	Organized, coordinated, and Judged two day Technical Event "R& D expo" in collaboration with IEEE student branch, JUIT and ACM, JUIT	Jaypee University of Information Technology, Himachal Pradesh(online mode)	Dr Shruti Jain	
Nov. 26-27, 2020	Atmanirbhar Bharat Summit 2020	Online, ICMR-CIBioD, PGIMER, Chandigarh	Dr Nishnat Jain	
May 7, 2021	Organized "Applied Statistics for Data Science" Workshop by Parth Sharma, the Chief Data Scientist at Jasper Coilin Research on at 4:00 PM by WIE-IEEE JUIT SB in association with AI probably	Jaypee University of Information Technology, Himachal Pradesh (online mode)	Dr Shruti Jain	
Sept 5, 2020	Organized Teacher's day Tribute	Jaypee University of Information Technology, Himachal Pradesh(online mode)	Dr Shruti Jain	
Aug. 10-15, 2020	Recent Advances in Computational Intelligence for Signal Processing (RACISP – 2020)	ECE Department, JUIT Waknaghat	Mr Pradeep Garg	
Jan 02, 2021	Lab view for Digital Signal Processing Lab	ECE Department, JUIT Waknaghat	Dr Sunil Datt Sharma for Lab staff of ECE	https://www.juit.ac.in/department/electronics/TrainingScheduleofLabstaff.pdf

Jan 4, 2021	Lab view for Digital Signal Processing Lab	ECE Department, JUIT Waknaghat	Dr Sunil Datt Sharma for Lab staff of ECE	https://www.juit.ac.in/department/electronics/TrainingScheduleofLabstaff.pdf
Dec 22, 2020	Introduction to MIT app Inventer	ECE Department, JUIT Waknaghat	Dr Vikas Baghel	https://www.juit.ac.in/department/electronics/TrainingScheduleofLabstaff.pdf
Dec 22, 2020	Bulding Mobile application	ECE Department, JUIT Waknaghat	Dr Vikas Baghel	https://www.juit.ac.in/department/electronics/TrainingScheduleofLabstaff.pdf
Dec 23, 2020	Interfacing with Arduino	ECE Department, JUIT Waknaghat	Dr Vikas Baghel	https://www.juit.ac.in/department/electronics/TrainingScheduleofLabstaff.pdf
Dec 23, 2020	Creation of a new project in MIT app Inventer	ECE Department, JUIT Waknaghat	Dr Vikas Baghel	https://www.juit.ac.in/department/electronics/TrainingScheduleofLabstaff.pdf

Dec 29, 2020	Tinkercad	ECE Department, JUIT Waknaghat	Mr Munish Sood	https://www.juit.ac.in/department/electronics/TrainingScheduleofLabstaff.pdf
Dec 31, 2020	Interaction with the lab staff	ECE Department, JUIT Waknaghat	Dr Salman Talluri	https://www.juit.ac.in/department/electronics/TrainingScheduleofLabstaff.pdf
Jan 05, 2021	Python Programming	ECE Department, JUIT Waknaghat	Dr Emjee Puthooran	https://www.juit.ac.in/department/electronics/TrainingScheduleofLabstaff.pdf
Jan 07, 2021	WiCOMM-T SDR kit.	ECE Department, JUIT Waknaghat	Dr Shweta Pandit	https://www.juit.ac.in/department/electronics/TrainingScheduleofLabstaff.pdf
Jan 07, 2021	Experiments of Electrical Science Lab	ECE Department, JUIT Waknaghat	Dr Shweta Pandit	https://www.juit.ac.in/department/electronics/TrainingScheduleofLabstaff.pdf

| Jan 08, 2021 | Signals and Communication Systems with MATLAB | ECE Department, JUIT Waknaghat | Mr Pradeep Garg | https://www.juit.ac.in/department/electronics/TrainingScheduleofLabstaff.pdf |
| Jan 09, 2021 | Verilog HDL | ECE Department, JUIT Waknaghat | Dr Harsh Sohal | https://www.juit.ac.in/department/electronics/TrainingScheduleofLabstaff.pdf |

- **Workshops Attended**

Dates	Subject	Venue	Faculty Name	Remarks
March 5, 2021	COVID19 Data Analysis Using Python	Coursera	Dr Nishant Jain	100 Minutes Workshop
Nov. 6, 2020	Introduction to Deep Learning	Kaggle	Dr Nishant Jain	
Dec 2, 2020	Python	Kaggle		
Dec19-24, 2020	Blockchain in DevOps: Implementing Transparent Continuous Delivery	Under AICTE Quality Improvement Scheme (AQIS) organized by CSE department, SVERI's college of Engineering Pandharpur, Maharashtra	Pardeep Garg	One week online Short-term Training Programme
Aug. 06-08, 2020	Internet of Things – 2020 (IOT)	Department of ECE, Karpaga Vinayaga College of Engg. And Tech.	Pardeep Garg	Value added course

July 27-31, 2020	Arduino based Embedded System Design	Karpaga Vinayaga College of Engg and Tech, Department of ECE along with IQAC and Vee Eee Technologies Solution Pvt Ltd, Padalam, Chengalpattu (Dt) -603308	Pardeep Garg	One week online Short-term Training Programme
July 20-25, 2020	Non Traditional Algorithms: Efficacious for Multi Objective Optimization **(AICTE Sponsored).**	PARK College of Engineering & Technology (PCET), Coimbatore, TamilNadu	Pardeep Garg	One week online Short-term Training Programme

- **Faculty Development Programs Organised**

The department organized one FDP in the academic session 2019-20. The details of the same are as follows:

Dates	Name	Organized by	No. of participants
Aug 10 – 15, 2020	One Week Online Short Term Course on "Recent Advances in Computational Intelligence for Signal Processing" (RACISP – 2020)	Dr Nafis Uddin Khan, Dr Sunil Datt Sharma and Dr. VikasBaghel.	114

- **Faculty Development Programs Attended**

Dates	Name	Organized by	No. of participants
May 17-22, 2021	One week Faculty Development Program on Advanced Excel with Data Visualization	E & ICT Academy, IIT Kanpur (A Joint Initiative of MeitY & IIT Kanpur)	Dr Shruti Jain

March 22-27, 2021	AICTE sponsored Six Days Online Short Term Training Programme on VLSI Design and Verification	Department of Electronics and Communication Engineering of Annamacharya Institute of Technology & Sciences (Autonomous), Rajampet, Andhra Pradesh India	Dr Shruti Jain
Feb 15-27, 2021	Faculty Development Program on Data Science	E & ICT Academy, IIT Kanpur (A Joint Initiative of MeitY & IIT Kanpur)	Dr Shruti Jain
Feb 01-06, 2021	AICTE Sponsored Six Days Online Short Term Training Program (STTP) on Artificial Intelligence and Deep learning for Computational Biology	Department of Computer Science and Engineering, PSNA College of Engineering and Technology, Dindigul, TN	Dr Shruti Jain
Jan 11-23, 2021	Faculty Development Program on Machine Learning	E & ICT Academy, IIT Kanpur (A Joint Initiative of MeitY & IIT Kanpur)	Dr Shruti Jain
July 20-25, 2020	AICTE Sponsored Six Days Online Short Term Training Program (STTP) on Non-Traditional Algorithms: Efficacious for Multi-Objective Optimization	Department of Mechanical Engineering, PARK College of Engineering and Technology	Dr Shruti Jain
July 13-17, 2020	5 day FDP on Exploring the Nuances of Deep Learning for Research Applications- A deeper Experience	Karunya Institute of Technology and Sciences, Coimbatore, Tamil Nadu, India	Dr Shruti Jain
June 08-12, 2020	5 days career course on Data science	Department of Data Science, Loyala College, Chennai	Dr Shruti Jain
May 18-29, 2020	10 days online Faculty Development programme on Python Programming and Machine Learning Techniques	Department of Computer Science and Engineering, at KSR College of Engineering, Tiruchegode, Tamil Nadu, India	Dr Shruti Jain

May 24–29, 2021	FDP on Python Programming	EICT Academy-IIT, Kanpur.	Dr Vikas Baghel
Dec. 14-26, 2020	AICTE sponsored QIP short term course on Data Analytics and its Applications in Industries	Department of Computer science and Engineering & Department of Electrical Engineering IIT (BHU)	Dr Shweta Pandit, Dr Alok kumar
July 13-17, 2020	FDP in Scilab under Pandit Madan Mohan Malviya National Mission for Teachers and Teaching, MHRD	Jaypee University of Information Technology in association with Spoken Tutorial, IIT Bombay	Dr Shweta Pandit, Mr Pradeep Garg
Sept 19-23, 2020	Recent Trends in Beyond 5G	TEQIP-III Ujjain Engineering College, Ujjain	Dr Alok Kumar, Mr Pradeep Garg
Aug 10-15, 2020	Recent Advances in Computational Intelligence for Signal Processing (RACISP-2020)	Jaypee University of Information Technology Himachal Pradesh, India.	Dr Rajiv Kumar, Dr Shruti Jain, Dr Nafis Uddin Khan, Dr. Neeru Sharma, Dr Shweta Pandit, Dr Salman Raju, Dr Sunil Datt Sharma, Dr Shweta Pandit, Dr Vikas Baghel, Dr Harsh Sohal, Dr Nishant Jain, Dr Naveen Jaglan, Dr Emjee Puthooran, Dr. Alok Kumar, Ms Pragya Gupta, Mr Pardeep Garg, Mr Munish Sood
July 27-Aug. 08, 2020 .	Ambient Technologies: State-of-Art Challenges and Future Directions	Jaypee University of Information Technology Himachal Pradesh, India.	Dr Alok Kumar
July 13-July 24, 2020	Advanced Optimization Techniques and hands-on with MATLAB/SCILAB	MeitY, Government of India	Dr Alok Kumar
Sep-Dec 2020 (12 week = 1.5 FDP)	Problem solving through Programming In C	NPTEL	Mr Pradeep Garg

Sept. 14-19, 2020	Role of IoT and Wireless Sensor Networks in Knowledge Engineering	ECE Department of Atria Institute of Technology, Bengaluru	Mr Pradeep Garg
Aug. 31-Sept. 05, 2020	Computational Intelligence Techniques for Machine Learning (CITML)	Department of CSE of JUIT Waknaghat	Dr Shweta Pandit, Mr Pradeep Garg
July 20, 2020 – July 26, 2020	Advances in Signal Processing and Machine Learning	Jointly organized by MHRD-Institution Innovation Council, DDUC Chapter, Deen Dayal Upadhyaya College, University of Delhi	Dr Emjee Puthooran

- **Publications**

  - **Journal Publications**

Name of Faculty	Title of Article	Name of Journal	Reference	Citation
Hemant K. Gianey, Mumtaz Ali, Varadarajan Vijayakumar, Ashutosh Sharma, Rajiv Kumar	Low Cost and Centimeter-level Global Positioning System Accuracy Using Real-Time Kinematic Library and Real-time Kinematic GPSA	Recent Advances in Computer Science and Communications	Vol. 14, no. 2, pp. 360 - 367.	
R Kumar, R Kumar, M Nigam	Performance Accretion in Delay Compensation of Networked Control System using Markov Approach based Randomness Estimation in Smith Predictor	International Journal of System Dynamics Applications (IJSDA)	Vol. 11, no. 3, Article 1	
D Kumar, R Kumar, N Sharma	Proactive Connection Recovery Strategy with Recovery Time Constraint for Survivable Elastic Optical Networks	IEEE China Communications	(Accepted)	

D Kumar, R Kumar, R N Sharma	A Parallel cross-connection recovery scheme for dual link failure in elastic optical networks	Journal of Optical Communications	https://doi.org/10.1515/joc-2020-0252	
R Kumar, PK Singh	Special Issue on Recent Trends in Artificial Intelligence Techniques for Fault-Tolerance, Reliability and Availability in Mission-Critical Networks	Recent Advances in Computer Science and Communications	Vol. 14, no. 1, pp. 225-226	
R Kumar, R Kumar, M Nigam	An Improved Lag-Time Compensation Technique in Distributed Networked Control System based on Smith Predictor	Informatica: An International Journal of Computing and Informatics	(Accepted)	
Rajiv Kumar, Shweta Pandit, Ashutosh Sharma	Design of Reliable, Secure and Intelligent Systems for Healthcare Applications	Recent Patents on Engineering	Vol. 14 , no. 3	
Dinesh Kumar, Rajiv Kumar, and Neeru Sharma	Resource efficient recovery scheme for double link failures in elastic optical networks	Materials Today: Proceedings	(Accepted) DOI: 10.1016/j.matpr.2020.10.915	
Rajiv Kumar, Pardeep Kumar	Special Issue on Recent Trends in Artificial Intelligence Techniques for Fault-Tolerance, Reliability and Availability in Mission-Critical Networks	Recent Advances in Computer Science and Communications	Vol. 13 , no. 3, pp. 311-312.	
Jyotsna Dogra, Shruti Jain, Ashutosh Sharma, Rajiv Kumar, Meenakshi Sood	Brain Tumor Detection from MR Images Employing Fuzzy Graph Cut Technique	Recent Advances in Computer Science and Communications	Vol. 13 no. 3	

Garima Thakur, Harsh Sohal, and Shruti Jain	A Novel ASIC-Based Variable Latency Speculative Parallel Prefix Adder for Image Processing Application	Circuits, Systems and Signal Processing	https://doi.org/10.1007/s00034-021-01741-6	
Shruti Jain, Amit Manocha	Design and development of smart monitoring module for detection of virus	Measurement: Sensors	Vol. 16	
Charu Bhardwaj, Shruti Jain, Meenakshi Sood	Transfer learning based robust automatic detection system for diabetic retinopathy grading	Neural Computing and Applications	https://doi.org/10.1007/s00521-021-06042-2	
Garima Thakur, Harsh Sohal, and Shruti Jain	A Novel Parallel Prefix adder for optimized Radix-2 FFT processor	Multidimensional Systems and Signal Processing	Vol. 32, pp. 1041–1063	
Charu Bhardwaj, Shruti Jain, Meenakshi Sood	Deep Learning based Diabetic Retinopathy Severity Grading System Employing Quadrant Ensemble Model	Journal of Digital Imaging	10.1007/s10278-021-00418-5	
Shruti Jain	Computer Aided Detection system for the Classification of Non Small Cell Lung Lesions using SVM	Current Computer-Aided Drug Design, 16(56), 2021	Vo1. 16, no. 6, pp. 833-840.	
Rajkumar Sarma, Cherry Bhargava, Shruti Jain, Vikram Kumar Kamboj	An Ameliorated Harris Hawks Optimizer for Designing of Low-Power Signed Floating-point MAC Architecture	Neural Computing and Applications	https://doi.org/10.1007/s00521-020-05637-5	
Navdeep Prashar , Meenakshi Sood, and Shruti Jain	Design and Implementation of a Robust Noise Removal System in ECG signals using Dual Tree Complex Wavelet Transform	Biomedical Signal Processing and Control,	Vol. 63	

Charu, Shruti Jain, Meenakshi Sood	Two-Tier Grading System for NPDR Severities of Diabetic Retinopathy in Retinal Fundus Images	Recent Patents on Engineering, Bentham Science	Vo1. 4, no. 1	
Ayodeji Olalekan Salau, Shruti Jain	Adaptive Diagnostic Machine Learning Technique for Classification of Cell Decisions for AKT Protein	Informatics in Medicine Unlocked,	Vol. 23, no. 2	
Charu Bhardwaj, Shruti Jain, Meenakshi Sood	Performance analysis of retinal features for diabetic retinopathy characterisation and diagnosis	International Journal of Business and Systems Research,	Vol. 15, no. 2, pp 253-270.	
Charu Bhardwaj, Shruti Jain, Meenakshi Sood	Hierarchical Severity Grade Classification of Non-Proliferative Diabetic Retinopathy	Journal of Ambient Intelligence and Humanized Computing,	Vol. 12, pp. 2649–2670	
Charu Bhardwaj, Shruti Jain, Meenakshi Sood	Diabetic Retinopathy Severity Grading Employing Quadrant Based Inception-V3 Convolution Neural Network Architecture	International Journal of Imaging Systems and Technology	Vol. 31, no. 2, pp. 592-608	
Rajkumar Sarma, Cherry Bhargava, Shruti Jain	A MUX based signed-floating-point MAC architecture using UCM algorithm	Bulletin of The Polish Academy of Sciences: Technical Sciences	Vol. 68, no. 4, pp. 835-844.	
Ayodeji Olalekan Salau and Shruti Jain	Computational modeling and experimental analysis for the diagnosis of cell survival/ death for Akt protein	Journal of Genetic Engineering and Biotechnology,	18:11	

Shruti Jain, Durg Singh Chauhan	Instance-Based Learning of Marker Proteins of Carcinoma Cells for Cell Death/ Survival	Computer Methods in Biomechanics and Biomedical Engineering: Imaging & Visualization	8:3, pp. 313-322	
Kirti, H. Sohal and S. Jain	Statistical Analysis of HRV Parameters for the Detection of Arrhythmia	International Journal of Image and Graphics	Vol. 20, no. 4	
Charu, Shruti Jain, Meenakshi Sood	Automated Diagnostic Hybrid Lesion Detection System for Diabetic Retinopathy Abnormalities	International Journal of Sensors, Wireless Communications and Control,	Vol. 10, no. 4, pp 494-507	
Charu, Shruti Jain, Meenakshi Sood	Retinal Blood Vessel Localization to Expedite PDR Diagnosis	Periodicals of Engineering and Natural Sciences.	Vol. 8, no. 3, pp 1233-1246	
Jyotsna Dogra, Shruti Jain and Meenakshi Sood	Novel Seed Selection Techniques for MR Brain Image Segmentation using Graph Cut	Computer Method in Biomechanics and Biomedical Engineering: Imaging & Visualization	Vol. 8, no. 4, pp.389-399	
Navdeep Prashar, Meenakshi Sood, Shruti Jain	A Novel Cardiac Arrhythmia Processing using Machine Learning Techniques	International Journal of Image and Graphics.	Vol 20, no. 3, 2050023 (17 pages)	
Charu Bhardwaj, Shruti Jain, Meenakshi Sood	Diabetic Retinopathy Lesion Discriminative Diagnostic System for Retinal Fundus Images	Advanced Biomedical Engineering	Vol 9, pp. 71–82	
Jyotsna Dogra, Shruti Jain, Ashutosh Sharma, Rajiv Kumar, Meenakshi Sood,	Brain Tumor Detection from MR Images employing Fuzzy Graph Cut Technique	Recent Patents on Computer Science	Vol. 13, no. 3, pp: 362-369.	
Anish Vijan, Parth Dubey, Shruti Jain	Comparative Analysis of Various Image Fusion Techniques for Brain Magnetic Resonance Images	Procedia Computer Science	Vol. 167, pp. 413–422	

Nafis Uddin Khan	A Review on Performance Analysis of PDE based Anisotropic Diffusion Approaches for Image Enhancement	Informatica: An International Journal of Computing anf Informatics	Article in Press	
A. Kumar, S. Pandit and G. Singh	Threshold Selection Analysis of Spectrum Sensing for Cognitive Radio Network with Censoring based Imperfect Reporting Channels	Wireless Networks (Springer)	Vol. 27, pp. 961–980.	1
A. Kumar, S. Pandit and G. Singh	Optimization of censoring based cooperative spectrum sensing approach with multiple antennas and imperfect reporting channel scenarios for cognitive radio network	IET Communications	Vol. 14, no. 16, pp. 2666-2676	
Niveditta Kumari, Nafis Uddin Khan, Sunil Datt Sharma	A Review on Performance Analysis of PDE based Anisotropic Diffusion Approaches for Image Enhancement	Informatica: An international Journal of computing and informatics	Accepted	
A. Shubham, Sunil Datt Sharma	Micro-Doppler signature based target recognition using covariance based S-transform	Journal of physics-conference series	Vol. 1921, no. 1, p. 012010). IOP Publishing.	

Pardeep Garg & Sunil Datt Sharma	CpG islands identification in DNA sequences using modified P-spectrum based algorithm	Journal of physics-conference series	Vol. 1921, no. 1, p. 012042). IOP Publishing.	
Diksha Thakur, Vikas Baghel, Salman Raju Talluri	Proximal gradient method based robust Capon beamforming against large DOA mismatch	Frequenz	https://www.degruyter.com/document/doi/10.1515/freq-2020-0133/html	
Kanishka Katoch, Naveen Jaglan, Samir Dev Gupta, Moham mad S. Sharawi	Design of a triple band notched polarization independent compact FSS at UWB frequency range	International Journal of RF and Microwave Compute-Aided Engineering	Vol. 31, no. 6	
N. Jaglan, S. D. Gupta and M. S. Sharawi	18 Element Massive MIMO/Diversity 5G Smartphones Antenna Design for Sub-6 GHz LTE Bands 42/43 Applications	IEEE Open Journal of Antennas and Propagation	vol. 2, pp. 533-545	
K. Katoch, N. Jaglan and S. D. Gupta	Design and Analysis of Single Sided Modified Square Loop UWB Frequency Selective Surface	IEEE Transactions on Electromagneti c Compatibility	https://ieeexplore.ieee.org/abstract/document/9385413	
K. Katoch, N. Jaglan and S. D. Gupta	Analysis and design of a simple and compact bandstop Frequency Selective Surface at mobile WiMAX and satellite communication X-band	Journal of Electromagneti c Waves and Applications	pp. 1321-1336	

E. Thakur, N. Jaglan and S. D. Gupta	Miniaturized four-port UWB MIMO antennas with triple-band rejection using single EBG structures	International Journal of Microwave and Wireless Technologies	https://www.cambridge.org/core/journals/international-journal-of-microwave-and-wireless-technologies/article/abs/miniaturized-fourport-uwb-mimo-antennas-with-tripleband-rejection-using-single-ebg-structures/D09DAF22104E6C56805905886D350C5E	
Vishakha Thakur, Naveen Jaglan, and Samir Dev Gupta	Design of a Dual-Band 12-Element MIMO Antenna Array for 5G Mobile Applications	Progress In Electromagnetics Research Letters	Vol. 95, pp. 73-81	
G. Rathee, N. Jaglan, S. Garg, B. J. Choi and D. N. K. Jayakody	Handoff Security Using Artificial Neural Networks in Cognitive Radio Networks	IEEE Internet of Things Magazine	Vol. 3, no. 4, pp. 20-28	1
Geetanjali Rathee, Naveen Jaglan, Razi Iqbal, Sujesh P. Lal, Varun G. Menon	A trust analysis scheme for vehicular networks within IoT-oriented Green City	Environmental Technology & Innovation	Vol. 20	3
Geetanjali Rathee, Naveen Jaglan & Binod Kumar Kanaujia	An Attack Resilient Framework in Cognitive Radio Network Environment for Inter-domain and Intra-domain Communication	Wireless Personal Communications	Vol. 114, pp. 3457–3475	
E. Thakur, N. Jaglan and S. D. Gupta	Design of compact triple band-notched UWB MIMO antenna with TVC-EBG structure	Journal of Electromagnetic Waves and Applications	34:11, pp. 1601-1615	3

R.Krishnamurthy, G. Rathee, N. Jaglan	An enhanced security mechanism through blockchain for E-polling/counting process using IoT devices	Wireless Networks	Vol. 26	10
G. Rathee, N. Jaglan, S. Garg, B. J. Choi and K. -K. R. Choo	A Secure Spectrum Handoff Mechanism in Cognitive Radio Networks	IEEE Transactions on Cognitive Communications and Networking	Vol. 6, no.3, pp. 959 - 969	1
Naveen Jaglan, Priyanka Dalal, Samir Dev Gupta, and Mahmoud Abdelrahman Abdalla	Band Notched UWB MIMO/Diversity Antenna Design with Inductance Boosted Compact EBG Structures	Progress In Electromagnetics Research	Vol. 105, pp. 185-202	1
Urvashi Sharma, Meenakshi Sood, Emjee Puthooran, Yugal Kumar	A Block-Based Arithmetic Entropy Encoding Scheme for Medical Images	International Journal of Healthcare Information Systems and Informatics	Vol. 15, no. 3, pp65-81	2
Urvashi S, Sood, M. & Puthooran, E	Region of interest based selective coding technique for volumetric MR image sequence.	Multimed Tools Appl	Vol. 80, pp. 12857–12879	

- **Books/Book Chapters Published**

Name of Faculty	Title of Book Chapter	Name of Book	Reference	Remark
Dr Shruti Jain	Realization of Carry-Free Adder Circuit Using FPGA.,	Computational Intelligence in Healthcare	pp. 53-66	Springer International Publishing
Jain S., Kashyap M., Garg M., Srivastava S.	Design and Simulation of Optimum Digital Filter for Removal of Power Line Interference Noise.	Recent Innovations in Computing. ICRIC 2020. Lecture Notes in Electrical Engineering,	Vol. 701, pp 97-107.	Springer, Singapore.

Jain S., Kumar P., Sood M.	Design of Waste Heat Recovery System for Green Environment.	Recent Innovations in Computing. ICRIC 2020. Lecture Notes in Electrical Engineering	vol 701, pp 821-830,	Springer, Singapore
Srivastava S., Jain S.	Optimum Digital Filter Design for Removal of Different Noises from Biomedical Signals.	Mobile Radio Communications and 5G Networks. Lecture Notes in Networks and Systems,	Vol 140, pp.- 389-399.	Springer, Singapore
Jain S., Virmani J.	Texture Ratio Vector Technique for the Classification of Breast Lesions Using SVM.	Recent Trends in Image and Signal Processing in Computer Vision. Advances in Intelligent Systems and Computing,	Vol. 1124, pp. 201-210.	Springer, Singapore
Dr. Shruti Jain	Realization of Carry-Free Adder Circuit Using FPGA.	Computational Intelligence in Healthcare	pp 53-66	Springer International Publishing
Jain S., Kashyap M., Garg M., Srivastava S.	Design and Simulation of Optimum Digital Filter for Removal of Power Line Interference Noise.	Recent Innovations in Computing. ICRIC 2020. Lecture Notes in Electrical Engineering,	Vol. 701, pp 97-107.	Springer, Singapore.
Jain S., Kumar P., Sood M.	Design of Waste Heat Recovery System for Green Environment.	Recent Innovations in Computing. ICRIC 2020. Lecture Notes in Electrical Engineering,	Vol. 701, pp 821-830.	Springer, Singapore.
Srivastava S., Jain S.	Optimum Digital Filter Design for Removal of Different Noises from Biomedical Signals.	Mobile Radio Communications and 5G Networks. Lecture Notes in Networks and Systems.	Vol. 140, pp- 389-399	Springer, Singapore.
Jain S., Virmani J.	Texture Ratio Vector Technique for the Classification of Breast Lesions Using SVM.	Recent Trends in Image and Signal Processing in Computer Vision. Advances in Intelligent Systems and Computing, ,	Vol. 1124, pp 201-210.	Springer, Singapore

Thakur N., Khan N.U., Sunil Datt Sharma	A Comparative Analysis of Edge-Preserving Approaches for Image Filtering.	Intelligent Learning for Computer Vision. CIS 2020. Lecture Notes on Data Engineering and Communications Technologies, vol 61. Springer, Singapore.	Vol 61.	Springer, Singapore.
Kanishka Katoch, Naveen Jaglan, Samir Dev Gupta, Binod Kumar Kanaujia	Design of Frequency Selective Surface (FSS) Printed Antennas	Printed Antennas: Theory and Design	Pages 35	CRC Press, Taylor and Francis group
E. Thakur, Naveen Jaglan, Samir Dev Gupta, Binod Kumar Kanaujia	Advances in Patch Antenna Design Using EBG Structures	Printed Antennas: Theory and Design		CRC Press, Taylor and Francis group
Pardeep Garg	IoT Based Smart WristBand	Proceedings of International Conference on Communication and Artificial Intelligence. Lecture Notes in Networks and Systems.	Vol. 192, pp. 171-180.	Springer, Singapore.
Pardeep Garg	Use of LSTM and ARIMAX Algorithms to Analyze Impact of Sentiment Analysis in Stock Market Prediction	Intelligent Data Communication Technologies and Internet of Things, Lecture Notes on Data Engineering and Communication Technologies.	Vol. 57, pp. 377-394.	Springer, Singapore.

Diksha Thakur, Vikas Baghel, Salman Raju Talluri	Robust Beamforming Against DOA Mismatch with Null Widening for Moving Interferences	Advances in Signal Processing and Intelligent Recognition Systems	Vol. 1365	Springer, Singapore

- **Conference Publications**

Name of Faculty	Title of Article presented	Name of conference	Reference	Dates
Dr Shruti Jain	A Robust System for Detection of Pneumonia using Transfer Learning	Mobile Radio Communications and 5G Networks, Springer, Singapore, University Institute of Engineering and Technology, Kurukshetra University, Kurukshetra,		June 23-24, 2021
Dr Shruti Jain	Importance of Pulse Examination and its Diagnostic System	The 4th International Conference on Recent Innovations in Computing (ICRIC-2021), Central University of Jammu, J & K.		May 08-09, 2021
Bandana Pal, Surya Mahajan, Shruti Jain	Medical Image Fusion Employing Enhancement Techniques	2020 IEEE International Women in Engineering (WIE) Conference on Electrical and Computer Engineering (WIECON-ECE), Bangladesh		Dec 26-27, 2020
Himani Bhardwaj, Sunil Jadav, Harsh Sohal, Shruti Jain	Optimised Crosstalk Circuit for Long Wire Copper Interconnects Using 45nm CMOS Inverter	2020 IEEE International Women in Engineering (WIE) Conference on Electrical and Computer Engineering (WIECON-ECE), Bangladesh		Dec 26-27, 2020

Dr Shruti Jain	FPGA-Assisted Framework for Heart Rate Evaluation using ECG Signal Processing	IEEE, INDICON, Netaji Subhas University of Technology, New Delhi		December 11-13, 2020
Dr Shruti Jain	Design and Simulation of Optimum FIR Digital Filters using Windowing Technique	The 3rd International Conference on Recent Innovations in Computing (ICRIC-2020), , Central University of Jammu, J & K		March 20-21, 2020
Shailu Srivastava Shruti Jain	Optimum Digital Filter Design for Removal of different Noises from Biomedical Signals	1st International Conference ion Mobile Radio Communications and 5G Networks MRCN-2020 U.I.E.T-KUK		March 26 - 28, 2020
Kushagra Srivastava, Garima Malhotra, Manthan Chauhan, Shruti Jain	Design of Novel Hybrid Model for Detection of Liver Cancer	2020 IEEE International Conference on Computing, Power and Communication Technologies (GUCON), Greater Noida.	pp. 623-628	Oct 2-4, 2020
Bandana Pal, Surya Mahajan, Shruti Jain	A Comparative Study of Traditional Image Fusion Techniques with a Novel Hybrid Method	International Conference on Computational Performance Evaluation (ComPE) North - Eastern Hill University, Shillong, Meghalaya, India. ,	pp 820-825.	Jul 2-4, 2020
Dr Shruti Jain	A Robust System for Detection of Pneumonia using Transfer Learning	Mobile Radio Communications and 5G Networks, Springer, Singapore, University Institute of Engineering and Technology, Kurukshetra University, Kurukshetra,		June 23-24, 2021

Dr Shruti Jain	Importance of Pulse Examination and its Diagnostic System	The 4th International Conference on Recent Innovations in Computing (ICRIC-2021), Central University of Jammu, J & K.		May 08-09, 2021
Bandana Pal, Surya Mahajan, Shruti Jain	Medical Image Fusion Employing Enhancement Techniques	2020 IEEE International Women in Engineering (WIE) Conference on Electrical and Computer Engineering (WIECON-ECE), Bangladesh		Dec 26-27, 2020
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Dr Shruti Jain	FPGA-Assisted Framework for Heart Rate Evaluation using ECG Signal Processing	IEEE, INDICON, Netaji Subhas University of Technology, New Delhi		Dec 11-13, 2020
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Dr Shruti Jain	Optimum Digital Filter Design for Removal of different Noises from Biomedical Signals	1st International Conference ion Mobile Radio Communications and 5G Networks MRCN-2020 U.I.E.T-KUK		March 26 - 28, 2020

Kushagra Srivastava, Garima Malhotra, Manthan Chauhan, Shruti Jain	Design of Novel Hybrid Model for Detection of Liver Cancer	2020 IEEE International Conference on Computing, Power and Communication Technologies (GUCON), Greater Noida, India.	pp. 623-628	Oct 2-4, 2020
Bandana Pal, Surya Mahajan, S hruti Jain	A Comparative Study of Traditional Image Fusion Techniques with a Novel Hybrid Method	International Conference on Computational Performance Evaluation (ComPE) North - Eastern Hill University, Shillong, Meghalaya, India.	pp 820-825.	Jul 2-4, 2020
Aditya Mohan, Kushagra Srivastava, Garima Malhotra and Nafis Uddin Khan	Plant Disease Detection using Clustering based Segmentation and Neural Networks	IEEE International Conference on Parallel, Distributed and Grid Computing (PDGC 2020)		November 06 – 08, 2020
Nafis Uddin Khan, Kriti Verma, Mehak Beakta and Pragati Srivastava	A Non-intrusive Approach for Driver's Drowsiness Detection	IEEE International Conference on Parallel, Distributed and Grid Computing (PDGC 2020)		November 06 – 08, 2020
Niveditta Thakur, Nafis uddin Khan and Sunildatt Sharma	A Comparative Analysis on Edge Preserving Approaches for Image Filtering	Congress on Intelligent Systems (CIS 2020), World Conference in virtual format		September 05-06, 2020.
Vishakha Thakur, Na veen Jaglan, Samir Dev Gupta	A Review on Antenna Design for 5G Applications	2020 6th International Conference on Signal Processing and Communication (ICSC)		March 5-7 2020

Pardeep Garg and Dr. Sunil Datt Sharma	CpG Island Identification in DNA Sequences using Modified P-Spectrum based Algorithm	Advances in Smart Sensor, Signal Processing and Communication Technology 2021 (ICASSCT 2021)		March 19-20, 2021.
Diksha Thakur, VikasBaghel, Salman Raju Talluri	Robust beamforming against mismatched signal steering vector using ellipsoidal constraints.	International Conference on Parallel, Distributed and Grid Computing (PDGC)		November 6-8, 2020

- **Guest Speakers/Lectures/ Visits**

  - **Guest Speakers**

Name of Guest Speaker	Designation of speaker	Topic of Lecture	Date
Dr Shruti Jain	Associate Professor	Speaker in International Newsletter Editors' Meetup at Bangladesh	Sept 5, 2020
Ms Krittika Tewari	Wipro Technologies	Issues and Trends in Contemporary Indian Education	Aug 8, 2020
Ms Tarunam Mahajan	Masters, Duke University, US	Design Thinking for Innovation	Aug 21, 2020
Dr Ashish Sharma	Adjunct Professor, Illinois Research Climatologist	Interdisciplinary approaches to improve resiliency at scales for humans and ecosystems to thrive	Aug 29, 2020
Mr Sanjay Singh	Project Manager, Infosys Ltd.	An introduction to AR-VR (Augmented Reality-Virtual Reality) and the way its transforming the world we live in	Sept 5, 2020

Prof Celia Shahnaz	PhD SMIEEE, FIEB BUET, Dhaka, Bangladesh	Research and Innovation to Lead the smart World	Sept 10, 2020
Mr Gaurav Joshi	Performance and Optimization Expert, Nokia	Telecom Technologies, their evolution and RF optimization of KPIs	Sept 19, 2020
Mr Shubhender Singh	Embedded engineer Executive engineer in Continental AG	Advanced Driver Assistance Systems (ADAS)	Oct 3, 2020
Ms Aastha Afsar	Team Lead at Stellarix Consultancy Services, Intellectual Property Rights (IPR)	Edge Computing	Oct. 10, 2020
Dr Kriti	PhD Thapar Institute of Engineering and Technology	Analysis and Classification of Breast Abnormalities using Ultrasound Images	Oct . 24, 2020
Mr Sanjay Singh	Project Manager, Infosys Ltd.	Lecture on Cloud Computing	Jan 02, 2021

- **Lectures Delivered by Faculty**

Name of Faculty	Designation of Faculty	Topic of Lecture	Date	Venue
Dr Shruti Jain	Associate Professor	Futuristic Trends and Challenges in Biomedical Image Processing	Aug 11, 2020	STP "Recent Advances in Computational Intelligence for Signal Processing (RACISP - 2020)" from Aug 10-15,2020 organized by Department of ECE, JUIT, Solan, India

Dr Shruti Jain	Associate Professor	Smart Computational Intelligence in Health Informatics	Sep 2, 2020	One Week Faculty Development Program on Computational Intelligence Techniques for Machine Learning on dated 31st August to 5th September 2020 organized by Department of CSE & IT, JUIT, Solan, India
Dr Shruti Jain	Associate Professor	Recent Advances in Computational Intelligence for Signal Processing	Dec 17, 2021	AICTE sponsored One Week National Level Online Faculty Development Program on "Research Areas in Bio-Medical Signal Processing" dated Dec 14-19, 2020 organized by Sri Vasavi Engineering College, Tadepalligudem.
Dr Nafis Uddin Khan	Assistant Professor	Fuzzy Inference based Edge Detection and Image De-noising	August 10, 2020	Jaypee University of Information Technology, Solan, India
Dr Nishant Jain	Assistant Professor	Computer Aided Diagnosis System for Medical Images.	8th Feb 2021	GoogleMeet, Atria Institute of Technology, Bengaluru

Dr Nishant Jain	Assistant Professor	Application of Artificial Intelligence in Medical Images	Nov. 12, 2020	GoogleMeet, sponsored by AICTE and organized by Poojya Doddappa Appa College of Engineering, Kalaburagi (Gulbarga)
Dr Sunil Datt Sharma	Assistant professor	Digital Signal Processing for Genomics Data Analysis	Aug . 12, 2020	Jaypee University of Information Technology Waknaghat
Dr Vikas Baghel	Assistant Professor	Multi-objective Optimization: Fundamentals and Evolutionary Methods	Aug. 13, 2020	Jaypee University of Information Technology Waknaghat
Dr Nishant Jain	Assistant Professor	GSuit Tool for Online Learning and Tecahing	Oct. 13, 2020	ABVGIET Pragatinagar, Himachal Pradesh
Dr Nishant Jain	Assistant Professor	Machine Learning: Replicating a Human Brain	June 7, 2021	ABVGIET Pragatinagar, Himachal Pradesh

- **Recognition & Awards**

  - **By Faculty**

Name of Faculty	Designation of Faculty	Award	Date	Achievement
Dr Shruti Jain	Associate Professor	Awarded honorary "Rosalind Member of London Journals Press", Membership ID#LD66484 for research paper titled "Instance-Based Learning of Marker Proteins of Carcinoma Cells for Cell Death Survival"	July 05, 2020.	Best Paper

	Pardeep Garg and Sunil Datt Sharma	Assistant Professor	The BEST paper award of the session for the research paper presented in the conference ICASSCT 2021.	March 19-20, 2021.	Best Paper

- **Composition of Various Bodies**

  - **Board of Studies (BOS)**

S No	Name	Designation	Institution
1	Dr Rajiv Kumar	HOD, Deptt of ECE (Chairperson)	JUIT
2	Prof Samir Dev Gupta	HOD, CSE	JUIT
3	Prof Karanjeet Singh	HOD Mathematics	JUIT
4	Prof P B Barman	HOD PMS	JUIT
5	Prof A K Gupta	HOD CE	JUIT
6	Prof Sudhir Kumar	HOD BT/BI	JUIT
7	Dr Anupriya Kaur	HOD HSS	JUIT
8	Prof (Dr) Debashish Ghosh	HOD, ECE	IIT Roorkee
9	Prof (Dr) C.C. Tripathi	Prof. & HOD, ECE	University Institute of Engineering & Technology Kurukshetra University, Kurukshetra
10	Dr Balwinder Singh	Coordinator & Principal Engineer	Centre for Development of Advanced Computing-A Scientific Society of the Ministry of Communication & Information Technology, A-34, Indl Area, Phase VIII, Mohali
11	Dr Shruti Jain	Associate Professor, Deptt of ECE	JUIT
12	Dr Neeru Sharma	Asst Professor, Deptt of ECE	JUIT
13	Dr Salman Raju Talluri	Asst Professor, Deptt of ECE	
14	Dr Vikas Baghel	Asst Professor, Deptt of ECE	JUIT

15	Dr Shweta Pandit	Asst Professor, Deptt of ECE	JUIT
16	Dr Sunil Datt Sharma	Asst Professor, Deptt of ECE	JUIT

Departmental Committees' Coordinators

S. No.	ECE Dept.: Committees and Coordinators	Faculty Name
1	PhD Coordinator	Dr Rajiv Kumar
2	MTech Coordinator	Dr Vikas Baghel
3	MTech Seminar Coordinator	Dr Vikas Baghel
4	BTech Coordinator	Dr Naveen Jaglan Dr Emjee Puthooran
5	Placement Coordinator	Dr Nafis uddin Khan
6	Department Club Coordinator	Dr Nishant Jain Dr Harsh Sohal
7	BOS Coordinator	Dr Shruti Jain
8	NAAC Coordinator	Dr Shruti Jain Dr Naveen Jaglan
9	NBA Coordinator	Dr Shruti Jain Dr Naveen Jaglan
10	Library Coordinator	Dr. Salman Raju Talluri
11	Student Exchange Data Management Coordinator	Mr Munish Sood
12	Prgram Assessment and Quality Improvement Committee Coordinator	Dr Rajiv Kumar Dr Naveen Jaglan
13	Virtual Lab	Dr Rajiv Kumar
14	MOOC/SWAYAM courses Coordinator	Dr Naveen Jaglan
15	Course Curriculm Evaluation Coordinator	Dr. Rajiv Kumar Dr. Naveen Jaglan
16	Academically Weak Students Committee	Dr Nishant Jain Dr Sunil Datt Sharma Dr Alok Kumar Mr Pradeep Garg
17	Consultative Committee	Dr Rajiv Kumar Dr Shruti Jain Dr Naveen Jaglan Dr Neeru Sharma Dr Nishant Jain

18	Website Maintanencce Coordinator	Dr Nishant Jain Dr Shweta Pandit
19	Lab Incharge	Dr Rajiv Kumar
20	Research Publications, Patents and IPR	Dr Alok Kumar
21	Attendance Review Coordinator	Mr Alok Kumar
22	Feedback of Students Coordinator	Dr Harsh Sohal
23	Mentoring Coordinator	Dr Sunil Datt Sharma
24	Expert lecture/ Workshop organised/ Seminar data collection Coordinator	Dr Sunil Datt Sharma
25	Course Files/Lab files Coordinator	Dr Salman Raju Talluri
26	Faculty Project Proposal I/C	Dr Rajiv Kumar Dr Naveen Jaglan
27	Hilly Ramblings Coordinator	Ms Pragya Gupta
28	Result Coordinator	Dr Rajiv Kumar
29	Finance Coordinator	Mr Pardeep Garg
30	M-Tech Load Distribution	Dr Naveen Jaglan
31	M-Tech/ PhD Stipend Coordinator	Dr Neeru Sharma
32	Member Seceretary (Departmental Affairs)	Dr Shweta Pandit
33	Gender Champion (UGC Program)	Dr Neeru Sharma
34	Stock Verification	Dr Shruti Jain Ms Pragya Gupta
35	Data from Final Year (GATE, Exit Survey, Foriegn University Admission etc)	Dr Neeru Sharma Mr Pradeep Garg
36	Database of Visitors	Dr Alok Kumar
37	Ph.D Examiner Database	Dr Naveen Jaglan
38	Project Monitoring Committee	Dr Rajiv Kumar Dr Naveen Jaglan
39	Mock Interviews	Dr Nafis uddin Khan Dr Sunil Datt Sharma Dr Harsh Sohal Dr Emjee Puthooran
40	Course Curriculum Revision Committee	Dr Rajiv Kumar Dr Shruti Jain Dr Naveen Jaglan Dr Nishant Jain Dr Shweta Pandit

41	List of Department Faculty and Biodata	Dr Salman Raju Talluri
42	Industrial Training Relation Officer	Dr Nafis uddin Khan
43	Department Annual Report Coordinator	Dr Neeru Sharma Dr Shweta Pandit
44	Research Lab Coordinator	Dr Rajiv Kumar Dr Shruti Jain
45	Departmental Quality Assuarnce Committee	Dr Rajiv Kumar Dr Shruti Jain Dr Emjee Puthooran Dr Naveen Jaglan Dr Sunil Datt Sharma Dr Vikas Bhagel
46	Summer Training Coordinator	Dr Nafis uddin Khan
47	Outreach Activities Coordinator	Dr Naveen Jaglan
48	Institutional Ethics Committee	Dr Emjee Puthooran
49	Store Management Committee	Dr Emjee Puthooran Mr Pramod Kumar
50	Purchase Committtee	Dr Rajiv Kumar Dr Shruti Jain Dr Naveen Jaglan Dr Neeru Sharma Ms Pragya Gupta
51	Committee for Minor Courses	Dr Rajiv Kumar Dr Naveen Jaglan Dr Neeru Sharma Dr Vikas Baghel
52	Modernization and upgradation of Laboraties	Dr Rajiv Kumar Dr Nishant Jain Dr Shweta Pandit Dr Vikas Baghel
53	Comittee for Proficiency Courses	Dr Rajiv Kumar Dr Shruti Jain Dr Nafis uddin Khan Dr Naveen Jaglan Dr Shweta Pandit
54	Academically Weak Students Committee (5th & 6th year Students)	Dr Shruti Jain Dr Sunil Datt Sharma

DEPARTMENT OF COMPUTER SCIENCE ENGINEERING & INFORMATION TECHNOLOGY

- ## Department Vision and Mission

  - ### Vision:

  To become a Center of Excellence in the computer sciences and information technology discipline with a strong research and teaching environment that adapts swiftly to the challenges of the 21st century.

  - ### Mission:

    M1. To provide qualitative education and generate new knowledge by engaging in cutting-edge research and by offering state-of-the-art undergraduate, postgraduate and doctoral programmes, leading to careers as Computer and IT professionals in the widely diversified domains of industry, government and academia.

    M2. To promote a teaching and learning process that yields advancements in state-of-the-art in computer science and information technology, resulting in integration of research results and innovations into other scientific disciplines leading to new technologies and products.

    M3. To harness human capital for sustainable competitive edge and social relevance by inculcating the philosophy of continuous learning and innovation in Computer Science and IT.

- ## Faculty Details

  All faculty, their qualification and specialization as Appendix B

Name	Qualification	Specialization
Prof Dr Samir Dev Gupta	PhD	Conformal Microstrip Patch Antenna for Aircraft Systems
Dr Hemraj Saini	PhD	Network Security, Information security, Cyber Security
Dr Pardeep Kumar	PhD	Computational and Machine Intelligence
Dr Pradeep Kumar Gupta	PhD, Post-Doctorate	Internet-of-Things, Sustainable Computing
Dr Rajni Mohana	PhD	Software engineering, Sentiment analysis , Health informatics
Dr Ravindara Bhatt	PhD	Sensor Networks: Deployment modeling, communication and energy efficient algorithms.

Dr Vivek Sehgal	PhD	Embedded Systems, Advanced Computer Architecture
Dr Amit Kumar	PhD	Software Effort Estimation, Defect Prediction
Dr Amol Vasudeva	PhD	Various attacks in MANETs, VANETs and Sensor Networks and their detection
Dr Ekta Gandotra	PhD	Malware Threat Profiling, Cyber Threat Intelligence
Dr Geetanjali	PhD	Network security, Blockchain Technology, Fog computing, Industrial IoT
Dr Hari Singh	PhD	Distributed and Parallel Computing, Grid Computing
Dr Himanshu Jindal	PhD	Wireless Sensor Networks, Efficient Data Transmission, Digital Image Processing
Dr Jagpreet Sidhu	PhD	Distributed computing, Grid Computing, Cloud Computing
Dr Kapil Sharma	PhD	Data Center Network, Software defined network
Dr Mrityinjay Singh	PhD	Database system, Dataspace System and PAY-AS-YOU-GO data Integration
Dr Rajinder Sandhu	PhD, Post Doctorate	Cloud computing, fog computing, machine learning
Dr Rakesh Kanji	PhD	Personalized medicine, Natural language processing
Dr Ruchi Verma	PhD	Information systems, social networks
Dr Yugal Kumar	PhD	meta heuristic algorithms, swarm intelligence, pattern recognition
Dr Aman Sharma	PhD	Machine learning, bioinformatics, artificial intelligence, deep learning and data analytics
Mr Arvind Kumar	PhD (Pursuing)	Internet of Things, Computer Networks, Algorithms
Dr Monika Bharti	PhD	Cloud computing, networking, and Internet-of-Things
Dr Rizwan ur Rehman	PhD	Data mining, cyber security
Mr Praveen	PhD	Data Mining with Statistical Analysis

Modi	(Pursuing)	
Mr Prateek Thakral	PhD (Pursuing)	Graph theory, discrete mathematics
Mr Surjeet Singh	PhD (Pursuing)	Computer networks, mobile computing

- **Programs**

   Undergraduate Programs

   At the undergraduate level, the Department lays emphasis on theoretical and practical aspects of object-oriented programming, software engineering, Computer organization & architecture, database management, operating systems, theory of computation, compiler design, computer graphics, computer networks and Microprocessors and microcontrollers. The department provides exposure to emerging technologies as well as futuristic technologies like nanotechnology, quantum computing, bioinformatics, genetic algorithms and parallel programming.

   ✓ New Courses introduced during the year

S No	Title of New Course	Course Code
1	Software Engineering Practices	Core
2	Software Engineering Practices Lab	Core
3	Foundation for Data Science and Visualization	Elective
4	Foundation for Data Science and Visualization Lab	Elective
5	Graph to knowledge graph	Elective
6	Graph to knowledge graph lab	Elective
7	Computational data analysis	Elective
8	Computational data analysis lab	Elective
9	Optimization methods in business analytics	Elective
10	Social and information network analysis	Elective
11	Game Development and Design	Elective
12	Game Development and Design Lab	Elective
13	Introduction to C++ Programming	Open Elective
14	Introduction to C++ Programming Lab	Open Elective
15	Object-Oriented Technologies using Java	Open Elective
16	Object-Oriented Technologies using Java Lab	Open

		Elective
17	Software Testing Methodologies	Open Elective
18	Software Testing Methodologies Lab	Open Elective
19	Software Defined Network	Open Elective
20	Introduction to Statistical learning	Open Elective

- **PhD Program**

The award of the PhD degree 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. Algorithms, Artificial Intelligence, Computer Networks, Computer Systems Architecture, Cyber Security, Software Engineering and Information Systems, Image Information Processing, Parallel and Distributed Computing, Database systems and Datamining.

- **Lab Facilities**

New Labs

Lab No.	Lab Name
NIL	NIL

New Equipments

Lab No.	Equipment Name
CL3	2 Nos. Logitech Web Cam 2 Nos. Headphones
CL4	1 Nos. Logitech Web Cam 1 Nos. Headphone
CL5	Webcam- 02 no. Headphone- 02 no.
CL6	Webcam- 01 no. Headphone- 01 no.
CL7	Head Phone (Qty 1), Camera(Qty 1)
CL8	Head Phone (Qty 1), Camera(Qty 1)
CL9	Tablet writing Pad Webcam- 03 no. Headsets- 03 no.

- **Lab Staff with qualification**

S. No.	Name	Qualification	Designation
1	Sh Shiv Kumar Gupta	Pre PhD Course (CS), MPhil. (CS), MCA, MSc (Mathematics)	Sr. Lab Engineer
2	Sh Ashok Kishtwal	MTech (CSE)	Sr. Lab Engineer
3	Sh Rohit	MPhil(CS), MCA, MSc(IT), PGDCA, PGDBI, GNIIT	Lab Engineer
4	Ms Anshul Sood	MTech (CSE), MCA, ADCA, PGDCA, Diploma in e-commerce, DISM	Sr. Lab Technician
5	Sh Vijay Kumar	MCA, A LEVEL, APGDIT	Sr. Lab Technician
6	Sh Hardeep Singh	Diploma in Computer Engg, B.com, MS-CIT,MCA Pursuing	Sr. Lab Technician
7	Sh Mohan Sharma (Associated with ECE Dept)	BCA, Diploma in H/N,CCNA	Lab Technician
8	Sh Ranvijai Singh	MA, ADCA,PGDCA	Lab Technician
9	Sh Ravi Raina	3 Years Diploma in Computer, BCA, MCSE and Network+: Concepts and Application Complete	Lab Assistant
10	Sh Rajesh Kumar Sahu (Associated with Civil Dept)	3 Years Diploma in Computer Science and Engg., BCA	Lab Assistant
11	Sh Vineet Paliwal	Diploma In Computer H/W and Networking, BCom	Lab Assistant
12	Sh Arun Kumar Guleria	BTech CSE, 3-Years Diploma in Computer Engg	Jr. Lab Assistant
13	Sh Sanjeev Kumar	ME in CSE(Pursuing), BTech in CSE, 3-Years Diploma in Computer Engg.	Jr. Lab Assistant

- **Research Projects Sanctioned during the Academic Year/In Progress**

S No	Name of Faculty	Project title	Funding Agency	Amount sanctioned	Duration	Current Status
1	Dr Yugal Kumar	-	HPDEST	10 Lakh		In progress

- **Conferences, Seminars and Workshops/Faculty development program**
  Conferences

Conferences Organized

Dates	Subject	Venue	Participation	Remarks
06-08 November, 2020	Sixth International Conference on Parallel, Distributed and Grid Computing (PDGC)	Jaypee University of Information Technology, Waknaghat	Worked in Inauguration, Reviewer, Registration Committee Member, Hospitality Committee	Dr Geetanjali
06-08 November, 2020	Sixth International Conference on Parallel, Distributed and Grid Computing (PDGC)	Jaypee University of Information Technology, Waknaghat	250 /national and International Participants	Dr Hemraj Saini
06-08 November, 2020	Sixth International Conference on Parallel, Distributed and Grid Computing (PDGC)	Jaypee University of Information Technology, Waknaghat	Conference Chair	Dr Hari Singh, worked as Session Chair and Reviewer
23–24 April, 2021	5th International Conference on Advances in Computing and Data Sciences (ICACDS)-2021	MVPS'S Karmaveer Adv. BaburaoGanpatraoThakare College of Engineering, Nashik, Maharashtra,	Dr. P.K. Gupta	Advisory Board Chair
06-08 November, 2020	Sixth International Conference on Parallel, Distributed and Grid Computing (PDGC)	JUIT, Solan, HP	Dr P K Gupta	Session Chair

06-08 November, 2020	2nd International Conference on Machine learning and Information processing, (ICMLIP 2020)	Vardhman College of Engineering, Hyderabad	Dr P K Gupta	Session Chair
06-08 November, 2020	Sixth International Conference on Parallel, Distributed and Grid Computing (PDGC)	Virtual Mode	Member (Dr Pardeep Kumar)	Organized by JUIT, Department CSE&IT
06-08 November, 2020	Sixth International Conference on Parallel, Distributed and Grid Computing (PDGC)	Department of Computer Science & Engineering and Information Technology Jaypee University of Information Technology	Publications Committee	Dr. Aman Sharma
06-08 November, 2020	Sixth International Conference on Parallel, Distributed and Grid Computing (PDGC)	Jaypee University of Information Technology, Waknaghat	Also worked as Session Chair and Reviewer, Registration Committee Member, Hospitality Committee	Dr Himanshu Jindal
06-08 November, 2020	Sixth International Conference on Parallel, Distributed and Grid Computing (PDGC)	Jaypee University of Information Technology, Waknaghat	Also worked as Session Chair and Reviewer, Registration Committee Member, Hospitality Committee	Dr Monika Bharti

Details of PDGC 2020 (6-8 November 2020)
Dr Hemraj Saini
Conference General Chair- PDGC 2020

Key note speakers
1. Official Name: Dr Tamas Kiss
    Affiliations: Professor, School of Computer Science and Engineering, University of Westminster
    115 New Cavendish Street, London, W1W 6UW, Room 7.118

2. Official Name: Prof (Dr) David (Bong Jun) Choi
    Affiliation: College of Information Technology, Soongsil University, Seoul, Korea

3. Official Name: Prof (Dr) Rahul Katarya
    Affiliation: Department of Computer Science & Engineering, Delhi Technological University (Formerly Delhi College of Engineering)

4. Official Name: Dr Neha Sharma.
    Affiliation: Analytics & Insights, Tata Consultancy Services, Founder Secretary, Society for Data Science

5. Official Name: Dr Neha Sharma.
    Affiliation: Analytics & Insights, Tata Consultancy Services, Founder Secretary, Society for Data Science

6. Official Name: Dr Shailendra Mishra.
    Affiliation: Professor, College of Computer & Information Sciences, Majmaah University, Saudi Arabia

7. Official Name: Dr Dinesh Kumar Saini.
    Affiliation: Ex-Dean and Coordinator BIT Program, Faculty of Computing and Information Technology, Sohar University

Photographs taken during conference

- **CONFERENCES**

Conferences Attended

Dates	Subject	Venue	Faculty Name	Remarks
06-08 November, 2020	Sixth International Conference on Parallel, Distributed and Grid Computing (PDGC)	Jaypee University of Information Technology, Waknaghat	Dr Geetanjali	
06-08 November, 2020	International Conference on Cutting-Edge Technologies in Computing & Communication Engineering	NIT Kurukshetra (Online Mode)	Mr Prateek	IC4E 2020
15, December, 2020	2nd International Conference on Engineering, Technology and Management in the Digital Era (ICETMDE'20)	Online	Dr Mrityunjay Singh	Session Chair
06-08 November, 2020	Sixth International Conference on Parallel, Distributed and Grid Computing (PDGC)	Jaypee University of Information Technology, Waknaghat	Dr Mrityunjay Singh	Session Chair
25-27, March, 2021	International Conference on Artificial Intelligence and Smart Systems	Coimbatore	Dr Mrityunjay Singh	Attended (online)
14-15 May, 2021	3rd International Conference on Data & Information Sciences	Agra	Dr Mrityunjay Singh	Attended (online)
4-5, June, 2021	9th International Conference on Recent Trends in Computing (ICRTC-2021)	Ghaziabad	Dr Mrityunjay Singh	Attended (online)
06-08 November, 2020	Sixth International Conference on Parallel, Distributed and Grid Computing (PDGC)	Jaypee University of Information Technology, Waknaghat	Dr Hemraj Saini	

06-08 November, 2020	Sixth International Conference on Parallel, Distributed and Grid Computing (PDGC)	Jaypee University of Information Technology, Waknaghat	Dr Hari Singh	
12-15 May, 2020	International e-Conference on Post COVID-19 Start-up Ecosystem and Entrepreneurship Opportunities	The ICFAI University, Jaipur	Dr P K Gupta	Attended
06-08 November, 2020	Sixth International Conference on Parallel, Distributed and Grid Computing (PDGC)	Jaypee University of Information Technology, Waknaghat	Dr PK Gupta	Attended
28-30 November, 2020	2nd International Conference on Machine learning and Information processing, (ICMLIP 2020)	Vardhman College of Engineering, Hyderabad	Dr P K Gupta	Attended
06-08 November, 2020	Sixth International Conference on Parallel, Distributed and Grid Computing (PDGC)	Jaypee University of Information Technology, Waknaghat	Ravindara Bhatt	Presented Paper (Virtual Mode)
10-12 September, 2020	International Conference on Smart Electronics and Communication (ICOSEC), 2020	Kongunadu College of Engineering and Technology, Trichy, India	Amol Vasudeva	Presented the paper
06-08 November, 2020	Sixth International Conference on Parallel, Distributed and Grid Computing (PDGC)	Jaypee University of Information Technology, Waknaghat	Dr Pardeep Kumar	Session Chair
06-08 November, 2020	Sixth International Conference on Parallel, Distributed and Grid Computing (PDGC)	Jaypee University of Information Technology, Waknaghat	Dr Aman Sharma	

06-08 November, 2020	Sixth International Conference on Parallel, Distributed and Grid Computing (PDGC)	Jaypee University of Information Technology, Waknaghat	Dr Himanshu Jindal	
06-08 November, 2020	Sixth International Conference on Parallel, Distributed and Grid Computing (PDGC)	Jaypee University of Information Technology, Waknaghat	Dr Monika Bharti	
06-08 November, 2020	Sixth International Conference on Parallel, Distributed and Grid Computing (PDGC)	Jaypee University of Information Technology, Waknaghat	Mr Praveen Modi	

- **Seminars Attended**

Dates	**Subject**	**Venue**	**Faculty Name**	**Remarks**
17 October, 2020	Patents, Innovations and Start ups	JUIT	Dr P K Gupta	Attended
12 August, 2020	Atal Bihari Vajpayee University Bilaspur(C.G.),India is organizing One Day National Webinar on NEW EDUCATION POLICY Date-12.08.2020	Virtual Mode	Dr Ravindara Bhatt	Virtual Mode
19-23, August, 2020	AICTE Incorporating Universal Human Values in Education (An AICTE Initiative)	Virtual Mode	Dr Ravindara Bhatt	Virtual Mode
8 August, 2020	Webinar on Robotic Automation and its Significance, 8th August 2020 at 4:00 PM-5:00 PM	Virtual Mode	Dr. Ravindara Bhatt	Virtual Mode
29 August, 2020	Nutrition for general health and fitness, 29th Aug 2020	Virtual Mode	Dr Ravindara Bhatt	Virtual Mode
29 August, 2020	Nutrition for general health and fitness, 29th Aug 2020	Virtual Mode	Amol Vasudeva	Virtual Mode

08 August, 2020	Webinar on Unleashing Data Science and AI	Bharathi Vidyapeeth's Institute of Computer Applications and Management	Dr Himanshu Jindal	
15 August, 2020	Webinar on Citations and Reference Management using Mendeley	Bharathi Vidyapeeth's Institute of Computer Applications and Management	Dr Himanshu Jindal	
22 August, 2020	Webinar on "Is Edge Computing, the savior of IoT?"	Bharathi Vidyapeeth's Institute of Computer Applications and Management	Dr Himanshu Jindal	
28 August, 2020	Webinar on "How to Write Technical Books?"	Bharathi Vidyapeeth's Institute of Computer Applications and Management	Dr Himanshu Jindal	
05 September, 2020	Webinar on Research Methodology	Bharathi Vidyapeeth's Institute of Computer Applications and Management	Dr Himanshu Jindal	
12 September, 2020	Webinar on Robotics and Automation Processes	Bharathi Vidyapeeth's Institute of Computer Applications and Management	Dr Himanshu Jindal	
18 September, 2020	Webinar on Cyber Warfare, Cyber Security and Cyber Citizenship	Bharathi Vidyapeeth's Institute of Computer Applications and Management	Dr Himanshu Jindal	

08 August, 2020	Webinar on Unleashing Data Science and AI	Bharathi Vidyapeeth's Institute of Computer Applications and Management	Dr Monika Bharti	
15 August, 2020	Webinar on Citations and Reference Management using Mendeley	Bharathi Vidyapeeth's Institute of Computer Applications and Management	Dr Monika Bharti	
22 Aug, 2020	Webinar on "Is Edge Computing, the savior of IoT?"	Bharathi Vidyapeeth's Institute of Computer Applications and Management	Dr Monika Bharti	
28 Aug, 2020	Webinar on "How to Write Technical Books?"	Bharathi Vidyapeeth's Institute of Computer Applications and Management	Dr Monika Bharti	
05 September, 2020	Webinar on Research Methodology	Bharathi Vidyapeeth's Institute of Computer Applications and Management	Dr Monika Bharti	
12 September, 2020	Webinar on Robotics and Automation Processes	Bharathi Vidyapeeth's Institute of Computer Applications and Management	Dr Monika Bharti	
18 September, 2020	Webinar on Cyber Warfare, Cyber Security and Cyber Citizenship	Bharathi Vidyapeeth's Institute of Computer Applications and Management	Dr Monika Bharti	

Workshops/MOOCs

- **Workshops Organized**

Dates	Subject	Venue	Participation	Remarks
16 April 2021	Teaching Learning process and Effective Online Teaching by Dr U S Sahu	Online	90	Dr Rajinder Sandhu, All university faculty attended
10 March 2021	Opportnities in Online Education by Dr Manpreet Singh Manna	Online	150	Dr Rajinder Sandhu as organizer for JUIT
20-25 March, 2021	Research and Innovation Showcase (RAISE)	Jaypee University of Information Technology	23 innovations submitted from various part of the Nation	Dr Hemraj Saini
08-13 March, 2021	Women Innovations and IPR	Jaypee University of Information Technology	4 Speakers and 40 participants were there	Dr Hemraj Saini
26 April, 2021	IP awareness and theme of the year – Critical role of small and medium sized enterprises	Jaypee University of Information	95 faculties, researchers, staff, and students of various universities/ institutes attended the event	Dr Hemraj Saini

- **Workshops/MOOCs Attended**

Dates	Subject	Venue	Faculty Name	Remarks
26 May 2021	Extreme Gradient Boosting with XGBoost	MOOC, Data Camp	Dr Rajinder Sandhu	Sergey Fogelson VP of Analytics and Measurement Sciences, Viacom
01 April 2021	Linear Classifiers in Python	MOOC, Data Camp	Dr Rajinder Sandhu	Mike Gelbart Instructor, the University of British Columbia

27 May 2021	Cluster Analysis in Python	MOOC, Data Camp	Dr Rajinder Sandhu	ShaumikDaityari Business Analyst at American Express
July to Dec 2020	Introduction to Programming in C	Virtual Mode	Dr Ravindara Bhatt	
July to Dec 2020	Python for Data Science	Virtual Mode	Dr Ravindara Bhatt	
July to Dec 2020	Introduction to Machine Learning	Virtual Mode	Dr Ravindara Bhatt	
July to Dec 2020	Introduction to Machine Learning	Virtual Mode	Dr Amol Vasudeva	
July 2020	Attended Two weeks online Faculty Development Programme on "Machine Learning for Computer Vision" jointly organized by Electronics and ICT Academies during June 29 - July 8, 2020	Virtual Mode	Dr Aman Sharma	
July 2020	Attended Webinar on Internet of Things (IoT) – Industrial Perspective (11 July, 2020) organized by BVICAM, New Delhi	Virtual Mode	Dr Aman Sharma	
July 2020	Attended Webinar on BlockChain – Technological Perspective (18 July, 2020) organized by BVICAM, New Delhi	Virtual Mode	Dr Aman Sharma	
July 2020	Attended Webinar on Sustainable IOT as part of the OPJU IEEE TECH WEB SERIES held on 4th July, 2020		Dr Aman Sharma	
July 2020	Attended Online 5-day Continuing Education Program entitled "Current Aspects and Research Opportunities in Civil		Dr Aman Sharma	

Dates	Subject	Venue	Participation	Remarks
	Engineering", organized by JUIT, Solan, H.P, India			
September, 2020	Attended Machine Learning Course by Acadepro, India		Dr Aman Sharma	
September, 2020	Attended Two week FDP on Python Programming, IIITDM, Jabalpur		Dr Aman Sharma	
November, 2020	Attended Session Chair "2020 Sixth International Conference on Parallel, Distributed and Grid Computing (PDGC)" JUIT, Solan, H.P, India		Dr Aman Sharma	
August 10- August 15, 2020	Recent Advances in Computational Intelligence for Signal Processing	JUIT	Dr Himanshu Jindal	
August 24, 2020 to August 28, 2020	Exploring Potential: STC on 2020 research advances towards generating leading investigators	NIT, Jalandhar	Dr Himanshu Jindal	
August 10- August 15, 2020	Recent Advances in Computational Intelligence for Signal Processing	JUIT	Dr Monika Bharti	
August 24, 2020 to August 28, 2020	Exploring Potential: STC on 2020 research advances towards generating leading investigators	NIT, Jalandhar	Dr Monika Bharti	

FDPs

- ### FDPs Organized

Dates	Subject	Venue	Participation	Remarks
31 August-05 Septembe	Computational Intelligence Techniques for	Department of CSE & IT, Jaypee University of	110	Dr Pardeep Kumar

r 2010	Machine Learning	Information Technology, Waknaghat, Solan, HP, India		
August 2020	Organized Faculty Development Program on "Ambient Technologies: State-of-Art, Challenges, and Future Directions", organized by JUIT, Solan, H.P, India			Dr Aman Sharma
July 27, 2020 - August 8, 2020	Ambient Technologies: State-of-Art, Challenges and Future Directions	Jaypee University of Information Technology	65	Dr Himansh u Jindal
August 31, 2020 to September 5, 2020	Computational Intelligence Techniques for Machine Learning	Jaypee University of Information Technology	100+	Dr Himansh u Jindal
July 27, 2020 - August 8, 2020	Ambient Technologies: State-of-Art, Challenges and Future Directions	Jaypee University of Information Technology	65	Dr Monika Bharti
August 31, 2020 to September 5, 2020	Computational Intelligence Techniques for Machine Learning	Jaypee University of Information Technology	100+	Dr Monika Bharti
31 august- 05 Sept. 2020	CITML	Jaypee University of Information Technology	110	Dr Yugal
September 7-18, 2020	Coordinated an FDP on "Python Programming" organized by Electronics and ICT Academy, IIITDM Jabalpur (An initiative of the (MeitY), Govt. of India)	Virtual mode	Coordinated	Dr Ekta
June 29- July 8, 2020	Coordinated an FDP on "Machine Learning for Computer Vision" organized by	Virtual mode	Coordinated	Dr Ekta

Electronics and ICT Academy, IIITDM Jabalpur (An initiative of the (MeitY), Govt. of India)			

- **FDPs Attended**

Dates	Subject	Venue	Faculty Name	Remarks
15-27 Feb 2021	Data Science	Online Mode, Organized by E & ICT Academy, IIT Kanpur	Mr Prateek	
21-27 Dec 2020	Advanced Excel with Data Visualization	Online Mode, Organized by E & ICT Academy, IIT Kanpur	Mr Prateek	
26-30 Sep 2020	Semantic Intelligence: Applications & Perspectives	Online Mode, NIT Kurukshetra	Mr Prateek	AICTE ATAL
11-15 Sep 2020	Machine Learning using Python	Online Mode, NIT Jalandhar	Mr Prateek	TEQIP III
15-27 February, 2021	Data Science (AI + ML)	Online mode, organized by E&ICT Academy, IIT Kanpur	Dr Hari Singh	
11-16 January, 2021	Advanced Excel with Data Visualization	Online mode, organized by E&ICT Academy, IIT Kanpur	Dr Hari Singh	
December 28, to January 08, 2021	Machine Learning	Online mode, organized by E&ICT Academy, IIT Kanpur	Dr Hari Singh	
August 31 to September 05, 2020	Computational Intelligence Techniques for Machine Learning	CSE & IT Department, JUIT	Dr Hari Singh	
10-15 August, 2020	Recent Advances in Computational Intelligence for Signal Processing	ECE Department, JUIT	Dr Hari Singh	
July 27 to August	Data Science for All	Online mode, IIITDM, Jabalpur	Dr Hari Singh	

08, 2020				
4th Jan – 9th Jan 2021	Essentials of Emerging Technologies (AI/ML/Deep Learning & Big Data)	ABES Engineering College, Ghaziabad	Dr P K Gupta	Resource Person
15-20 June,2020	Transforming Education with Industry 4.0	JUIT	Dr P K Gupta	Attended
27th July to 08 Aug 2020	FDP Data Science for All From 27th July to 08 Aug 2020 (40 Hours)	Virtual Mode	Dr Ravindara Bhatt	Conducted by Electronics and ICT Academics – NIT Warangal, IIITDM Jabalpur, and NIT Patna
Monday (10th Aug 2020) to Friday (14th Aug 2020)	Online FDP for G Suite is scheduled from Monday (10th Aug 2020) to Friday (14th Aug 2020)	Virtual Mode	Dr Ravindara Bhatt	Conducted by JUIT
31st August to 5th September 2020	FDP-CITML Privacy Preservation in Machine Learning Organized by JUIT, Department of CSE&IT, 31st August to 5th September 2020	Virtual Mode	Dr Ravindara Bhatt	Conducted by JUIT
15th Feb 2021 to 27th Feb 2021	Faculty Development Program on Data Science from 15th Feb 2021 to 27th Feb 2021 (2 weeks)	Virtual Mode	Dr Ravindara Bhatt	Conducted by E & ICT Academy, IIT Kanpur
5th April 2021 to 10th April 2021	Faculty Development Program on Python from 5th April 2021 to 10th April 2021 (1 week)	Virtual Mode	Dr Ravindara Bhatt	Conducted by E & ICT Academy, IIT Kanpur
Monday (10th Aug 2020) to	Online FDP on G Suite	Virtual Mode	Dr Amol Vasudeva	Conducted by JUIT

Friday (14th Aug 2020)				
31st August to 5th September 2020	FDP-CITML Privacy Preservation in Machine Learning Organized by JUIT, Department of CSE&IT, 31st August to 5th September 2020	Virtual Mode	Dr Amol Vasudeva	Conducted by JUIT
31 August- 05 September 2010	Computational Intelligence Techniques for Machine Learning	Department of CSE & IT, Jaypee University of Information Technology, Waknaghat, Solan, HP, India	Dr Pardeep Kumar	
15-20 June, 2020	Transforming Education with Industry 4.0	Jaypee University of Information Technology	Dr Himanshu Jindal	
June 29, 2020 to July 8, 2020	Machine Learning for Computer Vision	EICT, IIITDM Jabalpur	Dr Himanshu Jindal	
July 27, 2020 to August 8, 2020	Ambient Technologies: State-of-Art, Challenges and Future Directions	Jaypee University of Information Technology	Dr. Himanshu Jindal	
August 17, 2020 to August 21, 2020	Current Research Trends in Computer Science	Chitkara University	Dr Himanshu Jindal	
August 31, 2020 to September 5, 2020	Computational Intelligence Techniques for Machine Learning	Jaypee University of Information Technology	Dr Himanshu Jindal	
10-12 September, 2020	Artificial Intelligence and Machine Learning using Python	Anand International College of Engineering (TEQIP-III)	Dr Himanshu Jindal	
14-18 September, 2020	Wearable Devices	Kongu Engineering College, AICTE Training and Learning (ATAL) Academy	Dr Himanshu Jindal	
05-08 October,	Green Technology & Sustainability	Netaji Subhas University of	Dr Himanshu	

2020	Engineering	Technology, AICTE Training and Learning (ATAL) Academy	Jindal	
15-20 June, 2020	Transforming Education with Industry 4.0	Jaypee University of Information Technology	Dr Monika Bharti	
June 29, 2020 to July 8, 2020	Machine Learning for Computer Vision	EICT, IIITDM Jabalpur	Dr Monika Bharti	
July 27, 2020 to August 8, 2020	Ambient Technologies: State-of-Art, Challenges and Future Directions	Jaypee University of Information Technology	Dr Monika Bharti	
17-21 August, 2020	Current Research Trends in Computer Science	Chitkara University	Dr Monika Bharti	
August 31, 2020 to September 5, 2020	Computational Intelligence Techniques for Machine Learning	Jaypee University of Information Technology	Dr Monika Bharti	
10-12 September, 2020	Artificial Intelligence and Machine Learning using Python	Anand International College of Engineering (TEQIP-III)	Dr Monika Bharti	
14-18 September, 2020	Artificial Intelligence	North Eastern Regional Institute of Science & Technology, AICTE Training And Learning (ATAL) Academy	Dr Monika Bharti	
3-7 October, 2020	Cyber Security and Forensics	Gautam Buddha University, AICTE Training And Learning (ATAL) Academy	Dr Monika Bharti	
12-16 October, 2020	GIS & Remote Sensing	Goa University, AICTE Training And Learning (ATAL) Academy	Dr Monika Bharti	
23-27 November, 2020	"Artificial Intelligence" organized by AICTE Training And Learning (ATAL) Academy at ABV - Indian Institute of Information Technology and Management Gwalior	Virtual mode	Dr Ekta Gandotra	

		Virtual mode	Dr Ekta Gandotra	
15-20 July, 2020	Transforming Education with Industry 4.0 conducted by Department of CSE and IT, JUIT, Waknaghat, HP			

- **Publications**

- **Journal Publications**

Name of Faculty	Title of Article	Name of Journal	Reference	Citation
Dr Geetanjali Rathee	On the Design and Implementation of a Blockchain Enabled E-Voting Application within IoT-oriented Smart Cities	IEEE Access		
	A trusted social network using hypothetical mathematical model and decision-based scheme	IEEE Access		
	A Decision-Making Model for Securing IoT Devices in Smart Industries	IEEE Transactions on Intelligent Transportation Systems		
	Trusted Orchestration for Smart Decision-Making in Internet-of-Vehicles	IEEE Access		
	Trusted Computation using ABM and PBM Decision Models for ITS	IEEE Access		
	An IoT-based Secure Vaccine Distribution System Through Blockchain Network.	IEEE Magazine of Internet of Things		
	On the design and implementation of a secure blockchain-based hybrid framework for Industrial Internet-of-Things	Information Processing and Management		
Dr Rajinder Sandhu	A scalable framework for smart COVID surveillance in the workplace using Deep Neural Networks and cloud computing	Expert Systems, Wiley	Singh, A, Jindal, V, Sandhu, R, Chang, V. A scalable framework for smart COVID	

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			surveillance in the workplace using Deep Neural Networks and cloud computing. Expert Systems. 2021;e12704.	
	On the design and implementation of a secure blockchain-based hybrid framework for Industrial Internet-of-Things	Information Processing & Management, Elsevier	Geetanjali Rathee, Farhan Ahmad, Rajinder Sandhu, Chaker Abdelaziz Kerrache, Muhammad Ajmal Azad, On the design and implementation of a secure blockchain-based hybrid framework for Industrial Internet-of-Things, Information Processing & Management, Volume 58, Issue 3, 2021.	
	QoE-Based Multi-Criteria Decision Making for Resource Provisioning in Fog Computing Using AHP Technique	International Journal of Knowledge and Systems Science (IJKSS)	Varshney, S., Sandhu, R., & Gupta, P. K. (2020). QoE-Based Multi-Criteria Decision	

			Making for Resource Provisioning in Fog Computing Using AHP Technique. International Journal of Knowledge and Systems Science (IJKSS), 11(4), 17-30.	
Dr Mrityunjay Singh	Sentiment analysis on the impact of coronavirus in social life using the BERT model	Social Network Analysis and Mining		
Dr Hemraj Saini	Design of fuzzy controlled routing protocol to save energy in ad hoc networks	International Journal of Services, Technology and Management	27 (1/2), 51-71, 2021	
	Security and Trust Model Analysis for Banking System	International Journal of Sensors, Wireless Communications and Control	11(10): 135 – 145, 2020	
	Minimizing Energy Consumption and SLA Violation in Fog Computing Using Artificial Neural Network	International Journal of Sensors, Wireless Communications and Control	10(5): 640 - 648, 2020	
	Probabilistic and Fuzzy based Efficient Routing Protocol for Mobile Ad Hoc Networks	Recent Advances in Computer Science and Communications (Formerly: Recent Patents on Computer Science)	13 (3), 422-432, 2020	
	A resilient and secure two-stage ITA and blockchain mechanism in mobile crowd sourcing	Journal of Ambient Intelligence and	11:5003– 5016, 2020	

		Humanized Computing		
Dr Hari Singh	Predicting Covid-19 statistics using machine learning regression models Li-MuLi-Poly	Multimedia Systems	doi: 10.1007/s00 530-021-00798-2	
Dr P K Gupta	QoE-Based Multi-Criteria Decision Making for Resource Provisioning in Fog Computing Using AHP Technique.	International Journal of Knowledge and Systems Science (IJKSS),	11 (4), 17-30. 2020	
	A deep learning and grad-CAM based color visualization approach for fast detection of COVID-19 cases using chest X-ray and CT-scan images.	Chaos, Solitons and Fractals	X, 140 (), 110190-110202.	36
	Correlation Between Temperature and COVID-19 (Suspected, Confirmed and Death) Cases based on Machine Learning Analysis.	Journal of Pure and Applied Microbiology,	14 (), 1-8	23
	Application of Deep Learning for Fast Detection of COVID-19 in X-Rays using nCOVnet.	Chaos, Solitons and Fractals,	138 (September 2020), 109944-109952.	103
	AquaVision: Automating the detection of waste in water bodies using deep transfer learning.	Case Studies in Chemical and Environmental Engineering,	2020	7
	A Novel Deep Learning-based Whale Optimization Algorithm for Prediction of Breast Cancer .	Brazilian Archives of Biology and Technology,	Vol 64 (e212002 21), pp.1-16, 2021	
	A Novel Pseudonym Assignment and Encryption Scheme for Preserving the Privacy of Military Vehicles.	Defence Science Journal,	71 (2), 192-199, 2021.	
	K-Step Crossover Method based on Genetic Algorithm for Test Suite Prioritization in Regression Testing.	Journal of Universal Computer Science,	Vol. 27 (2), 170-189, 2021.	
	QoS-aware CR-BM-based hybrid framework to improve the fault	Journal of Applied Research and	Vol. 19 (1), 66-76, 2021.	

	tolerance of fog devices.	Technology,		
	SV2VCS: a secure vehicle-to-vehicle communication scheme based on lightweight authentication and concurrent data collection trees.	Journal of Ambient Intelligence and Humanized Computing,	pp. 1-17, 2021.	
	A Novel and Secure Hybrid iWD-MASK Algorithm for Enhanced Image Security.	Recent Advances in Computer Science and Communicatio ns.	Vol 14 (2), 384-394, 2021.	
Dr Ravindara Bhatt	Volume 12, Guest Editorial, Special Issue on Innovations in Information and Communications Technologies for Sustainable Environment, Volume 12, Issue 1, 2021	International Journal of Agricultural and Environmental Information Systems (IJAEIS) ISSN: 1947-3192|EISSN: 1 947-3206|DOI:10.4 018/IJAEIS	ISSN: 1947-3192|EISSN: 1947-3206|DOI: 1 0.4018/IJAEI S, scopus, Hindex 14	
Dr Amit Kumar	Sentiment analysis on the impact of coronavirus in social life using the BERT model	Social Network Analysis and Mining	"Sentiment analysis on the impact of coronavirus in social life using the BERT model." Social Network Analysis and Mining 11.1 (2021): 1-11.	
Dr Amol Vasudeva	Data Offloading via Optimal Target Set Selection in Opportunistic Networks	Mobile Networks and Applications	SCIE Indexed (IF: 2.6), year 2021 DOI: https://doi.or g/10.1007/s1 1036-021-01760-2	

	Trust-Based Opportunistic Network Offloaders for Smart Agriculture	International Journal of Agricultural and Environmental Information Systems (IJAEIS)	Scopus Indexed year 2021, vol. 12, no.1, pp. 37-54. DOI:10.4018 /IJAEIS.2021 0101.oa3	
Dr Pardeep Kumar	A novel approach for multimodality medical image fusion over secure environment	Transactions on Emerging Telecommunic ations Technologies	Pardeep Kumar, Manoj Diwakar (2021). A novel approach for multimodali ty medical image fusion over secure environmen t. Transaction s on Emerging Telecommu nications Technologi es , 32 (2), 1-13.	4
	Blind noise estimation-based CT image denoising in tetrolet domain	International Journal of Information and Computer Security	Pardeep Kumar, Manoj Diwakar (2020). Blind noise estimation-based CT image denoising in tetrolet domain. Internation al Journal of Information and Computer Security, 12 (2/3), 234-252	0

	Recent Trends in Artificial Intelligence Techniques for Fault-Tolerance, Reliability and Availability in Mission-Critical Networks	Recent Advances in Computer Science and Communications	Rajiv Kumar, Pardeep Kumar (2020). Recent Trends in Artificial Intelligence Techniques for Fault-Tolerance, Reliability and Availability in Mission-Critical Networks. Recent Advances in Computer Science and Communications, 13 (3), 311-312	0
	CT image denoising using NLM and its method noise thresholding	Multimedia Tools and Applications	Pardeep Kumar, Manoj Diwakar, Amit Kumar Singh (2020). CT image denoising using NLM and its method noise thresholding. Multimedia Tools and Applications, 79, 14449-14464.	6
	Improved wavelet-based image watermarking through SPIHT	Multimedia Tools and Applications	Pardeep Kumar, Chandan	20

			Kumar, Amit Kumar Singh (2020). Improved wavelet-based image watermarking through SPIHT. Multimedia Tools and Applications, 79, 11069-11082.	
Dr Aman Sharma	A. Sharma and R. Rani, "A Systematic Review of Applications of Machine Learning in Cancer Prediction and Diagnosis", Archives of Computational Methods in Engineering, Jan 2021.(DOI: https://doi.org/10.1007/s11831-021-09556-z) [SCI Indexed, Impact Factor – 6.730]			
Dr Himanshu Jindal	Optimal Resource Selection Framework on Internet-of-Things	Computers and Electrical Engineering	https://doi.org/10.1016/j.compeleceng.2020.106693	
	Optimized clustering-based discovery framework on Internet of Things	Journal of Supercomputing	https://link.springer.com/article/10.1007/s11227-020-03315-w#:~:text=Motivated%20by%20this%20observation%2C%20the,resources%20using%20knowledge%20formation%20and	
Dr Monika Bharti	Optimal Resource Selection Framework on	Computers and Electrical	https://doi.org/10.1016/	

	Internet-of-Things	Engineering	j.compelec eng.2020.1 06693	
	Optimized clustering-based discovery framework on Internet of Things	Journal of Supercomputi ng	https://link.s pringer.com /article/10.1 007/s11227 -020- 03315- w#:~:text= Motivated% 20by%20thi s%20obser vation%2C %20the,res ources%20 using%20k nowledge% 20formation %20and	
Dr Yugal Kumar	A new metaheuristic algorithm based on water wave optimization for data clustering	Evolutionary Intelligence	Kaur, A., & Kumar, Y. (2021). A new metaheurist ic algorithm based on water wave optimizatio n for data clustering. Evolutionar y Intelligence , 1-25.	
Dr Ekta Gandotra	Android Malware Detection Techniques: A Literature Review	Recent Patents on Engineering	https://ww w.eurekas elect.com/ 183634/ar ticle	Meghna Dhalaria and Ekta Gandotra*, "Android Malware Detection Techniques : A Literature Review", Recent Patents on Engineerin g (2021) 15: 225. https://doi.o

	A Hybrid Approach for Android Malware Detection and Family Classification	IJIMAI	rg/10.2174/ 187221211 499920071 0143847
	A Hybrid Approach for Android Malware Detection and Family Classification	IJIMAI	https://www .ijimai.org/jo urnal/bibcite /reference/2 815	Meghna Dhalaria, E kta Gandotra (2020). A Hybrid Approach for Android Malware Detection and Family Classificati on. Internat ional Journal of Interactive Multimedia and Artificial Intelligence , Vol. 6 no. 6
	CSForest: an approach for imbalanced family classification of android malicious applications	International Journal of Information Technology	https://link .springer. com/articl e/10.1007 /s41870- 021- 00661-7	Dhalaria, Meghna, and Ekta Gandotra. "CSForest: an approach for imbalanced family classificatio n of android malicious application s." Internati onal Journal of Information Technology (2021): 1- 13.

- **Books/Book Chapters Published**

Name of Faculty	Title of Book Chapter	Name of Book	Reference	Remark
Dr Mrityunjay Singh	COVID-19 detection using Chest X-ray and Transfer learning	Machine Learning Techniques for Pattern Recognition and Information Security		
Dr Geetanjali Rathee	Assistive Technology Intervention in Healthcare	CRC, Taylor & Francis Group, U.K		
	Electronic Voting Application Powered by Blockchain Technology	In Hemraj Saini, Geetanjali Rathee, Dinesh Kumar Saini, Large-Scale Data Streaming, Processing, and Blockchain Security		
	Understanding Blockchain: Case Studies in Different Domains	In Hemraj Saini, Geetanjali Rathee, Dinesh Kumar Saini, Large-Scale Data Streaming, Processing, and Blockchain Security		
	Preface	In Hemraj Saini, Geetanjali Rathee, Dinesh Kumar Saini, Large-Scale Data Streaming, Processing, and Blockchain Security		
Dr Hemraj Saini		2020 Sixth International Conference on Parallel, Distributed and Grid Computing (PDGC)	ISBN: 978-1-7281-7132-6	
	Energy and SLA Efficient Virtual Machine Placement in	IRM/IT professionals, Research Anthology on Multi-Industry Uses of Genetic	ISBN: 78179988048 6	

	Cloud Environment Using Non-Dominated Sorting Genetic Algorithm	Programming and Algorithms		
	Challenges and Opportunities with ECC and Noncommutative Cryptography: A Survey Perspective	In Kumar A., Mozar S., Lecture Notes in Electrical Engineering	ISBN: 978-981-15-7960-8	
		Large-Scale Data Streaming, Processing, and Blockchain Security	ISBN: 9781799834441, 1799834441, 9781799834458, 9781799834465	
	Dynamic Modeling on Malware and Its Defense in Wireless Computer Network Using Pre-Quarantine	In Gautam Kumar, Dinesh Kumar Saini, Nguyen Ha HuyCuong, Cyber Defense Mechanisms Security, Privacy, and Challenges	ISBN: 9780367816438	
	Electronic Voting Application Powered by Blockchain Technology	In Hemraj Saini, Geetanjali Rathee, Dinesh Kumar Saini, Large-Scale Data Streaming, Processing, and Blockchain Security	ISBN: 9781799834441	
	Understanding Blockchain: Case Studies in Different Domains	In Hemraj Saini, Geetanjali Rathee, Dinesh Kumar Saini, Large-Scale Data Streaming, Processing, and Blockchain Security	ISBN: 9781799834441	

	Preface	In Hemraj Saini, Geetanjali Rathee, Dinesh Kumar Saini, Large-Scale Data Streaming, Processing, and Blockchain Security	ISBN: 9781799834441	
	Mutation Testing-Based Evaluation Framework for Evaluating Software Clone Detection Tools	In Gupta V., Varde P., Kankar P., Joshi N. (eds), Reliability and Risk Assessment in Engineering	ISBN: 978-981-15-3745-5; 978-981-15-3746-2	
Dr Hari Singh	A study of big data processing for sentiments analysis	Large-Scale Data Streaming, Processing, and Blockchain Security	doi:10.4018/978-1-7998-3444-1.ch001	
Dr P K Gupta		Advances in Computing and Data Sciences.	Springer Nature Singapore	ISBN : 978-981-15-6634-9
		Machine Learning and Information Processing.	Springer Nature Singapore	ISBN : 978-981-15-1884-3
		Trust & Fault in Multi Layered Cloud Computing Architecture.	Springer Nature Switzerland	ISBN : 978-3-030-37319-1
		2020 Sixth International Conference on Parallel, Distributed and Grid Computing (PDGC)	IEEE USA	ISBN : 978-1-7281-7132-6
	Security and privacy challenges in healthcare using Internet of Things	IoT-Based Data Analytics for the Healthcare Industry	Elsevier	ISBN : 9780128214763
	Multicriteria decision-making in health informatics	IoT-Based Data Analytics for the Healthcare Industry	Elsevier	ISBN : 9780128214763

	using IoT.			
	Open Issues and Research Problems in Multilayered Cloud	Trust & Fault in Multi Layered Cloud Computing Architecture.	Springer Nature Switzerland	ISBN : 978-3-030-37319-1
	Tools for Fault and Reliability in Multilayered Cloud.	Trust & Fault in Multi Layered Cloud Computing Architecture.	Springer Nature Switzerland	ISBN : 978-3-030-37319-1
	Fault Model for Workflow Scheduling in Cloud.	Trust & Fault in Multi Layered Cloud Computing Architecture.	Springer Nature Switzerland	ISBN : 978-3-030-37319-1
	Fault-Aware Task Scheduling for High Reliability.	Trust & Fault in Multi Layered Cloud Computing Architecture.	Springer Nature Switzerland	ISBN : 978-3-030-37319-1
	Trust Modeling in Cloud Workflow Scheduling.	Trust & Fault in Multi Layered Cloud Computing Architecture.	Springer Nature Switzerland	ISBN : 978-3-030-37319-1
	Trust Modeling in Cloud.	Trust & Fault in Multi Layered Cloud Computing Architecture.	Springer Nature Switzerland	ISBN : 978-3-030-37319-1
	Trust Evaluation and Task Scheduling in Cloud Infrastructure.	Trust & Fault in Multi Layered Cloud Computing Architecture.	Springer Nature Switzerland	ISBN : 978-3-030-37319-1
	Trust and Reliability Management in the Cloud	Trust & Fault in Multi Layered Cloud Computing Architecture.	Springer Nature Switzerland	ISBN : 978-3-030-37319-1
	Introduction to Multilayered Cloud Computing.	Trust & Fault in Multi Layered Cloud Computing Architecture.	Springer Nature Switzerland	ISBN : 978-3-030-37319-1
Dr Pardeep Kumar	------------	Machine Learning for Intelligent Multimedia Analytics: Techniques and Applications	Pardeep Kumar, Amit Kumar Singh (2021). Machine Learning for Intelligent Multimedia Analytics:	

			Techniques and Applications (Ist). Singapore: Springer. [ISBN : 978-981-15-9491-5] .	
	Secure Image Transmission in Wireless Network Using Conventional Neural Network and DOST	Machine Learning for Intelligent Multimedia Analytics: Techniques and Applications	Pardeep Kumar, Manoj Diwakar (2021). Secure Image Transmission in Wireless Network Using Conventional Neural Network and DOST. In Pardeep Kumar...[et. al], Machine Learning for Intelligent Multimedia Analytics: Techniques and Applications (First, pp. 91-101). Singapore: Springer. [ISBN : 978-981-15-9492-2] .	
	An Improved Data Stream Mining Approach.	Vincenzo Piuri...[et al], Trends in Deep Learning Methodologies: Algorithms, Applications, and Systems (Ist, pp. 227-239). Amsterdam, Netherlands: Academic Press, Elsevier. [ISBN :	Pardeep Kumar (2021). E-CART: An Improved Data Stream Mining Approach. In Vincenzo Piuri...[et al], Trends in Deep Learning Methodologies : Algorithms,	

		9780128222263] .	Applications, and Systems (Ist, pp. 227-239). Amsterdam, Netherlands: Academic Press, Elsevier. [ISBN : 97801282222 63] .	
Dr Aman Sharma	Machine Learning Perspective in Cancer Research	Handbook of Research on Disease Prediction Through Data analytics and Machine Learning	DOI: 10.4018/978-1-7998-2742-9.ch008	
Dr Aman Sharma	Machine Learning Applications in Anti-Cancer Drug Discovery	Springer Scopus book, Intelligent Healthcare		
Dr Ekta Gandotra	An Efficient Approach for Phishing Detection using Machine Learning.	In Kaiser J. GiriShabir Ahmad ParahRumaanBashirKhan Muhammad, Multi media Security: Algorithm Development, Analysis and Applications (pp. 239-253). : Springer, Singapore. [ISBN : 978-981-15-8711-5]	Gandotra, Ekta, and Deepak Gupta. "An Efficient Approach for Phishing Detection using Machine Learning." In Multimedia Security, pp. 239-253. Springer, Singapore, 2021.	
	Chapter 15 - Machine learning in translational bioinformatics,	In Khalid Raza, Nilanjan Dey, In Advances in ubiquitous sensing applications for healthcare, Translational Bioinformatics in Healthcare and	Ahmad, Nadia, Piyus Mohanty, Narendra Kumar, and Ekta Gandotra. "Machine learning in	

| | | Medicine, Academic Press, Volume 13, 2021, Pages 183-192, ISSN 25891014, ISBN 9780323898249, https://doi.org/10.1016/B978-0-323-89824-9.00015-X. | translational bioinformatics. " In Translational Bioinformatics in Healthcare and Medicine, pp. 183-192. Academic Press, 2021. | |

- **Conference Publications**

Name of Faculty	Title of Article presented	Name of conference	Reference	Dates
Dr Mrityunjay Singh	Divorce case prediction using Machine learning algorithms	International Conference on Artificial Intelligence and Smart Systems		March 25-27, 2021
	Breast cancer classification with random forest classifier with feature decomposition using principal component analysis	3rd International Conference on Data &Information Sciences		May 14-15, 2021
	Heart disease prediction using various machine learning algorithms	9th International Conference on Recent Trends in Computing (ICRTC-2021)		June 4-5, 2021
Dr P K Gupta	Exploration of Deep Learning Techniques in Big Data Analytics.	Proceedings of the 2019 International Conference on Issues and Challenges in Intelligent Computing Techniques (ICICT)	Vol. 46931, INDIA, 2019, pp.1-7.	27-28, Sept, 2020
	Heart Disease Prediction System Using Classification Algorithms.	Proceedings of the International Conference on Advances in Computing and Data Sciences	4th : Valletta, Malta, pp.395-404	Apr 24-25, 2020
	SP-EnCu: A Novel Security and	Proceedings of the International	pp.533-543	November 29-29, 2020

	Privacy-Preserving Scheme with Enhanced Cuckoo Filter for Vehicular Networks.	Conference on Machine Learning and Information Processing (ICMLIP 2020)		
Dr Ravindara Bhatt	N. Sharma and R. Bhatt, "FoG Computing based IoT in Healthcare Application," .	Parallel, Distributed and Grid Computing (PDGC), 2020	2020 Sixth International Conference on Parallel, Distributed and Grid Computing (PDGC), 2020, pp. 442-446, doi: 10.1109/PD GC50313.20 20.9315745	06-Nov-2020 to 08-Nov-2020
Dr Amol Vasudeva	Trust-based Incentive for Mobile Offloaders in Opportunistic Networks	International Conference on Smart Electronics and Communication (ICOSEC), 2020	DOI: 10.1109/ICO SEC49	10-12 September 2020
Dr Aman Sharma	Forecasting the Trend of Covid-19 Epidemic	In Proceedings of 6th International Conference on Parallel and Distributed Computing. (PDGC-2020) [Published]		
	Analysis and Visualization of Twitter Data using R	Proceedings of 6th International Conference on Parallel and Distributed Computing. (PDGC-2020) [Published]		
Dr Himanshu Jindal	The Prediction of Buzz in Social Internet of Things	2020 Sixth International Conference on Parallel, Distributed and Grid Computing (PDGC)	https://ieeex plore.ieee.or g/abstract/do cument/9315 819	
	Automatic Rumour Detection Model on Social Media	2020 Sixth International Conference on Parallel, Distributed and	https://ieeex plore.ieee.or g/abstract/do cument/9315 738	

		Grid Computing (PDGC)		
	Evaluation of Time Series Forecasting Models for Estimation of PM2. 5 Levels in Air	2021 6th International Conference for Convergence in Technology (I2CT)	https://ieeexplore.ieee.org/abstract/document/9418215	
Dr Monika Bharti	The Prediction of Buzz in Social Internet of Things	2020 Sixth International Conference on Parallel, Distributed and Grid Computing (PDGC)	https://ieeexplore.ieee.org/abstract/document/9315819	
	Automatic Rumour Detection Model on Social Media	2020 Sixth International Conference on Parallel, Distributed and Grid Computing (PDGC)	https://ieeexplore.ieee.org/abstract/document/9315738	
Dr Yugal Kumar	Water Wave Optimization Based Data Clustering Model	ICMAI-2021		26th-27th Feb., 2021
Dr Ekta Gandotra	A Framework for Detection of Android Malware using Static Features	the IEEE 17th India Council International Conference (INDICON	Meghna Dhalaria, Ekta Gandotra (2020). A Framework for Detection of Android Malware using Static Features. Proceedings of the IEEE 17th India Council International Conference (INDICON) [17th : Netaji Subhas University of Technology New Delhi, India : 10-13 Dec. 2020], pp.1-7.	Netaji Subhas University ofTechnology New Delhi, India : 10-13 Dec. 2020
	Android Malware Detection using Chi-	PDGC 2020	Meghna Dhalaria, Ekt	Waknaghat, Solan, India

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| | | Square Feature Selection and Ensemble Learning Method | | a Gandotra (2020). Android Malware Detection using Chi-Square Feature Selection and Ensemble Learning Method. Proceedings of the International Conference on Parallel, Distributed and Grid Computing (PDGC) [6th :Waknaghat, Solan, India : 6-8 Nov. 2020], pp.36-41. | : 6-8 Nov. 2020 |

- **Guest Speakers/Lectures/ Visits**

Lectures Delivered by Faculty

Name of Faculty	Designation of Faculty	Topic of Lecture	Dat	Venue
Dr Geetanjali	Assistant Professor (S.G.)	Research Options in Blockchain	01 Feb 2021	KIET, Group of Institutions, Ghaziabad
	Assistant Professor (S.G.)	Aspects of security in WMN	01 August 2020	Jaypee University of Information Technology
Mrityunjay Singh	Assistant Professor	Recent Trends in Computer Science and Engineering (Machine Learning in Healthcare)	February 24, 2021	BIET Jhansi (Online)
Dr Hemraj Saini	Associate Professor	Aspects and Relations of Cyber Physical Systems, Internet of Things, and Smart Service Systems: Understanding and Research Challenges	9th - 10th April, 2021	CMR Engineering College, Hyderabad

	Associate Professor	Computational Intelligence Techniques for Machine Learning [CITML]	31st August, 2020 to 05th September, 2020	Jaypee University of Information Technology
Dr P K Gupta	Associate Professor	Predictive Computing Techniques and Applications	8th June – 19th June, 2020	Bharati Vidyapeeth's Institute of Computer Applications and Management (BVICAM)
	Associate Professor	Predictive Computing Techniques and Applications	4th Jan – 9th Jan 2021	ABES Engineering College, Ghaziabad
Ravindara Bhatt	Associate Professor	Webinar on New Education Policy 2020 28, 29 & 31 August 2020	29.08.2020	JUIT (virtual Mode)
	Associate Professor	FDP-CITML Privacy Preservation in Machine Learning Organized by JUIT, Department of CSE&IT	03.09.2020	JUIT (virtual Mode)

- **Composition of Various Bodies**

Board of Studies (BOS)

S. No.	Name	Designation	Institution
1	Prof (Dr) Samir Dev Gupta	HOD, CSE(Chairperson)	JUIT
2	Dr Vivek Sehgal	Associate Prof	JUIT
3	D. Hemraj Saini	Associate Prof	JUIT
4	Dr Pradeep Gupta	Associate Prof	JUIT
5	Dr Pardeep Kumar	Associate Prof	JUIT
6	Dr Hari Singh	Assistant Prof	JUIT
7	Dr Ekta Gupta	Assistant Prof	JUIT
8	Dr Ravindra Bhatt	Assistant Prof	JUIT
9	Dr Yugal	Assistant Prof	JUIT

DEPARTMENT OF BIOTECHNOLOGY & BIOINFORMATICS

- **Department Vision and Mission**

  - **Vision:**

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

  - **Mission:**

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

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

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

- **Faculty Details**

S. No.	Name	Qualification	Specialization
1.	Prof (Dr) Sudhir Kumar	PhD	Environmental Biotechnology
2.	Dr Anil Kant Thakur	PhD	Plant Biotechnology, Molecular Biology
3.	Dr Gopal Singh Bisht	PhD	Medicinal Chemistry, Peptides and Peptidomimetics
4.	Dr Harish Changotra	PhD	Molecular Virology
5.	Dr Hemant Sood	PhD	Plant Biotechnology and IPR
6.	Dr Jata Shanker	PhD	Fungal biology, Functional genomics
7.	Dr Jitendraa Vashistt	PhD	Bacterial Resistance, Clinical Proteomics
8.	Dr Poonam Sharma	PhD	Chemistry
9.	Dr Rahul Shrivastva	PhD	Microbial Pathogenesis, Mycobacteriology
10.	Dr Tiratha Raj Singh	PhD	Bioinformatics, Functional genomics, Molecular Evolution and Systems Biology
11.	Dr Udayabanu M.	PhD	Neuropharmacology
12.	Dr Vijay Kumar	PhD	Bioprocess Engineering

	Garlapati		
13.	Dr Ashok Nadda	PhD	Bioenergy/Biopolymer/Enzyme Technology/Biocatalysis
14.	Dr. Saurabh Bansal	PhD	Protein engineering, Enzymology
15.	Dr. Abhishek Chaudhary	PhD	Nanobiotechnology
16.	Dr. Raj Kumar	PhD	Bioinformatics
17.	Dr Narendra Kumar	PhD	Genomes and Transcriptomes

- **Programs:**

  Undergraduate Programs

  - The program is designed to provide hands on training through appropriate laboratory courses to make better understanding of the theory courses.

  - The course curriculum encompasses courses from core Biotechnology, Bioinformatics, Mathematics, Physics, Electronics & Communication, Computer Science and Humanities & Social Sciences.

  - Elective modules are offered in the final year to strengthen and specialize students' knowledge (theoretical and practical) in their area of interest.

  - The students are encouraged to participate in various extra-curricular and co-curricular activities for developing leadership, communication, critical thinking and problem solving skills.

  - The students are encouraged to participate in various bio-entrepreneurial activities through entrepreneurship cell and Bio-club 'Synapse' for developing their business and entrepreneurial skills.

  - Summer Internships with industry projects is a mandatory component.

  - Two undergraduate programs are currently run by the Department:
    - **BTech (Biotechnology)**
    - **BTech (Bioinformatics)**

  NBA Accreditation

  The Department of Biotechnology and Bioinformatics has been granted accreditation by National Board of Accreditation (NBA) for a period of three years, i.e. from 1st July 2017 to 30th June 2020 for the BTech Biotechnology programme.

The BTech Biotechnology programme got further extension of NBA accreditation for one more year till 30 June 2021.

Course Sstructure

The scheme of Biotechnology and Bioinformatics was revised in 2018, detailed course structure is as:-

S No	Course Name	Course Code
BTECH(BIOTECHNOLOGY\BIOINFORMATICS) 1st SEMESTER		
1	English and Technical Communication	18B11HS111
2	English and Technical Communication Lab	18B17HS171
3	Basic Mathematics -1 OR	18B11MA112
4	Fundamental Biology	18B11BT111
5	Fundamental Biology lab	18B17BT171
6	Basic Engineering Physics-I	18B11PH112
7	Programming for Problem Solving	18B11CI111
8	Engineering Graphics	18B17GE173
9	Basic Engineering Physics Lab-I	18B17PH172
10	Programming for Problem Solving Lab	18B17CI171
B TECH (BIOTECHNOLOGY\BIOINFORMATICS) 2nd SEMESTER		
1	Basic Mathematics-II	18B11MA212
2	Bioinstrumentation Techniques	18B11PH212
3	Basic Electrical Sciences	18B11EC212
4	Basic Electrical Sciences lab	18B17EC272
5	Data Structure & Algorithms	18B11CI211
6	Data Structure & Algorithms Lab	18B17CI271
7	Workshop Practices	18BI7GE171
BTECH (BIOTECHNOLOGY) 3rd SEMESTER		
1	Interpersonal Dynamics Values and Ethics	18B11HS311
2	Probability & Statistical Techniques	18B11MA312
3	Genetics	18B11BT311
4	Biochemistry	18B11BT312
5	Thermodynamics & Chemical Processes	18B11BT313
6	General Chemistry	18B11BT314
7	Genetics Lab.	18B17BT371
8	Biochemistry Lab	18B17BT372
9	Thermodynamics & Chemical Processes lab	18B17BT373
10	General Chemistry Lab	18B17BT374
BTECH (BIOTECHNOLOGY) 4th SEMESTER		
1	Finance and Accounts	18B11HS411

2	Cell Biology and Culture Technologies	18B11BT411
3	Molecular Biology	18B11BT412
4	Introduction to Bioinformatics	18B11BT413
5	Microbiology	18B11BT414
6	Cell Biology and Culture Technologies lab	18B17BT471
7	Molecular Biology Lab	18B17BT472
8	Introduction to Bioinformatics lab	18B17BT473
9	Microbiology Lab	18B17BT474
10	Environmental Studies	18B11GE411

BTECH (BIOTECHNOLOGY) 5th SEMESTER

1	Project Management and Entrepreneurship	18B11HS511
2	Bioprocess Engineering	18B11BT511
3	Genetic Engineering	18B11BT512
4	Immunology	18B11BT513
5	Bioprocess Engineering Lab	18B17BT571
6	Genetic Engineering Lab	18B17BT572
7	Immunology Lab	18B17BT573
8	Departmental Elective-I	
9	Minor Project Part-I	18B19BT591

BTECH (BIOTECHNOLOGY) 6th SEMESTER

1	Downstream Processing	18B11BT611
2	Food and Agricultural Biotechnology	18B11BT612
3	Downstream Processing Lab.	18B17BT671
4	Food and Agricultural Biotechnology Lab	18B17BT672
5	Departmental Elective- II	
6	Departmental Elective-III	
7	Open Elective-I	
8	Open Elective-II	
9	Minor Project Part-II	18B19BT691
10	Industrial Training	

BTECH (BIOTECHNOLOGY) 7th SEMESTER

1	Departmental Elective- IV	
2	Open Elective – III	
3	Open Elective – IV	
4	Major Project Part I	18B19BT791
5	Indian Constitution	

BTECH (BIOTECHNOLOGY) 8th SEMESTER

1	Departmental Elective- V	
2	Departmental Elective- VI	
3	Open Elective-V	
4	Major Project Part II	18B19BT891

	PROFESSIONAL ELECTIVES	
1	Phytopharmaceuticals and Biologicals	18B1WBT531
2	Comparative & Functional Genomics	18B1WBT532
3	Peptide Therapeutics	18B1WBT631
4	Infectious Diseases	18B1WBT632
5	Nano-Biotechnology	18B1WBT633
6	Bioenergy & Biofuels	18B1WBT634
7	Industrial Enzymes Technologies	18B1WBT731
8	Intellectual Property Rights & Commercialization	18B1WBT732
9	Genetic Counselling	18B1WBT831
10	Traditional Bioprocessing & Their Up Scaling	18B1WBT832
11	Diagnostics & Vaccine Manufacture	18B1WBT833
12	NGS Data Analysis & Applications	18B1WBI834
13	Biology for Engineers	18B1WBT635
14	Industrial Chemistry	18B1WBT636
15	Sustainable Technologies for Waste Management	18B1WBT733
16	Food Nutrition & Health Care	18B1WBT734
	BIOINFORMATICS	
	1ST AND 2ND SEMESTER IS SAME FOR BOTH BT & BI	
	BTECH (BIOINFORMATICS) 3rd SEMESTER	
1	Interpersonal Dynamics Values and Ethics	18B11HS311
2	Cell and Molecular Biology	18B11BI311
3	Bioinformatics Data Management	20B11BI311
4	Microbiology & Immune System	18B11BI312
5	Biological Computation	18B11BI313
6	Bioinformatics Data Management Lab	20B17BI371
7	Cell and Molecular Biology Lab	18B17BI371
8	Microbiology & Immune System Lab	18B17BI372
9	Biological Computation Lab	18B17BI373
10	Linux Lab	18B17BI374
	BTECH (BIOINFORMATICS) 4th SEMESTER	
1	Finance and Accounts	18B11HS411
2	Bio-Statistics	18B11MA411
3	Genetic Engineering and Genomics	18B11BI412
4	Object Oriented Programming	18B11CI415
5	Structural Biology	18B11BI413
6	Programming Languages for Bioinformatics	18B11BI414
7	Object Oriented Programming Lab	18B11CI474
8	Bio-Statistics Lab	18B11MA412
9	Genetic Engineering and Genomics Lab	18B17BI472

10	Structural Biology Lab	18B17BI473
11	Programming Languages for Bioinformatics Lab	18B17BI474
12	Environmental Studies	18B11GE411

BTECH (BIOINFORMATICS) 5th SEMESTER

1	Project Management and Entrepreneurship	18B11HS511
2	Design and Analysis of Algorithms	18B11BI511
3	Bioprocess Engineering	18B11BT511
4	Scripting Languages for Bioinformatics	18B11BI512
5	Design and Analysis of Algorithms Lab	18B17BI571
6	Bioprocess Engineering Lab	18B17BT571
7	Scripting Languages for Bioinformatics Lab	18B17BI572
8	Structural Bioinformatics Lab	18B17BI573
9	Departmental Elective-I	
10	Open Elective-I	
11	Minor Project Part-I	18B19BI591

BTECH (BIOINFORMATICS) 6th SEMESTER

1	Machine Learning for Bioinformatics	18B11BI611
2	Computer Aided Drug Design	18B11BI612
3	Machine Learning for Bioinformatics lab	18B17BI671
4	Computer Aided Drug Design Lab	18B17BI672
5	Advanced Algorithms for Bioinformatics Lab	18B17BI673
6	R Language Lab	18B17BI674
7	Departmental Elective-II	
8	Departmental Elective-III	
9	Open Elective-II	
10	Minor Project Part-II	18B19BI691
11	Industrial Training	

BTECH (BIOINFORMATICS) 7th SEMESTER

1	Departmental Elective- IV	
2	Open Elective – III	
3	Open Elective – IV	
4	Major Project Part I	18B19BI791
5	Indian Constitution	

BTECH (BIOINFORMATICS) 8th SEMESTER

1	Departmental Elective- V	
2	Departmental Elective- VI	
3	Open Elective-V	
4	Major Project Part II	18B19BI891

PROFESSIONAL ELECTIVES

1	Structural Bioinformatics	18B1WBI531

2	Comparative & Functional Genomics	18B1WBT532
3	Advanced Algorithms for Bioinformatics	18B1WBI631
4	Infectious Diseases	18B1WBT632
5	Datawarehousing and Mining for Bioinformatics	18B1WBI632
6	Bioenergy & Biofuels	18B1WBT634
7	Computational Systems Biology	18B1WBI731
8	Intellectual Property Rights & Commercialization	18B1WBT732
9	Genetic Counselling	18B1WBT831
10	Computational Molecular Evolution	18B1WBI831
11	Diagnostics & Vaccine Manufacture	18B1WBT833
12	NGS Data Analysis & Applications	18B1WBI834

- **Post Graduate Programs**

  - **Integrated MTech (Biotechnology)**

  - **MTech - Biotechnology**

  - **MTech - Industrial Biotechnology, Medical Biotechnology –to be introduced from July 2021.**

  - **MSc Biotechnology**

  - **MSc Microbiology** (Newly introduced programme to be started from July 2021)

  Course Structure

MTech Biotechnology Course Curriculum		
S No	Course Name	Course Code
1st SEMESTER		
1	Advances in Molecular Cell Biology	13M11BT111
2	Advances in Molecular Cell Biology Lab	13M11BT171
3	Research Methodology and Ethics	18M11BT113
4	Patenting in Biotechnology	18M11BT114
5	Advanced Bioinformatics	13M11BT112
6	Advanced Bioinformatics Lab	13M17BT172
7	High Throughput Technologies	13M11BT114
8	DE-1	
9	DE-II	
2nd SEMESTER		
1	Industrial Biotechnology	14M11BT211
2	Industrial Biotechnology Lab	14M17BT271
3	Immunotechnology	14M11BT212

4	Immunotechnology Lab	14M17BT272
5	Bioentrepreunership Management	14M11BT214
6	Functional Genomics	14M11BT213
7	Functional Genomics Lab	14M17BT273
8	Metabolic Engineering	14M11BT215
9	DE-III	-
10	DE-1V	-
3rd SEMESTER		
1	Seminar	-
2	Project- Thesis Part I	
4th SEMESTER		
1	Seminar	-
2	Project- Thesis Part II	-
MTech Biotechnology Electives courses:		
1	Food Processing & Engineering	20M1WBT131
2	Plant Tissue Culture Technologies	20M1WBT132
3	Advances in Computational System Biology	18M1WBT133
4	Microbial Ecology	18M1WBT134
5	Vaccine Production	20M1WBT133
6	QC Analysis and Management	20M1WBT231
7	Clinical Diagnostics	20M1WBT234
8	Plant Biotechnology	11M1WBT433
9	Advances in Gene manipulations	20M1WBT134
10	Industrial Enzyme Technology	20M1WBT232

MSc Biotechnology Course Structure (2019-2021)

S No	Course Name	Course Code
1st SEMESTER (MS1)		
1	General Microbiology	18MS1BT111
2	Molecular Genetics and Genomics	18MS1BT112
3	Biochemistry and Intermediary Metabolism	18MS1BT113
4	Research Methodology and Inferential Statistics	18MS1BT114
5	GLP and Bioinstrumentation	18MS1BT115
6	Introduction to IPR	18MS1BT116
7	General Microbiology Lab.	18MS7BT111
8	Molecular Genetics and Genomics Lab	18MS7BT112
9	Biochemistry and Intermediary Metabolism Lab.	18MS7BT113

	2nd SEMESTER (MS2)	
1	Immunology and Immunotechnology	18MS1BT211
2	Bioprocess Technology	18MS1BT212
3	Plant and Animal Biotechnology	18MS1BT213
4	Basic Bioinformatics	18MS1BI214
5	Elective-I	
6	Immunology and Immunotechnology Lab.	18MS7BT211
7	Bioprocess Technology Lab.	18MS7BT212
8	Plant and Animal Biotechnology Lab	18MS7BT213
9	Environmental Biotechnology	18MS1BT215
10	Basic Bioinformatics Lab.	18MS7BI214
11	Masters Research review seminar	18MS9BT211
	3rd SEMESTER (MS3)	
1	Food Biotechnology	18MS1BT311
2	Enzymology and Enzyme Technology	18MS1BT312
3	Recombinant DNA Technology	18MS1BT313
4	Elective-II	
5	Food Biotechnology Lab.	18MS7BT311
6	Enzymology and Enzyme Technology Lab	18MS7BT312
7	Recombinant DNA Technology Lab.	18MS7BT313
8	Master's Research Thesis Part-I	18MS9BT311
	4th SEMESTER (MS4)	
1	Master's Research Thesis Part-II	18MS9BT411

MSc Biotechnology Course Structure (2020 batch onwards)

S No	Course Name	Course Code
	1st SEMESTER (MS1)	
1	Biochemistry-MI	
2	Cell and Molecular Biology-MI	
3	Plant and Animal Biotechnology-MI	
4	Microbiology-MI	
5	Genetics-MI	
6	Basics of Mathematics and Statistics-MI	
7	Basics of Chemistry and Physics-MI	
8	Laboratory I: Biochemistry and Analytical Techniques-MI	
9	Laboratory II:Microbiology-MI	
10	Laboratory III: Plant and Animal Biotechnology-MI	

	2nd SEMESTER (MS2)	
1	Genetic Engineering-MII	
2	Immunology-MII	
3	Bioinformatics-MII	
4	Genomics and Proteomics-MII	
5	Molecular Diagnostics-MII	
6	Research Methodology and Scientific Communication Skills-MII	
7	Elective-I-MII	
8	Seminar-I-MII	
9	Laboratory IV: Molecular Biology and Genetic Engineering-MII	
10	Laboratory V: Immunology-MII	
	3rd SEMESTER (MS3)	
1	Bioprocess Engineering and Technology-MIII	
2	Emerging Technologies-MIII	
3	Critical Analysis of Classical Papers-MIII	
4	Bioentrepreneurship-MIII	
5	Intellectual Property Rights, Biosafety and Bioethics-MIII	
6	Project Proposal Preparation and Presentation-MIII	
7	Seminar-II-MIII	
8	Laboratory VI: Bioprocess Engineering and Technology–MIII	
9	Laboratory VII: Bioinformatics-MIII	
10	Dissertation-MIII	
	4th SEMESTER (MS4)	
1	Dissertation-MIV	
2	Elective-II-MIV	
MSc Biotechnology Electives courses:		
1	Nanobiotechnology-MII	
2	Evironmental Biotechnology-MII	
3	Protein Engineering-MII	
4	Vaccines-MIV	
5	Drug Discovery and Dvelopment-MIV	
6	Computaional Systems Biology-MIV	

PhD Program

- Doctoral Degree Program in Biotechnology
- Doctoral Degree Program in Bioinformatics

The following courses are available for PhD students

S No	Title of new Course	Course Code
1	Ethics, Intellectual Property Issues and Plagiarism	17P1WGE102
2	Literature Survey	17P1WGE101
3	Research Methodologies.	18P1WGE101
4	Advances in Computational System Biology	18M1WBT133
5	High Throughput Technologies	13M11BT114
6	Industrial Enzyme Technologies	18M1WBT131
7	Plant Tissue Culture Technologies	18M1WBT132
Electives		
1	Applied Environmental Biotechnology	18M1WBT231
2	Comprehensive test	17P1WBT131
3	Nanobiotechnology: Concept and Applications	18M1WBT232
4	Advance in Computational Molecular Evolution	18M1WBT233
5	Industrial Biotechnology	14M11BT211

Ph.D Completed

S.No	Name	Program	Title of Thesis
1.	Deepika Sharma (136753)	Pharmacy	Synthesis, Characterization and antibacterial evaluation of peptides and their poly-n-substituted glycine congeners
2	Sahil Kapoor (136561)	DRDO funded	Cell Culture Technologies for the Production of Bioactive Compounds from *Rhodiola imbricata* Edgew of Trans Himalayan Ladakh Region
3	Sonia Kumari (166553)	Biotechnology	Exploration of mycelial proteins and shikonin mediated growth inhibition *Aspergillus terreus* using proteomics approach
4	Poonam (136553)	Biotechnology	Identification of genes involved in in vivo virulence of *Mycobacterium fortuitum* as potential drug target
5	Nupur (136501)	Bioinformatics	Development of novel QSPR strategy and models for solubility prediction

			and in-silico bioavailability study of Paclitaxel prodrug
6	Kritika Kaushal (116557)	Biotechnology	Genome and Metabolomic based approaches to authenticate *Swertia chirata* from its adulterants and their comparative evolution against Hypoxia induced oxidative stress in rats

New PhD Students Enrolled

S.No	Roll No.	Name
1	206551	Swati Rulyan
2	206552	Manisha Sharma
3	206553	Nawang Phuntsog
4	206554	Kriti Sharma
5	206555	Skalzang Youdol
6	206556	Sandhya

- **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 21 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, Fermentation Technology lab and High End Instrumentation lab.

- **Centre of Excellence**

Two Centres of Excellence were established in the Department by a decision from the Academic Council in its meeting held on 2nd Dec., 2017.

1. **Centre of Excellence in Healthcare Technologies and Informatics (CEHTI):** The Centre is working with the following objectives:

   - Carry out training activities that are concentrated in the field of health information of national importance and strategic dimension.

- Enabling a scientific research environment, in order to enable researchers, graduate, postgraduate, and PhD students to conduct innovative research and develop advanced technologies to assume its leader in the field of biomedical and health informatics.

- Strengthen cooperation in the areas of health informatics between national and international universities and other centres of excellence.

- Working to submit projects that are emanating from the distinguished research ideas in the field of health informatics, in order to benefit health sectors.

2. **Centre Of Excellence In Sustainable Technologies For Rural Development (CESTRD):**The Centre is working with the following objectives:

- General awareness program for the rural youth, women and children of the rural areas on interactive basis.

- To survey and analyze the problems in planning and implementation of the Government schemes & programs for rural development.

- To run the innovative training workshops, seminars, disseminate information and transfer technology (Biogas, vermicompost, Briqquets) to the rural people in an integrated sustainable mode of rural development.

- To make rural people aware about education especially vocational trainings to make earnings other then agriculture.

- **Lab Staff with Qualification**

Name	Designation	Qualification
Sh. Mohd. Ismail Siddiqui	Sr. Lab Engineer	MSc
Ms. Somlata Sharma	Sr. Lab Engineer	MSc-IT
Sh. Baleshwar Prasad	Sr. Lab Technician	MSc
Ms. Mamta Mishra	Lab Technician	MSc
Ms. Sonika Gupta	Lab Technician	DPharma

- **Research Projects Sanctioned during the Years 2019-2020/ In Progress**

S No	Name of Faculty	Project title	Funding Agency	Amount sanctioned (In Lakhs)	Duration	Current Status
1	Dr Poonam Sharma	Physico-chemical Study of Flavonoid - Surfactant Interaction:	DST	22.50	2017-21	Completed

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		Utilization in Neomycin Topical Formulation				
2	Dr Tiratha Raj Singh	Identification, Inhibition mechanism analysis and validation of novel multi-target inhibitors for Alzheimer's disease using polypharmacology and systems pharmacology approaches	ICMR	14.50	2019-22	Ongoing
3	Dr Sudhir Kumar, Dr Rahul Shrivastava, Dr Gopal Singh Bisht	DBT Skill Vigyan Project	DBT	49.8	2019-22	Ongoing
4	Dr Anil Kant	Proposal for postgraduate teaching program	DBT Govt Of India	130.0	2020-25	Ongoing
5	Dr Rahul Shrivastava and Dr Jitendraa Vashistt	Identification of biofilm associated genes/ proteins of atypical mycobacteria *Mycobacterium fortuitum* as potential drug target and inhibitors thereof	ICMR	11.6 Lakhs	-	Approved

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Conferences, Seminars and Workshops/Faculty development program

Conferences:

- **Conferences Attended**

Dates	Subject	Venue	Faculty Name	Remarks
18-19 Sept, 2020	International conference on Technologies for Environmental Sustainability and Smart Agriculture Organized by Centre of Excellence in Sustainable Technologies for Rural Development [CESTRD] and Department of Biotechnology and Bioinformatics, Jaypee University of Information Technology, Waknaghat	Online (JUIT)	All faculty	
18-19 Sept, 2020	International conference on "Technologies for Environmental Sustainability and Smart Agriculture" organized by Centre of Excellence in Sustainable Technologies for Rural Development [CESTRD],JUIT	Department of Biotechnology and Bioinformatics, Jaypee University of Information Technology ,Waknaghat	Dr Hemant Sood, Dr Rahul Shrivastava, Prof. Sudhir, Kumar, Dr. Raj Kumar, Dr. Ashok Nadda, Dr. Harish Changotra, Dr. Tiratha Raj Singh,Dr. Saurabh Bansal, Dr. Poonam Sharma, Dr. Anil Kant, Dr. Narendra Kumar, Dr. Abhishek Chaudhary	Session chair
20-21 Oct, 2020	2nd International Conference on "Future Aspects of Sustainable Technologies (FAST 2.0)	CIT Kokrajhar - 783370, Assam, India	Dr. Garlapati Vijay Kumar	Oral Presentation

15 Mar, 2021	International Conference Sustainable Asia's Problems & Prospects organized by SSIMPT,Raipur and The Progress:Sri Aurobindo Yoga & Knowledge Foundation, India	SSIMPT,Raipur	Dr Hemant Sood	Oral presentation
29-30 Jan, 2021	5th International Conference on Bioenergy, Environment and Sustainable Technologies (BEST2021 ICON) organized Arunai Engineering College, Tiruvannamalai, Tamilnadu	Arunai Engineering College, Tiruvannamalai, Tamilnadu	Dr Hemant Sood	Oral presentation
18-20 Dec, 2020	International Conference of innovations in Biotechnology and Life Sciences(ICIBLS2020) hosted by Department of Biotechnology, Delhi Technical University.	Department of Biotechnology, Delhi Technical University.	Dr Hemant Sood	Oral presentation
28-30 Aug, 2020	International Conference on Integrated Interdisciplinary innovations in Engineering (ICIIIE 2020) organized by University Institute of Engineering &Technology (UIET), Panjab University, Chandigarh	Panjab University,Chandigarh	Dr Hemant Sood	Oral presentation
27-29 July, 2020	International E-Conference on Frontiers in Industrial Biotechnology organized by Department of Biotechnology at St Joseph's College of Engineering, Chennai and sponsored by AICTE, All India Council for Technical Education and BRSI	Department of Biotechnology at St Joseph's College of Engineering, Chennai	Dr Hemant Sood	Oral presentation
28-30 Jan, 2021	International Conference on Advances in Biosciences and Biotechnology on "Recent Trends in Biosciences and Biomedical Research"	Jaypee Institute of Information Technology, Noida	Dr Rahul Shrivastava	Oral presentation & Judge for poster presentation
18-19 Aug,	National web conference on "Challenges and	AKS University,	Dr Tiratha Raj Singh	Attendee

2020	opportunities in Life Science for Self Sustaining Life Security, Organized by AKS University, Satna, MP.	Satna, MP (Online event)		
30-31 July, 2020	International Web Conference on Recent Advances in Sciences	Don Bosco College, Tura, Meghalaya.	Dr Tiratha Raj Singh	Attendee

- **Conferences Organised:**

Dates	Subject (Topic)	Venue	Participation*	Remarks**
18-19 Sept, 2020	International conference on Technologies for Environmental Sustainability and Smart Agriculture	Online (JUIT)	80	**Chairperson and coordinator:** Prof Sudhir Kumar
26-27 Nov, 2020	International Summit on Atmanirbhar Bharat: India as Manufacturing Hub for Global Health (Promoting Innovation and Entrepreneurship in Medical Devices and Tele Health)	CIBIOD, PGI, Chandigarh (Online event)	300+	

- **Seminars**

- **Seminars Organized**

Dates	Subject	Venue	Participation	Remarks
04 Aug, 2020	International Webinar on "Healthcare Status, Challenges and Current Technological Solutions" By: Prof. Vinod Kumar, VC, JUIT	JUIT Solan	204	**Convener:** Dr Tirathraj Singh
08 Sept, 2020	International Webinar on "Flexible Sensors for Biomedical Applications" By: Prof. Yosi Shacham Diamand, Tel Aviv	JUIT Solan	188	**Convener:** Dr Tirathraj Singh

	University, Israel			
09 Oct,2020	International Webinar on "E Waste and Health Care" By: Prof. Sudhir Kumar, HoD, Department of Biotechnology and Bioinformatics, JUIT, Solan	JUIT Solan	165	**Convener:** Dr Tirathraj Singh
17 Oct, 2020	Patents, Innovations, and Start-ups	IPR Cell, JUIT	65	**Coordinator:** Prof Sudhir Kumar
17 Oct, 2020	Teaching and Learning Practices	JUIT	80	**Coordinator:** Dr Poonam Sharma
06Nov, 2020	International Webinar on "Clinical Bioinformatics: Bridging the Gateway to Precision Medicine " By: Dr. Dipankar Sen Gupta, Queens University Belfast, Northern Ireland, UK	JUIT Solan	117	**Convener:** Dr Tirathraj Singh
07 Dec, 2020.	International Webinar on "Longitudinal Modeling of Alzheimer's Disease using Machine Learning Methods " By: Ms. Meemansa Sood, Bonn University, Germany	JUIT Solan	105	**Convener:** Dr Tirathraj Singh
12 Dec, 2020	Detection of Microbial pathogens by Dr. Jata Shankar	Online	35	**Coordinator:** Dr Jitendraa Vashishtt
16 Jan, 2021	Learning for effective Teaching by Prof. Sudhir Kumar	Online	30	**Coordinator:** Dr Jitendraa Vashishtt
19 Feb,	Nano-biotechnology	Online	28	**Coordinator:** Dr Jitendraa

Dates		Venue			
2021	and its career prospects by Dr. Abhishek Chaudhary				Vashishtt
12 Jan, 2021	International Webinar on "Multi-modal data integration in biomedicine" By: Prof. Holger Fröhlich, Head of AI & Data Science Group & Deputy Head of Department of Bioinformatics at Fraunhofer SCAI, Bonn University, Germany	JUIT Solan	95		**Convener:** Dr Tirathraj Singh

- **Seminars Attended**

Dates	Subject	Venue	Faculty Name	Remarks
13 May, 2021	Physiochemical characterization of Antibody-Drug conjugate	Online –Lab root	Dr Abhishek Chaudhary	Attendee
01 Sept, 2020	Synthace: Accelerating process development with automated design of experiment	Online-chemistry world		Attendee
09 July, 2020	How to Choose the Right Journal for Publishing your Research? Wiley	Online	Dr Garlapati Vijay Kumar	Attendee
14 July, 2020	Nanomaterial synthesis protocol for catalysis (Saudi Chemical Society)			
20 Jul, 2020	A 15-Step Guide To understanding How Projects & Tasks Are Managed In Industry			
21 July, 2020	Understanding Research Ethics and Integrity in Academia (Wiley)			
22 July, 2020	Agri Biotechnology webinar on – Can India become the Food Bowl of World			

12 Aug, 2020	ACS webinar on "Exploring the Great Unknown: Characterization of Complex Environmental Mixtures			
13 Aug, 2020	EFIB Webinar: Fashion & Textiles // How can innovation drive forward a sustainable fashion industry? by EFIB, Europe			
14 Aug, 2020	ACS Webinar on "Organic chemistry with proteins creating opportunities in biology and medicine"			
24 - 28 Aug, 2020	One Week Webinar on "Computer Aided Drug Discovery against COVID-19" by NIT Raipur	Online	Dr Garlapati Vijay Kumar	Attendee
27 Aug, 2020	The role of Process Development in Chromatography by Astrea Biosciences, USA.			
06 Sept, 2020	Webinar on "Scope of Food Technology in light of COVID-19" by FUDEN club, NIT Rourkela.			
08 Sept, 2020	International Webinar Series of Research and Technological advancements in Biomedical and Healthcare Sector "Topic: Flexible Sensors for Biomedical Applications" by CEHTI, JUIT, HP			
08 Sept, 2020	A webinar on "Benign-by-design methodologies for biomass/waste conversion to biofuels and chemicals" by BCRU, Thammasat University, Thailand			

10 Sept, 2020	National Webinar 'Contemplative Perspectives on Seed: Conservation, Quality Assurance and Supply Systems' organized by ICAR-IISS, Mau, UP			
11 Sept, 2020	International webinar on "CCU (Carbon Capture Utilization) Industrial Symbiosis" by CAPTURE, Belgium			
15 Sept, 2020	International Webinar on "Plant Physiological Paradigms towards Agricultural Sustainability Under Climate Change"by BAU, Sabour Bhagalpur, Bihar			
15 Sept, 2020	Webinar on " "European Research Council: Grants For Top Researchers From Anywhere In The World".by ERC			
18 - 19 Sept, 2020	A Virtual International Conference on "Technologies for Environmental Sustainability and smart agriculture" by CESTRD, JUIT, HP,India			
24 Sept, 2020	EFIB Webinar: Materials & Packaging // How to develop sustainable materials with bio-based innovation			
24 Sept, 2020	Managing plastic waste in India: An agenda for action by CSE India			
25 Sept, 2020	DTE webinar on "EIA 2020: Advantage Industry" by CSE,India.			

28 – 29 Sept, 2020	2 days National Level Webinar on "Trends in Biotechnology" by Andhra University, AP, India.			
01 Oct, 2020	DBT Webinar on Showcasing Demonstrated Waste-To-Value Technologies" by DBT, India			
01 Oct, 2020	EFIB Webinar: Bioprocesses & Technologies // The value of bio-based innovation for the industry by EFIB, Germany			
06 Oct, 2020	Waste Management - Present Challenges and Impact of Pandemic by Mizoram University			
27 Oct, 2020	Webinar on "Plant-based Innovation" by Growth Asia Interactive Broadcast Series			
10 Nov, 2020	Webinar on "Active Nutrition" by Growth Asia	Virtual	Dr Garlapati Vijay Kumar	Attendee
10 Nov, 2020	Webinar "Optimizing bio-process control with Cedex Analyzers" by Roche	Virtual	Dr Garlapati Vijay Kumar	Attendee
10 Nov, 2020	Webinar on "Digital Bioprocessing: Addressing complexity and accelerating process development through data and automation tools by Interactive Webinars (Cambridge Innovation Institute)	Virtual	Dr Garlapati Vijay Kumar	Attendee
17 Nov, 2020	Webinar on "Reformulation & Fortification" by Growth Asia Interactive Broadcast Series. Singapore	Online	Dr Garlapati Vijay Kumar	Attendee

21 Nov, 2020	Webinar on "New Trends and Future Directions in Catalysis" by BrightTalk, India.			
24 Nov, 2020	Online conference on "Healthy Ageing 2020 Online Conference" by NutaIngredients, Europe			
01 Dec, 2020	Webinar on "End-to-End Single-Use Downstream Solution for Bio-Manufacturing" by Sartorius Stedim Biotech Inc. USA			
02 Dec, 2020	Webinar on "Astronomy meets pathology: An interdisciplinary effort to discover predictive biomarker signatures for immuno-oncology" by AAAS, Science			
03 Dec, 2020	Webinar on "Biodiversity Conservation – Issues and Challenges" by National Institute of Disaster Management, India			
09 Dec, 2020	Webinar on "Microbial Aspects in Brewing Industry" by Microbioz India.	Online	Dr Garlapati Vijay Kumar	Attendee
01 Jan, 2021	Webinar on "Manufacturing of Affinity Chromatography products" by Astrea Bioseparations, USA			
19 Jan, 2021	Webinar on "WasteAid Circular Economy Network Launch by WasteAid, Europe			
05 Feb, 2021	Webinar on "The recovery of nutraceutical compounds" by NutraIngreidients			
23 July, 2020	Webinar on 'Can India Solve its Framer's Plight and become Food Bowl of the	Biotecnika info labs Pvt. Ltd	Dr Hemant Sood	Attendee

	World?'			
05 Aug, 2020	Webinar on "Publishing Ethics"	Taylor and Francis Group and Delcon (DBT eLibraray consortium) from USA		
14 Aug, 2020	Webinar for Entrepreneurship: An opportunity for young aspirants	TIEDC,JUIT		
17 Oct, 2020	Webinar on "Patents, Innovations, and Startups"	IPR cell (JUIT), Waknaghat, Solan, H.P.		
12 Jan, 2021	The International Webinar Series on topic Multi modal data integration in medicine organized by, Solan, H.P.	Centre of Excellence in Healthcare Technologies and Informatics (CEHTI), (JUIT), Waknaghat		
28-29 June, 2020	Webinar on National Education Policy	JUIT Solan	Dr Tiratha Raj Singh	Attendee
17 Oct, 2021	Teaching and Learning Practices	JUIT (Online)	Dr Udayabanu , M.	Attendee
12 Jan, 2021	Multi-Modal Data Integration in Biomedicine	JUIT (online)		
04 Aug, 2020	Webinar on Healthcare status challenges and current Technological solutions	JUIT Solan	Dr Saurabh Bansal	Attendee
05 Aug, 2020	Webinar on Battle against novel coronavirus organized by Promega and Biotecnika	Online		
11 Aug, 2020	Webinar on Better resolution for CE-SDS analysis of new biopharmaceutical modalities through fine-	Online		

Dates	Subject	Venue		
	tuning the separation temperature organized by Labroots			
07 Dec, 2020	Webinar on Longitudinal Modeling of Alzheimer's disease using machine learning methods	JUIT Solan		
10 Feb, 2021	Webinar on Influenza vaccine viral protein profiling for viral potency organized by Labroots	Online		
08 - 29 May, 2021	Alumni Champion Talks Season-2 organized by Almashines	Online		

- ## **Workshops**

  - ### **Workshops Organised**

Dates	Subject	Venue	Participation	Remarks
March – June, 2021	Aarogya CIBioD - Short Term Attachment Program (Series of Lectures and workshops)	CIBIOD, PGI, Chandigarh (Online event)	180+	Organizing committee member through CEHTI, JUIT: Dr Tiratha Raj Singh
20-25 Mar, 2021	Research and Innovation Showcase	IPR Cell, JUIT	23	Coordinator: Prof Sudhir Kumar
08- 13 Mar, 2021	Women Innovation and IPR	IPR Cell, JUIT	40	Coordinator: Prof Sudhir Kumar

- ## **Workshops Attended**

Dates	Subject	Venue	Faculty Name	Remarks
06 Feb, 2021	An interactive session on "Bioenergy from Food Waste" invited by Swachhta	MCM, DAV College for Women, Chandigarh	Prof Sudhir Kumar	Resource Person

	Committee of Sciences of MCM DAV College for Women, Chandigarh			
3 -8 Aug, 2020	Sustainable Construction Practices for Civil Engineers	Civil Eng Dept, JUIT	Dr Garlapati Vijay Kumar	Attendee
18 Aug – 02 Sept, 2020	ABC of Scientific Writing'	ICAR-NRRI, Cuttack	Dr Garlapati Vijay Kumar	Attendee
20 - 21 Aug, 2020	Waste Management - Issues and Concerns	Civil Eng Dept, JUIT, HP		
09 Sept, 2020	PM formalisation of Micro Food Processing Enterprises (PM-FME) Scheme	IIFPT-MoFPI,India		
30 Oct, 2020	DST & ACS Workshop"	ACS,India.		
20 Dec, 2020	"Recent Trends of pollution control strategies for wastewater treatment (RTPCSWT – 2020)"	Jadavpur University, Kolkata,India		
19 Jan, 2021	RECYCLES Workshop - Integrating C/N/S cycles into innovative environmental technologies by Università degli Studi di Firenze with the collaboration of all the RECYCLES project partners, Europe	RECYCLES, GROUP, Europe		
25-26 Jan, 2021	Biocatalysis and Bioelectrofermentati on in CCU	BIOCON-CO_2 group, EU		

Dates	Subject	Venue	Faculty Name	Remarks
	processes			
14 – 15 May, 2021	SAGE Summer Training	SAGE University, Indore	Dr Raj Kumar	Speaker
20-25 Mar 2021	Research and Innovation Showcase (RAISE) organized by.	IPR Cell, JUIT Solan in collaboration with HIMCOSTE	Dr Hemant Sood	Attendee
25-26July, 2020	Two day workshop on "Advanced Functional Materials" sponsored byTEQIP-III	Deptt. of Applied Sciences,Punjab Engineering College, Chandigarh.	D. Poonam Sharma	Attendee
17 - 19 Sept, 2020	Hands on workshop on Bioinformatics tools in Research	Department of Biotechnology, JIIT Noida	Dr Rahul Shrivastava	Attendee
08-13Mar, 2021	Women Innovation and IPR	IPR Cell, JUIT, Waknaghat, Solan, H.P. India		
20 - 25 Mar, 2021	Research and Innovation Showcase (RAISE)	IPR Cell, JUIT, Waknaghat, Solan, H.P. India		
12 Dec, 2020	Online Training on PCR and RT-PCR	JUIT Solan	Dr Saurabh Bansal	Attendee

- **Faculty Development Programs**

  - **Faculty Development Programs Organised:** Nil

  - **Faculty Development Programs Attended**

Dates	Subject	Venue	Faculty Name	Remarks
11	Resource person for	GNDU,	Prof Sudhir	Resource

Dec, 2020	UGC-Faculty Induction Program and delivered a webinar on "Ways of Teaching and Learning" for Facultymembers newly inducted in various Govt. Colleges/Universities of India. This was arranged by UGC – Human Resource Development Centre of Guru Nanak Dev University, Amritsar	Amritsar	Kumar	Person
24 Nov, 2020	Resource person for UGC-Refresher Course on Environment Conservation and delivered a webinar on "Biogas Technology and Environmental Conservation" This was arranged by UGC – Human Resource Development Centre of Guru Nanak Dev University, Amritsar	GNDU, Amritsar		
24 Sept, 2020	Resource Person in Faculty Induction Programme, UGC Human Resource Development Centre, Guru Nanak Dev University, Amritsar, Punjab. Talk was on Teaching and Learning.	GNDU, Amritsar	Prof Sudhir Kumar	Resource Person
10 -17 Aug, 2020	Entrepreneurship Development	Online-Sathyabama Institute of Science and	Dr Abhishek Chaudhary	Attendee

		Technology, Chennai.		
14 - 18 Dec, 2020	Tools and Techniques for Effective Research	online- I.K. Gujral Punjab Technical University Amritsar Campus		
20 - 24 July, 2020	Current Aspects and Research Opportunities in Civil Engineering"	JUIT, Waknaghat	Dr Garlapati Vijay Kumar	Attendee
10 - 21 Aug, 2020	ICT Tools for Teaching, Learning process & Institute	E&ICT Academy, NIT Patna & MNIT Jaipur		
12 - 14 Aug, 2020	Plants for Food and Health Care	Yogi Vemana University, Kadapa, AP, India		
17 - 21 Aug, 2020	Recent Trends in Computer Simulations for applications in Biotechnology: Teaching and Learning Strategies	NIT Warangal		
7 - 11 Sept, 2020	Advances in Biological wastewater Treatment Methods: Teaching and Learning Strategies" by	NIT Warangal		
15 - 19 Sept, 2020	Recent Developments in Environmental Engineering (RDEE-2020)"	Veer Surendra SaiUniversity of Technology Burla, Odisha		
14- 24 Sept, 2020	"Bioinformatics, Big Data and Drug Discovery – Prospects & Challenges"	G B Pant Institue of Engineering &	Dr Garlapati Vijay	Attendee

		Technology, Gharwal, Uttarakandh	Kumar	
21 - 26 Sept, 2020	Advancements in Biotechnology and Nanotechnology	UIET, Punjab University, Chandigarh		
21 - 25 Sept, 2020	Chemistry in Medicine and Materials Science	NIT Andhra, India.		
09 - 13 Nov, 2020	Advances in Biological, Biochemical, Biomedical and Bioenergy (AB4)	NIT Warangal		
30Nov –04 Dec, 2020	AICTE sponsored FDP on "Synthetic Biology"	Madurai Kamaraj University, Tamil Nadu		
07 - 11 Dec, 2020	ATAL FDP on "Green Energy Technologies"	Global Academy of Technology, Bengaluru, Karnataka	Dr Garlapati Vijay Kumar	Attendee
9 - 13 Dec, 2020	FDP programme "Technologies for Waste to Energy & Resources"	NIT Rourkela, Orissa		
14 - 18 Dec, 2020	TEQIP III Sponsored FDP on "Recent Advances in Chemical Engineering 2020"	Indira Gandhi Institute of Technology, Sarang, Odissha		
14 - 18 Dec, 2020	AICTE ATAL Academy sponsored FDP on 'Synthetic Biology'	Bharathiar University, Coimbatore, Tamil Nadu		
21 - 25 Dec, 2020	ATAL Sponsored One Week FDP on "Waste Technology"	C. V. Raman Global University, Bhubaneswa		

		r, Odisha		
04 - 08 Jan, 2021	FDP on "Waste Management for Sustainable Development"	JUIT Solan		
20 - 22 Jan, 2021	FDP on "Effective Strategies to improve Mentor-Mentee Bonding"	Eswari Eng College, Chennai		
21 - 26 Sept, 2020	Advancement in biotechnology and Nanotechnology	Online	Dr Gopal Singh Bisht	Attendee
10 - 21 Aug, 2020	ICT Tools for Teaching, Learning Process and Institute	Online		
11 - 16 Jan, 2021	Advanced Excel with Data Visualization	Online		
18 - 29 Jan , 2021	Introduction to Six Sigma	Online		
Sept – Oct, 2020	FDP on Managing Intellectual property in University	NPTEL,IIT Madras, Funded by the Ministry of HRD,Govt of India	Dr Hemant Sood	Attendee
27 - 31 July, 2020	Strategic Planning for Entrepreneurship Promotion	NITTTR, Chandigarh		
13 - 18 July, 2020	Research Advances in Plant & Microbial Biotechnology	JIIT NOIDA	Jata Shankar	Attendee
31 Aug - 05 Sept, 2020	FDP on "Computational Intelligence Techniques for Machine Learning"	Dept. of CSE & IT, JUIT, Waknaghat-173234 (H.P.)	Dr Poonam Sharma	Attendee
27 July - 08	Two weeks FDP on "Ambient Technologies:	Dept. of CSE & IT,		

Aug, 2020	State-of-Art, Challenges, and Future Directions"	JUITWaknaghat		
14 - 19 Sept, 2020.	FDP on "Effective Online Teaching and Learning"	Dr. SSBUICET, Panjab University in collaboration with Dibrugarh University Institute of Engineering and Technology, Assam under TEQIP-III (MHRD, Govt. of India)		
21 - 26 Sept, 2020	Advancement in Biotechnology and Nanotechnology	UIET, Panjab Univrsity, Chandigarh & Govt. College of Engg. And Technology, Jammu (TEQIP-III)	Dr Rahul Shrivastava	Attendee
4 – 8 Jan, 2021	Waste Management for Sustainable Development	Department of Civil Engineering, JUIT Waknaghat		
21 - 27 Dec, 2020	Advanced Excel with Data Visualization	E & ICT Academy, IIT Kanpur		
13 – 17 July, 2020	5 Days FDP in Scilab under Pandit Madan Mohan Malviya National Mission for Teachers and Teaching	MHRD, GOI	Dr Tiratha Raj Singh	Attendee
13 - 18 July, 2020	FDP on "Research advances in Plant and Microbial Biotechnology"	Jaypee Institute of Information Technology,	Dr Saurabh Bansal	Attendee

		Noida		
11 - 16 Jan, 2021	Advanced Excel with data visualization	E & ICT Academy, IIT Kanpur		

- **Publications**

  - **Journal Publications**

Name of Faculty	Title of Article	Name of Journal	Reference	Citation
Sudhir Kumar	Metallurgical processes unveil the unexplored "sleeping mines" e-waste: a review.	Environmental Science and Pollution Research.	26. 32359-32370 [IF – 3.0]. SCI and Scopus	05
	Techno-economic analysis, kinetics, global warming potential comparison and optimization of a pilot-scale unheated semi-continuous anaerobic reactor in a hilly area: For north Indian hilly states	Renewable Energy	155, 1181-1190, [IF – 6.2]. SCI and Scopus	05
	National Municipal Solid Waste Energy and Global Warming Potential Inventory: India.	Journal of Hazardous, Toxic, and Radioactive Waste.	https://ascelibrary.org/doi/full/10.1061/%28ASCE%29HZ.2153-5515.0000521.	05
	Adaptive Enrichment of a Thermophilic Bacterial Isolate for Enhanced Enzymatic Activity	Microorganisms	8(6), 871	01

	Efficient reduction of CO_2 into calcium carbonate using a novel carbonic anhydrase producing Corynebacterium flavescens from cattle saliva.	Environment Engineering Research	2021, 26 (3): 200191. DOI: 10.4491/eer.2020.191	
	Insights into polyester plastic biodegradation by carboxyl ester hydrolases.	Journal of Chemical Technology and Biotechnology	2021, https://doi.org/10.1002/jctb.6745	
Ashok Kumar	A GIS-based tool for the analysis of the distribution and abundance of Chilosacchariphagus indicus under the influence of biotic and abiotic factors.	Environmental Technology & Innovation	2021, 101357.	
	Synthesis of TiO2/RGO with plasmonic Ag nanoparticles for highly efficient photoelectrocatalytic reduction of CO_2 to methanol toward the removal of an organic pollutant from the atmosphere	Environmental Pollution	2021, 281, 116990	
	Integrated catalytic insights into methanol production: Sustainable framework for CO_2 conversion	Journal of Environmental Management	2021, 289, 112468, doi.org/10.1016/j.jenvman.2021.112468	
	Biopolymers and nanostructured	Food Research International.	2020, https://doi.	

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			org/10.10 16/j.foodr es.2020.1 09979	
Abhishek Chaudhar y	One pot synthesis of gentamicin conjugated gold nanoparticles as an efficient antibacterial agent,	Journal of Cluster Science	2020, https://doi.o rg/10.1007/ s10876-020-01864-x(IF-1.7)	
Garlapati Vijay Kumar	Phycoremediation of X-ray Developer Solution towards Silver Removal with Concomitant Lipid Production.	Environmental Pollution	2021, *268 (A):* 115837 *(DOI:* 10.1016/j.e nvpol.2020. 115837) (Scopus Cite Score: 9.3; Impact factor: 6.792).	
	Transesterified Olax Scandens oil as a bio-additive: Production and diesel engine performance studies.	Tribology International	2021, 153: 106653 (Scopus Cite Score:7.9; Impact factor: 4.271	1
	Implications of reactive oxygen and nitrogen species in seed physiology for sustainable crop productivity under varied climatic conditions.	Current Plant Biology	2021, 26:100197 (Scopus Cite Score:3.7).	3
	Characterization and Microalgal Toxicity	International Journal of	2020, Scopus	

	Screening of X-ray Fixer Solution towards Bioremediation.	Environmental Science and Technology (Online) (DOI: 10.1007/s13762-020-03006-2)	Cite Score: 2.9; Impact Factor:2.540	
	Third generation biorefineries: a sustainable platform for food, clean energy and nutraceuticals production.	Biomass Conversion and Biorefinery	2020, (Scopus Cite Score: 3.3; Impact Factor:2.602) (DOI: 10.1007/s13399-020-00843-6)	4
Garlapati Vijay Kumar Rahul Shrivastava	Evaluation of endophytic fungi from Cupressus torulosa leaves for decolourization ability of textile synthetic dyes.	ASCE Journal of Hazardous, Toxic, and Radioactive Waste	2021, 25 (1): 06020005 (DOI: 10.1061/(ASCE)HZ.2153-5515.0000569) (Scopus Cite Score: 1.04)	
Gopal Singh Bisht	A standardized polyherbal preparation POL-6 diminishes alcohol withdrawal anxiety by regulating Gabra1, Gabra2, Gabra3, Gabra4, Gabra5 gene expression of GABAA receptor signaling pathway in rats	BMC Complementary Medicine and Therapies	2021, Vol 21, Article number: 13 https://doi.org/10.1186/s12906-020-03181-2 IF 2.833 SCOPUS INDEX, SCI	

	Study of the physico-chemical properties of vancomycin hydrochloride for determining its potential applications in formulation development	Indian Journal of Chemistry-Section A (IJCA)	Vol 59,(8),1113-1119 IF 0.489 SCOPUS, SCI	2
Jata Shankar	Multicopper oxidase (MCO) laccase from Stropharia sp. ITCC-8422: an apparent authentication using integrated experimental and in silico analysis.	3 Biotech	2020, 10 (9):1-8. IF:1.6, Scopus	2
Jata Shankar, Raj Kumar	Insight into multicopper oxidase laccase from *Myrothecium verrucaria* ITCC-8447: a case study using in silico and experimental analysis..	Journal of Environmental Science and Health, Part B	2020, 26: 1-3. IF:1.5, Scopus	1
Jata Shankar	Exploration of Mycelial Proteins from *Aspergillus terreus* Revealed Ribosome Biogenesis and Antioxidant Enzymes	Current Proteomics	2020, 17 (5): 433-445 IF:0.5, Scopus	1
Hemant Sood	Micropropagation of critically endangered herb of Himlayan region: *Trillium govanianum* for in vitro shoot proliferation and production of Diosgenin.	Research Journal of biotechnology.	16 (2):173-178. Scopus /WOS /SCI impact factor:0.23	
Poonam Sharma	Investigating thermodynamic,	J. Mol. Liquids	vol. 328, p. 115489,	

	acoustic and spectroscopic parameters of rutin trihydrate with cationic surfactant CTAB in hydro-ethanolic solvent systems		Apr. 2021, doi: 10.1016/j.molliq.2021.115489	
	Thermodynamics and acoustic effects of quercetin on micellization and interaction behaviour of CTAB in different hydroethanol solvent systems	Zeitschrift für Physikalische Chemie	2020, doi: 10.1515/zpch-2020-1603	
	Thermodynamic and acoustic studies of quercetin with sodium dodecyl sulfate in hydro-ethanolic solvent systems: A flavonoid-surfactant interaction study	Chemical physics	vol. 538, p. 110921, Oct. 2020, doi: 10.1016/j.chemphys.2020.110921	
	Investigation of interactions between quercetin and Tween 80 through electrolyte induced thermodynamic approach,	Materials Today: Proceedings	vol. 28, pp. 61–64, Jan. 2020, doi: 10.1016/j.matpr.2020.01.274	
	Effect of quercetin on micellization behaviour of Tween-20 in hydro-ethanolic solvent system: An electrolyte induced thermodynamic study	Journal of Physics: Conference Series	vol. 1451, p. 012013, Jan. 2020, doi: 10.1088/1742-6596/1451/1/012013	
Raj Kumar	Synthesis, Antioxidant and	Journal of the Korean	Vol. (Issue):	

	Molecular Docking Studies of (−)-Catechin Derivatives	Chemical Society	65(2) Page No. 106-112 IF:0.28 Scopus: Yes https://doi.org/10.5012/jkcs.2021.65.2.106.106	
	Identification of ACK1 inhibitors as anticancer agents by using computer-aided drug designing	Journal of Molecular Structure	Vol. (Issue): 1235 Page No. 130200 IF:2.46 Scopus: Yes https://doi.org/10.1016/j.molstruc.2021.130200	
	Therapeutic Status and Available Strategies in Pancreatic Ductal Adenocarcinoma	Biomedicines	Vol. (Issue): 9(2) Page No. 178 IF: 4.71 Scopus: Yes https://doi.org/10.3390/biomedicines9020178	
	A computational drug repurposing approach in identifying the cephalosporin antibiotic and anti-hepatitis C drug derivatives for	Computers in Biology and Medicine	Vol. (Issue): 130 Page No. 104186 IF: 3.43 Scopus:	

	COVID-19 treatment		Yes https://doi.org/10.1016/j.compbiomed.2020.104186	
	Identification and characterization of novel RdRp and Nsp15 inhibitors for SARS-COV2 using computational approach	Journal of Biomolecular Structure and Dynamics	Vol. (Issue): NA Page No. NA IF: 3.31 Scopus: Yes https://doi.org/10.1080/07391102.2020.1841026	
Tiratha Raj Singh	Neuroinflammation in Alzheimers Disease: Current Therapeutic Approaches and Recent Progress	Journal of Neurology and Brain Disorders	2020, 4 (5), 403-407	1
	Identification of small molecules against cyclin dependent kinase-5 using chemoinformatics approach for Alzheimers disease and other tauopathies	Journal of Biomolecular Structure and Dynamics	2020, 38 (9), 1-14, IF: 3.3	1
	SCAN DB: an integrated catalogue of computationally characterised NER specific skin cancers (Forthcoming article)	International Journal of Bioinformatics Research and Applications	2020, 16 (3), 245-256, SCOPUS	
	Novel structural and functional impact of damaging single nucleotide polymorphisms (SNPs) on human	Meta Gene	2021, 28, 100871, SCOPUS	

	SMYD2 protein using computational approaches			
	Physicochemical characterization of paclitaxel prodrugs with cytochrome 3A4 to correlate solubility and bioavailability implementing molecular docking and simulation studies	Journal of Biomolecular Structure and Dynamics	2021, 39, 1-13, IF: 3.3	
	Computational studies to explore the role of MSI associated DNA mismatch repair mechanisms in HNPCC through expression and interaction data	International Journal of Bioinformatics Research and Applications	16 (4), 408-416, 2021 SCOPUS	
	Recent challenges and progress of potential vaccines for Coronavirus disease 2019 (COVID-19)	International Journal for Computational Biology	9 (1), 7-23, 2021	
	Structure based inference of functional single nucleotide polymorphism and its role in TGFβ1 allied colorectal cancer (CRC)	International Journal of Bioinformatics Research and Applications	17 (1), 80-99, 2021 SCOPUS	
	High-throughput screening of natural compounds and inhibition of a major therapeutic target HsGSK-3 β for Alzheimer's disease using computational	Journal of Genetic Engineering and Biotechnology	19 (1), 1-17, 2021, SCOPUS	1

	approaches			
Udayabanu Malairaman	Biocompatible and fluorescent water based NIR emitting CdTe quantum dot probes for biomedical applications.	Spectrochim Acta A Mol Biomol Spectrosc.	2021, Mar 5;248:119206. doi: 10.1016/j.saa.2020.119206. PMID: 33272844.	
	Effect of Salix alba leave extract on growth performance, antioxidant level and immune status of broiler chickens reared at high altitude cold desert.	Biologia	2021, https://doi.org/10.1007/s11756-021-00795-w	
	Anti-Inflammatory and Anti-Arthritic Potential of Standardized Extract of Clerodendrum serratum (L.) Moon	Front Pharmacol.	2021, 12;12:629607. doi: 10.3389/fphar.2021.629607. PMID: 33912046; PMC8072345.	
Saurabh Bansal	Production and characterization of a novel, thermotolerant fungal phytase from agro-industrial byproducts for cattle feed	Biotechnology Letters	2021, 43:865-879 IF: 1.977	
	Multivariate analysis of adaptive response to ferulic acid and p-coumaric acid after physiological stresses in *Cronobacter sakazakii*	Journal of Applied Microbiology	2021, IF: 3.066	

Patents

S. No.	Patent No. and Date of Grant	Application no.	Title	Department and Inventors
1	Patent No.339128 on 23rd June 2020 granted	Patent application No.362/DEL /2013.	"A process of preparation of nutrient medium useful in enriching medicinal constituents in shoot culture of *Swertiya chirayita*".	Department of BT &BI Hemant Sood, S Gulati, S Bakshi, BS Sandhu,V Kumar and RS Chauhan

- **Books/Book Chapters Published**

Name of Faculty	Book Chapter Title	Name of Book	Reference	Remark
Ashok Kumar		Advances in Probiotics for Sustainable Food and Medicine (2020).Springer series on Microbes for sustainability. Editors; Gunjan Goel and Ashok Kumar. Springer Nature Publishing Singapore.	[ISBN] 9789811567957 https://www.springer.com/gp/book/9789811567940	
		Advances in carbon capture and utilization (2020) Springer series on energy and environment. Editors Deepak Pant, Ashok Kumar, K. K. Pant and Avinash Kumar Agarwal. Springer Nature Publishing, Singapore.	10.1007/978-981-16-0638-0; [ISBN-978-981-16-0637-3].	

		Chemo-biological systems for CO2 utilization (2020). CRC Press Taylor and Francis. Editors; Swati Sharma and Ashok Kumar. Taylor and Francis USA	[ISBN] 9780367321 932.	
Abhishek Chaudhary	Microbial cell factories in nanotechnology	Microbial Diversity, Interventions and Scope	978-981-15-4099-8	
Garlapati Vijay Kumar	Photosynthetic biogas upgrading - An attractive biological technology for biogas upgrading	Emerging Technologies and biological systems for biogas upgrading (Aryal N, Ottosen LDM, Kofoed MVW and Pant D, Eds)	2021, Elsevier, USA, 383-409 (ISBN: 9780128228 081)	
	Potential of High Energy Compounds: Hythane Production	Delivering Low-Carbon Biofuels with Bioproduct Recovery (Dr Lakhveer Singh & Dr. Durga Madhab Mahapatra, Eds)	2020, Elsevier, USA (Accepted, In Press) (1-25) (ISBN: 9780128218 419	
	Electro-active biofilms (EAB): Role in a Bioelctrochemi cal System for waste water treatment and Bioelectricity generation.	In: Microbial Biofilms: Properties and Applications in the Environment, Agriculture, and Medicine (Abdul Bakrudeen Ali Ahmed, Ed),	2020, Taylor and Francis, CRC Press, USA. pp.207-226 (ISBN: 9780367415 068)	
	Comparative Analysis of Biogas with Renewable Fuels and Energy: Physico-Chemical	Biogas Production Technologies (AK Chandel and Nagamani, Eds)	2020, Springer Verlag, Germany, 125-143 (ISBN: 9783030588	

Name of Faculty	Title of Article presented	Name of conference	Reference	Dates
Hemant Sood	Propagation of *Podophyllum hexandrum* Royle to enhance production of podophyllotoxin ..	Endangered Plants	ISBN :978-1-83962-894-8, ebook pdf ISBN:978-1-83962-899-3	Intecho pen Limited, London ,UK
	Rhodiola imbricata .	Himalayan Medicinal Plants: Advances in botany production and research.	ISBN: 978-0-12-823151-7, eBook ISBN: 9780128234303) pp151-167	Elsevier , Acade mic Publish er
	Production of Medicinal Compounds from Endangered and Commercially Important Medicinal Plants Through Cell and Tissue Culture Technology for Herbal Industry. (Web of science)	Bioactive Compounds in nutraceuticals and food for good human health.	ISBN 978-1-83880-887-7.	Intecho pen, London , UK
Tiratha Raj Singh	Application of Deep Learning in Biological Big Data Analysis.	Large-Scale Data Streaming, Processing, and Blockchain Security	pp. 117 - 148). IGI Global, UK. [ISBN: 9781799834441]].	

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| | Properties, and Carbon Footprints. | | 274) | |

- **Conference Publications**

Name of Faculty	Title of Article presented	Name of conference	Reference	Dates
Dr. Tiratha Raj Singh	Computational investigations to	INBIX, 2020	Inbix Proceedings,	3-4 Dec,

	analyze genes involved in lung cancer-associated repair mechanisms using microarray data			1-6, 2020	2020
Prof. Sudhir Kumar	Isolation of metal tolerant microorganisms from natural environment and to analyze their metal bioleaching capabilities. Core of "Urban Mining" and Its Eating Microbes Valorization of agricultural residues for sustainable production of thermo-alkali-stable xylanase Apple pomace: A potential source of energy and its management E-waste: a treasure warrants special attention	A Virtual International Conference on Technologies for Environmental Sustainability and Smart Agriculture	CESTRD, Department of Biotechnology & Bioinformatics Jaypee University of Information Technology Waknaghat	18-19 Sep, 2020

- **Guest Speakers/Lectures**

  - **Guest Speakers**

Name of Guest Speaker	Designation of speaker	Topic of Lecture	Date
Prof Yosi Shacham Diamand	Professor, Tel Aviv University, Israel	Flexible Sensors for Biomedical Applications	08-Sept-2020
Dr Gajanan Ghodke	Donguk University, South Korea	Recent advances in phytoremediation for soil reclamation and water purification	18-Sept-2020
Dr R K Sani	Professor, South Dakota School of Mines and Technology, USA	Microbial technologies in sustainable development of energy, environment, agriculture and health	18-Sept-2020

Dr Vivek Dogra	Senior Scientist, IHBT, Palampur	Plant-environment and interactions: the emerging role of chloroplast	18-Sept-2020
Dr Sumita Varjani	Gujarat Pollution Control Board, Gujarat	Microbial processes for remediation of petroleum hydrocarbons	18-Sept-2020
Dr Prasun Kumar	Yungnam University, South Korea	Renewable substrates in the aid of microbial polyesters	18-Sept-2020
Dr Hesam Kamyab	University of Technology, Malaysia	Production of bioenergy and recovery of nutrient by microalgae produced from agro wastewater palm oil mill effluent POME	18-Sept-2020
Prof SS Kanwar	Professor, HPU, Shimla	Lipopeptides: Peptide antibiotics with diverse biological activities	19-Sept-2020
Dr Swati Tyagi	International Rice Research Institute, Varanasi	Microbial volatile organic compounds: Invisible players for sustainable agriculture	19-Sept-2020
Dr Gaurav Zinta	Senior Scientist, IHBT, Palampur	Mechanistic insights into plant response to global climate change	19-Sept-2020
Dr Abuzar Ansari	Donguk University, South Korea	Environment and human metabolic disease: Management with herbal and omics-technology	19-Sept-2020
Dr Rajesh Jalota	Senior Environmental Officer, Department of Environment and Science, Brisbane. Australia	Environmental sustainability and land restoration	19-Sept-2020
Dr Dipankar Sen Gupta	Queens University Belfast, Northern Ireland, UK	Clinical Bioinformatics: Bridging the Gateway to Precision Medicine,	06 Nov, 2020
Ms Meemansa Sood	Bonn University, Germany	Longitudinal Modeling of Alzheimer's Disease using Machine Learning Methods	07 Dec, 2020
Prof Holger Fröhlich	Head of AI & Data Science Group &	Multi-modal data integration in biomedicine	12 Jan, 2021

	Deputy Head of Department of Bioinformatics at Fraunhofer SCAI, Bonn University, Germany			

- **Lectures Delivered by Faculty**

Name of Faculty	Designation of Faculty	Topic of Lecture	Date	Venue
Raj Kumar	Assistant Professor	An Introduction to Computer-Aided Drug Design	31 Oct, 2020	SAGE University, Indore
Rahul Shrivastava	Associate Professor	Random Insertion Transposon Mutagenesis of *Mycobacterium fortuitum* Identified role of Anthranilate Phosphoribosyl transferase (trpD) in Biofilm Formation and Hypoxic Stress Survival	28 - 30 Jan, 2021	International Conference on Advances in Biosciences and Biotechnology [Jaypee Institute of Information Technology, Noida, India
Tiratha Raj Singh	Associate Professor	Role of Bioinformatics in different domains of Biotechnology	09 Mar, 2021	Department of Biotechnology, UIET, Kurukshetra University (Online)
Tiratha Raj Singh	Associate Professor	Computational Systems Biology	22 Sept, 2020	Computer Science and Engineering Department, G. B. Pant Institute of Engineering and Technology, Pauri Garhwal,

				Uttarakhand, India (Online)
Udayabanu, M.	Associate Professor	Concepts of Pharmaco-dynamics and Pharmacokinetics	09 Jan, 2021	Amity Institute of Biotechnology, Noida (Online)
Sudhir Kumar	Professor	Resource person for UGC-Faculty Induction Program and delivered a webinar on "Ways of Teaching and Learning" for Facultymembers newly inducted in various Govt. Colleges/Universities of India. This was arranged by UGC – Human Resource Development Centre of Guru Nanak Dev University, Amritsar	11 Dec, 2020	GNDU, Amritsar
Sudhir Kumar	Professor	Resource person for UGC-Refresher Course on Environment Conservation and delivered a webinar on "Biogas Technology and Environmental Conservation" This was arranged by UGC – Human Resource Development Centre of Guru Nanak Dev University, Amritsar	24 Nov, 2020	GNDU, Amritsar
Sudhir Kumar	Professor	Resource Person in Faculty Induction	24 Sept, 2020	GNDU, Amritsar

		Programme, UGC Human Resource Development Centre, Guru Nanak Dev University, Amritsar, Punjab. Talk was on Teaching and Learning.		
Sudhir Kumar	Professor	Resource person on E-waste and health Care in a webinar series of Centre of Excellence in Health Care Technologies and Medical Informatics, JUIT, Waknaghat, Solan	09 Oct, 2020	JUIT, Waknaghat
Sudhir Kumar	Professor	Invited Lecture on Biogas from Food Waste: Himachal Pradesh Tackles the Looming Energy Challenge: Organized by Panjab University Alumni Association, PU Chandigarh	15 Sept, 2020	Panjab University, Chandigarh
Sudhir Kumar	Professor	Invited lecture on Women in rural India-Case of Himachal Pradesh in a National Webinar program of Gender Issues and challenges amidst COVID-19. Organized by HSS Dept. of JUIT, Waknaghat, Solan.	24 Aug, 2020	JUIT, Waknaghat
Sudhir Kumar	Professor	Highlights of Biotechnology and Bioinformatics	16 July, 2020	JUIT, Waknaghat

Sudhir Kumar	Professor	Learning for effective Teaching	16 Jan, 2021	JUIT
Jata Shankar	Associate Professor	Detection of Microbial pathogens	12 Dec, 2020	JUIT
Abhishek Chaudhary	Assistant Professor	Nano-biotechnology and its career prospects	19 Feb, 2021	JUIT

- **Recognition & Awards**

  - **By Faculty**

Name of Faculty	Designation of Faculty	Award	Date	Achievement
Garlapati Vijay Kumar	Associate Professor	Listed in Top 2% World's Scientists (2019, Table S7) by Stanford University, USA	Dec 2020	Included in Top 2% World's Scientists
Garlapati Vijay Kumar	Associate Professor	Listed in AD Scientific index 2021: World Scientist and University Rankings 2021	June 2021	Included in World Scientist and University Rankings 2021
Hemant Sood	Associate Professor	Elite + Silver medal in NPTEL online course on Managing Intellectual property in University conducted by NPTEL, IIT Madras and SWAYAM, Funded by the Ministry of HRD,Govt of India	Sept-Oct 2020 course	Elite + Silver medal
Rahul Shrivastava	Associate Professor	First position in Oral Presentation for Medical and Nanobiotechnology Session	28-30Jan, 2021	International Conference on Advances in Biosciences and Biotechnology, Jaypee Institute of Information Technology, Noida, India

- **Related to Journals**

Name of Faculty	Journal Name	Designation*	Publisher	Whether Scopus/ No	Impact Factor
Garlapati Vijay Kumar	Frontiers in Bioengineering and Biotechnology	Editorial Board Member	Frontiers	Yes	3.644
	Frontiers in Catalysis	Editorial Board Member	Frontiers	Yes	Awaiting
	Current Proteomics	Editorial Board Member	Bentham Science	Yes	0.680
	The open Biotechnology Journal	Editorial Board Member	Bentham Open	Yes	Awaiting
	Recent Patents in Biotechnology		Bentham Science	Yes	Awaiting
Jitendraa Vashistt	Frontiers in Microbiology (Antimicrobials, Resistance and Chemotherapyse ction)	Review Editor	Frontiers Media SA	Yes	4.2
Tiratha Raj Singh	PlosOne	Academic Editor	PLOS	Yes	3
Tiratha Raj Singh	IJCB	Managing Editor	Bioclues	No	-

- **Students**

Name of Student	Semester	Award	Date	Achievement
Simran Gohan	Sixth	Second position in E-short Presentation for Medical and Nanobiotechnology	28-30 Jan, 2021	International Conference on Advances in Biosciences and Biotechnology

				[Jaypee Institute of Information Technology, Noida, India
Nayanika Sharma (BTBI) & Pranjal Bhatia (CSE)	Eighth	Research and Innovation Showcase (RAISE) participation	20-25th March, 2021	By IPR Cell, JUIT Solan

- **Composition of Board of Studies (BOS)**

Sr. No.	Name	Designation	Institution
1	Dr Sudhir Kumar	Professor and Head , Dept. of BT & BI	JUIT
2	Dr Anil Kant	Associate Professor, Dept. of BT & BI	JUIT
3	Dr TC Bhalla	Professor, Dept. of BT	HPU, Shimla
4	Mr Girish Minocha	Managing Director	Minchys Industries, Shoghi& Kandaghat
5	Dr Vinay Bhardwaj	Head< Division of Crop Improvement	CPRI, Shimla
6	Dr Tiratha Raj Singh	Associate Professor, Dept. of BT & BI	JUIT
7	Dr Harish Changotra	Associate Professor, Dept. of BT & BI	JUIT
8	Dr Jayashree Ramana	Assistant Professor (Senior Grade), Dept. of BT & BI	JUIT
9	Dr Saurabh Bansal	Assistant Professor (Sr. Grade) Dept. of BT & BI	JUIT
10	Prof (Dr)Samir Dev Gupta	Head Dept. of CSE and IT	JUIT
11	Dr Rajiv Kumar	Head, Dept. of ECE	JUIT
12	Prof (Dr) P B Barman	Professor and Head, Dept. of PMS	JUIT
13	Prof (Dr) Karanjeet Singh	Professor and Head, Dept. of Maths	JUIT
14	Prof (Dr) Ashok Kumar Gupta	Professor and Head, Dept. of CE	JUIT
15	Dr Anupriya Kaur	Associate Professor and Head, Dept. of HSS	JUIT

DEPARTMENT OF CIVIL ENGINEERING

- **Department Vision and Mission**

  ▪ **Vision**

  To strive for excellence, knowledge creation and research contribution in the field of Civil Engineering and to serve the society and the nation with missionary zeal.thus, to be recognized internationally as one of the best centres of research and education in all the areas of Civil Engineering.

  ▪ **Mission**

  To provide a vibrant educational environment to the students in the competitive field of Civil Engineering keeping in view the emerging infrastructural needs of the country as well as the emphasis on IT-enabled Civil Engineering profession.

  To keep pace with the advances in Civil Engineering techniques and technologies to provide training and skills for creative, innovative, and ethical attitude without losing academic focus.

  To provide state-of-the-art skills and knowledge in multi-disciplinary and multi-domain operations to the undergraduate and graduate students; so, they may emerge as leaders in the world of Civil Engineering and highly sought-after professionals to serve the nation and the society.

- **Faculty Details**

S No	Faculty	Qualification	Specializations
1	Ashok Kumar Gupta	PhD	Constitutive Modeling of Geological Materials, Rock Mechanics and FEM
2	Ashish Kumar	PhD	Scouring around Hydraulic Structures, Fluvial Hydraulics
3	Rajiv Ganguly	Post Doctorate	Air pollution, Estimation of NOx / CO Concentrations
4	Amardeep	PhD	Transportation Engineering, Traffic Operation and Analysis, Pedestrian Behaviour, Pavement Materials
5	Rishi Rana	PhD	Environmental Engineering, Solid Waste Management, Life Cycle Assessment
6	Saurav	PhD	Concrete Rheology, Development of HPC with Alcofine

7	Saurabh Rawat	PhD	Slope Stability problems (including Seismic), Soil-nailing, Landfill Design
8	Aakash Gupta	PhD	Pavement Evaluation and Maintenance
9	Tanmay Gupta	PhD	Structural behavior of RCC and Composite Bridges, FEA of Concrete Structures, Seismic behavior of Concrete bridges.
10	Abhilash Shukla	PhD	Structural Dynamics, Concrete Rheology, Blast-resistant Materials
11	Anirban Dhulia	MTech	Low-cost Wastewater treatment, Partial Nitritation, Microbial fuel cell
12	Chandra Pal Gautam	MTech	Rehabilitation of Structure, Concrete Technology, Fracture Mechanics
13	Kaushal Kumar	MTech	Structural Dynamics and Earthquake Engineering; Service Life Assessment of Structures, Structural Modelling and Analysis
14	Niraj Singh Parihar	MTech	Liquefaction, Slope Stability, Hazard Assessment
15	Akash Bhardwaj	MTech	Urban Planning, Transportation Planning, Urban Housing, Water Treatment Processes

PROGRAMS

- ### Undergraduate Programs

  The undergraduate program has been specially designed keeping in view of 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 practical and industry oriented without losing its academic focus.

- ### Post Graduate Programs

  ### MTech (Construction Management)

  This 2-year program aims to impart domain specific knowledge in areas like Construction Techniques, Construction Equipment's, Safety, Planning; Contracts, Financial Management, Sustainable Design; Human Resource Management, Affordable Housing, Value Engineering and Construction

Information Systems through suitable core/compulsory and elective subjects, and capstone projects and thesis work.

MTech (Environmental Engineering)

The 2-year M. Tech program in Environmental Engineering aims to develop competent professionals including consultants, scientists, and technocrats in the field of environmental engineering having requisite skills to solve complicated and practical problems, develop effective communication skills and can work in multifaceted and diverse groups. Beside elective subjects, the course has project work and thesis in the final year.

MTech (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 program is to prepare the students for working in Structural Design teams and if they wish, carry out research in the relevant fields.

- **PhD Program**

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

- **Lab Facilities**

- **New Equipments**

Sl No	Name of Apparatus	Supplier Name	Quantity	Lab
1	Soil sampling tube	Quality Instruments, Roorkee	5	Geotech Lab
2	Sieve (Pan and cap)-8"	Quality Instruments	1	Geotech Lab
3	Vicat's apparatus	Quality Instruments	1	Concrete Lab

4	Gauging Trowel(Long)	Quality Instruments	3	Geotech Lab/ Concrete Lab
5	Gauging Trowel(Short)	Quality Instruments	5	Geotech / Concrete Lab
6	GI Tray (Small)	Quality Instruments	2	Concrete Lab
7	Borosilicate glass Measuring Cylinder (50 ml and 25 ml)	Quality Instruments	02 each	Environment Lab
8	Borosilicate glass Measuring Cylinder 100ml	Quality Instruments	3	Environment Lab
9	pH meter	Quality Instruments	1	Environment Lab
10	Dial Gauges(at least 20 mm)	Quality Instruments	5	Geotech Lab
11	Hydraulic Oil(Sample extruder)	Quality Instruments	5L	Geotech Lab
12	Evaporating Dish (100ml)	Quality Instruments	5	Geotech Lab
13	Test Tube (40 ml Borosilicate)	Quality Instruments	30	Environment Lab
14	Borosilicate glass Beaker (1000 ml)	Quality Instruments	5	Geotech Lab/ Environment Lab
15	Borosilicate glass Beaker (250 ml)	Quality Instruments	10	Environment Lab
16	Conical Flask	Quality Instruments	10	Environment Lab
17	Rubber Membrane for Triaxial	Quality Instruments	8	Geotech Lab
18	O ring for triaxial	Quality Instruments	10	Geotech Lab
19	Sensor for Furnace	JSR Instruments, Roorkee	1	Geotech Lab
20	Neoprene Gasket Rubber Circle	Aimil Ltd., New Delhi	4	Geotech Lab

- **Lab Staff**

Name	Designation	Qualification
Mr Jaswinder Singh	Lab Technician	Diploma, Civil Engineering
Mr Amar Kumar	Lab Technician	Diploma, Civil Engineering
Mr Rajesh Sahu	Lab Technician	Diploma in CSE
Mr Itesh Kumar Singh	Lab Assistant	BTech, Civil Engineering
Mr Pradeep Kumar	Jr Lab Assistant	BSc

- **Labs**

1	Chemistry Laboratory
2	CAD/Software laboratory
3	Engineering Graphics laboratory
4	Workshop Practices Laboratory
5	Fluid Mechanics Laboratory
6	Concrete Technology Laboratory
7	Highway Engineering Laboratory
8	Environmental Engineering Laboratory (shared with Chemistry Laboratory)
9	Geotechnical Engineering Laboratory
10	Structural Mechanics Laboratory
11	Survey Laboratory (storage only)
12	Research laboratories - Fluvial Hydraulics Lab
13	Computational Research Lab

- **List of Major Equipment's**

1. Triaxial Shear Test Apparatus
2. Los angles Abrasion testing machine
3. Ductility testing machine
4. Laboratory C.B.R. apparatus
5. Aggregate crushing value apparatus 30 cm
6. Concrete flow table
7. Direct Shear Test Apparatus
8. Benkelman Beam, Digital
9. Marshall Test Apparatus (Digital)
10. Automatic Compactor for Marshall mould of 100mm diameter
11. Digital Humidity Chamber/Cabinet
12. Electronic Total Station SET 610
13. Accelerated Curing Tank
14. Universal Testing Machine
15. Respirable Dust Sampler
16. Total Station
17. Spectrophotometer
18. Multiparameter Testing Apparatus (pH/BOD)
19. Unconfined Compression test Apparatus
20. Dynamic Cone Penetration Test Apparatus (DCPT)
21. Triaxial Electronic Conversion Kit
22. Hobart Mixer MADE IN U.S.A./GERMANY
23. Flexural Testing Machine capacity – 20 ton (Electrically operated)
24. Compression Testing Machine capacity – 200-ton Digital (Electrically Operated)

25. Lathe Machine 4.5 Feet Long.
26. Milling Machine
27. Furnace (Maximum Temperature 1200 °C)
28. 10m long 0.75m wide and .06m deep rectangular open channel flume

- **List of Software**

| Sl. No.	Name of Software	Version
1	AutoCAD Student	2018
2	Autodesk Revit	2018
3	Autodesk Software Suite includes about 100 Software	2018 or later
4	STAAD.pro	CONNECT Edition V22
5	STADD Foundation/ Advance Foundation	CONNECT Edition V22
6	Bentley S/W Suite includes about 200 software's like Water Gams, Water CAD etc.	CONNECT Edition V22
7	MX ROAD / OPEN ROADS	CONNECT Edition V22
8	PRIMAVERA	P6.1
9	Geo5	V18
10	ESTIMATOR	2
11	ANSYS	12.1
12	PLAXIS 2D	2010
13	Simula Academic includes SIMULIA Abaqus, SIMULIA Isight, SIMULIA Tosca & SIMULIA Fesafe	2019
14	MS PROJECT	2003

- **Equipments**

1. Jar Test Apparatus   2. Hot Bath Apparatus   3. Respirable Dust Sampler
4. COD Digester

5. Civil Engineering Software Lab **6.** Ductility Apparatus 7. CBR Testing Machine
8. Bitumen Extractor/ Marshall Mould Sampler
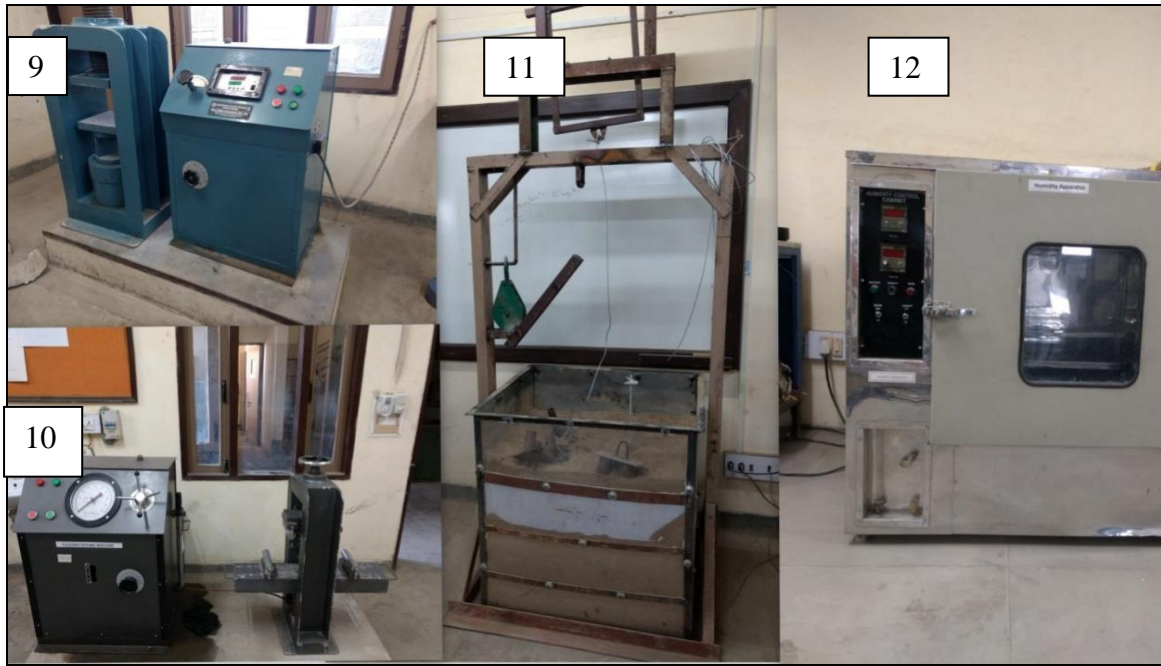
9. Compression Testing Machine **10**. Flexural Strength Testing Apparatus
11. Soil Pulling Apparatus **12**. Humidity Apparatus

13. Civil Engineering Software Lab   14. Direct Shear Test Apparatus
15. Triaxial Shear Test Apparatus   16. Unconfined Compression Machine

17. Muffle Furnace   18. Water Distillation Setup19. Kjedahl Nitrogen Apparatus
20. BOD Incubator

21. Bitumen Mixer/ Impact Testing Machine   22. Hobart Mixer
23. Los angles Abrasion testing machine   24. Marshall Testing Apparatus

25. Open Channel Flume   26. Universal Testing Machine
27. Apparatus for conducting orifice experiments (Cd, Cc, Cv)
28. Soil Pulling Machine

29. Biodegradation Settlement Analyzer 30. Consolidation Apparatus
31. Lathe machine/ Milling Machine
32. Oven

33. Biogas Incubator   34. Total Station/ Theodolite/ Auto Level/ Dumpy Level

35. Open Channel Flume   36. COD Digester/ pH Meter/ Conductivity Meter/
Turbidity Meter

Patents

S.No.	Patent No. and Date of Grant	Application no.	Title	Department and Inventors
1	NA	--	--	--

Research Projects Sanctioned during the Academic Year/In Progress

S. No	Name of Faculty	Project title	Funding Agency	Amount sanctioned	Duration	Current Status
1.	Dr Ashok Kumar Gupta, Dr Tanmay Gupta, and Dr. Saurabh Rawat	Geological Hazards mitigation using stone concrete block retaining walls and helical soil nailing"	District Disaster Management Authority Solan, HP	25 lakhs	3 years	In progress

- **Conferences, Seminars and Workshops/Faculty development program**

- **Conferences Organized**

Dates	Subject	Venue/ Participations	Faculty Name	Remarks
3rd-4th June 2021	Construction materials and Environment (ICCME2021)	JUIT/200	Dr Saurabh Rawat	Program Chair
3rd-4th June 2021	ICCME 2021	JUIT, Waknaghat	Dr Tanmay Gupta	Session Chair

- **Conferences Attended**

Dates	Subject	Venue	Faculty Name	Remarks
19th-21st December2020	Recent Development in sustainable infrastructures	KIIT, Bhubaneswar, India,	Dr Saurabh Rawat	Virtual
18th-19th December 2020	Futuristic and Sustainable Aspects in Engineering and Technology	GLA University, Mathura	Dr Saurabh Rawat	Virtual
28th December 2020	Research in Science, Engineering, Technology and Management	Vaagdevi College of Engineering, Warangal, Telagana, India,	Saurabh Rawat	Virtual
18th-19th September 2020	Technologies for EnvironmentalSustainability and Smart Agriculture	JUIT, Waknaghat (Organized by Centre of Excellence In Sustainable Technologies for Rural Development [CESTRD], JUIT	Dr Tanmay Gupta	Attendee
3rd-04th June 2021	ICCME 2021	JUIT, Waknaghat (Organized by CED, JUIT)	Dr Tanmay Gupta	Author
3rd-04th June	International	Jaypee	Dr	

2021	Conference on Construction Materials and Environment (ICCME2021)	University of Information Technology, H.P India	Amardeep	
12th-15thMay 2021	International Conference on Structural Engineering and Construction Management	Federal Institute of Science and Technology Ernakulam, India	Dr Amardeep	
03rd-04th June 2021	International Conference on Construction Materials and Environment (ICCME2021)	Jaypee University of Information Technology, H.P India	Dr Rishi Rana	Virtual Mode
18th-19th September 2020	International Conference on Technologies for Environmental Sustainability and Smart Agriculture	Centre of Excellence In Sustainable Technologies for Rural Development [CESTRD], Dept. of BT-BI, JUIT Solan	Dr Rishi Rana	Virtual Mode

Seminars

- **Seminars Organized**
  Nil
- **Seminars Attended**

Dates	Subject	Venue	Faculty Name	Remarks
16th July 2020	DevOps World: Unlocking Velocity and Innovation	Virtual Mode	Dr Tanmay Gupta	Organized by Bright Talk Elsevier
9th July 2020	Highway Infrastructure: Planning and Construction	JUET Guna, Virtual Mode	Dr Tanmay Gupta	Organized by CED, JUET Guna
20th July 2020	A closer look into the delay in Transportation Projects	AIT Bengaluru, online	Dr Tanmay Gupta	Organized by CED Atria Institute of Technology, Bengaluru
02ndSeptember	Green and Sustainable	Vishnu Institute of	Dr Tanmay Gupta	Organized by CED Vishnu

2020	Geotechniques for 21st Century Infrastructure	Technology, A.P, online		Institute of Technology, Andhra Pradesh
16thSeptember 2020	Indian Universities and Institutions Network for Disaster Risk Reduction P.M 10-point Agenda 6 on DRR	Virtual Mode	Dr Tanmay Gupta	Organized by National Institute of Disaster Management
27th March 2021	Smart Cities GOI: A Multidisciplinary Aspects of Civil Engineering	JUET Guna, M.P.	Dr Tanmay Gupta	Organized by CED, JUET Guna
9th July 2020	Highway Infrastructure: Planning and Construction	JUET Guna, M.P.	Dr Rishi Rana	Virtual Mode
27th March 2021	Smart Cities GOI: A Multidisciplinary Aspects of Civil Engineering	JUET Guna, M.P.	Rishi Rana	Virtual Mode

Workshops

- ### Workshops Organized

Dates	Subject	Venue	Participation	Faculty Name	Remarks
3rd-8th August 2020	*Sustainable construction practices in civil engineering*	JUIT, Waknaghat, online	50 participants	Dr Tanmay Gupta, Dr. Amardeep and Dr Akash Gupta	For HPPWD officers
17th-23rdNovember 2020	*Sustainable Highway Infrastructure*	JUIT, Waknaghat, online	50 participants	Dr Tanmay Gupta, Dr. Amardeep and Dr Akash Gupta	For HPPWD officers
20th – 21st August 2020	*Waste Management – Issues and Concerns*	JUIT, Waknaghat, online	200 participants	Dr Rishi Rana & Mr Kaushal Kumar	Virtual Mode

- ### Workshops Attended

Dates	Subject	Venue	Faculty Name	Remarks

03rd -08th, August,2020	One Week Workshop on "Sustainable Construction Practice for Civil Engineers	Department of Civil Engineering, JUIT, Waknaghat, Solan	Saurabh Rawat	Virtual Mode
20th – 21st August 2020	Two-day workshop on 'Waste Management - Issues and Concerns'	Department of Civil Engineering, JUIT, Waknaghat, Solan	Saurabh Rawat	Virtual Mode
24th September to 1st October 2020	Indo-Canadian Workshop on Inter active Design in Geotechnical Engineering: Theory to Practice (Online)	NITK, Surathkal, IGS Surathkal Chapter, IIT Kanpur, TC 206 of ISSMGE (Interactive Geotechnical Design) and University of Ottawa, ON K1N 6N5, Canada	Saurabh Rawat	Virtual Mode
26th - 30th September 2020	STC on Advances in Geotechnical Engineering for Sustainable Development	IGS Srinagar chapter in association with Department of Civil Engineering, NIT Srinagar	Saurabh Rawat	Virtual Mode
20th-24thOct ober 2020	Online STC on "Sustainable, Resilient and Smart Built Infrastructure in Developing Countries"	Department of Civil Engineering, Dr. B. R. Ambedkar National Institute of Technology, Jaland har	Saurabh Rawat	Virtual Mode
17th-23rd, Novemb er 2020	One week Workshop on "Sustainable Highway Infrastructure"	Department of Civil Engineering, Jaypee University of Information Technology, Waknaghat, Solan	Saurabh Rawat	Virtual Mode
03rd - 08thAugus t2020	one week workshop sustainable construction practices for civil engineers.	Workshop organized by Department of Civil Engineering, JUIT	Dr Saurav	Virtual Mode
10th-15thAug ust 2020	Short term course on Recent Advances in Computational Intelligence for Signal Processing (RACISP - 2020)	JUIT, Virtual mode	Dr Tanmay Gupta	Organized by ECE, JUIT
20th-21stAug ust 2020	Waste Management: Issues and Concerns	JUIT, Virtual Mode	Dr Tanmay Gupta	Organized by CED, JUIT

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25th-29th August 2020	Short term course on "Construction Materials and Methods in Civil Engineering	NIT Jalandhar, Virtual Mode	Dr Tanmay Gupta	Organized by CED, NIT Jalandhar under TEQIP
5thSeptember 2020	An introduction to AR-VR and the way it is transforming the world we live in	JUIT, Virtual Mode	Dr Tanmay Gupta	Organized by E&C, JUIT
15th-17th September 2020	Short term training program on "Application on MATLAB in mathematics, science and engineering	Virtual Mode	Dr Tanmay Gupta	Organized by St. Vincent college Nagpur
5th-9thOctober 2020	Virtual global summit on Artificial Intelligence: Responsible AI for social empowerment	Virtual Mode	Dr Tanmay Gupta	Organized by Ministry of Electronics and Information Technology, GOI
5th-10thOctober 2020	Short term training program on Industrial Pollution and Control Strategies	Anurag University, Virtual Mode	Dr Tanmay Gupta	Organize by Chemical Engineering Department, Anurag Group of Institutions Telangana
2nd-8thFebruary 2021	Advanced Excel with Data Visualization	IIT Kanpur E&ICT Academy, Virtual Mode	Dr Tanmay Gupta	Joint Initiative of MeitY & IIT Kanpur
12th-16thMarch 2021	Short term course on Importance of Environmental Engineering and Climate Change	NIT Meghalaya, Virtual Mode	Dr Tanmay Gupta	TEQIP-III sponsored STP by NIT Meghalaya
18th-20thMarch 2021	Training program on Content Orientation Programme on CCDRR	NIDM and Central University of South Bihar, Virtual Mode	Dr Tanmay Gupta	Organized by National Institute of Disaster Management, Ministry of Home Affairs, Govt. of India in collaboration with University of

				South Bihar
23rd-25thMarch 2021	3 days Training Programme on Basic Principles of Disaster Management	NIDM and Bennett University, Virtual Mode	Dr Tanmay Gupta	Organized by National Institute of Disaster Management, Ministry of Home Affairs, Govt. of India in collaboration with Bennett University
31stMarch 2021	Training program on Sendai Framework for Disaster Risk Reduction Translating for Priority one to two	NIDM and BITS Pilani, Virtual Mode	Dr Tanmay Gupta	Organized by National Institute of Disaster Management, Ministry of Home Affairs, Govt. of India in collaboration with Birla Institute of Technology & Science (BITS) Pilani
12thJune 2021	Earthquake Risk Preparedness in Northeast India	NIDM and Northeastern Hill University Shillong, Virtual Mode	Dr Tanmay Gupta	Organized by National Institute of Disaster Management, Ministry of Home Affairs, Govt. of India in collaboration Northeastern Hill University Shillong
03rd - 08th, August, 2020	One Week Workshop on "Sustainable Construction Practice for Civil Engineers	Department of Civil Engineering, JUIT, Waknaghat, Solan	Dr Rishi Rana	Virtual Mode
20th – 21st August, 2020	Two-day workshop on 'Waste Management - Issues and Concerns'	Department of Civil Engineering, JUIT, Waknaghat, Solan	Dr Rishi Rana	Virtual Mode
10th– 15thAug	Short term course on Recent	Organized by Department of ECE,	Kaushal Kumar	Virtual Mode

Dates	Subject	Venue		Faculty Name	Remarks
ust 2020	Advances in Computational Intelligence for Signal Processing (RACISP - 2020)	JUIT Waknaghat, Solan, H.P.			
03rd- 08th, August2 020	One Week Workshop on "Sustainable Construction Practice for Civil Engineers	Department of Civil Engineering, JUIT, Waknaghat, Solan		Prof Ashish Kumar	Virtual Mode

- **Faculty Development Program –**

  - *FDPs Organized*

Dates	Subject	Venue	Partici pation	Faculty Name	Remarks
20th - 24th July 2020	CEP on "Current Aspects and Research Opportunities in Civil Engineering"	Dept. of Civil Engg., JUIT, Waknaghat, Virtual Mode	108	Dr Rajiv Ganguly, Dr Aakash Gupta, and Mr. Anirban Dhulia	Virtual Mode
4th-8th January 2021	One week Faculty Development Program on "Waste Management for Sustainable Development	Department of Civil Engineering, Jaypee University of Information technology, Waknaghat, Solan	120	Dr Rishi Rana & Mr. Kaushal Kumar	Virtual Mode

  - *FDPsAttended*

Dates	Subject	Venue	Faculty Name	Remarks
7th-11thSepte mber 2020	Green Energy: The Energy of Future	Conducted by Department ofElectrical Engineering, Swami Keshvanand Institute of Technology, Management & Gramothan Jaipur	Prof Ashish Kumar	Virtual Mode
4th-8th January	One week Faculty	Department of Civil	Dr Saurabh Rawat	Virtual Mode

2021	Development Program on "Waste Management for Sustainable Development	Engineering, Jaypee University of Information technology, Waknaghat, Solan		
25th-29thNovember 2020	ATAL FDP on "Sustainability Engineering"	Department of Civil and Environmental Engineering Kolhapur Institute of Technology's College of Engineering (Autonomous), Gokul Shirgaon, Kolhapur - 416234, Maharashtra, INDIA	Dr Saurabh Rawat	Virtual Mode
12th–16thOctober 2020	Online Faculty Development Program (FDP) on "Advances in Environmental Geotechnics"	Department of Civil Engineering, National Institute of Technology (NIT) Andhra Pradesh.	Dr Saurabh Rawat	Virtual Mode
10th-14th, August, 2020	One-week National Faculty Development Program on "Disaster Management Mitigation and Response (DMMR-2020)"	Sponsored by TEQIP phase III by Department of Civil Engineering, Assam Engineering College, Guwahati.	Dr Saurabh Rawat	Virtual Mode
20th – 24th July 2020	Continuing Education Program (CEP) entitled 'Current Aspects and Research Opportunities in Civil Engineering.	Department of Civil Engineering, Jaypee University of Information technology, Waknaghat, Solan	Dr Saurabh Rawat	Virtual Mode
20th – 24th July 2020	Current Aspects and	FDP organized by Department of	Dr Saurav	Virtual Mode

	Research Opportunities in Civil Engineering"	Civil Engineering, JUIT Waknaghat.		
4th-8th, January, 2021	One week Faculty Development Program on "Waste Management for Sustainable Development	Department of Civil Engineering, Jaypee University of Information technology, Waknaghat, Solan	Dr Saurav	Virtual Mode
13th-17thJune 2020	SciLab Software	JUIT, Waknaghat Virtual Mode	Dr Tanmay Gupta	Conducted by JUIT in collaboration with IITB spoken tutorial
20th – 24th July 2020	Current aspects and research opportunities in civil engineering	JUIT, Waknaghat Virtual Mode	Dr Tanmay Gupta	Conducted by CED, JUIT
31st August – 5th September 2020	Computational Intelligence Techniques for Machine Learning	JUIT, Waknaghat Virtual Mode	Dr Tanmay Gupta	Conducted by Computer Science Department, JUIT
7th-11thSeptember 2020	Green Energy: The Energy of Future	(SKIT M & G), Virtual Mode	Dr Tanmay Gupta	Conducted by Department of Electrical Engineering, Swami Keshvanand Institute of Technology, Management & Gramothan Jaipur
9th-23rd September 2020	Recent Trends in Beyond 5G	Ujjain Engineering College, Virtual Mode	Dr Tanmay Gupta	Under the Scheme of MHRD, Govt. of India "Ek Bharat Shrestra Bharat" sponsored by TEQIP-III
21st-23rdSeptember 2020	Outcome based engineering education and accreditation	NIT Meghalaya, Online	Dr Tanmay Gupta	TEQIP-III sponsored FDP by NIT Meghalaya
23rd-27thSepte	Designing Pedagogies for	NIT Kurukshetra, Virtual Mode	Dr Tanmay Gupta	TEQIP-III sponsored by

mber 2020	Online Teaching and Learning			NIT Kurukshetra and Engineering College Bikaner
23rd-28thSeptember 2020	Emerging Trends In Civil Engineering	AIT, Bengaluru Virtual Mode	Dr Tanmay Gupta	Organized by CED Atria Institute of Technology, Bengaluru
20th – 24th July 2020	Current Aspects and Research Opportunities in Civil Engineering"	FDP organized by Department of Civil Engineering, JUIT	Akash Bhardwaj	Virtual Mode
4th-8th, January, 2021	One week Faculty Development Program on "Waste Management for Sustainable Development	Department of Civil Engineering, Jaypee University of Information technology, Waknaghat, Solan	Akash Bhardwaj	Virtual Mode
7th-11thSeptember 2020	Green Energy: The Energy of Future	Conducted by Department of Electrical Engineering, Swami Keshvanand Institute of Technology, Management & Gramothan Jaipur	Kaushal Kumar	Virtual Mode

- **Publications**

  - **Journal Publications**

Name of Faculty	Title of Article	Name of Journal	Reference	Citation
Prof Ashok K Gupta, Prof Ashish Kumar& Dr Aakash Gupta	Rural Road Maintenance Prioritization Index Based on Functional and Structural Parameters for Rural Road Network in Himachal Pradesh	Indian Highways	Indian Highways 49 (4), 16-27	
Prof Ashok K Gupta,	Development of Road Roughness Model using	Indian Highways- Indian	Aakash Gupta, Pradeep Kumar, Ashok Kumar	

Prof Ashish Kumar, and Dr. Aakash Gupta	Analytical Hierarchy Process for Rural Road Network in Himachal Pradesh	Roads Congress	Gupta, Ashish Kumar (2020). "Development of Road Roughness Model using Analytical Hierarchy Process for Rural Road Network in Himachal Pradesh". *Indian Highways-Indian Roads Congress*, 48 (11), 23-33	
Prof Ashok K Gupta & Dr Saurabh Rawat	Laboratory Investigation of Pullout Behavior of Open-Ended Pipe Helical Soil Nail in Frictional Soil	Geotechnical and Geological Engineering	Sharma, P., S. Rawat, and A. K. Gupta. 2021. "Laboratory Investigation of Pullout Behavior of Open-Ended Pipe Helical Soil Nail in Frictional Soil.", pp.1-12. https://doi.org/10.1007/s10706-020-01666-y	1
Prof Ashok K Gupta & Dr. Saurabh Rawat	Experimental and Numerical Investigation of Load Carrying Capacity of Vertically and Horizontally Reinforced Floating Stone Column Group.	Geotechnical and Geological Engineering	Thakur, A., S. Rawat, and A. K. Gupta, 2021. "Experimental and Numerical Investigation of Load Carrying Capacity of Vertically and Horizontally Reinforced Floating Stone Column group." *Geotechnical and Geological Engineering*, pp.1-16. https://doi.org/10.	

			1007/s10706-020-01674-y	
Prof Ashok K Gupta & Dr Saurabh Rawat	Experimental and numerical modeling of group of geosynthetic - encased stone columns."	Innovative Infrastructure Solutions	Thakur, A., S. Rawat, and A. K. Gupta. 2021. "Experimental and numerical modeling of group of geosynthetic - encased stone columns." *Innovative Infrastructure Solutions*, 6(1), pp. 12. https://doi.org/10.1007/s41062-020-00379-8	
Prof Ashok K Gupta & Dr Saurabh Rawat	"Experimental study of ground improvement by using encased stone columns	Innovative Infrastructure Solutions,	Thakur, A., S. Rawat, and A. K. Gupta. 2020. "Experimental study of ground improvement by using encased stone columns." *Innovative Infrastructure Solutions*, 6(1), pp. 1-13. https://doi.org/10.1007/s41062-020-00383-y	
Prof Ashok K Gupta & Dr. Saurabh Rawat	Loose Ash Fills Reinforced with the High Confined Encased Stone Columns: Experimental and Numerical Investigation.	Geotechnical and Geological Engineering	Jala, S.K., S. Rawat, A. K. Gupta. 2020. "Loose Ash Fills Reinforced with the High Confined Encased StoneColumns: Experimental and Numerical	

			Investigation." *Geotechnical and Geological Engineering*, pp. 1-18. https://doi.org/10.1007/s10706-020-01641-7	
Prof Ashok K Gupta & Dr. Saurabh Rawat	Laboratory investigation of pullout behavior of hollow and solid shaft helical nail in frictional soil."	Acta Geotechnica.	Sharma, P., S. Rawat, and A. K. Gupta. 2020. "Laboratory investigation of pullout behavior of hollow and solid shaft helical nail in frictional soil." *Acta Geotechnica.* https://doi.org/10.1007/s11440-020-01069-6	
Prof Ashok K Gupta & Niraj Parihar	Improvement of engineering properties of expansive soil using liming leather waste ash	Bulletin of Engineering Geology and the Environment	Bulletin of Engineering Geology and the Environment 80 (3), 2509-2522 (2021)	
Prof Ashok K Gupta & Dr. Rajiv Ganguly	Characterization and Waste to Energy Techniques for improving Municipal Solid Waste in Una Town, Himachal Pradesh, India – A Case Study	Journal of Solid Waste Technology and Management	Disha Thakur, Rajiv Ganguly, Ashok Kumar Gupta (2020) 'Characterization and Waste to Energy Techniques for improving Municipal Solid Waste in Una Town, Himachal Pradesh, India – A Case Study. *Journal of Solid Waste Technology and Management,46 (4), 547-562. (Scopus Indexed).*	

Prof Ashok K Gupta & Dr Rajiv Ganguly	Laboratory Analysis and Prediction of Settlement of Municipal Solid Waste under Anaerobic Condition.'	Journal of Institution of Engineers (Series A)	Disha Thakur, Ashok Kumar Gupta, Rajiv Ganguly (2020) 'Laboratory Analysis and Prediction of Settlement of Municipal Solid Waste under Anaerobic Condition.' *Journal of Institution of Engineers (Series A)*, 101(3), 455-462(Scopus Indexed) https://doi.org/10.1007/s40030-020-00456-2	
Prof Ashok K Gupta & Dr Amardeep Boora	"Sub-grade characteristics of clayey soil incorporating municipal solid waste incineration ash and marble dust"	Journal of Engineering, Design and Technology	Singh, P., Boora, A., and Gupta, A.K. (2021), "Sub-grade characteristics of clayey soil incorporating municipal solid waste incineration ash and marble dust", *Journal of Engineering, Design and Technology*, https://doi.org/10.1108/JEDT-08-2020-0347	
Dr Rajiv Ganguly	Short-term impacts of air pollutants in three megacities of India during COVID-19 lockdown.'	Environment, Development and Sustainability	Rajiv Ganguly, Divyansh Sharma, Prashant Kumar (2021) 'Short-term impacts of air pollutants in three megacities	

			of India during COVID-19 lockdown.' *Environment, Development and Sustainability,* **(SCI Indexed, IF (2019/20) – 2.191)**https://doi.org/10.1007/s10668-021-01434-9	
Dr Rajiv Ganguly	Spectral characterization of sediment of two lake water bodies and its surrounding soil in Haryana, India.'	Arabian Journal of Geosciences	Prachi Vasistha, Rajiv Ganguly (2021) 'Spectral characterization of sediment of two lake water bodies and its surrounding soil in Haryana, India.' Arabian Journal of Geosciences, 14, Article ID 48. (SCI Indexed, IF (2019/20) – 1.327) https://doi.org/10.1007/s12517-020-06425-0	
Dr Rajiv Ganguly	Dispersion Modeling of Air Pollutants in a Hilly City in India.	Journal of Hazardous, Toxic and Radioactive Waste	Rajiv Ganguly, Divyansh Sharma, Prashant Kumar, B.R. Gurjar (2021) 'Dispersion Modeling of Air Pollutants in a Hilly City in India.' *Journal of Hazardous, Toxic and Radioactive Waste, 25(2), Article ID:*	

			04020073 (**ASCE Publications, Scopus Indexed**). https://doi.org/10.1061/(ASCE)HZ.2153-5515.0000574	
Dr Rajiv Ganguly & Dr Rishi Rana	'Water Quality Indices: challenges and applications – an overview.'	Arabian Journal of Geosciences	Rishi Rana, Rajiv Ganguly (2020) 'Water Quality Indices: challenges and applications – an overview.' Arabian Journal of Geosciences, 13, Article ID 1190. (SCI Indexed, IF (2019/20) – 1.327) https://doi.org/10.1007/s12517-020-06135-7	
Dr Amardeep	Statistical Analysis for Assessing the Built Environment Walkability of an Urban Area	European Transport	Accepted	
Dr Saurav	'Failure Analysis of Unconfined Brick Masonry with Experimental Verification'	Journal of Failure Analysis and Prevention	Shukla, A.K., Kumar, S. & Maiti, P.R. 'Failure Analysis of Unconfined Brick Masonry with Experimental Verification'. J Fail. Anal. and Preven. 21, 419–428 (2021). https://doi.org/10.1007/s11668-021-01116-8	
Dr Saurav	Experimental study of corrosion in steel fiber reinforced concrete	Journal of Structural Engineering	Vol. 47, No. 2, June - July 2020 pp. 144-151[Scopus indxed]	

Name of Faculty	Title of Paper	Name of Journal	Reference	Remark
	incorporating alccofine using half-cell potential method			
Kaushal Kumar	Review Paper on Time and Cost Contingency Assessment for Highway Project	International Journal of Research and Technology	IJRT, Volume 9, Issue 1, March_ 2021 [ISSN: 2321–7529]	
Akash Bhardwaj	Planning Proposals for Chemical industrial Township – Study of Vapi GIDC and Dahej phase I	International Journal of Management, Technology and Engineering	IJMTE Journal, Volume X, Issue XII, July 2020	

- **Books/Book Chapters Published**

Name of Faculty	Title of BookChapter	Name of Book	Reference	Remark
Dr Rajiv Ganguly & Dr Rishi Rana	'Hazardous Waste and its Associated Health Risks.'	Hazardous Waste Management and Health Risks. Bentham Science Publications	Rishi Rana, Rajiv Ganguly (2020) 'Hazardous Waste and its Associated Health Risks.' In: Marfe G. and Di Stefano C (eds) Hazardous Waste Management and Health Risks. Bentham Science Publications https://doi.org/10.2174/9789811454745120010006	
Dr Rajiv Ganguly	'Hazardous Waste – Types and Sources.'	In: Hussain C.M. (eds) The Handbook of Environmental Remediation: Classic and Modern Techniques. Royal Society of Chemistry	Saurabh Shukla, Rajiv Ganguly, Chaudhery Mustansar Hussain (2020) 'Hazardous Waste – Types and Sources.' In: HussainC.M. (eds) The Handbook of Environmental Remediation: Classic and Modern Techniques.Royal Society of Chemistry. https://pubs.rsc.org/en/content/chapter/bk9781788013802-00024/978-1-78801-380-2	

Dr Rajiv Ganguly	'Economic, Legal and Safety Issues of Environmental Site Remediation.'	In: Hussain C.M. (eds) The Handbook of Environmental Remediation: Classic and Modern Techniques. Royal Society of Chemistry	Rajiv Ganguly, Chaudhery Mustansar Hussain (2020) 'Economic, Legal and Safety Issues of Environmental Site Remediation.' In: HussainC.M. (eds) The Handbook of Environmental Remediation: Classic and Modern Techniques. Royal Society of Chemistry. https://pubs.rsc.org/en/content/chapter/bk9781788013802-00468/978-1-78801-380-2	
Dr Saurabh Rawat	Strength Comparison of Flexible Materials for Stability of Slope	Lecture Notes In Civil Engineering By Springer.	Tangri, A., S. Rawat. 2021. "Strength Comparison of Flexible Materials for Stability of Slope." In proceedings of 7th International Conference on Recent Advances in Geotechnical Earthquake Engineering and Soil Dynamics (ICRAGEE 2021) organized by IISc, Bangalore during July 14-16, 2021, published in book volume entitled LECTURE NOTES IN CIVIL ENGINEERING by Springer.	
Dr Saurabh Rawat	Soil Nails for Slope Reinforcement : A Lab-based Model Study	Material's Today (Elsevier)	Tangri, A., S. Rawat. 2021. "Soil Nails for Slope Reinforcement: A Lab-based Model Study" In Proceedings: Material's Today (Elsevier) of ICRSETM-2020 by Vaagdevi College of Engineering, Warangal, Telagana, India, December 28th, 2020	
Dr	*A*	Advances in	https://link.springer.com/b	

| Saurav | *Comparative Study of Fire Resistance of Concrete Incorporating Ultrafine Slag* | Industrial Safety | ook/10.1007/978-981-15-6852-7 | |
| Dr Saurav | *Experimental and Numerical Study to Improve Lateral Load Resistance of Masonry Stack.* | Advances in Structural Engineering and Rehabilitation : Lecture Notes in Civil Engineering | https://link.springer.com/book/10.1007/978-981-13-7615-3 | |

- **Conference Publications**

Name of Faculty	Title of Article presented	Name of conference	Reference	Dates
Dr Saurabh Rawat	Analysis of Risk Assessment in Highway Projects Using Importance Index	IOP Conference Series Material Science and Engineering.	Garg, R., S. Rawat. 2020. "Analysis of Risk Assessment in Highway Projects Using Importance Index" In proceedingsof International Conference on Futuristic and Sustainable Aspects in Engineering and Technology,2020.Organized by Department of Mechanical& Civil Engg, GLA University, Mathura.	18th-19[th]December 2020
Dr Saurabh Rawat	Performance evaluation of black cotton soil mixed with bagasse ash and onion skin	In proceedings of international conference on Recent Development in sustainable infrastructures (Research Practices published by	Chauhan. H., S. Rawat, and A. K. Gupta. 2020. "Performance evaluation of black cotton soil mixed with bagasse ash and onion skin." In proceedings of international conference on Recent Development	19th-21st December2020

		Springer Nature, Singapore	in sustainable infrastructures (Research Practices) organized by School of Civil Engineering, KIIT, Bhubaneswar, India,	
Dr Amardeep	Examination of Platooning Variables on Two-Lane Highways Having Mixed Traffic Situation	Lecture Notes in Civil Engineering	Accepted for publication in Springer nature book chapter. **[Scopus Indexed]**	3rd–4th June 2021
Dr Amardeep	Walkability Analysis of an Urban Area: Gender Based and Combined Model Approach	Lecture Notes in Civil Engineering	Accepted for publication in Springer nature book chapter. **[Scopus Indexed]**	3rd–4thJune 2021
Dr Amardeep	State of Art: Review for Sustainable Application of Waste Material in Rigid Pavement	Lecture Notes in Civil Engineering	Accepted for publication in Springer nature book chapter. **[Scopus Indexed]**	3rd– 4th June 2021
Dr Amardeep	Mechanical Properties of Concrete Containing Plastic Fiber	Lecture Notes in Civil Engineering	Accepted for publication in Springer nature book chapter. **[Scopus Indexed]**	3rd– 4th June 2021
Dr Amardeep	Improving Highway Alignment using Openroads Software	Lecture Notes in Civil Engineering	Accepted for publication in Springer nature book chapter. **[Scopus Indexed]**	3rd– 4th June 2021
Dr Tanmay Gupta	), 'Seismic Behaviour of Skew-Curved Bridges under longitudinal excitation'	In proceedings of 3rd international conference on trends and recent advances in civil engineering	Tanmay Gupta and Dikshit Sandhu (2020), 'Seismic Behaviour of Skew-Curved Bridges under longitudinal excitation'. 3rd international conference on trends and recent advances	3rd– 4th June 2021

		(TRACES 2020), 20-21 August 2020, Amity University Uttar Pradesh Noida, India	in civil engineering (TRACES 2020), 20-21 August 2020, Amity University Uttar Pradesh Noida, India	
Dr Tanmay Gupta	'Analytical Investigation of Moment Resisting Frame Structure – A case study on Performance-Based Capacity spectrum method'	Lecture Notes in Civil Engineering	Accepted for publication in Springer nature book chapter. **[Scopus Indexed]**	3rd– 4th June 2021
Dr Tanmay Gupta	'Comparative Investigation on Mode Shapes and Natural Frequency of Low-Rise RC Frame Building'	Lecture Notes in Civil Engineering	Accepted for publication in Springer nature book chapter. **[Scopus Indexed]**	3rd– 4th June 2021
Akash Bhardwaj	Simulation of an Intersection using PTV VISSIM	ICCME2021	book volume entitled as "LECTURE NOTES IN CIVIL ENGINEERING" published by SPRINGER and indexed in SCOPUS	3rd–4th June 2021
Dr Rishi Rana	Analysis and Visualization of Twitter Data using R	Sixth International Conference on Parallel, Distributed and Grid Computing (PDGC), 2020	A. Sharma and R. Rana, "Analysis and Visualization of Twitter Data using R," 2020 Sixth International Conference on Parallel, Distributed and Grid Computing (PDGC), 2020, pp. 455-459, **DOI:** 10.1109/PDGC 50313.2020.9315740	6th – 8thNovember 2020

• **Guest Speakers/Lectures/ Visits**

- **Guest Speakers**

Name of Guest Speaker	Designation of speaker	Topic of Lecture	Date
Mr V Suresh	Chairman, Indian Green Building Council (IGBC)	Inauguration Ceremony of Indian Green Building Council, Student Chapter at Jaypee University of Information Technology, Solan, H.P.	13th May 2021
Ar Jit Kumar Gupta	Chairman, IGBC Chandigarh Chapter	Inauguration Ceremony of Indian Green Building Council, Student Chapter at Jaypee University of Information Technology, Solan, H.P.	13th May 2021
Mr M Anand	Principal Counsellor, CII IGBC	Inauguration Ceremony of Indian Green Building Council, Student Chapter at Jaypee University of Information Technology, Solan, H.P.	13th May 2021

- **Lectures Delivered by Faculty**

Name of Faculty	Designation of Faculty	Topic of Lecture	Date	Venue
Dr Saurav	Assistant Professor	Fundamentals of RCC design and its application	16th October 2020	Virtual Mode
Dr Tanmay Gupta	Assistant Professor, Senior grade	Concrete sample testing strength assessment	8th August 2020	JUIT Waknaghat, Virtual Mode
Akash Bhardwaj	Assistant Professor	Planning and Design Concept for Pedestrians	21st November 2020	JUIT Solan

- **Visits Organized**   Nil

Recognition & Awards

- **By Faculty**

Name of Faculty	Designation of Faculty	Award	Date	Achievement

Dr Ashish Kumar	Professor	Certificate of Appreciation	19th October 2020	Installation of three Bio-gas reactor at 3BRD, Air ForceChandigarh, as good will gesture and free of cost.
Dr Saurabh Rawat	Assistant Professor [SG]	Best Reviewer Award	10th November 2020	Best Reviewer Award for the section Civil Engineering, Slope Stability by *Engineering Reports by John Wiley & Sons Ltd*
Dr Tanmay Gupta	Assistant Professor, Senior grade	Nvidia Jetson Grant	19thMarch 2021	Received developer's kits from Nvidia for introducing AI and robotics

- **Composition of Various Bodies**

  - **Board of Studies (BOS)**

Sr. No.	Name	Designation	Institution
1	Prof Ashok Kumar Gupta	Head of the Department, Civil Engineering	Jaypee University of Information Technology, Waknaghat
2	Prof S K Singh	Professor	PEC Chandigarh
3	Prof Samir Dev Gupta	Head of the Department, CSE/IT	Jaypee University of Information Technology, Waknaghat
4	Dr Rajiv Kumar	Head of the Department, ECE	Jaypee University of Information Technology, Waknaghat
5	Prof Karanjeet Singh	Head of the Department, Mathematics	Jaypee University of Information Technology, Waknaghat
6	Prof. Sudhir Kumar	Head of the Department, BT/ BI	Jaypee University of Information Technology, Waknaghat
7	Dr. Anupriya Kaur	Head of the Department, HSS	Jaypee University of Information Technology
8	Prof. Ashish Kumar	Professor, CE	Jaypee University of Information Technology

9	Dr Rajiv Ganguly	Associate Professor, CE	Jaypee University of Information Technology
10	Mr Yeshpal Vasishta	Executive Engineer	HPPWD
11	Ms Surabhi Sharma	Faculty, CE	Jawaharlal Nehru Government Engineering College, Sundernagar
12	Dr. Saurabh Rawat	Assistant Professor, CE	Jaypee University of Information Technology

- **List of Various Departmental Coordinators**

PhD Coordinator	Dr.Saurabh Rawat
M Tech Coordinator	MTech EE: Dr Rajiv Ganguly MTech SE: Mr Chandra Pal Gautam MTech CM: Dr Saurabh Rawat
M. Tech Seminar Coordinator	MTech EE: Dr Rajiv Ganguly MTech SE: Mr Chandra Pal Gautam MTech CM: Dr Saurabh Rawat
BTech Coordinator	Mr Chandra Pal Gautam & Dr. Saurav
Placement Coordinator	Mr Aakash Gupta & Mr. Anirban Dhulia
Department Club Coordinator	Mr Chandra Pal Gautam
BOS Coordinator	Prof A K Gupta
NAAC Coordinator	Dr. Rajiv Ganguly
NBA Coordinator	Mr Anirban Dhulia
Library Coordinator	Mr Niraj Singh Parihar
Student Exchange Data Management Coordinator	Mr Anirban Dhulia
Program Assessment and Quality Improvement Committee Coordinator	Prof Ashish Kumar
Virtual Lab	Mr Aakash Gupta & Dr. Saurav
MOOC/SWAYAM courses Coordinator	Dr Rajiv Ganguly

Course Curriculum Evaluation Coordinator	Prof Ashok Kumar Gupta & Mr. Chandra Pal Gautam
Academically Weak Students Committee	Mr Niraj Singh Parihar
Consultative Committee	Dr Rajiv Ganguly
Website Maintenance Coordinator	Mr Tanmay Gupta
Lab In charge	▪ Highway Engineering Lab: **Mr Aakash Gupta** ▪ Environmental Engineering & Chemistry Lab: **Dr Rajiv Ganguly** ▪ Concrete Technology Lab: **Dr Saurav** ▪ Geotechnical Engineering Lab: **Mr Niraj Singh Parihar** ▪ Workshop Practices: **Mr Kaushal Kumar** ▪ Engineering Graphics Lab: **Mr Niraj Singh Parihar** ▪ Surveying Lab: **Prof Ashish Kumar** ▪ Geology Lab: **Dr Saurabh Rawat** ▪ Civil Engineering Software Lab: **Mr Tanmay Gupta** ▪ Structural Mechanics Lab: **Mr Chandra Pal Gautam** ▪ Fluid Mechanics Lab: **Prof Ashish Kumar** ▪ Fluvial Hydraulics Lab: **Prof Ashish Kumar** ▪ Computational Research Lab: **Mr Kaushal Kumar**
Research Publications, Patents and IPR	Dr Rajiv Ganguly/ Dr Saurabh Rawat
Attendance Review Coordinator	Mr Akash Bhardwaj
Feedback of Students Coordinator	Mr Chandra Pal Gautam
Mentoring Coordinator	Mr Niraj Singh Parihar
Expert lecture/ Workshop organized/ Seminar data collection Coordinator	Dr Amardeep, Dr Pankaj Kumar & Mr Tanmay Gupta
Course Files/Lab files Coordinator	Mr Anirban Dhulia

Faculty Project proposal I/C	Dr Rajiv Ganguly & Prof Ashok Kumar Gupta
Hilly Ramblings Coordinator	Prof Ashish Kumar
Result Coordinator	Prof Ashok Kumar Gupta
Finance Coordinator	Mr Niraj Singh Parihar
M-Tech Load Distribution	Mr Chandra Pal Gautam
M-Tech/ PhD Stipend Coordinator	Dr Saurabh Rawat
Member Secretary (Departmental Affairs)	Mr Chandra Pal Gautam
Gender Champion (UGC Program)	Mr Niraj Singh Parihar & Prof. Ashish Kumar
Stock Verification	Mr Niraj Singh Parihar
Data from Final year (GATE, Exit Survey, Foreign university admission etc)	Mr Anirban Dhulia
Database of Visitors	Mr Chandra Pal Gautam
PhD Examiner Database	Dr Saurabh Rawat
Project Monitoring Committee	Prof Ashok Kumar Gupta, Prof Ashish Kumar & Dr Rajiv Ganguly
Mock Interviews	Prof Ashish Kumar, Dr Saurabh Rawat, Mr Abhilash Shukla, Mr Kaushal Kumar, Mr Aakash Gupta & Mr Anirban Dhulia
Course Curriculum Revision Committee	Mr Chandra Pal Gautam
List of Department Faculty and Biodata	Mr Chandra Pal Gautam & Mr Anirban Dhulia
Industrial Training Relation Officer	Mr Anirban Dhulia & Mr Aakash Gupta

Department Annual Report Coordinator	Dr Rishi Rana
Research Lab Coordinator	Dr Rajiv Ganguly & Dr Saurabh Rawat
Departmental Quality Assurance Committee	Prof Ashok Kumar Gupta, Prof Ashish Kumar & Dr Rajiv Ganguly
Summer Training Coordinator	Mr Anirban Dhulia & Mr Aakash Gupta
Outreach Activities Coordinator	Mr Kaushal Kumar
Store Management Committee	Mr Niraj Singh Parihar
Purchase Committee	Mr Niraj Singh Parihar

Civil Engineering Department- Consultative Committee

Prof Ashok Kumar Gupta, Chairman
Prof Ashish Kumar, Member
Dr Rajiv Ganguly, Member
Mr Chandra Pal Gautam, Member
Mr Prateek Sharma, Representative BTech Ist year Civil Engineering
Mr Lakshay Sharma, Representative BTech IInd year Civil Engineering
Mr Ritik Kumar Puri, Representative BTech IIIrd year Civil Engineering
Mr Passang Wangdi, Representative BTech IVth year Civil Engineering
Mr Pushkar Sharma, Representative MTech students of Civil Engineering
Ms Prachi Vasistha, Representative PhD scholars of Civil Engineering

DEPARTMENT OF PHYSICS & MATERIALS SCIENCE

- **Vision**

The Department ideates: "Student centered learning and student-faculty research by using a mixture of traditional, current and integrative pedagogical techniques dictated by state of the art education & research in order to create a nationally & internationally recognized unique model for physics and materials science education in both public and professional spheres."
Specifically
- ➢ To provide end-oriented education & striving for excellence in performance-based teaching and research in order to maintain high levels of professionalism and integrity.
- ➢ To be internationally and nationally recognized for teaching and research.
- ➢ To be recognized and appreciated for different courses in order to contribute in shaping successful engineering graduates.
- ➢ Implementing fundamental physics & applications to integrate the research and innovative teaching for motivating students to be better intellectuals.

- **Mission**
  - ➢ To promote outcome based education to prepare students for variegated

    challenges in industry and academia.
  - ➢ To provide a panorama of courses imparting teaching, research and mentoring opportunities for graduate students.
  - ➢ The department is dedicated to provide teaching and encourage collaborative learning in Physics & Materials Science in a performance based active academic environment.

- **Faculty Details**

S.No.	Name	Qualification	Specialization
1.	Prof (Dr) P B Barman	PhD	III-V compound semiconductors
2.	Prof (Dr) Sunil K. Khah	PhD	Microstrip Antennas
3.	Dr Vineet Sharma	PhD	Amorphous Semiconductors
4.	Dr Rajesh Kumar	PhD	Magnetic Nanoparticles
5.	Dr Dheeraj Sharma	PhD	Conducting Polymers
6.	Dr S K Hazra	PhD	Gas Sensors
7.	Dr R R Singh	PhD	Core-shell nanostructures
8.	Dr S K Tiwari	PhD	Optical & Magnetic studies/ZnO

- **Programs**

  Undergraduate Program

  Department of Physics and Materials Science offers the following courses to various undergraduate programmes:
  - **Core**

S No	Title of Course	Course Code
1	Engineering Physics - I	18B11PH111
2	Engineering Physics Lab - I	18B17PH171
3	Basic Engineering Physics - I	18B11PH112
4	Basic Engineering Physics Lab - I	18B17PH172
5	Engineering Physics - II	18B11PH211
6	Engineering Physics Lab - II	18B17PH271
7	Bio-Instrumentation Techniques	18B11PH212
8	Materials Science	10B11PH611
9	Science & Technology of Materials	18B1WPH531
10	Applied Mat. Science	18B1WPH532

  - **Elective**

S No	Title of Course	Course Code
1	Nanotechnology	18B1WPH731
2	Optical Fiber Network Design	18B1WPH732
3	Optoelectronic Devices	18B1WPH831

- **PhD Program**

  The award of the PhD degree 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. Nano-structured semi-conducting thin films, electro-luminescent display devices, magnetic multi-layered thin films, ferrite based micro-strip antennas, opto-electronic materials, semi-conducting materials for microelectronic devices.

- **Laboratory Facilities**

  - **Laboratory Staff with Qualification**

Name	Designation	Qualification
Kamlesh Kr Mishra	Sr.lab Engineer	MTech.
Ravendra Kr Tiwari	Lab Technician	BSc (PCM)
Deepak Kr Singh	Lab Assistant	BSc (PCM)

- **Laboratories with major equipments**

  - Material Science Laboratory

    The Materials Science laboratory is equipped with

    - ➢ Thermal/E-Beam Vapour deposition unit
    - ➢ Hydraulic press
    - ➢ High temperature two probe set-up with TPX-600°C PID controller, 1500 V EHT power supply, high resolution picoammeter, and Dielectric constant measurement setup.

  - CVD Laboratory

    CVD laboratory is equipped with

    - ➢ Microprocessor controlled furnace used for annealing thin films upto 1400°C in presence of specific gases such as argon, nitrogen etc. Also it is used to prepare carbon nanotubes (CNT).
    - ➢ Specially designed chamber to synthesize thin films in the presence of magnetic field by using vapour technique.

  - Nanotechnology Laboratory

    The nanotechnology laboratory is well equipped with

    - ➢ Muffle furnace
    - ➢ Hot air oven
    - ➢ Spin coating unit
    - ➢ Single pan highly sophisticated balance
    - ➢ Magnetic stirrers

  - Characterization Laboratory

    Characterization laboratory is equipped with various characterization techniques:

    - ➢ Perkin Elmer Lambda 750 UV-visible-NIR spectrophotometer having range 190-3300 nm
    - ➢ LS-55 spectrophotometer (Perkin Elmer) to record photoluminescence spectra in the range of 200-900 nm.
    - ➢ STM
    - ➢ Keithley's Picoammeter and gas sensor setup.

  - EM Analysis Laboratory

    The electromagnetic analysis laboratory is equipped with adequate software and hardware facilities. The laboratory has antenna design softwares like

> ➢ HFSS

> ➢ IE3D

> ➢ EMPIRE EXCEL**.**

> Also, the laboratory has the facility for fabrication and analysis of antenna by using

> > ➢ PCB Design Machine

> > ➢ Vector Network Analyzer

- 2D growth Laboratory

  2-dimensional (2-D) growth laboratory is equipped with

  > ➢ Advanced Chemical vapour deposition unit for thin film fabrication which provides an option to grow materials in low pressure and atmospheric pressure.

  > ➢ **Specially designed chamber** for testing hydrogen gas storage in materials.

- **Research Projects Sanctioned during the Academic Year/In Progress**

S No	Name of Faculty	Project title	Funding Agency	Amount sanctioned	Duration	Current Status
1	Dr Surajit Kumar Hazra (Principal Investigator) Prof. P.B. Barman (Co-PI)	Hydrogen storage using 2D chalcogenide and graphene layered materials	DST-SERB	32.00 Lacs	2017-2020	Completed
2	Dr Vineet Sharma (Principal Investigator)	Enhancing the thermal stability of Chalcogenide Phase-change materials for switching and memory applications	DST-SERB	20.06 Lacs	2017-2020	Completed

- **Conferences, Seminars and Workshops/Faculty development program**

Conferences

- **Conferences Organised :02**
- **Conferences Attended : 08**

Dates	Subject	Venue	Faculty Name	Remarks
Jule 27th to August 8th, 2020	Ambient Technologies: State-of-Art, Challenges, and Future Directions	JUIT	Rajesh Kumar	FDP Attended
November 26-27, 2020	International Summit on Atmanirbhar Bharat: India as Manufacturing Hub for Global Health (Promoting Innovation and Entrepreneurship in Medical Devices and TeleHealth)	CIBIOD, PGI , Chandigarh (Online event)	Dr Ragini Raj Singh	Organizing committee member representation through CEHTI, JUIT
September 18-19, 2020	A virtual international conference on Technologies for Environmental Sustainability and Smart Agriculture	JUIT, Solan, (H.P.) INDIA (Online event)	Dr Ragini Raj Singh	Organizing committee member representatio n through CESTRD, JUIT
18-19 August	National web conference on "Challenges and opportunities in Life Science for Self Sustaining Life Security, Organized by AKS University, Satna, MP.	AKS University, Satna, MP. (Online event)	Dr Ragini Raj Singh	Attended
July, 30-31, 2020	International Web Conference on Recent Advances in Sciences	Don Bosco College, Tura, Meghalaya.	Dr Ragini Raj Singh	Attended

July 13-17, 2020	5 Days Faculty Development Program "Online FDP in Scilab under Pandit Madan Mohan Malviya National Mission for Teachers and Teaching	MHRD, GOI	Dr Ragini Raj Singh	Attended
August 31 to September 5, 2020	One week Faculty Development Program on "Computational Intelligence Techniques for Machine Learning"	Dept. of CSE & IT, JUIT, Waknaghat-173234 (H.P.), India	Vineet Sharma	Attended (Online)
July 27,2020 to August 8, 2020	Two weeks Faculty Development Program on "Ambient Technologies: State-of-Art, Challenges, and Future Directions"	Dept. of CSE & IT, JUITWaknag hat-173234 (H.P.)	Vineet Sharma	Attended (Online)
September 14-19, 2020.	One week FACULTY DEVELOPMENT PEOGRAM on "Effective Online Teaching and Learning"	Dr. SSBUICET, Panjab University in collaboration with Dibrugarh University Institute of Engineering and Technology, Assam under TEQIP-III (MHRD, Govt. of India)	Vineet Sharma	Attended (Online)

Dates	Subject	Venue	Faculty Name	Remarks
July 2020 25-26,	Two day workshop on "Advanced Functional Materials" sponsored byTEQIP-III	Department of Applied Sciences,Punjab Engineering College (Deemed to be University), Chandigarh.	Vineet Sharma	Attended (Online)

Seminars

- **Seminars Organised :06**
- **Seminars Attended :02**

Dates	Subject	Venue	Faculty Name	Remarks
04th August 2020	International Webinar on "Healthcare Status, Challenges and Current Technological Solutions" By: Prof. Vinod Kumar, VC, JUIT	Jaypee University of Information Technology, waknaghat, Solan, HP (Online event)	Dr Ragini Raj Singh	Coordinator
08th September, 2020,	International Webinar on "Flexible Sensors for Biomedical Applications" By: Prof. YosiShachamDiamand, Tel Aviv University, Israel	Jaypee University of Information Technology, waknaghat, Solan, HP (Online event)	Dr Ragini Raj Singh	Coordinator
09th October, 2020,	International Webinar on "E Waste and Health Care" By: Prof. Sudhir Kumar, HoD, Department of Biotechnology and Bioinformatics, JUIT, Solan, India	Jaypee University of Information Technology, waknaghat, Solan, HP (Online event)	Dr Ragini Raj Singh	Coordinator
06th November 2020	International Webinar on "Clinical Bioinformatics: Bridging	Jaypee University of Information Technology,	Dr Ragini Raj Singh	Coordinator

	the Gateway to Precision Medicine " By: Dr. Dipankar Sen Gupta, Queens University Belfast, Northern Ireland, UK	waknaghat, Solan, HP (Onlin event)		
07th December, 2020.	International Webinar on "Longitudinal Modeling of Alzheimer's Disease using Machine Learning Methods " By: Ms. MeemansaSood, Bonn University, Germany	Jaypee University of Information Technology, waknaghat, Solan, HP (Online event)	Dr Ragini Raj Singh	Coordinator
12th January, 2021	International Webinar on "Multi-modal data integration in biomedicine" By: Prof. Holger Fröhlich, Head of AI & Data Science Group & Deputy Head of Department of Bioinformatics at Fraunhofer SCAI, Bonn University, Germany	Jaypee University of Information Technology, waknaghat, Solan, HP (Online event)	Dr Ragini Raj Singh	Coordinator
June 28- 29, 2020	Attended webinar on National Education Policy	Jaypee University of Information Technology, waknaghat, Solan, HP (Online event)	Dr Ragini Raj Singh	Attended
August, 20, 2020	International webinar on "Super capacitor: A futuristic Energy Storage Device"	SSSCW, Bhopal, MP	Dr Ragini Raj Singh	Attended

Workshops

- **Workshops Organised :01**
- **Workshops Attended :01**

Dates	Subject	Venue	Faculty Name	Remarks
March June 2021	AarogyaClBioD - Short Term Attachment Program (Series of Lectures and workshops)	CIBIOD, PGI, Chandigarh (Online event)	Dr Ragini Raj Singh	Organizing committee member representation through CEHTI, JUIT
July, 28-30 2020	International Workshop on Energy Technology and Sensor Systems (TENSYS-2020)	IIITDM, UM, MTeS and FICCI	Dr Ragini Raj Singh	Attended

- **Publications**

  - **Journal Publications=15**

Name of Faculty	Title of Article	Name of Journal	Reference	Citation
P B Barman	Evaluation of optical linear and non-linear parameters of thermally deposited GeTeSeGa thin films in NIR (1 µm–2.6 µm) wavelength range from their transmission spectra	Optik - International Journal for Light and Electron Optics	219 (2020) 165181, pp.1-14	02
P B Barman	Structural correlation of GeTeSeGa system by XRD and far-infrared spectroscopy	Applied Physics A: Materials Science and Processing	127 (2021)345, pp. 1-11	
Vineet Sharma	Effect of local structure on the optical and dielectric behaviour of Sm doped Ge2Sb2Te5 phase change material. ,	Optical Materials	115 (2021)111057 pp.1-9	
Vineet Sharma	Enhancing the surface morphology for improved phase change mechanism by Sm doping in Ge2Sb2Te5	Applied Physics A: Materials Science and Processing	127 (2021)213 pp. 1-7	

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	thin films. ,			
Vineet Sharma	Rare - earth (Dy)-doped (GeS2)80(In2S3)20 thin film: influence of annealing temperature in argon environment on the linear and nonlinear optical parameters.	Applied Physics A: Materials Science and Processing	127 (2021), 68 pp.1-10	1
Rajesh Kumar	Magnetic field and temperature-dependent studies of structural and magnetic properties of NiFe2O4 films	Applied Physics A	DOI:10.1007/s00339-020-03621-3	0
Rajesh Kumar	Tuning of structural, magnetic and optical properties of $NiFe_2O_4$films by implementing high magnetic fields	Thin Solid Films	712(2020) 138321	0
Rajesh Kumar	Evolution of a facile and novel general strategy for fabricating single and mixed 3d-block transition metal hydroxide/oxide films for innumerable applications	Materials Chemistry and Physics	266(2021) 124534	0
P B Barman, Ragini Raj Singh	Reitveld Refinement and Derivative Spectroscopy of Nanoparticles of Soft Ferrites (MgNiFe)	Journal of Inorganic and Organometallic Polymers and Materials	31(2021) 528–541	1
P B Barman, Ragini Raj Singh	Pioneering and proficient magneto fluorescent nanostructures: Hard ferrite based hybrid structures	Materials Science and Engineering: B	265(2021) 115017	1
Dr Ragini Raj Singh	Biocompatible and fluorescent water based NIR emitting CdTe quantum dot probes for biomedical applications	Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy	248(2021) 119206	-
PB Barman, Ragini Raj Singh	An innovative direct non-aqueous method for the development of Co doped Ni-Zn ferrite nanoparticles	Materials Today Communications	27(2021) 102238	-
Dr Ragini Raj Singh	Avant-grade magneto/fluorescent nanostructures for	Nano-Structures & Nano-	26(2021) 100714	-

	biomedical applications: Organized and comprehensive optical and magnetic evaluation	Objects		
P B Barman, S K Hazra	Hydrogen response of palladium nanoparticles washed with different solvents	Bull. Mater. Sci.	44 (2021) 45	-
P B Barman, S K Hazra	Effect of Capping-Agent Concentrationon Size and Size Dispersity of Palladium Nanoparticles for Resistive-Type HydrogenSensors	Journal of Electronic Materials	49(11) (2020) 6656	-

- **Books/Book Chapters Published: Nil**

Name of Faculty	Title of Chapter	Name of Book	Reference	Citation
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- **Conference Publications=04**

Name of Faculty	Title of Article presented	Name of conference	Reference	Dates
Vineet Sharma	Evaluation of optical properties of thermally deposited (Sn,Se)-(Bi,Te) thin film	64th DAE Solid State Physics Symposium 2019 Indian Institute of Technology Jodhpur	AIP Conference Proceedings 2265, (2020) 030263, pp.1-4	December 18-22, 2019
Rajesh Kumar	Thickness Dependent Morphological, Structural and Magnetic Studies of Nickel Ferrite Films	Congress on Advances in Materials Science and Engineering (CAMSE)	Not available yet	December 30, 2020, Shobhit University, Gangoh, Saharanpur, India
Rajesh Kumar	Effect of reaction time onmorphological, compositional, and optical properties of Nickel ferrite films	5th national e-conference on Advanced Materials and Radiation Physics (AMRP-2020)	Not available yet	9-11 November, 2020, SLIET, Longowal, India
Rajesh Kumar	Formation of hierarchical	International Conference on	Materials Today	28-30, 2020 at

	porous interlaced 3-D nanostructured $(Ni-Co)(OH)_2$ and $NiCo_2O_4$ films simultaneously using a novel technique	Multifunctional Nanomaterials (ICMN2020)	Proceedings, Volume 28, Part 1, 2020, Pages 134-137	Manipal University Jaipur, Jaipur, Rajasthan, India.

- **Guest Speakers/Lectures/ Visits**

  - **Guest Speakers : Nil**
  - **Lectures Delivered by Faculty : Nil**

- **Visits Organized=Nil**

Institution visited	Dates	Aim of visit	Participation	
			Students	**Faculty**

- **Recognition & Awards**

  - **By Faculty : Nil**

  - **Students : Nil**

- **Composition of Various Bodies**

  - **Board of Studies (BOS)**

Ser No	Name	Designation	Institution
1.	P B Barman	Professor	JUIT
2.	Sunil K Khah	Professor	JUIT
3.	Vineet Sharma	Associate Professor	JUIT
4.	Rajesh Kumar	Associate Professor	JUIT
5.	Ragini Raj Singh	Associate Professor	JUIT
6.	Dheeraj Sharma	Asstt. Prof (SG)	JUIT
7.	Surajit K Hazra	Asstt. Prof (SG)	JUIT
8.	Sanjiv Tiwari	Asstt. Prof (SG)	JUIT
9.	Karanjeet Singh	Professor	JUIT
10.	Ashok K Gupta	Professor	JUIT
11.	Sudhir Syal	Professor	JUIT
12.	Rajiv Kumar	Associate Professor	JUIT
13.	D K Rai	Professor	JIIT, Noida
14.	Anil Vohra	Professor	K U Kurkshetra

DEPARTMENT OF MATHEMATICS

Vision:

• To produce leaders in technology with excellent analytical skills through mathematics education at global level and training the students in acquiring conceptual understanding of the framework and structure of mathematics, its logical, cognitive and operational processes, and applications.

Mission:

M1. To provide an environment to students where they can learn and be competent users of mathematics and its applications

M2. To strive by introducing the students to main ideas and methods of Mathematics for building up their reasoning and analytical skills.

M3. To provide quality Mathematics education to enhance the capability and competence in assimilating, dissecting and distilling information for engineering and technology applications.

Faculty Details

S.No.	Name	Qualification	Specialisation
1.	Prof (Dr) Karanjeet Singh	PhD	Nonlinear Differential Equations
2.	Dr R S Raja Durai	PhD	Algebraic Coding Theory
3.	Dr Rakesh Bajaj	PhD	Fuzzy Information Measures
4.	Dr Neel Kanth	PhD	Mathematical Modelling
5.	Dr Pradeep Kumar Pandey	PhD	Differential Geometry
6.	Dr Saurabh Srivastava	PhD	Nonlinear Programming (Operations Research)
7.	Dr Mandeep Singh	PhD	Nonlinear Boundary Value Problems
8.	Dr Bhupendra Kumar Pathak	PhD	Evolutionary Computation - Methods and Soft Computing Techniques

• **PhD Program**

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, wavelets and differential equations, Algebraic Coding Theory , sequence

design, distributed source coding, fuzzy information measures, decision making, pattern recognition, Nonlinear Programming (Operations Research), Statistical Inference, Sampling, Applied Statistics, and Soft Computing Techniques.

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

Research Projects Sanctioned during the Academic Year/In Progress   -Nil

Conferences

- **Conferences Organized - Nil**

- **Conferences Attended**

Dates	Subject	Venue	Faculty Name	Remarks
22 -23 August, 2020.	Two days Digital International Conference on Inventory Modeling 2020	Department of Mathematics, Gujrat University, Ahmedabad	RAKESH K BAJAJ	
21-22 Dec 2020	FIAM 2020	NIT Jamshedpur (online Mode)	Neel Kanth	Chaired the session
18-20 Dec 2020	International conference on- Advances in Topology and Differential Geometry	Online	Pradeep Kumar Pandey	Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.)
18 Feb 2021	4th Iranian Conference on Computational Geometry (ICCG-2021)	Online	Pradeep Kumar Pandey	Yazd University, Yazd, Iran
16-17 August 2020	International e-conference on Emerging Trends in Vedic Mathematics and Applications in Science, Technology, Social Sciences Research (ETVM-	Online	Pradeep Kumar Pandey	Special Centre for E-Learning, Jawaharlal Nehru University, New Delhi

Dates	Subject	Venue	Faculty Name	Remarks
22-23 August 2020	Inventory Modeling	Department of Mathematics, Gujarat University, Ahmadabad, India	Saurabh Srivastava	

Seminars

- **Seminars Organized – Nil**
- **Seminars Attended**

Dates	Subject	Venue	Faculty Name	Remarks

- **Workshops Attended**

Dates	Subject	Venue	Faculty Name	Remarks
10 - 19, May 2021 (4 PM – 8 M)	Data Science and its applications with Python	Online Mode (Cisco WebEX)	R S Raja Durai	Organized by Electronics and ICT Academy, NIT Warangal
17 - 21, May 2021 (10 AM – 4 PM)	Computational software (MATLAB & MATHEMATICA	Online Mode (Google Meet)	R S Raja Durai	Organized by Sardar Vallabhai NIT Surat
August 10-15, 2020.	One Week Online Short Term Course on Recent Advances in Cimputational Intelligence for Signal Processing (RACISP-2020)	Dept of ECE, JUIT Waknaghat (Ref: JUIT/WKG/ECE/ 2020-21/010).	Rakesh KBajaj	
13-18 July 18, 2020	Participated in Online One Week FDP on "Soft Computing Techniques and their Applications (SCTA 2020)"	Deptt of Mathematics, JIIT, Noida (Ref No. MA/FDP/SCTA/2 020/003).	Rakesh K Bajaj	

13 - 18 July 2020	One Week Online Short-Term Training Program on "Applications of Mathematical Sciences"	Deptt of Basic Sciences and Humanities, KDK College of Engineering, Nagpur in association with ISTE, New Delhi(Cert Id. QUFDDC-CE000335)	Rakesh K Bajaj	
10-21 August 2020	Two Week Online FDP on "ICT Tools for Teaching, Learning Process and Institute"	Electronics and ICT Academies (NIT Patna, MNIT Jaipur, IIITDM Jabalpur, IIT Guwahati, IIT Roorkee) held from. (Ref. EICT/NITP-MNITJ/99/ECE/35/2020).	Rakesh K Bajaj	
August 31 to Sept 5, 2020.	Virtual Participation in One week FDP on "Computational Intelligence Techniques for Machine Learning" organized by	Department of CSE and IT, JUIT, Waknaghat [FDPTEI2020/CPP/0279].	Rakesh K Bajaj	
20-22 July 2020	Workshop on- Evidence based teaching and learning strategies in higher education	IISER Bhopal (Online)	Pradeep Kumar Pandey	
14-15Sep 2020	Workshop on- Geometry of continued fractions: Ramanujan and his successors	Central University of Himachal Pradesh (Online)	Pradeep Kumar Pandey	
10-14 August 2020	Stochastic Modeling, Optimization and Soft Computing	Department of Mathematics & Statistics, School of Basic	Saurabh Srivastava	

		Sciences, Manipal University, Jaipur, India		

Publications

- **Journal Publications**

Name of Faculty	Title of Article	Name of Journal	Reference	Citation
Meenakshi Devi, **R S Raja Durai**, Hongjun Xu, and Ashwini Kumar	Some Important Results on T-Direct Codes	Discrete Mathematics, Algorithms and Applications (DMAA)	vol. 13, no. 3, 2150067 (12 pages), 2021. DOI: doi.org/10.1142/S1793830921500671	ESCI & SCOPUS
Ashwini Kumar and **R S Raja Durai,**	Construction of LCD MRD Codes of Length n>N	Discrete Mathematics, Algorithms and Applications (DMAA)	DOI: doi.org/10.1142/S1793830921501172, 2021	ESCI & SCOPUS
Rakesh K Bajaj	On Some New Statistical Correlation Measures for T-spherical Fuzzy Sets and Applications in Soft Computing	Journal of Information Science and Engineering	37 (2), 323-336, 2021	SCIE
Rakesh K Bajaj	On some characterization results of R˜-norm dynamic survival entropies	Communications in Statistics-Theory and Methods	DOI:doi.org/10.1080/03610926.2021.1884880	SCIE
Rakesh K Bajaj	Optimal inventory management system for deteriorating items with linear demand, shortages and partial backlogging in a triangular fuzzy setup	International Journal of Services and Operations Management	39 (1), 98-120, 2021	Scopus

Rakesh K Bajaj	On Measures of Similarity for Neutrosophic Sets with Applications in Classification and Evaluation Processes	Neutrosophic Sets and Systems	39 (1), 7, 2021	Web of Science
Rakesh K Bajaj	On accuracy function and distance measures of interval-valued Pythagorean fuzzy sets with application to decision making	Scientia Iranica	27 (4), 2127-2139, 2020	SCIE
Rakesh K Bajaj	A robust decision making approach for hydrogen power plant site selection utilizing (R, S)-Norm Pythagorean Fuzzy information measures based on VIKOR and TOPSIS method	International Journal of Hydrogen Energy	45 (38), 18802-18816, 2020	SCIE
Rakesh K Bajaj	Ranking of decision-making units in Pythagorean fuzzy CCR model using data envelopment analysis	Materials Today: Proceedings	33, 3884-3888, 2020	Scopus
Rakesh K Bajaj	A novel probabilistic distance measure for picture fuzzy sets with its application in classification problems	Hacettepe Journal of Mathematics and Statistics	49 (6), 2134-2153, 2020	SCIE
Rakesh K Bajaj	Pythagorean fuzzy (R, S)-norm discriminant measure in various decision-making processes	Journal of Intelligent & Fuzzy Systems	38, 761-777, 2020	SCIE
Neel Kanth	Analysis of Influencing factors on Nip width of	AIP Conference Proceedings	Vol 2253(1), 2020	Scopus

	Machine Calender Used in Textile Industry			
Sameer, **Pradeep Kumar Pandey**	On contact CR-Submanifold of a Kenmotsu manifold with killing tensor field; Kragujevac Journal of Mathematics,	Kragujevac Journal of Mathematics	47(1), pp 95-104, Published online 19/08/2020	Scopus, ESCI
Shaveta Kumari, **Saurabh Srivastava**	On Optimality Condition for Interval Optimization Problems using Generalized Hukuhara Difference and Constrained Interval Arithmetic	International Journal of Mathematics in Operational Research	10.1504/IJM OR.2020.100 30711	Scopus
Saurabh Srivastava, Rakesh Kumar Bajaj	Optimal Inventory Management System for Deteriorating Items with Linear Demand, Shortages and Partial Backlogging in a Triangular Fuzzy Setup	International Journal of Services and Operations Management	Vol. 39, No. 1, pp.98-120, 2021	Scopus
Shaveta Kumari, **Saurabh Srivastava**	Application of Stochastic Programming Technique to Solve Interval Quadratic Programming Problem	International Journal of Applied and Computational Mathematics	Vol. 7, No. 1, Art. 17, 2021	Scopus
Swati, **Karanjeet Singh**, Amit K Verma and Mandeep Singh,	Higher Order Emden-Fowler type equation via Uniform Haar Wavelet Resolution Technique	Journal of Computational and Applied Mathematics,	376(2020) 112836. SCI, SCIE, Scopus,	Scopus
Preeti Devi and	Classical Lie Symmetries and	Asian-European	Vol.14(4),pp2 150052, 2020	Scopus

K Singh	Similarity Reductions of the (2+1) Dimensional Dispersive Long Wave System	Journal of Mathematics		
P Devi and **K Singh**	Lie Symmetry Analysis of the nonlinear Schrodinger equation with time dependent variable coefficients	International Journal of Applied and Computational Mathematics	Vol.7(23), 2021	Scopus

- **Books/Book Chapters Published**

  Dr. Neel Kanth: Application of Perturbation Theory in Heat Flow analysis, A Collection of Papers on Chaos Theory and Its Application, Chapter-9(12 pages), edited by Paul Bracken and DimoUzunov,Intechopen, ISBN:978-1-83962-875-7.

- **Conference Publications**   - Nil

- **Guest Lectures : Nil**
- **Lectures Delivered by Faculty**

Name of Faculty	Designation of Faculty	Topic of Lecture	Date	Venue
Dr Bhupendra Kumar Pathak	Asst Prof (SG)	Genetic Algorithm for Multi-Objective Optimization Problems	23Dec2021	Raja Balwant Singh Engineering Technical Campus, Bichpuri, Agra

- **Composition of Various Bodies**

  - **Board of Studies (BoS)**

Ser No	Name	Designation	Institution
1.	Prof (D.) Karanjeet Singh	Professor & HoD (Maths)	JUIT
2.	D. R S Raja Durai	Associate Prof. of Maths	JUIT
3.	Dr Rakesh Kumar Bajaj	Associate Prof. of Maths	JUIT
4.	Dr Neel Kanth	Assistant Prof. of Maths	JUIT
5.	Dr Pradeep K. Pandey	Assistant Prof. of Maths	JUIT
6.	Prof P. B. Barman	Prof. & HoD Physics	JUIT
7.	Prof Ashok Kumar Gupta	Prof. & HoD Civil Engg.	JUIT
8.	Prof Sudhir Syal	Prof. and HoD BT, BI	JUIT
9.	Prof S K Tomar	Prof. of Math	Punjab University, Chd
10.	Prof Rama Bhargava	Prof of Maths	IIT Roorkee

DEPARTMENT OF HUMANITIES AND SOCIAL SCIENCES

Department Vision and Mission

Vision

To be the change-facilitators by imparting professional and behavioral competencies to complement the existing and emerging educational programs of the University and match the Industry Requirements.

Mission

M1: To facilitate students and professionals to become Innovative, Competitive and Enterprising in their chosen fields.

M2: To create responsible global citizens, who are able to express and assess opinions, take independent decisions and value the power of imagination and continuous learning.

M3: To bridge the gap between academia and industry by incorporating contemporary concepts and practices in our courses.

Faculty Details

Faculty Name	Qualification	Specialisation
Dr Anupriya Kaur	PhD	Marketing
Dr Amit Srivastava	PhD	Finance and International Business
Dr Tanu Sharma	PhD	HRM
MsTriambica Gautam	MBA	Banking and Finance
Dr PapiyaLahiri	PhD	Commonwealth Literature,British and Canadian Drama, Gender Studies
Dr Neena Jindal	PhD	Good Governance, Human rights
Dr Sakshi Khanna	PhD	Finance

New Courses introduced during the year

S No	Title of New Course	Course Code
1	The Indian Constitution	

PhD Program

The Department of Humanities and Social Sciences strives to nurture young minds to become well-rounded engineers, responsible global citizens and leaders. The Department acts as change-facilitator by imparting professional and behavioral

competencies to complement the existing and emerging educational programs of the University. We have multifaceted faculty in the department who offer a variety of contemporary courses to students at undergraduate and post graduate level. Additionally, the faculty has been vigorous in conducting FDP programs, community development programs and workshops based on research methods. Faculty in the department has been actively pursuing and guiding research in the areas of marketing management, finance and econometrics, business communication and human resource management with research publications in journals of high repute

Research Specializations: Consumer Behavior, Service Marketing, Internet Marketing, Corporate Social responsibility, Emotional intelligence, Good Governance, Human rights, English Language and Literature, Conflict Management, Corporate Finance, Financial Econometrics, Personal Finance, International Business, Behavioral Finance, Economic Development and Financial & Management Accounting.

Lab Facilities

Equipments

1. Dell Computer-D19M-Intel Core i5-7400-7thGen@3.00Ghz,RAM-8Gb,HDD-1TB Windows 1 0Pro (25)
2. Headphones (30)

Operational Softwares

1. Snet 8.0 Client, Business Writing, Tense Buster (Port 1-30)
2. Snet 8.0 Master, Business Writing, Tense Buster (1)
3. IBM SPSS Statistics 24 (Port 2,3,4)
4. Cyber client, office 2007

Lab Staff with Qualification

Name	Designation	Qualification
Mr Mahinder	Junior lab Assistant	**MCA**

Conferences Organized – NIL

Conferences Attended

Dates	Subject	Venue	Faculty Name	Remarks
28 Aug.2020	5th Conference on HRM (virtual) Emerging trends, Practices and	IBS Hyderabad	Dr Tanu	

Dates		Subject	Venue	Faculty Name	Remarks
		Concerns in HRM			
15-16 October, 2020		1st Rajagiri Management Conference (RMC2020)	Online	Triambica Gautam	
15 June 2020		Presented a paper entitled "Trajectory of Tolerance and Triumph: A Short Study of Ambedkar's Waiting for Visa" in a National seminar organized by Institute of Language Studies and Applied Social Sciences, Vallabh Vidyanagar on Bhim Rao Ambedkar's Waiting for Visa	Online	Dr Papiya Lahiri	

Seminars Organized

Dates	Subject	Venue	Faculty Name	Remarks
8th Nov,2020	Webinar on 'Importance of German as a ForeignLanguage	Online	Triambica Gautam	Co-organised with the Society of Foreign Language, Shimla
15th March 2021	Celebration of India's 75 years of Independence—Azadi ka Amrut Mahotsav: A Virtual Event	Online	Dr Papiya Lahiri and Triambica Gautam	
24th August 2020	One Day Webinar on Gender Issues and challenges, Amdist COVID-19 Crisis	online	Dr Anupriya and Dr.Neena Jindal	Organized under Gender champions club(JUIT)

Seminars Attended

Dates	Subject	Venue	Faculty Name	Remarks
24th August 2020	One Day Webinar on Gender Issues and challenges, Amidst	online	Dr Neena Jindal	

	COVID-19 Crisis			
24th August 2020	One Day Webinar on Gender Issues and challenges, Amidst COVID-19 Crisis	online	Dr Tanu Sharma	
15th March 2021	Celebration of India's 75 years of Independence—Azadi ka Amrut Mahotsav: A Virtual Event	Online	Dr Neena Jindal	
19th August 2020	"Early Internationalizing of Firms during The Covid-19 Pandemic	online	Dr Neena Jindal	
22-23rd August 2020	"Financial Services Industry and Cyber Security"	Online	Dr Neena Jindal	
3rd September 2020	"Good Governance in India: Challenges and Initiatives"	Online	Dr Neena Jindal	
15th September 2020	"Building Research Skills for Career Development and Nation Building"	Online	DrNeena Jindal	
17th October 2020	Webinar on Teaching and Learning practices	Online	Dr Neena Jindal	
20th October 2020	CyberComm: Cyber Security for Atmanirbhar Bharat	Online	Dr Neena Jindal	
31st October 2020	Making and Storytelling The Secret-sauce of Future-proof Learning	Online	Dr Neena Jindal	
Nov 04, 2020	FDP on Outcome Based Education	Online, Inpods India	Dr Amit Srivastava	
Nov 11, 2020	Pandemic as Opportunity: Innovation and Growth in Uncertain Times	Online by Amity University	Dr Amit Srivastava	
Nov 21, 2020	Webinar on "Delegation and Empowerment"	Online, Jaipuria Institute of Management	Dr Amit Srivastava	
Nov 29, 2020	Webinar on "Strategy for Managing Personal Finance including Mutual Funds During and	RSMT, Varanasi	Dr Amit Srivastava	

	After Covid-19"			
Dec 02, 2020	Webinar on "Writing Grant Proposals"	Online, MACFAST Central University of Kerala	Dr Amit Srivastava	
Dec 03, 2020	Webinar on "Personal Effectiveness"	Online, Jaipuria Institute of Management	Dr Amit Srivastava	
27 Aug, 2020	Webinar: Future of Globalization after the crisis of 2020 confirmation	Amity University Noida	Dr Tanu	
24 Aug.2020	Webinar: Gender issues and Challenges, Amidst COVID-19,	Jaypee University of Information Technology, Waknaght	Dr Tanu	
29 Aug,2020	Webinar: Interdisciplinary approaches to improve resiliency at scales for humans and eco systems to thrive	Jaypee University of Information Technology, Waknaght	Dr Tanu	
17 Oct.2020	Webinar on Women Empowerment	Jaypee University of Information Technology, Waknaght	Dr Tanu	
14 Ocr.2020	Webinar- Impact of Covid -19 on Higher Education in Emerging Countries	ADMAA, Amity University, Noida	Dr Tanu	
11 Nov.2020	Webinar-Pandemic as opportunity: Innovation and Growth in Uncertain Times"	ADMAA, Amity University, Noida	Dr Tanu	
7 Sept.2020	Developing HR Role to line managers through HR Business Partnership	ADMAA, Amity University, Noida	Dr Tanu	
20 Nov2020	Webinar on : Deep tech for Smart Agriculture in India	FICCI	Dr Tanu	
10.Sept.2020	Webinar -"Research and innovation to Lead the smart world"	Jaypee University of Information	Dr Tanu	

		Technology, Waknaght		
10, Sept 20202	Webinar-Role of universal Acceptance in Indic Internet and Language Technology sector of India	FICCI-ILIA	Dr Tanu	
18 Sept.2020	Webinar -Regional Income, Disparities, Monopoly and Finance	ADMAA, Amity University Noida	Dr Tanu	
15 Sept.2020	Webinar - A(I)NDIA Conclave "Leveraging AI for future of Excellence	FICCI IT	Dr Tanu	
26. Sept.2020	International Webinar on -Cultural Studies: Traits & Perspectives	Organized by School of Humanities KIIT Deemed to be University, Odisha	Dr Tanu	
25 Sept.2020	Impact of COVID-19 on Cost Behavior in Hospitals	ADMAA, Amity University Noida	Dr Tanu	
30Oct.2020	International Webinar on," Does Corruption Amplify or Mitigate the Impact of Ownership Structure on Cash"	ADMAA, Amity University Noida	Dr Tanu	
22 Oct,2020	International webinar 0n Challenges to Legal Education in the Cyber Era	School of law Manipal University Jaipur	Dr Tanu	
8 Jan.2021	Webinar: Power of Human Resource-diversity, conflict management, administrative hearing,	ADMAA, Amity University Noida	Dr Tanu	
26 Feb,2021	Tech talk session on universal Acceptance: The Foundation of Indic-Internet,	FICCI-ILA	Dr Tanu	
4 March.2021	WEBINAR ON ENTERPRISE2.0 -	FICCI	Dr Tanu	

	Digital transformation through the adaption of Blockchain Technology			
7 April. 2021	Webinar - Moving from in person training to online training	Amity University Noida	Dr Tanu	
20 April 2021	Webinar Series -Tech Thought Leadership Session on AI – Building AI Advantage for Organizations,	FCCI ICT	Dr Tanu	
4 July 2020	Participated in a national level online seminar "Critical Appreciation of a Poem" organized by English Literary Society of RKSD College, Kaithal, Haryana affiliated to Kurukshetra University	Online	Dr Papiya Lahiri	
4 July 2020	Participated in a Special Edition webinar on "Ideas that Matter: The Story of My Life" by Anupam Kher	Online	Dr Papiya Lahiri	
18 July 2020	Participated in One Day National Webinar on "Impact of Corona on Education in India: Post COVID Challenges and Opportunities" held, organized by UGC Human Resource Development Centre, HPU, Shimla.	Online	Dr Papiya Lahiri	
18 July 2020	Participated in a Masterclass by Vinay Pande on "Ideas that Matter: Theatre in Education" at 4 PM, organized by Shoolini University, H.P.	Online	Dr Papiya Lahiri	

22 July 2020	Participated in an interdisciplinary National Seminar on "Challenges of the Post Covid-19 World" organized by Scott Christian College (Scott Springs), Tirunelveli, Tamilnadu	Online	Dr Papiya Lahiri	
29-31 July 2020	Participated in three days National webinar series on "Contextualising Literature and Literary Theories organized by Dept. of English, Scott Christian College (Autonomous), Nagercoil	Online	Dr Papiya Lahiri	
7August 2020	Participated in an online webinar on "Strategies For Effective Teaching" By Prof. Gurdeep Singh Hura, Univ. of Maryland Eastern Shore organized by ECE Dept., Jaypee University of Information Technology, Waknaghat, Dist. Solan, HP, 173234.	Online	Dr Papiya Lahiri	
8 August 2020	Participated in Webinar Series on "Recent Trends in Contemporary India" Session 1 "Issues and Trends in Contemporary Indian Education" on Google Meet organized by ECE Dept., Jaypee University of Information Technology, Waknaghat, Dist. Solan, HP, 173234.	Online	Dr Papiya Lahiri	

12 August 2020	Participated in National webinar on "World Literature in English" organized by Dept. of English, Hindu College, Rohtak Speaker of the event was Prof. Bhim S. Dahiya.	Online	Dr Papiya Lahiri	
21 August 2020	Participated in Webinar Session 2 on "Design Thinking for Innovation" on Webinar Series on "Recent Trends in Contemporary India" on Google Meet organized by ECE Dept., Jaypee University of Information Technology, Waknaghat, Dist. Solan, HP, 173234.	Online	Dr Papiya Lahiri	
29 August 2020	Participated in Webinar on **"Nutrition for general health and fitness"** by Dr. Keren Susan Cherian, Scientist (Nutrition), NIN, Hyderabad (Saturday) organized by Fit India Campaign Club of JUIT	Online	Dr Papiya Lahiri	
29 August 2020	Participated in Webinar series on "Interdisciplinary Approaches to Improve Resiliency at Scales for Humans and Ecosystem to Thrive" by Dr. Ashish Sharma Adjunct Profesor, Illinois Research Climatologist, organized by ECE Dept., JUIT.	Online	Dr Papiya Lahiri	

28-31 August 2020	Attended a Webinar on "National Education Policy" organized by JUIT	Online	Dr Papiya Lahiri	
24 August 2020	Participated in one day webinar on" Gender Issues and Challenges, Amidst COVID-19 Crisis" organized by **Gender Champions Club, JUIT.**	Online	Dr Papiya Lahiri	
27 August 2020	Participated in a webinar on "Women and Work" organized by Dept. of Economics in collaboration with IQAC of Maharashtra College of Arts, Science and Commerce.	Online	Dr Papiya Lahiri	
9 September 2020	Participated in an International symposium on"Covid-19 Impact On Indian Economy and World" Organized by Department of Economics, Shivaji Arts, Commerce & Science College, Rajura	Online	Dr Papiya Lahiri	
3 October 2020	Participated in Webinar series on "Recent Trends in Contemporary India" in the session on "Advanced Driver Assistance Systems (ADAS)" by Mr. Shubhender Singh, Embedded/Executive Engineer Continental AG organized by ECE Dept., JUIT.	Online	Dr Papiya Lahiri	
10 October 2020	Participated in Webinar series on	Online	Dr Papiya Lahiri	

	"Recent Trends in Contemporary India" in the session on "Edge Computing" by Mr. Shubhender Singh, Embedded/Executive Engineer Continental AG organized by ECE Dept., JUIT.			
7 October 2020	Participated in webinar organized by Centre for Australian Studies and Australian Consulate-General, Chennai on "Doctor, techie, Curry Muncher: The Position of Indian Immigrants in Australia"	Online	Dr Papiya Lahiri	
7 October 2020	Attended a talk on "Say 'this' and not 'that'" by Manju Rai on Acing Interpersonal Skills by Amity University, Mumbai, Kolkata, New Delhi.	Online	Dr Papiya Lahiri	
17 October 2020	Attended a webinar on "Teaching and Learning Practices" organized by the Department of Biotechnology and Bioinformatics, (JUIT). Speaker of webinar : Prof. Sudhir Kumar, HoD, BT and BI, JUIT 11:00 AM.	Online	Dr Papiya Lahiri	
17 October 2020	Attended a Webinar organized by IPR Cell on " Patents, Innovations, and Startups" by Dr. Indranil Saha, Founder– HIINXLEGAL, MSc (Presidency College, C.U), PhD (IISc, Bangalore), Post-Doctorate (UNESCO, Italy), LL.B (Hons. in	Online	Dr Papiya Lahiri	

	IPR)(IIT-Kharagpur) at 2:30 PM			
17th October 2020	Attended a webinar organized by Caste Based Discrimination Committee of JUIT on "Women Empowerment" for highlighting the diverse role of women in different arenas of life at 12:30 Noon . Speaker : Dr Aushima Thakur: Director HR at Philips in Netherlands at 12:30 PM IST	Online	Dr Papiya Lahiri	
24 October 2020	Participated in Webinar series on "Recent Trends in Contemporary India" in the session on "Anaysis and Classification of Breast Abnormalities using Ultrasound Images" by Dr. Kriti, organized by ECE Dept., JUIT.	Online	Dr Papiya Lahiri	
22 October 2020	Participated in webinar organized by Centre for Australian Studies and Australian Consulate-General, Chennai on "Anticolonial Literature in Australia" by Rashida Murphy on Cisco webex from 12-1 PM	Online	Dr Papiya Lahiri	
30 October 2020	Attended a webinar on "Investment Awareness Programme" conducted by BSE (Bombay Stock Exchange) and Bundelkhand Degree College.	Online	Dr Papiya Lahiri	
8 November 2020	Attended a webinar on "Importance of	Online	Dr Papiya Lahiri	

	Learning German as a Foreign Language" delivered by Swarit Jasial on Microsoft Team organised by dept. of HSS, JUIT, Solan and SOFL Shimla.			
21 November 2020	Attended a webinar on **"Neurobiology of sleep and neurological disorders: Outcome from basic research"** organised by Fit India Campaign Club of JUIT	Online	Dr Papiya Lahiri	
26 November 2020	Attended a webinar (lecture series) organized by 'Centre for Australian & New Zealand Studies', Himachal Pradesh University, Shimla at 11:00 a.m. to 01:00 p.m. (IST) on google meet.	Online	Dr Papiya Lahiri	
25 November 2020	Attended Online Webinar coordinated by Department of Mechanical Engineering (Mechatronics) by NBA, New Delhi in association with JNTU Hyderabad, on "Awareness Webinar on Outcome Based Education and Accreditation"	Online	Dr Papiya Lahiri	
26 November 2020	Attended an International Webinar Series on Research and Technological Advancements in Biomedical and Healthcare Sector (Webinar 5: Longitudinal Modeling	Online	Dr Papiya Lahiri	

	of Alzheimer's Disease Using Machine Learning Methods) organized by Centre of Excellence in Health Care Technologies and Informatics (CEHTI)			
12 December 2020	Attended exclusive webinar on "Post Retirement Financial Freedom" by Mr. Anil Chopra, Bajaj Capital from 4.30 to 6 PM	Online	Dr Papiya Lahiri	
13 December 2020	Attended ELTAI (English Language Teachers' Association of India) webinar on "Design Thinking in ELTAI" by the speaker Mr. George M Chinnery, ELT Consultant, USA.	Online	Dr Papiya Lahiri	
19-20 December 2020	Attended an international webinar "Arise: Expanding Horizons across the Globe" from 19th to 20th December 2020 to explore the global avenues to study as well as work, jointly organized by Maryam Ajmal Women's College of Science and Technology, Hojai, Assam and Mehr Chand Mahajan DAV College for Women Sec 36 A, Chandigarh.	Online	Dr Papiya Lahiri	
20 December 2020	Attended ELTAI webinar on **Becoming Better Communicator - Toast Masters** organized by the English Language Teachers' Association of India (ELTAI)	Online	Dr Papiya Lahiri	

	at **4:30 PM Calcutta, Chennai, Mumbai, New Delhi GMT +5:30**			
7 January 2021	Participated in Rashtriye Uchatar Shiksha Abhiyaan (RUSA) sponsored online workshop cum awareness programme on "Ethics and Plagiarism" organized by Mehr Chand Mahajan DAV College for Women.	Online	Dr Papiya Lahiri	
10 January 2021	Attended an ELTAI webinar: Teacher Training in ELT: A Way Forward (in the light of NEP 2019).	Online	Dr Papiya Lahiri	
22 January 2021	Participted in RUSA-Sponsored Workshop -cum-Awareness Programme scheduled to be held on 'Open Educational Resources in Research and Teaching' by Mehr Chand Mahajan DAV College for Women, Chandigarh. The resource person is Dr RC Sharma, an eminent academician and Associate Professor, School of Global Affairs, Dr B R Ambedkar University, New Delhi.	Online	Dr Papiya Lahiri	
31 January 2021	Attended ELTAI (English Language Teachers' Association of India) webinar on "The Literary Landscape of Comic and Graphic Novel" by the speaker Dr. Stefan	Online	Dr Papiya Lahiri	

Dates	Subject	Venue	Faculty Name	Remarks
	Botnchen, University of Cologne, Germany			
3 February 2021	Attended webinar on the topic *Education for Global Health and Happiness,* to be held organized by Mehr Chand Mahajan DAV College for women.	Online	Dr Papiya Lahiri	
7 February 2021	Attended ELTAI (English Language Teachers' Association of India) webinar on Creating Independent Learning in English Classrooms	Online	Dr Papiya Lahiri	

Workshops Organized:

Dates	Subject	Venue	Participation	Remarks
24 August ,2020	Navigating your Emotions through developing EI in the times of Adversity	SRM Contractors Pvt Ltd, Engineers and Developers, Jammu	Dr Tanu Sharma Organizer and Resource Person	

Workshops Attended

Dates	Subject	Venue	Faculty Name	Remarks
April 28 – May 02, 2020	Faculty Development Programme of R	Online FDP organized by Spoken Tutorial, IIT Bombay	Dr Amit Srivastava	
28-29 Aug,2020	NEP	Online FDP , Organized by JUIT, Waknaghat	Dr Tanu	
	The ARPIT Course for Career Advancement Scheme(CAS) promotion Annual Refresher Programme in English	16 Weeks course with 40 lectures. 2019-2020 (Part of MOOCS)	Dr Papiya Lahiri	

	Language Teaching from Gujarat University		
1st December, 2020 – 20th April 2021	Online Refresher Course In Management	Online 16 weeks FDP course offered under ARPIT by Banasthali Vidyapeth	Triambica Gautam
20-26 July 2020	7-days National Online FDP organized by Ministry of HRD, Ramanujan College Delhi.	Online	Dr Amit Srivastava
15 Sept.2020	Building Research Skills for Career Development and Nation Building	Organized by ADMAA, Amity University Noida	Dr Tanu
26-27 Sept.2020	Two-dayWorkshop on EFA, CFA and CCA	Organized by Campus Technology, Bangalore	Dr Tanu
9-10 Oct,2020	International Workshop on Plagiarism: Research Ethics: Academic Integrity	Organized by Manuscriptpedia	

Publications

Journal Publications

Name of Faculty	Title of Article	Name of Journal	Reference	Citation
Dr Amit Srivastava	A Comparative Analysis of Effect of Different Measures of Globalization on Economic Development	International Journal of Development and Conflict	Vol. 10, pp. 246–264, Feb. 2021 (SCOPUS, Category B)	
Dr Amit Srivastava	"Dimensions of Globalisation and Economic Growth of India: Exploring causal linkages	International Journal of Economic Policy in Emerging Economies	In Publications (DOI: 10.1504/IJEPEE. 2021.10035629) (SCOPUS Category C)	

Dr Amit Srivastava	Impact of Different Dimensions of Globalization on Firms' Performance: An Unbalanced Panel-Data Study of Firms Operating in India	World Review of Entrepreneurship, Management and Sustainable Development	In Publications (SCOPUS Category C)	
Dr Tanu Sharma	Cultural Intelligence: predictor of Resilience of Team leaders	Abstract published in CHRM2020 book of Abstracts, pp21		

Books/Book Chapters Published

Name of Faculty	Title of Book Chapter	Name of Book	Reference	Remark
NIL				

Conference Publications

Name of Faculty	Title of Article presented	Name of conference	Reference	Dates
Triambica Gautam	Measuring Efficiency of State Cooperative Banks using DEA	1st Rajagiri Management Conference (RMC2020)		15th, 16th October, 2020
Dr Amit Srivastava	A firm-level interrelationship between Globalization and Productivity: An Indian Experience	International conference on the theme of Embracing Change & Transformation - Breakthrough Innovation and Creativity, D.Y. Patil, Pune		March 23-25, 2021
Dr Amit Srivastava	Fiscal Federalism with special reference to Finance Commission in India	Yogananda International Conference on Contemporary Issues in Social Sciences, Shoolini		Feb 20-21, 2021

		University		

Guest Lectures

Lectures Delivered by Faculty - Nil

Visits Organised

Institution visited	Dates	Aim of visit	Participation	
			Students	Faculty

Recognition & Awards: Nil

Composition of Various Bodies

Board of Studies (BOS)

Sr. No	Name	Designation	Institution
1	Dr Anupriya Kaur	HoD	Dept of HSS, JUIT
2	Dr Amit Srivastava	Associate Professor	Dept of HSS, JUIT
3	Dr Tanu Sharma	Assistant Professor	Dept of HSS, JUIT
4	Dr Ashish Kumar	Professor	Dept of CE, JUIT

Student Consultative Committee

1.	Dr Anupriya Kaur	HoD, HSS
2.	Triambica Gautam	Faculty In charge

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 needs of the faculty members, students, staffs and research scholars.

LRC is a separate block of three storied building embedded to main academic block which accommodates 275 students (nearly 92 students with 6 feet distance as per COVID 19 guidelines) at a time in order to carry any activity related to study and research. The LRC has 42432 volumes of books and 1394 back volume of journals covering the disciplines of Computer Science Engineering, Electronics & Communication Engineering, Information Technology, Civil & Environmental Engineering, Biotechnology, Bioinformatics, Mathematics, Physics, Material Science, Management, and other general subject areas. The Collection comprises of Print monograph such as Textbooks, Reference Books, Encyclopedias, Handbooks, Dictionaries, Theses, Standards, etc. It has been subscribing to 42 National Journals and print copies of 42 National and International magazines in order to supplement teaching and research activities of the university. It also has a collection of Non-book materials include audio/video cassettes, CD-ROM discs, DVD-ROM discs etc.

LRC is subscribing to various online databases such as ACM, ASCE, IEEE, Springer e-journals, SIAM E-Books, ProQuest, etc. These e-resources accommodate full-text of e-books, and other electronic resources such as Journals, Conference Proceedings, Transactions, Magazines and Reports which are accessible over IP range of the campus. LRC has also acquired NPTEL (National Programme on Technology Enhanced Learning) course contents from IIT Kanpur and hosting it on a high capacity server for providing seamless access to users within the campus. There are 65 dedicated computer nodes and are fully connected with LAN & WiFi Internet facility. Students, faculty, research scholars can use computer facility for the purpose of browsing internet, accessing journals, reading course materials during the opening hours. It has a fully computerized and bar-coded with latest version of Library Management Software known as 'Liberty'-Internet based library automation software). The library has a separate dynamic website. The collection of the library can be browsed, searched and explored with the help of OPAC (Online Public Access Catalogue) anywhere in the campus. Library has been providing dedicated terminals to access OPAC throughout the library premises.

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

LRC is an active member of Developing Library Network (DELNET), New Delhi for resource sharing, document delivery services among the member libraries and

supplementing the needs of the resources which are not available with the institute. It is also participating actively in Shodhganga (a reservoir of Theses), Shodhgangotri- a repository of Synopses/Research Proposals for PhD) and ESS-an e-resource subscription consortium of INFLIBNET. LRC has also become an active member of National Digital Library of India (NDL) to provide free access to educational contents.

Resource Collection
- Unique Titles :   **22038**
- Total Copies :   **42432**

Subject-wise Book Collection:

| S. No.	Departments	Titles	Copies
1	Bioinformatics & Biotechnology	2783	4867
2	Civil Engineering	2762	5939
3	Computer Science Engineering	4799	10298
4	Electronics & Communication Engineering	3561	7280
5	Humanities & Social Sciences	2494	3995
6	Mathematics	1987	3678
7	Pharmacy	676	1329
8	Physics	1131	2573
9	Others	1845	2473
	Grand Total	**22038**	**42432**

Subject-wise unique titles (Books) in the library collection:
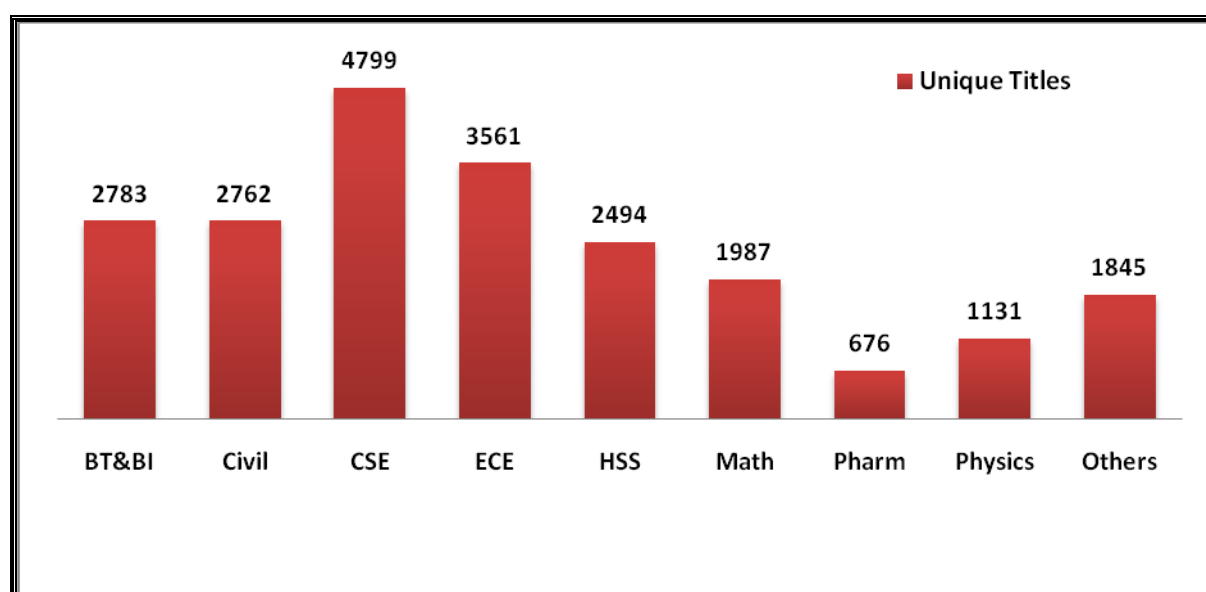
Subject-wise total volumes or copies (Books) in the library collection:
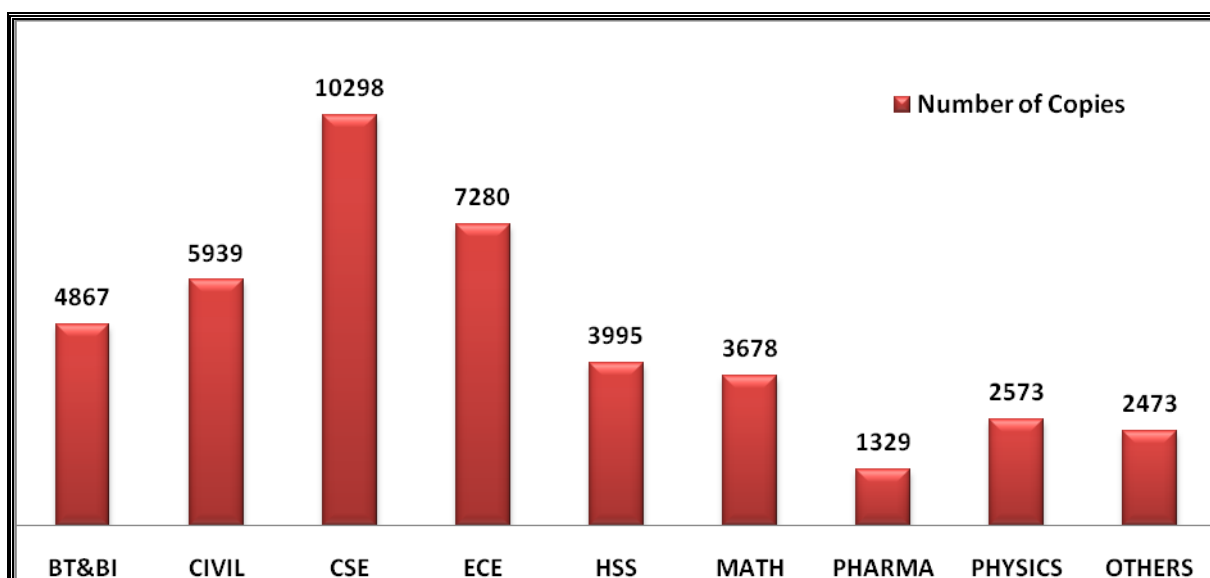
Subject-wise coverage of total library collection (Books) in percentage (%):
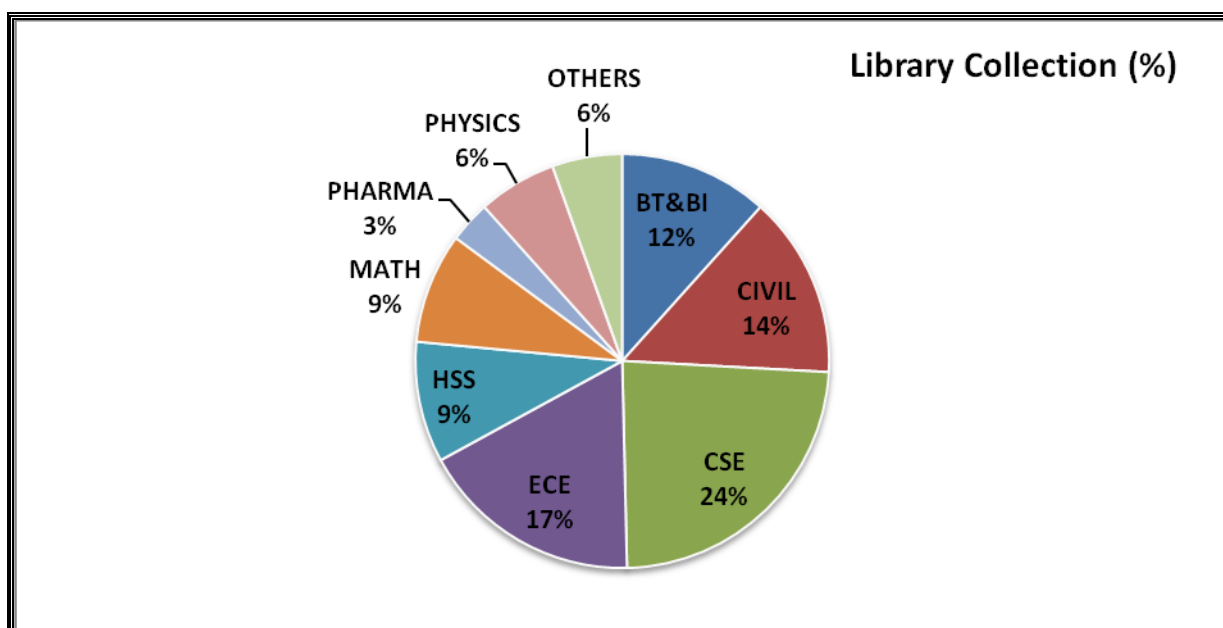
BT&BI=Biotechnology and Bioinformatics; CIVIL=Civil Engineering; CSE=Computer Science and Engineering; ECE=Electronics and Communication Engineering; HSS=Humanities and Social Sciences; MATH=Mathematics; PHARMA=Pharmacy; PHYSICS=Physics and Material Science; OTHERS=General books.

Online Databases Accessible at JUIT:

S. No	Database	E-Books	No. of Journals	Conference proceeding and other reports	Total
1	Association of Computer Machinery (ACM)	-	66	1082	1148
2	American Society of Civil Engineers (ASCE)	-	37	-	37
3	Institute of Electrical and Electronics Engineers (IEEE)	-	207	3855	4062
4	Springer	-	1700	-	1718
5	Packt Publishig e-Books	50	-	-	50
6	ProQuest	-	5532	16800	22332
7	SIAM E-Books	372	-	-	372

Other Collections (in Print):

Type of Resource	Number
Print Journals (National)	42
Print Magazines	42
Back Volume Journals	1394
Ph.D Theses	224
Dissertations (MTech & Dual Degree)	700
Project Reports (BTech)	2305

*The purchase/subscription of print books and periodicals were Put on hold to minimize spread of COVID 19.

The users were provided online resources through remote access provision. Information requirements from users were sought by contacting them through emails or telephonically and furnished. If any book not available in electronic format then, one or two chapters only, scanned and shared with the users. An information request google form has been created and shared with the students to seek their information needs.

IT CENTRE

The main objectives of the Server Room (IT 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 and HP rack 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 printing needs JUIT has total 70 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 226	Intel® XEON 3.0 GHz 4 GB RAM 140 GB SCIC HDD with RAID Support.	1
2	IBM System X 3400	Intel® XEON 2.0 GHz 4 GB RAM 956.32 GB SCIC HDD with RAID Support.	6
3	IBM server X 3100 M4	Intel® XEON E31220 @ 3.10 GHZ 8 GB DDR IV RAM 1200 GB SCIC HDD with RAID 5 Support , 17 inch TFT monitor	3
4	Sophos XG 450	HW Appliance with 8 GE ports,2 SFP+ ports,2 expansion bays for optional FleXi Port modules,2XSSD + Base License (inc FW,VPN & wireless)for unlimited users	2
5	IBM X Series 3500	Intel® XEON 2.26 GHz 6 GB DDR III RAM 1200 GB SCIC HDD with RAID 5 Support , 17 inch TFT monitor	6

6	HP ML 110G SERVER	Intel XEON QUAD Core X3430 Processor, 4 GB DDR III RAM 250 GB HDD sata , 18.5 inch TFT monitor	2
7	Dell	Dell Precision Tower 3420 with Intel Xeon E3-1225 3.3 ghz,8gb ddr4,19 inch tft and mouse	10
8	IBM X3300	IBM server x3300 m4 server 16 gb ram,1200 gb hdd with raid 5 card	1
9	HP rack server	hp dl 60 gen 9 intel xeon e5 (2.1 ghz/8core/20 mb/85w) Additional processor 2620 v4 2.1 ghz,8 core & 20 mb l3,16 gb X3 ram,HPE 240 smart HBA,hpe 6 tb hdd X4	1
10	HP rack server	hp dl 60 gen 9 intel xeon e5 (2.1 ghz/8core/20 mb/85w) Additional processor 2620 v4 2.1 ghz,8 core & 20 mb l3,16 gb X3 ram,HPE 240 smart HBA,hpe 3 tb hdd X3	2
11	HP rack server	hp dl 60 gen 9 intel xeon e5 (2.1 ghz/8core/20 mb/85w) Additional processor 2620 v4 2.1 ghz,8 core & 20 mb l3,16 gb X3 ram,HPE 240 smart HBA,hpe 2 tb hdd X3	1
12	Lenovo Rack server	Lenovo data center solutions thinksystem sr530 including Lenovo rok win server 2016	3
Total Number of Server			38

DESKTOP DETAILS			
S.No	**Brand**	**CONFIGURATIONS**	**QTY**
1	IBM	P IV with 3 GHz, 80 GB HDD & 512 MB RAM and 17 inch monitor	28
2	IBM	Core 2 due 2.4 Ghz, 160 GB HDD & 1 GB RAM 17 inch Monitor	52
3	IBM	P4 3.06 Ghz,80 GB HDD,512 MB RAM & 15 inch Monitor	10
4	IBM	Dule core 1.8 Ghz,80 GB HDD ,1 GB RAM & 17 inch Monitor	40
5	IBM	Dule core 1.8 Ghz,80 GB HDD ,512 MB RAM & 17 inch Monitor	15
6	IBM	INTEL CORE 2 DUO,160 GB HDD,4 GB RAM & 17 inch Monitor	2
7	IBM	INTEL CORE 2 DUO,160 GB HDD,2 GB RAM & 17 inch Monitor	50
8	IBM	INTEL CORE 2 DUO,160 GB HDD,2 GB RAM & 17 inch Monitor	125

9	IBM	core i3-530 (2.92 GHz) with 2 GB RAM ,250 GB Sata HDD,18.5 inch TFT Monitor	90
10	IBM	Core I3- 2100 3.10 GHz with 2 GB RAM ,320 GB Sata HDD,18.5 inch TFT Monitor	80
11	IBM	Core I3- 2100 3.10 GHz with 4 GB RAM ,500 GB Sata HDD,dvd rom,18.5 inch TFT Monitor	120
12	HP	Intel core i5-6500 3.2 G 6M 2133 4C CPU with 18.5 inch TFT ,KB and Mouse	190
13	Dell	Desktop Dell i5 7th gen,8 gb ram,1 tb HDD with 18.5 inch tft	300
14	HP	Desktop Model HP 280 G4 MT	10
15	Dell	dell Desktop intel core i7-8700,8 gb dd4 ram,19 inch led,win10 pro 64 bit. 1tb hdd	10
16	Dell	Dell 8050 with core i7 10 gen,16 GB ddr 4 ram,1 Tb sata Hdd,19 inch LED, Kb, Mouse and win10 pro 64 bit .	70
		Total Number of computers	1192

Engineering and Technical Computing Software.

SOFTWARE DETAILS		
S.No	**Product Title**	**No of Licenses**
1	Hyperchem Release 7	10
	Matlab ver 7.1	30
	Simulink	30
	CDMA Reference Blockset	5
	Communications Blockset	5
2	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	SQL Server 2000 Standard Edtn	1
11	Windows Server CAL 2003 English OLP NL AE Device CAl	4

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

45	Matlab ver 10	50
46	Simulink	10
	Filter Design Toolbox	10
	Communications Blockset	10
	Communications Toolbox	10
	Signal Processing Toolbox	10
	Video and Image processing Blockser	10
	Window server standard 2012	4
47	Geo 5 suit of Software with various modules	50
48	Xilinx UEF-VIVADO_SYSTEM	25
49	Base2 100	7
	Atlys Spartan-6 FPGA Development Board	1
	8.1 V Clarity Snet Language Lab software 1 teacher + 30 User	30 user
50	Tense Buster V9 for 20 user	20 user
	Business writing for 30 user	30 user
	SPSS Base 24.0	1
51	SPSS Advance Statistics	1
	SPSS regression	1
	SPSS Neural Network	1
	SPSS conjoint	1
	SPSS Amos 24.0	1
	SPSS Categories	1
	Acrobat Pro 2017	10
52	Windows server 2016 pro	4
53	Matlab 2018 b	25
	simulink	5
	Signal Processing toolbox	5
	dsp system toolbox	5
	communications toolbox	5
	control system toolbox	2
	image processing toolbox	2
	statistics and machine learning	2
	deep learning toolbox	2
	antenna toolbox	2
54	SIMULIA Academic Teaching Suite Q9T for 20 user	1
55	PMOD Wifi Interface 802.11 G for ECE department	1
	PMOD MP3 Temperature Sensor	1
56	Windows server 2016 pro	3

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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 63-3 com switches, 3 Cisco Routers, 26 Cisco switches,10 Aruba switch, 17 Cisco AP ,6 HP AP and 16 VLANs. Entire college campus including academic block, Faculty residence, SOR and all hostels are wifi with total 295 Ruckus AP and OFC ring of 144 Core.

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) internet lease line circuit from BSNL and 51 MBPS from Railtel 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 Sophos XG 450 security Appliance to manage internet bandwidth and mailing services. Sophos 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.

Video conferencing facility provided in Board room with Polycom latest hardware including Eagal Eye IV-12x camera, mic, Panasonic LED Monitor 55"

INTERNATIONAL LINKAGES OF THE UNIVERSITY:

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

1. University of Florida, International Center, Florida, USA.

2. College of Informtion Science & Technology, University of Nebraska at Omaha.

3. South Dakota School of Mines and Technology, USA.

4. MoU with Youth Development Fund Bhutan.

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

6. Tampere University of Applied Sciences, Finland.

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

8. Department of Industries, Government of Himachal Pradesh

9. Pushchino State Natural Science Institute, Russia.

10. The Institute of Electrical & Electronics Engineers, Incorporated, (IEEE) New York.

ACADEMIC ADMINISTRATION

Admission Process

1) ## UG Program

During the academic session 2020-21, admissions were carried based on JEE (Mains) and on the basis of 10+2 marks merit basis.

In BTech Biotechnology & Bioinformatics 50% seats were filled through JEE (Mains) All India Ranking basis and 50% seats were on the basis of 10+2 Merit Basis.

Admission to BTech 2nd year under (Lateral Entry) were made on the merit marks of three year diploma / BE / BTech 1st year in related branch of engineering.

2) ## PG Program

Admission to PG programs (MTech) were offered to the eligible candidates having valid GATE score and through PGET-2020 conducted by University for Non GATE qualified candidates followed by an interview by the PG programme Selection Board.

3) ## Doctoral Programme:

Admission to the PhD programs were offered to the eligible candidates having UGC/CSIR NET/SLET and through PhD Entrance Examination conducted by the University for Non NET / SLET qualified candidates followed by an interview of the shortlisted candidates qualified in entrance examination based on their inter se merit among the shortlisted candidates.

4) ## Students Enrollment

The status of student strength as on 30 Nov 2020 is given below.

Year of Study	UG Prog.	PG Prog.	Integrated Degree Prog.
6th Year	02		
5th Year	07		
4th Year	387		03
3rd Year	367		
2nd Year	404	37	
1st Year	477	40	

PhD Scholars Registered during the Academic Session 2020-21 were 124

Faculty

The Unique feature of the University is the high quality of faculty on its rolls. The Faculty details with their terminal qualification is at **Appendix-F**.

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. An analysis of results of last four years is given in **Appendix-G.**

Scholarships

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

2. **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.

3. **Students from Bhutan under Scholarship Scheme** – Students from Bhutan are exempted from paying the Tuition fee & Hostel charges.

4. **Teaching Assistantship for MTech Students**

    GATE qualified students admitted dto MTech program are eligible for Teaching Assistantship of Rs.12000/- per month. However, continuation of above fellowship is subject to meeting the desired criteria as the the terms of JUIT Regulations & Ordinances.

5. **Research Fellowship for PhD Students**

    Full time PhD scholars may be awarded Research Fellowship of Rs.22000/- per month for the maximum duration of 03 years. The above fellowship is subject to approval and availability of funds.

JUIT YOUTH CLUB (JYC)

ABOUT JYC

Having been through school life we all imagine that college life would be the same, if not more stressful; same never-ending classes, exams and uncountable assignments; leaving us with no time to enjoy life as we did in school. But this is so not true. College life in itself is an adventure that one embarks on from the moment they enter the college which has its fair share of new experiences. But the main highlights to anyone's college life are events that happen within the college that are full of life and enthusiasm. Our college has lots of events each academic year and all are planned by the JUIT Youth Club (JYC).

The JUIT Youth Club (JYC) is an autonomous student body, responsible for organising various events throughout the year. The JYC team works hard in planning events to the tiniest of details and then executing these plans with perfection. Student members of the JYC put in their efforts to ensure everything from event arrangements, proceedings to inviting guests and faculty goes on smoothly. Students work really hard, without any inhibitions regarding time or effort to make these events successful.

JYC OFFICE BEARERS

FACULTY INCHARGE

Dr. Amit Srivastava

JUIT Youth Club (JYC) is the name of enthusiasm, development,consistency and effort. We at JYC, ensure the overall development of a student by helping them go beyond the academic horizons and strive to provide them a nurturing climate, a trusting environment, and a soil of celebrations. We are not just a club, rather we are a community which aims at bridging the gap between the students and the endless opportunities available to them. With a number of fests around the year, we constantly aim at helping students to carve out a niche for themselves in their respective fields of interest like technical, sports, literary, cultural and many more. At JYC, we highly value the efforts that each and every student member puts in with great zeal and fervor to make sure that every event is a success.

Ishita Kapoor
President

Mahima Singh Thakur
Secretary

Pradyuman Sharma
Treasurer

JYC CLUBS

Literary and Debating Club

Literary & Debating Club is home to all the literature enthusiasts, stage lovers and street play writers. This club focuses on the holistic development of a student and encourages them to develop self-confidence for public speaking and helps to enhance their writing skills. Its main aim is to nurture an individual and shape them to have an overall admirable and inspirational personality that enables them to flourish in the corporate world. All these activities conducted by the club help to develop special skill sets like leadership, cooperation and patience.

Events Conducted – 'Qafila' - The Literary, theatrical and musical event, Model United Nations

Club Coordinators – Bhawna Dey & Simran Gohan

Faculty Coordinators – Dr. Ashok Nadda & Ms. Triambica Gautam

QAFILA

JYC organized the first ever virtual edition of Literary, theatrical and musical event that commenced on 27th March 2021and continued for two days. The event saw a long line-up of students eager to put forward their thoughts, opinions and views. The two-day-long event was a treasure of engrossing events like one take, just a Minute and haiku face off. Not only did the celebration promote the languages, but it also pushed the participants to think out of the box and they did an in-depth research on the topics.
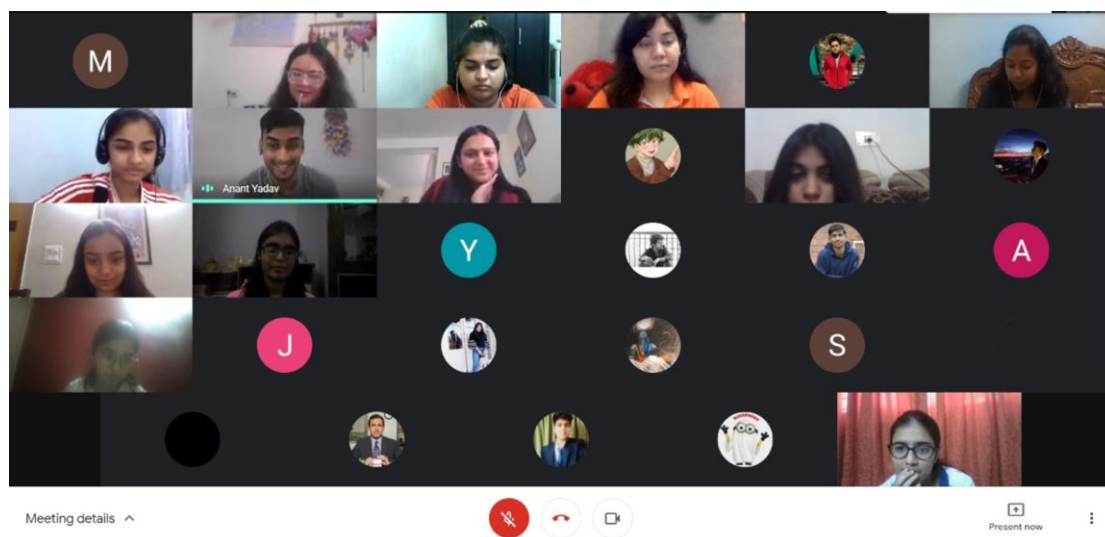
MUN (Model United Nations)

This event is a culmination of intellect, public speaking and world issues. Students discuss major socio-political issues faced by the world today and in the end, come up with solutions to fix these issues. It is one the highly regarded forms of debating with a panel of executives who are rating every action by a participant during the debates and proceedings.

This year, JYCvirtually inaugurated 'JUIT-MUN', a two-day long simulation of the United Nations, where students become delegates of various countries and debate on "real" world issues and tried to resolve them. 22nd May 2021 was marked as the inaugural ceremony of the 8th edition of JUIT-MUN with the benign presence of Honorable Vice-Chancellor Prof (Dr.) Vinod Kumar, the Dean of Academics Prof (Dr.) Samir Dev Gupta and Registrar of JUIT Major (Gen.) Rakesh Bassi. With great zeal and enthusiasm, the Secretary General Mr. Soham Ahuja declared the conference open.

This conference celebrated a gathering of literary enthusiasts and groups from various universities and colleges across India. It helped the students to develop leadership skills, research, writing, public speaking, and problem-solving.
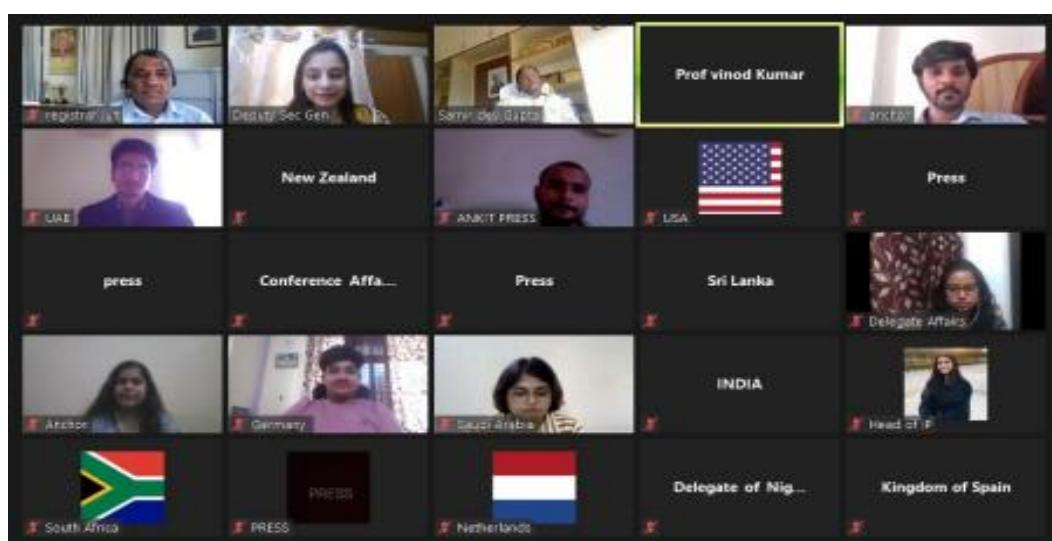
Cultural and Dance Club

The Cultural Club aims at moulding the personality of students and exposes them to a wide range of cultural events throughout the year. The students also get a first-hand experience of organizing and managing the events which caters to the intellectual and social skills of the students. The Club also aims at developing the creativity of the students by providing and managing a multitude of themes and decorations throughout the campus during the fest. Various skills like leadership,team work, sharing, accepting responsibility etc are implicit in the working of theclub. This was conducted online.

Events Conducted –Athkheliyan

Club Coordinators – Astha Singh Rathore &Hiteshwar Singh

Faculty Co-ordinator – Dr.Ruchi Verma

ATHKHELIYAN

JYC virtually celebrated 'ATHKHELIYAN', which gave students a break from their monotonous routine of academics.

It was a treasure of engrossing activities like Feet Of Fire, Walk it off, and Slay off which were a part of the cultural extravaganza. More than 60 students showcased their dancing, walking, and dressing-up skills in their own innovative ways.

8th May 2021 was marked as the closing ceremony of Athkheliyan with the benign presence of Registrar of JUIT Major (Gen.) Rakesh Bassi. Cultural Faculty In-Charge Dr. Ruchi Verma and Student coordinators Astha and Hiteshwar announced and congratulated the winners.

More than 150 participants connected virtually for the closing ceremony to celebrate fashion, music, and dance.
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Health and Environment Club

Environment and health club is responsible for organising events in the university that are not only counted as extracurricular activities but also help to maintain peace within our body and the environment. It helps to make the already green and environmentally friendly campus more in tune with nature and helps to create a balance between the environment and humanity. It teaches the students to treat their body as a temple and helps them to maintain their physical and mental well-being. The club aims at providing an overall development of thestudents for the future.

Events Conducted – We Care
Club Coordinators – Diwaker Srivastava & Kajal Singal
Faculty Co-ordinator – Dr. Naveen Jaglan, Dr. Saurav

WE CARE

Jaypee Youth Club of Jaypee University of Information Technology (JUIT), Waknaghat in collaboration with 'The Omega Leo Club' successfully conducted 'WE CARE', which was an initiative to unite people through common goals of community awareness.

The event commenced on 6-7th April 2021, the well–being of Mother Nature and having a sense of responsibility towards the surroundings was kept in mind.

The two-day-long event was a treasure of engrossing events like Green Hands and Save the Saviors. The participants got the opportunity to plant a small sapling in or around their homes to showcase their concern for the environment. Students also created magnificent paintings under the theme 'Impact of COVID on Environment' and made Green Hands, a creative painting competition a grand success.

More than 50 students joined the event virtually to commemorate benevolent Mother Earth. The event rekindled emotive concerns and instigated the youngsters to love and respect Mother Nature with their heart and soul.

Technical Sciences, Movies and Photography Club

This club is a composition of Movie, Photography and 'Createch', the Technical Club of JUIT. It promotes personal growth, creativity, leadership and innovation. It helps to create learning opportunities for students in coding, hacking, programming, Photoshop, photography and design. The responsibility of the club includes telecasting cricket matches and movies for students; the photography club captures all the events. They are responsible for all major events held at JUIT.

Events Conducted – 'Murious' – The Technical Fest, Movies, Farewell Documentary

Club Coordinators – Apoorav Vats, AngimaAnthwal& Harshit Sharma

Faculty Co-ordinator – Dr. Shruti Jain&Mr Prateek Thakral

MURIOUS TECH FEST 2021

Jaypee Youth Club in collaboration with ACM JUIT and IEEE-JUIT SB organized the two-day long virtual technical fest, **Murious 15.**0 from 24th-25th April 2021. MURIOUS was a multi-layered fest for showcasing the reasoning and technical skills.The event witnessed the participation from various colleges across India. The fest has a rich heritage and is being held since 2006. However, this year's Murious was beyond just being a technical fest as for the first time it was organized in online mode.
The inaugural ceremony commenced with virtual lighting of the lamp by Honorable Vice Chancellor Prof (Dr.) Vinod Kumar. The Dean of Academics Prof (Dr.) Samir Dev Gupta and Registrar of JUIT Major (Gen.) Rakesh Bassi graced the occasion with their words of wisdom.

The university received more than 200 registrations for the virtual series of technical, photography, and gaming events like Spot the Bug, Code Trials, Click and Blink, Web Wizard, Tech talk by esteemed speakers. Dr. Amit Srivastava (JYC Faculty In-Charge), Dr. Shruti Jain and Mr. Prateek Thakral (technical faculty coordinators) announced the winners and congratulated them.

The tech talks organized by the JYC team aimed to motivate the students in the tough and monotonous times. The first speaker was Mr. Paresh Gupta, 6 times TEDx speaker, founder and CEO Global Centre for Entrepreneurship and Commerce. He has been the recipient of Rajasthan Youth Icon award.He is also the co-founder and investor on Neos Angels a startup consulting company. The second guest speaker was Mr Saurabh Jain, ex- vice president Paytm and founder of fun2do labs pvt ltd. Both speakers inspired the audiences with their enlightening words.

The closing ceremony marked representation from the student body including Ishita Kapoor, JYC President, and the technical coordinators Angima, Harshit, and Apoorv.
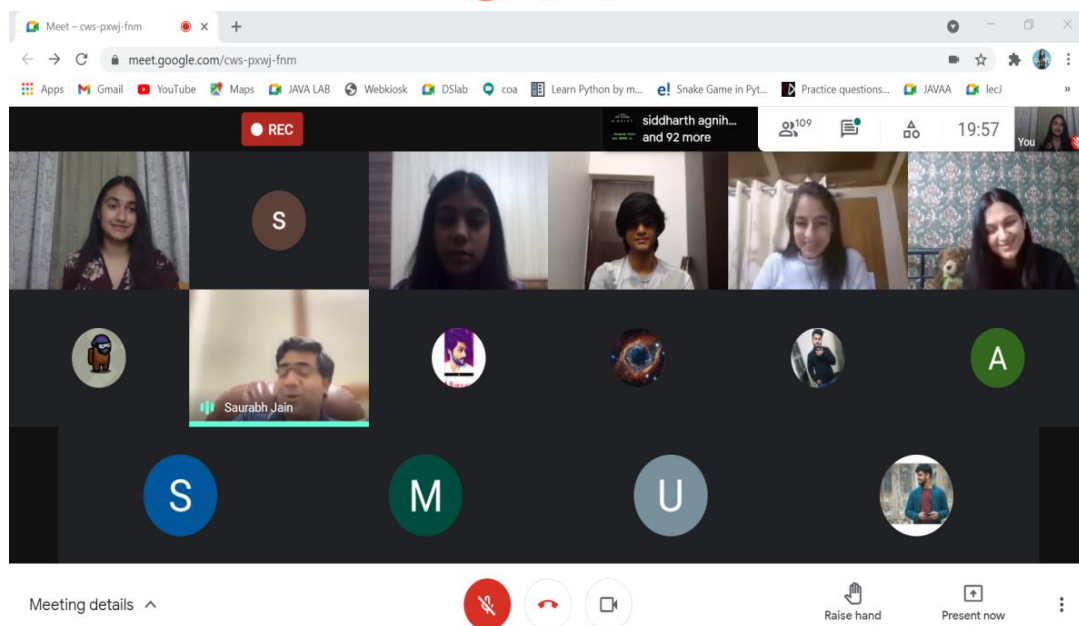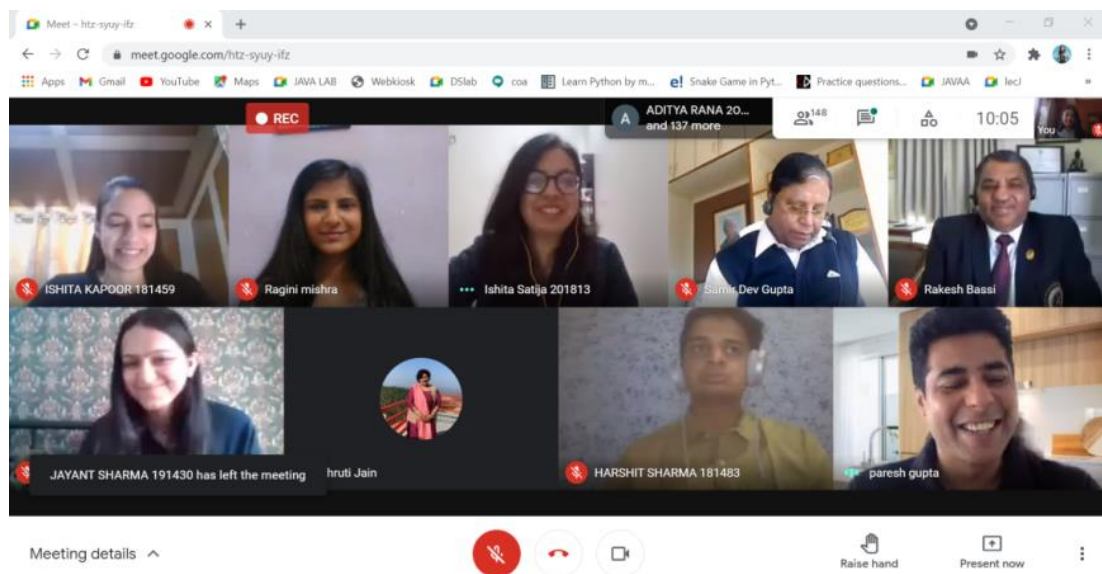
Sports Club

The Sports Club at JUIT allows exploring and enjoying the thrill of sports. It aims to increase the camaraderie through the medium of sports and developing healthy sporting habit. The club also facilitates the participation in various sports festivals and tournaments organized across various technological colleges. 'Parakram', the sports-fest of JUIT, is held annually with great zeal and enthusiasm. Where hundreds of participants share one thing in common- the hunger to become the best. They aim high, believe in themselves and if they havetheir downfalls, they bounce back and achieve better #GameLiesWithin. It also conducts Inter/Intra college tournaments of diverse sports to take their mind off the strenuous academic schedule and offers equal opportunities to all the students to play and showcase their ability.

Events Conducted- Yoga Day

Club Coordinators – Parth Bali, Sanya Kanwar &Vidit Jindal

Faculty Co-ordinator – Mr. MunishSood, Dr. Rishi Rana

YOGA DAY

Yoga embodies unity of mind and body; thought and action; restraint and fulfillment; harmony between human and nature; a holistic approach to health and well-being. The numerous benefits of Yoga make it a popular practice for people across the globe, especially in times of a pandemic when mental and physical health is under stress. The International Yoga Day was celebrated on 21st June by the students of Jaypee University of Information Technology in virtual mode to usher in peace, harmony, happiness, and success to every soul in the world. Students shared their experiences and showcased their favorite asanas by sending photographs from their homes. Jaypee Youth Club encouraged the students to develop the habit of yoga that will help students achieve a better life, physically, mentally, and spiritually as well.
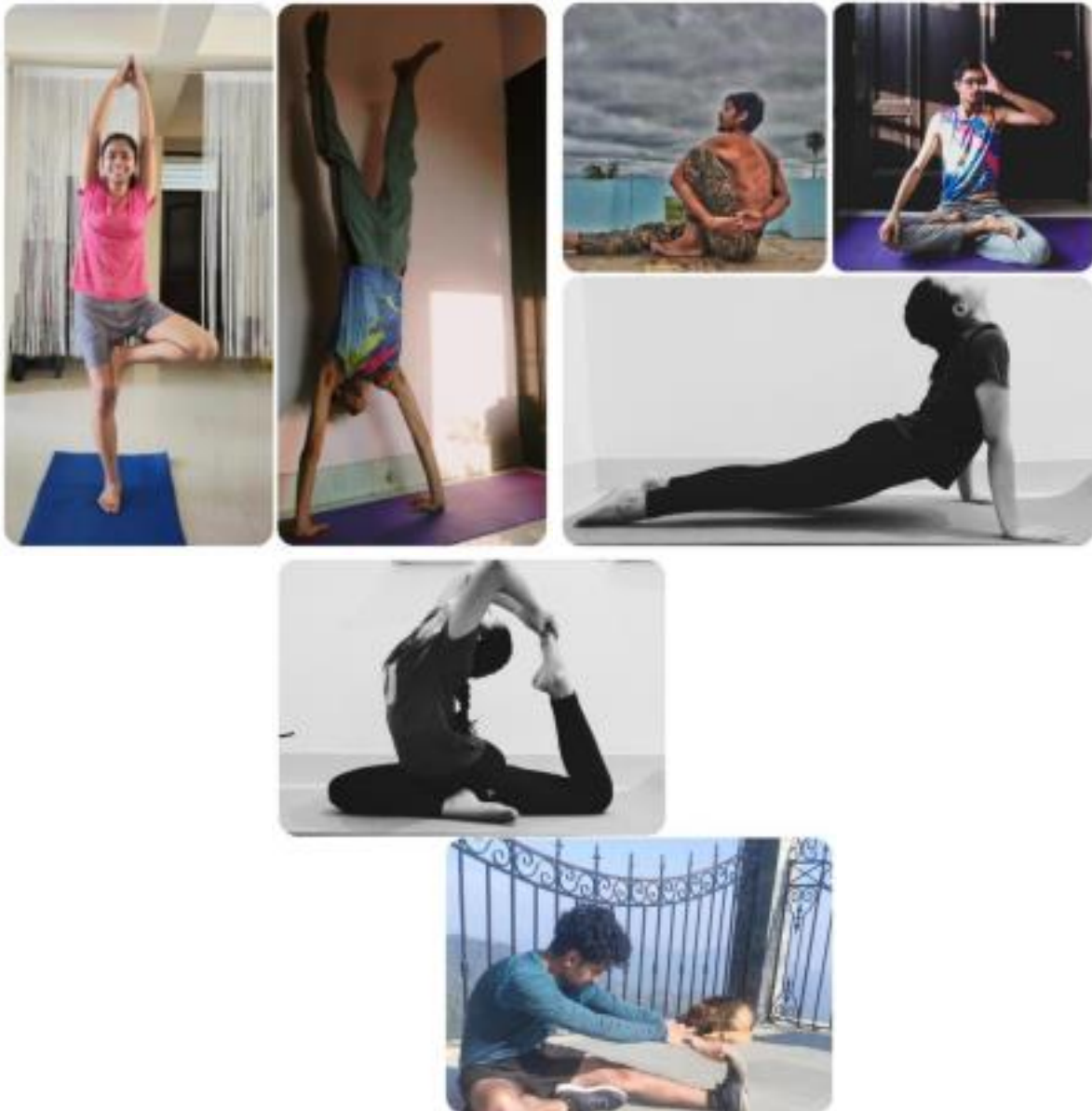
Theatre and Music Club

The Theatre and Music Club of JUIT provides a platform to theatre lovers, nukkad enthusiasts and music admirers. The Club offers Stage Plays, Nukkadnataks, Mime to various musical events like Dhun. From writing plays, to direction and to performance, from playing an instrument to understanding music through performances, members get to learn the skills required for each of these jobs.

Events Conducted- Qafila- One Take & Acoustic Dusk

Club Coordinators- Shagun Sharma & Vaibhav Thakur

Faculty Co-ordinator-Dr. Rakesh Bajaj & Dr. Vikas Baghel

QAFILA – ONE TAKE & ACOUSTIC DUSK

JYC organizedthe first ever virtual edition of Literary, theatrical and musical event that was commenced on 27th March 2021.It gave students a platform to showcase their skills, challenged them to prepare their character for the monologue event- One take and gave everyone a new, virtual outlook of how fun- filled fest vibe was retained at the comfort of their homes.

The event was concluded with a evening that was filled with soulful melodies and beautiful songs by Karan Sharma and team. More than 100 students and faculty members joined. Specifically, for Acoustic Dusk, there was a lively engagement between the performers and viewers that helped the viewers stay glued to their screens.

VIRTUAL FAREWELL PARTY

Yuvaa along with Fastrack organized JUIT's first-ever Virtual Farewell Party for the Batch 2017-2021. Over 150 students were on board and the hosts from Yuvaa had a fun question session with the pass outs. The students from the pass out batch were sharing their university memories with everyone and got bit emotional in between. There were games and goodies; everyone had a really good time. There was a guest interaction session too with Nidhi Nagori CA (CPA) who enlightened students with her experiences. There were candid conversations, questions, and a lot of laughter. And students also won the Fastrack hampers!
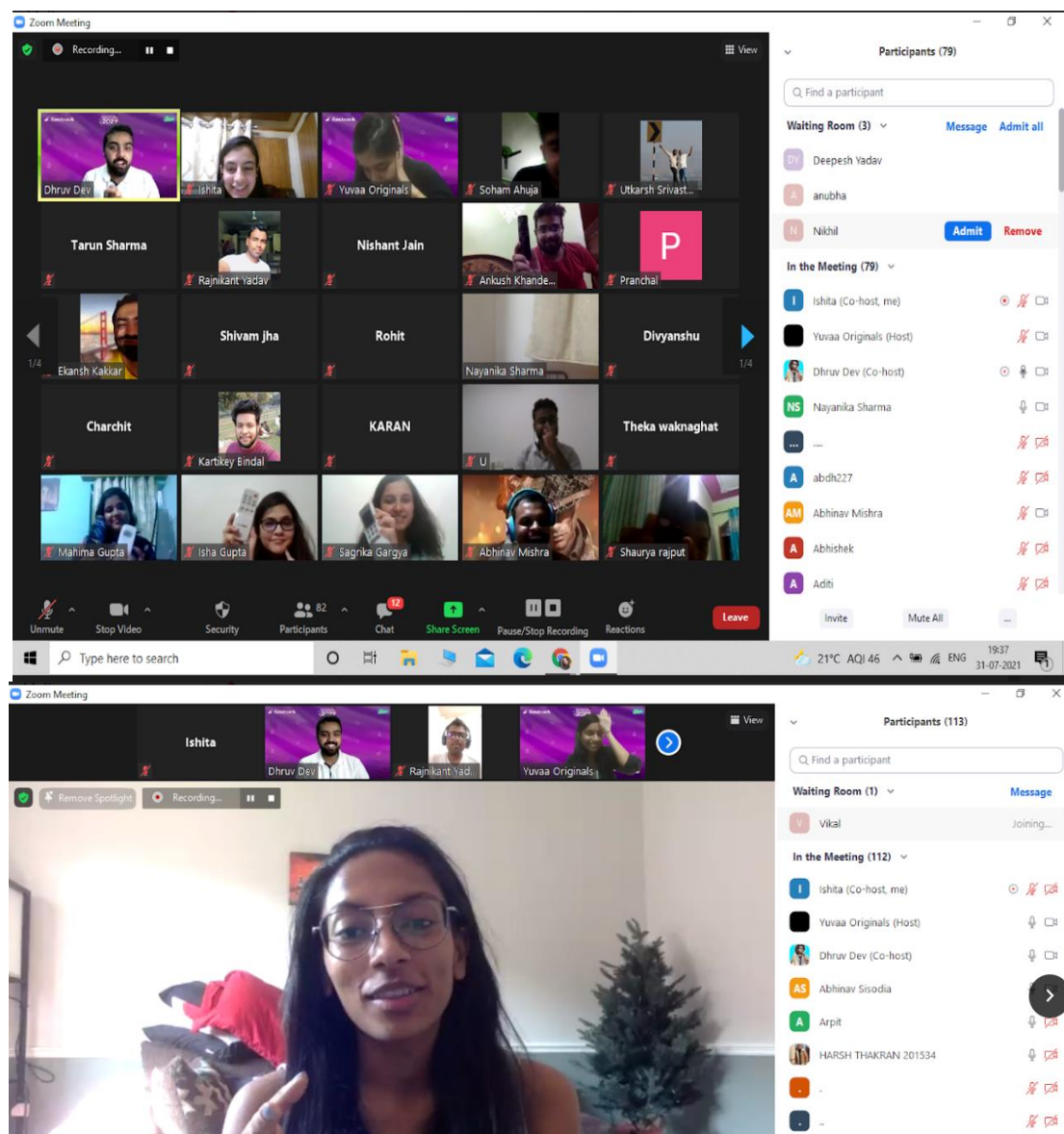
JYC COMMITTEES

Procurement andEvent Management Committee

A successful event is never an accident it is always the result of a commitment of excellence, intelligent planning, focused efforts and team work. And all members of the Events Committee know this. They work like a family to ensure that all events are organized successfully. They handle everything big and small to make sure all JYC events are conducted smoothly. They manage the backstage and work behind the scenes so that nothing goes wrong. The work of the events committee begins right from the time an event is announced and it goes on till the event concludes successfully. They are the ones who provide anything and absolutely everything that is required to organize an event. The lighting, the stationery and all the decorations that make the college events look systematic

Committee Coordinators – Saksham Sharma Ujjwal Kumar & Kiara Tickoo

Faculty Coordinators – Dr. Jitendra Vashishtt, Dr. Geetanjali

Registration and Hospitality Committee

The Hospitality & Registration committee is responsible for receiving guests with goodwill. Its primary goal is to ensure smooth registration of participants, provide refreshments, prepare accommodations and maintain all the hospitality equipment and supplies. The committee has always been at the forefront of managing all the major events of the JYC. This student body of the committee is devoted to provide a warm stay to anyone visiting the college for an event. The H&R committee has always been praised by visitors for their hard work and dedication.

Committee Coordinators – Md. Kounen Khan, MeghaTushir&HemangJandrotia

Faculty Coordinators – Dr. Himanshu Jindal, Dr. Shweta Pandit

Media and Publicity Committee

The Publicity Committee spreads the word on the what's and when's of every event, big or small. Their responsibility is to market all events, offline as well as online on various platforms. Moreover, they the main social media handle of the JUIT Youth Club. They also create the beautiful graphics you see online, the email invitations that rake in participants from around the country and call near and far to make an event successful.

Committee Coordinators – Ameesha Varma &Suryansh Saraswat

Faculty Coordinators – Dr. Tirath Raj Singh

Creative arts Committee

The Arts Committee works to provide supplies to other JYC clubs and committees during college fests and programs. We are the ones who provide anything and absolutely everything that is required to organize an event. The lighting, the stationery, tents and all the decorations that make the college events look systematic, and attractive. Be the part of Committee which is soul to every major occasion in JUIT

Committee Coordinators – Chaitanya &Saijal Verma

Faculty Coordinators – Dr.Ragini Raj Singh

Disciplinary Committee

The Disciplinary Committee of the JUIT Youth Club has been entrusting the task of maintaining the discipline during the colleges. The members of this committee work with determination to make certain that no misconducts of any kind take place during any event. They ensure that no scuffles happen and the events go on smoothly without any hinderances.

Committee Coordinators – Rishabh Sharma, Rudresh Sharma, Preetish Gujral &Gujan

Faculty Coordinators –Dr. Vivek Sehgal, Dr. Gopal Singh Bisht, Dr.Neena Jindal, Mr. Surjit Singh.

Finance Committee

The Finance committee plays a crucial role in the success of any event.The committee members coordinate with local businesses and bring in sponsors all through the year for any and all events that take place within the college. They write Sponsorship proposals, travel and reach out to business owners that would be interested in the college fests.

Committee Coordinators- JYC President and JYC Treasurer.

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 three years is attached at **Appendix-H**

FINANCIAL STATUS

The Audited Balance Sheet of thye FY 2020-21 is attached as **Appendix-I.**

GOVERNING COUNCIL

1. **Pro-Chancellor**

   Shri Manoj Gaur   Chairman
   Executive Chairman
   Jaiprakash Associates Ltd.

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

   1. Shri Sunil Sharma   Member
      Executive Vice Chairman
      Jaiprakash Associates Ltd.

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

3. **Two Representatives of the Collaborating Universities**

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

   ii) 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**

   a) Prof. Onkar Singh   Member
      Professor
      Mechanical Engineering Department
      HBTI
      Kanpur UP - 208002

   b) Prof. P.K. Jain   Member
      Director
      IIIT BHU
      Varanasi UP

   c) Prof. Manoj Arora   Member
      Vice-Chancellor
      BML Munjal University
      Gurgaon
      Haryana

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

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

    b)   Sh. Pankaj Gaur   Member
        Jt. Managing Director (Construction)
        Jaiprakash Associates Ltd.

6. **Vice Chancellor of the University**
    Prof. Vinod Kumar   Member

7. **One Head of Another Institute/Laboratory of the Trust**
    Prof. S.C. Saxena   Member
    Vice Chancellor, JIIT, Noida

8. **Two Deans of the University by Rotation**

    a)   Prof. Samir Dev Gupta   Member
        Director and Academic Head
        JUIT, Waknaghat
    b)   Prof. Ashok Kumar Gupta   Member
        Dean (Academics & Research)
        JUIT, Waknaghat

9. **Three Secretaries of Government of Himachal Pradesh**
    a)   Secretary (IT), Govt. of HP   Member
    b)   Secretary (Education), Govt. of HP   Member
    c)   Secretary (Technical Education), Govt. of HP   Member

10. **Three Representatives of the Industry Nominated by the Pro-Chancellor**
    a)   Sh. Alok Gaur
        Head, HR Department
        Jaiprakash Associates Ltd.
    b)   Sh. C.S. Verma
        Former Chairman
        Steel Authority of India
        4086, Pocket C4, Vasant Villas, Vasant Kunj,
        New Delhi – 110070)
    c)   Sh. B. Prasada Rao
        Former Chairman & Managing Director, BHEL
        699, Mahavir Prasad Block
        Asian Games Village Complex
        New Delhi - 110049

11. **Non-Member Secretary**
    Maj Gen Rakesh Bassi, SM (Retd)
    Registrar & Dean of Students, JUIT

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

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

b)   Sh. S.S. Mittal
       Advocate
       Shimla

3.   One Dean of the University

Prof. Samir Dev Gupta
Dean (Academics)

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

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

5.   Non- Member Secretary

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

FINANCE COMMITTEE

1.   The Vice Chancellor of the University   - Chairman

Prof. (Dr.) Vinod Kumar

2.   One Nominee of the Pro-Chancellor

Sh. Sunil Sharma
Executive Vice Chairman
Jaiprakash Associates Ltd

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

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

4.   One Dean (by rotation) on the basis of Seniority

Prof. Samir Dev Gupta
Dean (Academics)

5.   Non Member Secretary

The Finance Officer of the University
Sh. Hemant Vyas
Finance Officer

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**

   a)   Prof.(Dr.) Sunil Kumar Khah – Physics & Material Science
   b)   Vacant

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

   a)   Dr. Satish KUmar   Member
         Director
         NIT Kurukshetra

   b)   Prof. Lalit Kumar Awasthi   Member,
         Director
         NIT, Jalandhar

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

   a)   Sh. Sunil Sharma   Member
         Executive Vice Chairman
         Jaiprakash Associates Ltd.

   b)   Lt. Gen Ravindra Mohan Chadha, PVSM, AVSM (Retd)   Member
         Director
         Jaiprakash Power Ventures 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**

   a)   Prof. Samir Dev Gupta
         Dean (Academics)

   b)   Prof. Ashok Kumar Gupta
         Dean (Academics & Research)

7. Heads of the Departments/Centres of the University

a)   Prof. (Dr.) Samir Dev Gupta, HOD-CSE/IT
b)   Prof. (Dr.) Karanjeet Singh, HOD, Mathematics
c)   Prof. (Dr.) P.B. Barman, HOD, Physics & Material Science
d)   Prof. (Dr.) Sudhir Kumar, HOD, BT & BI
e)   Prof. (Dr.) Ashish Kumar, HOD, Civil
f)   Dr Anupriya Kaur,HOD, Dept.of HSS
g)   Dr. Rajiv Kumar, HOD, Dept of ECE

8. Non-Member Secretary

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

DETAILS OF LAND

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY				
Waknaghat Solan (H.P.)				
Summary (Plinth Area) **17.04.2021**				
Sl. No.	Particulars	Area (In sqm)	Ground Coverage Area (in sqm)	Total No. of Floor
1	**Institution and administrative area**			
	Academic Block -3 lvl	442.63		1 Floor
	Academic Block -2 lvl	798.98		1 Floor
	Academic Block -1 lvl	1298.53		1 Floor
	Academic Block 0 lvl	2510.19		1 Floor
	Academic Block +1 lvl	3093.40	4846.80	1 Floor
	Academic Block +2 lvl	2868.87		1 Floor
	Academic Block +3 lvl	2307.04		1 Floor
	Academic Block +4 lvl	1086.34		1 Floor
	Total	**14405.98**		
	Auditorium & Stage	1324.50		1 Floor
	Animal House Lab	256.00	128.00	2 Floor
	Civil Lab	614.23	153.71	3 Floor
	Civil Deptt. administrative Area	723.75	241.25	3 Floor
	G.TOTAL	**17324.46**		
2	**Faculty housing**			
	Faculty Block A Type	1787.97	442.93	9
	Faculty Block B Type	0		
	B01	1231.43	293.68	8+Mumty
	B02	1353.16	293.68	8+Mumty
	B03	1231.06	293.68	8+Mumty
	B04	1353.16	293.68	8+Mumty
	Faculty Block C Type	0		
	C01	1073.64	259.01	8+Mumty
	C02	1079.76	259.01	8+Mumty
	C03	1015.07	259.01	7+Mumty
	Guest House	1427.59	774.16	4 Floor
	Total	**11552.84**		
	E Type Faculty (A Block)		246.28	

	Ground Floor	66.34		
	First Floor	66.34		

	Typical Floor	469.20		4 Floor
	E Type Faculty (B Block)			
	Ground Floor	66.40		1 Floor
	Typical Foor	357.60		3 Floor
	Total Of E Faculty	**1025.88**		
	D Type Faculty (A Block)			10 Floor
	Ground Floor	67.56		1 Floor
	First Floor	80.83		1 Floor
	Typical Floor	900.8		8 + Mumty
	D Type Faculty (B Block)			
	Ground Floor	55	215.14	
	First Floor	77.6		
	Typical Foor	900.8		8 + Mumty
	Total	**2082.59**		
	TOTAL	**14661.31**		
3	**Student housing (HOSTEL)**			
	H-1	1209.04	132.62	8+Mumty
	H-2	1159.24	182.80	7+Mumty
	H-3	624.93	137.17	5+Mumty
	H-4	1326.84	192.37	8+Mumty
	H-5	2118.40	184.94	12+Mumty
	H-6	1152.61	192.37	8
	H-7	1044.23	192.37	7+Mumty
	H-8	916.85	192.37	6+Mumty
	H-9	911.71	183.05	6+Mumty
	H-10	927.88	183.05	6+Mumty
	H-11	1321.16	192.37	8+Mumty
	Girls Hostel 12A	2190.70	192.37	10+Mumty
	Girls Hostel 12B	1718.85	192.37	9+Mumty
	Girls Hostel 12C	1909.04	192.37	9+Mumty
	Girls Hostel 12D	1648.14	192.37	9+Mumty
	H-14A	865.69	192.37	9
	H-14B	1302.54	192.37	8+Mumty
	H-14C	2253.75	192.37	11
	H-14D	1859.50	192.37	10+Mumty
	H-15A	1832.76	192.37	11

	H-15B	1361.51	192.37	8+Mumty
	H-15C	1715.35	192.37	10
	H-15D	1510.54	192.37	8+Mumty
	Student Lounge	132.63	132.62	2
	TOTAL	**33013.89**		
4	**Dormitory (For supporting staff/Worker)**			
	Worker Dormitory-1		350.00	
	Basement	288.23		1 Floor
	Ground Floor	574.11		1 Floor
	First Floor	405.03		1 Floor
	Second Floor	350.17		1 Floor
	Total	**1617.54**		
	Worker Dormitory-2 (F Block)	673.20	241.63	4 Floor
	TOTAL	**2290.74**		
5	**Miscellaneous Structures**			
	Annapurna	2016.64		1Floor
	Uploading Bay (Annapurna)	189.14	90.14	2 Floor
	Telephone Exchange	913.31	216.91	5 Floor
	ESS	1999.76	724.90	5 Floor
	Plant Room / Green Room	591.46	194.98	1 Floor
	Mandir	281.66	281.59	1 Floor
	Dispensary	251.96	90.61	3 Floor
	S.T.P	92.55	92.55	1 Floor
	Store	326.43	326.43	1 Floor
	Security Room	17.50	17.50	1 Floor
	Garbage Room	64.28	32.14	2 Floor
	Laundry	193.63	193.63	1 Floor
	TOTAL	**6938.32**		
	G Total	**74228.71**	**16259.58**	

TOTAL PLOT AREA = 114.10 BIGHA

TOTAL PLOT AREA IN SQMTR. 114.10 X 753 = 85917.3 SQMTR.

DETAILS OF TEACHING STAFF

ELECTRONICS & COMMUNICATION ENGINEERING			
1	Dr. Samir Dev Gupta	Professor & Dean Academic	PhD
2	Dr. Rajiv Kumar	Associate Professor & HoD	PhD
3	Dr. Shruti Jain	Associate Professor	PhD
4	Dr. Nafis Uddin Khan	Assistant Professor (SG)	PhD
5	Dr. Shweta Pandit	Assistant Professor (SG)	PhD
6	Dr. Sunil Datt Sharma	Assistant Professor (SG)	PhD
7	Dr. Harsh Sohal	Assistant Professor (SG)	PhD
8	Dr. Emjee Puthooran	Assistant Professor (SG)	PhD
9	Dr. Vikas Baghel	Assistant Professor (SG)	PhD
10	Dr. Salman Raju Talluri	Assistant Professor (SG)	PhD
11	Dr. Naveen Jaglan	Assistant Professor (SG)	PhD
12	Dr. Nishant Jain	Assistant Professor (SG)	PhD
13	Dr. Alok Kumar	Assistant Professor (SG)	PhD
14	Ms. Pragya Gupta	Assistant Professor (GR-II)	MTech
15	Mr. Pardeep Garg	Assistant Professor (GR-II)	MTech
16	Mr. Munish Sood	Assistant Professor (GR-II)	MTech
17	Mr. Anuj Kumar Maurya	Assistant Professor (GR-I)	MTech
19	Mr. Pankaj Kumar	Assistant Professor (GR-I)	MTech

COMPUTER SCIENCE & ENGINEERING AND INFORMATION TECHNOLOGY			
1	Dr. Vivek Kumar Sehgal	Associate Professor	PhD
2	Dr. Hemraj Saini	Associate Professor	PhD
3	Dr. Pradeep Kumar Gupta	Associate Professor	PhD
4	Dr. Pardeep Kumar	Associate Professor	PhD
5	Dr. Rajni Mohana	Associate Professor	PhD
7	Dr. Ravindara Bhatt	Associate Professor	PhD
7	Dr. Yugal Kumar	Assistant Professor (SG)	PhD
8	Dr. Ruchi Verma	Assistant Professor (SG)	PhD
9	Dr. Ekta Gandotra	Assistant Professor (SG)	PhD
10	Dr. Rajinder Sandhu	Assistant Professor (SG)	PhD

11	Dr. Geetanjali	Assistant Professor (SG)	PhD
12	Dr. Hari Singh	Assistant Professor (SG)	PhD
13	Dr. Jagpreet	Assistant Professor (SG)	PhD
14	Dr. Amit Kumar	Assistant Professor (SG)	PhD
15	Dr. Kapil Sharma	Assistant Professor (SG)	PhD
16	Dr. Amol Vasudeva	Assistant Professor (SG)	PhD
17	Dr. Himanshu Jindal	Assistant Professor (SG)	PhD
18	Dr. Mritunjay Singh	Assistant Professor (SG)	PhD
19	Dr. Rakesh Kanji	Assistant Professor (SG)	PhD
20	Dr. Aman Sharma	Assistant Professor (SG)	PhD
21	Dr. Monika Bharti	Assistant Professor (SG)	PhD
22	Mr. Arvind Kumar	Assistant Professor (GR-II)	MTech
23	Mr. Prateek	Assistant Professor (GR-II)	MTech
24	Mr. Surjeet Singh	Assistant Professor (GR-II)	MTech
25	Mr. Praveen Modi	Assistant Professor (GR-I)	MTech

BIOTECHNOLOGY AND BIOINFORMATICS			
S. No.	Name	Designation	Qualification
1	Dr. Sudhir Kumar	Professor & HoD	PhD
2	Dr. Jata Shankar	Associate Professor	PhD
3	Dr. Anil Kant	Associate Professor	PhD
4	Dr. Hemant Sood	Associate Professor	PhD
5	Dr. Rahul Shrivastava	Associate Professor	PhD
6	Dr. Gopal Singh Bisht	Associate Professor	PhD
7	Dr. Tiratha Raj Singh	Associate Professor	PhD
8	Dr. Poonam Sharma	Associate Professor	PhD
9	Dr. Udayabanu M	Associate Professor	PhD
10	Dr. Jitendraa Vashistt	Associate Professor	PhD
11	Dr. Garlapati Vijay Kumar	Associate Professor	PhD
12	Dr. Saurabh Bansal	Assistant Professor (SG)	PhD
13	Dr. Ashok Kumar	Assistant Professor (SG)	PhD

14	Dr. Abhishek Chaudhary	Assistant Professor (GR-II)	PhD
15	Dr. Raj Kumar	Assistant Professor (GR-I)	PhD

CIVIL ENGINEERING			
1	Dr. Ashok Kumar Gupta	Professor & Dean A & R	PhD
2	Dr. Ashish Kumar	Professor & HoD	PhD
3	Dr. Rajiv Ganguly	Associate Professor	PhD
4	Dr. Amardeep	Assistant Professor (SG)	PhD
5	Dr. Saurabh Rawat	Assistant Professor (SG)	PhD
6	Dr. Saurav	Assistant Professor (SG)	PhD
7	Dr. Rishi Rana	Assistant Professor (SG)	PhD
8	Dr. Tanmay Gupta	Assistant Professor (SG)	PhD
9	Mr. Chandra Pal Gautam	Assistant Professor (GR-II)	MTech
10	Mr. Niraj Singh Parihar	Assistant Professor (GR-II)	MTech
11	Mr. Kaushal Kumar	Assistant Professor (GR-II)	MTech
12	Mr. Anirban Dhulia	Assistant Professor (GR-II)	MTech
13	Mr. Akash Bhardwaj	Assistant Professor (GR-I)	MTech

PHYSICS AND MATERIALS SCIENCE			
1	Dr. Partha Bir Barman	Professor & HoD	PhD
2	Dr. Sunil Kumar Khah	Professor & CoE	PhD
3	Dr. Vineet Sharma	Associate Professor	PhD
4	Dr. Rajesh Kumar	Associate Professor	PhD
5	Dr. Ragini Raj Singh	Associate Professor	PhD
6	Dr. Dheeraj Sharma	Assistant Professor (SG)	PhD
7	Dr. Surajit Kumar Hazra	Assistant Professor (SG)	PhD
8	Dr. Sanjiv Kumar Tiwari	Assistant Professor (SG)	PhD

MATHEMATICS			
1	Dr. Karanjeet Singh	Professor & HoD	PhD
2	Dr. R S Raja Durai	Associate Professor	PhD
3	Dr. Rakesh Kumar Bajaj	Associate Professor	PhD
4	Dr. Neel Kanth	Assistant Professor (SG)	PhD
5	Dr. Pradeep Kumar Pandey	Assistant Professor (SG)	PhD
6	Dr. Bhupendra Kumar Parhak	Assistant Professor (SG)	PhD

7	Dr. Saurabh Srivastava	Assistant Professor (SG)	PhD
8	Dr. Mandeep Singh	Assistant Professor (GR-II)	PhD

HUMANITIES AND SOCIAL SCIENCES			
1	Dr. Anupriya Kaur	Associate Professor & HoD	PhD
2	Dr. Amit Srivastava	Associate Professor	PhD
3	Dr. Tanu Sharma	Associate Professor	PhD
4	Dr. Papiya Lahiri	Assistant Professor (SG)	PhD
5	Mrs. Triambica Gautam	Assistant Professor (GR-II)	MBA
6	Dr. Neena Jindal	Assistant Professor (GR-II)	PhD

RESULTS OF PAST FOUR YEARS

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

RESULT OF THE BATCH 2014-2018- BTECH

Branch	No. of Students	No. of students Passed	Pass%
ECE	91	82	89%
CSE	164	162	99%
IT	46	45	99%
BI	13	12	92%
BT	46	28	93%
CE	92	85	92%

RESULT OF THE BATCH 2015-2019 – BTECH

Branch	No. of Students	No. of students Passed	Pass%
ECE	97	87	89.69%
CSE	219	214	97.71%
IT	26	25	96.15%
BI	8	8	100%
BT	43	40	93.02%
CE	89	69	77.52%

RESULT OF THE BATCH 2016-2020 – BTECH

ECE	99	99	100%
CSE	175	174	99.4%
IT	25	25	100%
BI	15	15	100%
BT	33	33	100%
CE	75	75	100%

RESUSLTS BTECH 2017-21 – BTECH

CSE	166	161	96.99%
IT	28	28	100%
ECE	66	63	95.45
CE	76	66	86.84%
BT	33	33	100%
BI	18	18	100%

RESULTS OF BATCH 2017-2019 – MTECH

CSE	04	04	100%
Structural Engngineering	06	06	100%
Construction Management	09	09	100%
Environmental Engineering	07	07	100%

RESULTS OF BATCH 2018-2020 – MTECH

CSE	01	01	100%
Construction Management	04	03	75%
Structural Enrineering	07	07	100%

RESULTS OF BATCH 2019-2021 – MTECH

Construction Management	05	05	100%
Structural Engineering	07	07	100%
CSE	03	03	100%

RESULTS OF BATCH 2019-2021 – MSc

MSc	22	22	100%
Integrated	03	03	100%

TRAINING & PLACEMENT DATA

For 2019 Batch

- Highest Salary   – **10.00 Lacs by Byjus**
- 2nd Highest Salary – **8 Lacs by Zscaler**

PLACEMENT STATUS : JUIT Solan 2015-19 as on 25 July 2019					
Branch	Eligible Participating Students	No. of Absolute Offers	% of Absolute Offers	No. of Total Offers	% of Total Offers
CSE	182	150	83%	229	125%
ECE	73	65	89%	76	104%
IT	22	21	90%	32	145%
BT/BI	43	23	53%	26	60%
CIVIL	56	19	33%	21	37%
Dual BT/BI	4	3	75%	3	75%
Total	380	281	73%	387	101%

For 2020 Batch

- Highest Salary   – **28.00 Lacs by Amazon**
- 2nd Highest Salary – **13 Lacs by Zscaler**

PLACEMENT STATUS : JUIT Solan 2016-20 as on 18/August/2020					
Branch	Eligible Participating Students	No. of Absolute Offers	% of Absolute Offers	No. of Total Offers	% of Total Offers
CSE	143	131	92%	239	167%
ECE	74	73	99%	105	142%
IT	22	21	95%	38	173%
BT/BI	17	12	71%	12	71%
CIVIL	27	4	15%	4	15%
Total	283	241	85%	398	141%

For 2021 Batch

- Highest Salary –30 Lacs by Amazon
- 2nd Highest Salary – 17.5 Lacs by Amazon (Non Tech)

PLACEMENT STATUS : JUIT Solan 2017-21 as on 5th/May/2021					
Branch	Total Eligible Participating Students	No. of Absolute Offers	% of Absolute Offers	No. of Total Offers	% of Total Offers
CSE	130	116	89%	201	155%
ECE	41	41	100%	55	134%
IT	26	24	92%	40	154%
BT/BI	19	15	79%	17	89%
CIVIL	15	2	13%	2	13%
Total	231	198	86%	315	136%

Appendix-I

BALANCE SHEET FOR

THE

FINANCIAL YEAR 2020-21

Delhi, Gulmohar Park, B-4,, NEW DELHI DELHI
110049
Ph. 9911488114, 11-46111000

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 31/03/2021 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 above-named 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 31/03/2021

    ii.   in the case of the profit and loss account, of the profit or loss of its accounting year ending on 31/03/2021

The prescribed particulars are annexed hereto.

For DASS GUPTA & ASSOCIATES
Chartered Accountants

(ASHOK KUMAR JAIN)
PARTNER
Membership No: 090563
Registration No: 000112N

Place :NEW DELHI
Date : 29/10/2021
UDIN : 21090563AAAACU2798

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.	311124127
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 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 for such purposes.	No
4.	Amount of income eligible for exemption under section 11(1)(c) [Give details]	No
5.	Amount of income, in addition to the amount referred to in item 3 above, accumulated or set apart for specified purposes under section 11(2)	0
6.	Whether the amount of income of 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.	NA
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(B)? If so, the details thereof.	NA
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 purpose for which it was accumulated or set apart during the period for which it was to be accumulated or set apart, or in the year immediately following the expiry thereof? If so, the details thereof	No

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 land, building or other 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, the 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. Investment held at any time during the previous year(s) in concerns in which persons referred to in section 13(3) have a substantial interest.

Sl.No	Name and address of the concern	Where the concern is a company No. and class of shares held	Nominal value of the investment	Income from the investment	Whether the amount in Col. 4 exceeded 5% of the capital of the concern during the previous year-say. Yes/No

For DASS GUPTA & ASSOCIATES
Chartered Accountants

(ASHOK KUMAR JAIN)
PARTNER
Membership No: 090563
Registration No: 000112N

Place :NEW DELHI
Date : 29/10/2021
UDIN : 21090563AAAACU2798

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

Balance Sheet as on 31.03.2021

Amount (₹) 31.03.2020	LIABILITIES			Amount (₹) 31.03.2021	Amount (₹) 31.03.2020	ASSETS			Amount (₹) 31.03.2021
	CORPUS FUND					**FIXED ASSETS**			
5,00,00,000	For University			5,00,00,000	67,37,88,624	Opening Balance			71,21,61,919
1,01,55,000	For Research Promotion (UBSK)			1,01,55,000	3,87,08,295	Addition during the year			81,27,962
6,01,55,000				6,01,55,000	(3,35,000)	Disposed off during the current period			-
					71,21,61,919	Gross Block	SCH.	"A"	72,02,89,881
	GENERAL FUND				50,35,94,872	Less : up to date Depreciation			53,76,45,222
28,49,85,192	Opening Balance			25,74,95,199	20,85,67,047	Net Block			18,26,44,659
(2,74,89,993)	Add - Deficit brought from Income & Expenditure A/C			(3,46,04,742)					
25,74,95,199				22,28,90,457					
	RESEARCH PROJECT'S FUND				10,43,148	CAPITAL WORK IN PROGRESS	SCH.	"B"	11,81,220
24,75,130	Opening Balance			53,62,509		**CURRENT ASSETS, LOANS & ADVANCES**			
69,60,769	Add : Received during the year			59,50,424					
(37,13,908)	Less : Expenses during the year			(26,51,215)	21,10,93,841	Cash & Bank Balance	SCH.	"C"	17,08,00,824
(3,59,482)	Less : Refund during the year			(1,97,313)					
53,62,509				84,64,405	7,33,69,383	Advances and Receivables in Cash or in Kind	SCH.	"D"	10,45,83,256
	CURRENT LIABILITIES & PROVISIONS				53,73,509	Prepaid Expenses	SCH.	"E"	49,12,566
7,11,36,796	Sundry Creditors	SCH.	"H"	7,11,33,107	23,83,452	Security Deposits	SCH.	"F"	23,83,452
10,04,90,115	Other Liabilities	SCH.	"I"	9,45,78,304	90,10,169	Stock- in- Hand	SCH.	"G"	80,59,618
	CAUTION MONEY								
1,65,09,940	Opening Balance			1,62,00,930					
44,70,000	Add : Received during the year			52,60,000					
(47,79,010)	Less : Refund during the year			(41,16,608)					
	(Due for payment during next one year Rs.37,70,000/-)								
1,62,00,930				1,73,44,322					
51,08,40,549	**Total Liabilities**			47,45,65,595	51,08,40,549	**Total Assets**			47,45,65,595

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 DASS)
PARTNER
MEMBERSHIP NO.090563

PLACE:-New Delhi
DATE : 29.10.2021

RAJENDRA KUMAR SHARMA
VICE CHANCELLOR

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

HEMANT VYAS
CHIEF FINANCE OFFICER

Jaypee University of Information Technology
Waknaghat, Distt. Solan, H.P.
Income & Expenditure Account for the year ended on 31.03.2021

Amount (₹) 31.03.2020	EXPENDITURE		Amount (₹) 31.03.2021	Amount (₹) 31.03.2020	INCOME		Amount (₹) 31.03.2021
9,08,05,855	Institutional Expenses	SCH. "J"	5,11,36,591	46,96,37,666	Collection from Students	SCH. "M"	30,05,03,937
24,31,76,137	Salary & Allowances	SCH. "K"	20,13,77,062	1,21,88,424	Interest received on FDs	SCH. "N"	86,52,210
13,94,37,560	Students Hostel Expenses	SCH. "L"	5,91,64,865	20,27,235	Other Income	SCH. "O"	19,67,980
3,79,23,766	Depreciation	SCH. "A"	3,40,50,351				
51,13,43,318	Total Expenditure		34,57,28,869				
(2,74,89,993)	Deficit Transferred to General Fund A/C.		(3,46,04,742)				
48,38,53,325	TOTAL		31,11,24,127	48,38,53,325	TOTAL		31,11,24,127

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. 90563

PLACE:- New Delhi
DATE : 29.10.2021

RAJENDRA KUMAR SHARMA
VICE CHANCELLOR

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

HEMANT VYAS
CHIEF FINANCE OFFICER

SCHEDULE : "A"

Amount (₹)

Block of Assets	Rate of Dep.	GROSS BLOCK					DEPRECIATION			NET BLOCK	
		Op. Balance as on 01.04.2020	Addition during the year		Disposed off during the year	As on 31.03.2021	Op. Balance as on 01.04.2020	For the Year	Up to 31.03.2021	As on 31.03.2020	As on 31.03.2021
Classification of Assets			120 Days or more	Less than 180 Days							
Buildings	10%	14,55,61,037				14,55,61,037	7,30,65,595	72,51,544	8,03,17,139	7,25,15,442	6,52,63,898
Library Books	15%	6,88,01,385				6,88,01,385	5,36,72,286	22,69,365	5,59,41,651	1,51,29,099	1,28,59,734
Electronic Lab Equipments	15%	2,00,85,220	-	-		2,00,85,220	1,59,24,957	6,24,039	1,65,48,996	41,60,263	35,36,224
Bio Informatics Lab Equipments	15%	2,73,71,506				2,73,71,506	2,21,55,627	7,82,382	2,29,38,009	52,15,879	44,33,497
Physics Lab Equipments	15%	1,13,42,425		72,450		1,14,14,875	89,47,077	3,64,736	93,11,813	23,95,348	21,03,062
Computer Lab Equipments	40%	14,29,02,579		54,78,150		14,83,80,729	12,11,54,848	97,94,722	13,09,49,570	2,17,47,731	1,74,31,159
Imported Bio Lab Equipments	15%	2,20,31,080				2,20,31,080	1,90,99,298	4,39,767	1,95,39,065	29,31,782	24,92,015
Imported Electronic Lab Equipments	15%	33,58,810				33,58,810	31,66,261	28,882	31,95,143	1,92,549	1,63,667
Imported Computer Lab Equipments	40%	7,37,191				7,37,191	7,37,190	-	7,37,190	1	1
imported Office Equipments	15%	87,905				87,905	77,277	1,594	76,871	10,628	9,034
Civil Lab Equipments	15%	1,26,55,095				1,26,85,095	86,40,289	6,06,721	92,47,010	40,44,806	34,38,085
Software-Computer	40%	45,04,269		-		45,04,269	38,38,161	2,66,443	41,04,604	6,66,108	3,99,665
Software -Math	40%	3,24,350				3,24,350	3,08,123	6,491	3,14,614	16,227	9,736
Software-Civil	40%	22,64,478				22,64,478	20,79,828	73,860	21,53,688	1,84,650	1,10,790
Software -Language Lab	40%	11,37,938				11,37,938	10,15,087	49,140	10,64,227	1,22,851	73,711
Software -Biotech Lab	40%	19,44,888				19,44,888	17,42,042	81,138	18,23,180	2,02,846	1,21,708
Software -Electronics Lab	40%	40,82,695		-		40,82,695	31,52,870	3,71,930	35,24,800	9,29,825	5,57,895
Software -Library	40%	2,73,000				2,73,000	2,52,095	8,362	2,60,457	20,905	12,543
Software -Physics Lab	40%	4,35,123				4,35,123	3,92,002	17,248	4,09,250	43,121	25,873
Software -PD Lab	40%	4,66,390		-		4,66,390	3,85,790	32,240	4,18,030	80,600	48,360
Office Equipments	15%	2,28,89,850	5,03,554	3,89,171		2,37,82,575	1,31,49,549	15,65,766	1,47,15,315	97,40,301	90,67,260
Miscellaneous Assets	15%	52,89,439		51,603		53,41,042	39,20,604	2,09,195	41,29,799	13,68,835	12,11,243
Gymnasium Equipments	15%	61,59,595		-		61,59,595	29,27,037	4,84,884	34,11,921	32,32,558	27,47,674
Furniture & Fixtures	10%	5,95,09,008	-			5,95,09,008	3,98,34,619	19,67,439	4,18,02,058	1,96,74,389	1,77,06,950
Vehicles	15%	2,19,56,913		8,98,675		2,28,55,588	1,32,24,153	13,77,315	1,46,01,468	87,32,760	82,54,120
imported Kitchen Equipments	15%	2,78,308				2,78,308	2,38,721	5,938	2,44,659	39,587	33,649
Kitchen Equipments	15%	86,60,971		-		86,60,971	54,04,312	4,88,499	58,92,811	32,56,659	27,68,160
Plant & Machinery	15%	7,02,23,716	5,19,190	1,14,271		7,08,57,177	5,11,36,473	29,49,535	5,40,86,008	1,90,87,243	1,67,71,169
Electrical Equipments	15%	96,36,286		1,00,898		97,37,184	72,22,286	3,69,667	75,91,953	24,14,000	21,45,231
Mechanical Lab Equipments	15%	27,37,255				27,37,255	21,86,604	82,598	22,69,202	5,50,651	4,68,053
Research Equipments	15%	3,44,03,214				3,44,03,214	2,45,43,811	14,78,910	2,60,22,721	98,59,403	83,80,493
GROSS TOTAL		71,21,61,919	10,22,744	71,05,218	-	72,02,89,881	50,35,94,872	3,40,50,351	53,76,45,222	20,85,67,047	18,26,44,659
PREVIOUS YEAR		67,37,88,624	2,20,44,304	1,66,63,991	3,35,000	71,21,61,919	46,56,71,106	3,79,23,766	50,35,94,872	20,81,17,518	20,85,67,047

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY
FINANCIAL YEAR 2020-21
Capital Work in Progress

SCHEDULE - "B"   **Amount (₹)**
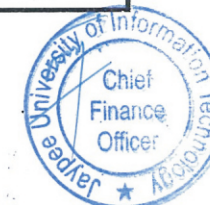
| Particulars	Opening Balance as on 01.04.2020	Addition during the Year	Capitalized during the Year	Expensed Out during the Year	Closing Balance as on 31.03.2021
Capital Goods In Store	-	-	-	-	-
Capital Work in Progress	10,43,148	1,38,072	-	-	11,81,220
Gross Total	**10,43,148**	**1,38,072**	-	-	**11,81,220**

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Waknaghat, Distt. Solan (H.P.)

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY
FINANCIAL YEAR 2020-21
## Cash and Bank Balance

SCHEDULE - "C"

S.No	Particulars	Amount (₹) 31.03.2021	Amount (₹) 31.03.2020
I	Cash in Hand	37,899	1,00,285
II	**Balance with Schedule Banks**		
	In Current Account :		
	- State Bank of India, Waknaghat	1,23,532	25,996
	- Punjab National Bank, Shimla	4,07,892	4,57,951
	- Punjab National Bank, Solan (Earst while OBC Bank ,Solan)	35,357	35,463
	- Punjab National Bank, Waknaghat	32,28,978	43,02,963
	- Yes Bank Ltd., Noida	59,782	59,782
	- Cheque / DD in hand	3,99,037	5,00,00,000
	Balance with Schedule Banks		
	In Saving Account :		
	- Punjab National Bank, Waknaghat A/c No. 15239	16,87,538	-
	- Punjab National Bank, Waknaghat A/c No. 14461	39,73,626	6,36,185
III	**Fixed Deposits with Banks**		
	- State Bank of India, Wakanaghat	4,25,00,000	4,00,00,000
	- Punjab National Bank, Shimla	11,75,949	11,75,949
	- Punjab National Bank, Waknaghat	8,10,00,000	8,35,00,000
	- Interest Accrued but not due	1,14,42,728	75,36,909
IV	**Earmarked Deposits with Banks**		
	- Canara Bank UBSK, Noida (C/A) (Earst while Syndicate Bank, Noida)	83,828	83,972
	- Canara Bank UBSK, Noida (FDR)(Earst while Syndicate Bank,Noida)	2,22,89,702	2,22,89,702
	- Interest Accrued on FDR	23,54,976	8,88,682
	TOTAL	17,08,00,824	21,10,93,841

REGISTRAR,
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Waknaghat, Distt. Solan (H.P.)

Vice Chancellor

Chief Finance Officer

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY
FINANCIAL YEAR 2020-21
ADVANCES AND RECEIVABLES IN CASH OR IN KIND

SCHEDULE - "D"

Particulars	Amount (₹) 31.03.2021	Amount (₹) 31.03.2020
Advances To:-		
- Staff	79,239	8,890
- Suppliers/Agencies/Capital Goods/Property	2,97,32,899	7,54,527
- Other Educational Trust	5,94,41,347	5,86,15,565
Receivables From:-		
- Students	10,66,450	4,12,250
- Income Tax Department as on 31.03.21	48,57,583	41,76,238
- 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 2019-20 Rs. 16,16,319		
- Assessment Year 2020-21 Rs. 12,25,488		
- Assessment Year 2021-22 Rs. 6,81,345		
- Excise & Taxation Department (VAT)	38,17,348	38,17,348
- Income Tax Department Appeal	55,73,000	55,73,000
- Receivable of TCS	15,390	11,565
TOTAL	**10,45,83,256**	**7,33,69,383**
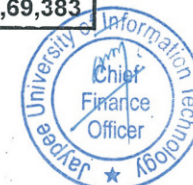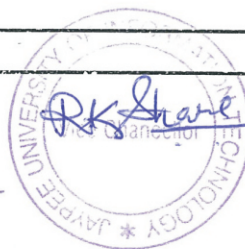
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JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY
FINANCIAL YEAR 2020-21
PREPAID EXPENSES

SCHEDULE - "E"

Particulars	Amount (₹) 31.03.2021	Amount (₹) 31.03.2020
AMC for Equipments	23,86,928	36,33,777
Insurance	3,70,841	5,10,483
Subscription for Journals & Digital Library	21,54,797	12,29,249
TOTAL PREPAID EXPENSES	**49,12,566**	**53,73,509**
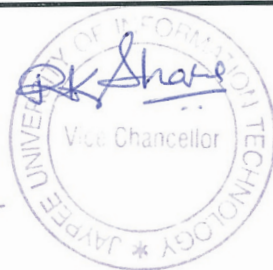
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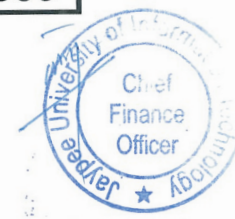
JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY
FINANCIAL YEAR 2020-21
SECURITY DEPOSITS

SCHEDULE - "F"

Particulars	Amount (₹) 31.03.2021	Amount (₹) 31.03.2020
For Electricity -HPESBL	22,40,280	22,40,280
For LPG	1,19,800	1,19,800
For Labour Office Solan	12,000	12,000
For Telephones	11,372	11,372
TOTAL SECURITY DEPOSITS	**23,83,452**	**23,83,452**

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY
FINANCIAL YEAR 2020-21
STOCK-IN-HAND

SCHEDULE - "G"

Particulars	Amount (₹) 31.03.2021	Amount (₹) 31.03.2020
Annapurna Grocery & Eatables	15,08,080	28,39,556
Medicines	78,767	1,05,829
Diesel	11,58,788	10,22,647
General Hardware Items	20,86,739	22,65,151
Electrical Items	31,77,649	27,24,392
Spares for Vehicles	49,595	52,594
TOTAL STOCK IN HAND	**80,59,618**	**90,10,169**

REGISTRAR,
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Waknaghat, Distt. Solan (H.P.)

Chief
Finance
Officer

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY
FINANCIAL YEAR 2020-21
SUNDRY CREDITORS

SCHEDULE - "H"

Particulars	Amount (₹) 31.03.2021	Amount (₹) 31.03.2020
- For Goods Supplied	22,80,020	42,18,268
- For Services Rendered	1,13,33,219	1,31,10,044
- For Retention	10,52,392	12,28,048
- For Statutory Liabilities	5,64,67,476	5,25,80,436
TOTAL SUNDRY CREDITORS	**7,11,33,107**	**7,11,36,796**

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JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY
FINANCIAL YEAR 2020-21
OTHER LIABILITIES

SCHEDULE - "I"

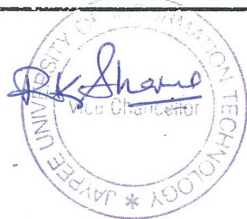| Particulars	Amount (₹) 31.03.2021	Amount (₹) 31.03.2020
Uncleared Cheques	17,13,431	24,45,996
Fee in Advance	5,26,52,382	8,83,74,572
JYC Students Fund	13,22,295	15,96,814
Expenses Payable	59,86,897	46,30,439
T.D.S. Payable	23,46,348	34,42,294
Salary Payable	3,05,56,951	-
TOTAL OTHER LIABILITIES	**9,45,78,304**	**10,04,90,115**

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Waknaghat, Distt. Solan (H.P.)

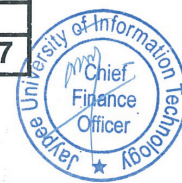# JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY
FINANCIAL YEAR 2020-21
INSTITUTIONAL EXPENSES

SCHEDULE - "J"

Particulars	Amount (₹) 31.03.2021	Amount (₹) 31.03.2020
Admission Exps. including Advertisement	35,52,715	89,79,744
Audit Fee	3,54,000	3,00,000
Conference & Seminar Expenses	54,390	1,60,569
Convocation Expenses	44,048	31,415
E-Journals & Periodicals	32,99,278	46,64,004
Electricity Expenses	20,99,909	45,77,484
Honorarium to Faculty & Remuneration of Visiting Faculty	10,39,221	7,74,781
Institute Promotional Expenses	22,97,673	5,80,825
Insurance Expenses	2,86,780	1,13,694
Internet Charges	11,82,113	11,79,274
Interest & Finance Charges	1,23,786	46,57,756
Laboratory Expenses	19,04,011	25,66,841
Lease Rent	10,621	22,651
Legal & Professional Charges	4,85,656	8,38,528
Misc. Expenses	1,69,027	2,25,896
Payment to Technical Personnel	38,79,733	85,08,897
Placement Expenses	4,598	6,91,978
Postage & Telegram	63,845	1,21,854
Prior Period Exps.	31,003	1,39,641
Printing & Stationery	7,56,055	19,97,441
Recruitment Expenses	2,78,261	1,03,798

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

SCHEDULE - "J" (Continued)

Particulars	Amount (₹) 31.03.2021	Amount (₹) 31.03.2020
Scholarship to Students	63,04,440	1,62,66,464
Security Expenses	39,00,325	54,15,468
Staff Welfare	14,36,919	13,35,331
Telephone Expenses	6,39,997	6,83,380
Travelling & Conveyance	3,15,813	10,19,756
Water Expenses	11,13,268	18,84,303
Repair & Maintenance		
- Civil Maintenance	40,64,606	41,81,690
- Equipment & Machinery	23,74,526	59,99,729
- Furniture & Fixture	6,19,610	6,68,872
- Horticulture Exps.	23,97,982	24,20,354
- Institute House Keeping	23,94,156	43,28,600
- Others	10,02,878	15,96,832
- Vehicles	19,51,201	34,48,526
- Water Supply Scheme	7,04,147	3,19,479
TOTAL INSTITUTIONAL EXPENSES	**5,11,36,591**	**9,08,05,855**
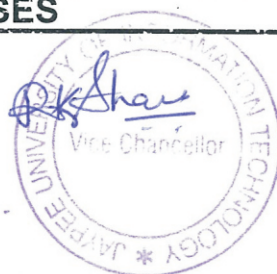
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JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY
FINANCIAL YEAR 2020-21
SALARY & ALLOWANCES

SCHEDULE - "K"

Particulars	Amount (₹) 31.03.2021	Amount (₹) 31.03.2020
Teaching Staff :		
Salary	9,55,18,101	10,52,50,564
Conveyance Allowance	64,54,859	71,54,514
H.R.A.	57,27,558	64,91,949
Medical Reimbursement	38,26,509	41,35,157
Leave Travel Assistance	13,064	39,48,802
Contribution to Provident Fund	1,13,75,203	1,24,97,598
Provision for Gratuity	41,32,299	81,34,023
Other Allowances	2,09,36,619	3,61,54,941
Sub - Total	14,79,84,212	18,38,17,548
Non-Teaching Staff :		
Salary	3,62,93,856	3,69,36,410
Conveyance Allowance	19,16,894	19,77,610
H.R.A.	28,07,648	27,49,002
Medical Reimbursement	12,85,006	13,14,161
Leave Travel Assistance	-	12,72,658
Contribution to Provident Fund	33,11,851	44,14,007
Provision for Gratuity	16,54,789	32,52,796
Other Allowances	56,22,806	74,41,945
Sub - Total	5,33,92,850	5,93,58,589
TOTAL SALARY & ALLOWANCES	20,13,77,062	24,31,76,137

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY
FINANCIAL YEAR 2020-21
STUDENTS HOSTEL EXPENSES

SCHEDULE - "L"

Particulars	Amount (₹) 31.03.2021	Amount (₹) 31.03.2020
Grocery & Eatables Consumed	44,48,853	4,43,13,090
Security Expenses	91,00,768	1,26,36,095
Electricity Charges	76,95,167	1,62,64,416
Water Charges	32,88,855	69,61,594
Housekeeping Expenses	69,85,803	1,23,56,788
Dispensary Expenses	67,59,272	70,15,743
Students Welfare Expenses	6,54,461	8,67,699
Messing Staff Expenses	49,89,303	1,35,03,968
Salary Annapurna & Technical Staff	88,94,372	77,41,696
Repair & Maintenance	62,16,000	1,42,37,434
Laundry Expenses	1,32,011	35,39,037
TOTAL STUDENTS HOSTEL EXPENSES	**5,91,64,865**	**13,94,37,560**

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY
FINANCIAL YEAR 2020-21
COLLECTIONS FROM STUDENTS

SCHEDULE - "M"

Particulars	Amount (₹) 31.03.2021	Amount (₹) 31.03.2020
Fee From Students:		
Tuition Fee	26,89,59,590	31,02,36,087
Hostel Fee	2,70,13,211	14,36,79,489
Sub Total :	**29,59,72,801**	**45,39,15,576**
Other Collection:-		
Sundry Charges	2,26,332	11,11,353
Admission Form Charges	19,87,215	27,27,870
Tuck Shop Charges	22,005	31,08,741
Mess Charges	22,95,584	87,74,126
Sub Total :	**45,31,136**	**1,57,22,090**
TOTAL COLLECTIONS FROM STUDENTS	**30,05,03,937**	**46,96,37,666**

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JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY
FINANCIAL YEAR 2020-21
INTEREST RECEIVED ON FDRs

SCHEDULE - "N"

Particulars	Amount (₹) 31.03.2021	Amount (₹) 31.03.2020
Punjab National Bank - Solan (Earstwhile OBC Bank, Solan)	-	15,94,085
Punjab National Bank - Shimla	68,903	73,219
Punjab National Bank - Waknaghat	58,51,251	82,51,958
State Bank of India - Waknaghat	11,42,830	7,42,087
Canara Bank -UBSK (earstwhile Syndicate Bank , Noida)	15,89,226	14,29,010
Punjab National Bank - Samirpur	-	93,928
Punjab National Bank - Samirpur Saving A/C	-	4,137
TOTAL INTEREST RECEIVED	**86,52,210**	**1,21,88,424**

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Waknaghat, Distt. Solan (H.P.)

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY
FINANCIAL YEAR 2020-21
OTHER INCOME

SCHEDULE - "O"

Particulars	Amount (₹) 31.03.2021	Amount (₹) 31.03.2020
Other Miscellaneous Income	2,84,347	8,87,210
Notice Pay Recovery	8,81,250	9,08,211
Overhead Charges for Research Projects/Consultancy	7,94,646	1,58,200
Sundry Balance Written Off	7,737	73,614
TOTAL OTHER INCOME	**19,67,980**	**20,27,235**
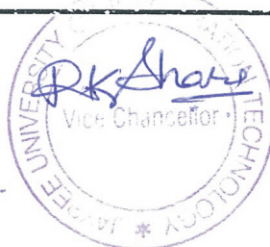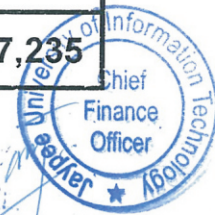
JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY
WAKNAGHAT, SOLAN, HIMACHAL PRADESH

FINANCIAL YEAR 2020-21

SCHEDULE – "P" : SIGNIFICANT ACCOUNTING POLICIES AND NOTES ON ACCOUNTS FORMING PART OF ACCOUNTS.

I. BACK GROUND

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, HAVING HEAD QUARTER AT WAKNAGHAT, HIMACHAL PRADESH IS A BODY CORPORATE BY THE NAME AFORE SAID, ESTABLISHED AND INCORPORATED UNDER SECTION 3 OF JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY ACT NO. 14 OF 2002 (AS ASSENTED TO BY THE GOVERNOR ON 22ND MAY, 2002) IS REGISTERED U/SEC 12A OF THE INCOME TAX ACT' 1961 AND NOTIFIED U/SEC 10(23C) AND 80G OF THE INCOME TAX ACT, 1961. THE UNIVERSITY CONTINUE TO RUN ON "NOT FOR PROFIT" BASIS TO OFFER TECHNICAL EDUCATION OF THE HIGH STANDARDS BY TEACHING, RESEARCH, TRAINING AND EXTENSION ACTIVITIES. THE UNIVERSITY HAS ESTABLISHED THE "UNNAT BHARAT SHODH KOSH" FOR CARRYING OUT THE RESEARCH ACTIVITIES INVOLVING STUDENTS, FACULTY MEMBERS AS WELL AS INDUSTRY.

II. SIGNIFICANT ACCOUNTING POLICIES

A) GENERAL

THE ACCOUNTS HAVE BEEN PREPARED UNDER MERCANTILE SYSTEM OF ACCOUNTING AS PER HISTORICAL CONVENTION TO MEET WITH THE REQUIREMENTS OF CLAUSE 20 (1) AND (2) OF ACT NO.14 OF 2002 OF JUIT ACT AND THE REQUIREMENTS OF THE INCOME TAX ACT 1961 AND RECOGNIZED ACCOUNTING POLICIES AND PRACTICES
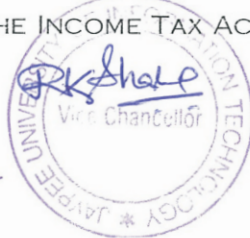
INCLUDING THE ACCOUNTING STANDARDS ISSUED BY THE INSTITUTE OF CHARTERED ACCOUNTANTS OF INDIA TO THE EXTENT APPLICABLE, EXCEPT OTHERWISE STATED. ACCOUNTING POLICIES NOT SPECIFICALLY REFERRED TO OTHERWISE BE CONSISTENT AND IN CONSONANCE WITH GENERALLY ACCEPTED ACCOUNTING POLICIES.

B) USE OF ESTIMATES:

THE PRESENTATION OF FINANCIAL STATEMENTS IN CONFORMITY WITH THE GENERALLY ACCEPTED ACCOUNTING PRINCIPLES REQUIRES ESTIMATES AND ASSUMPTIONS TO BE MADE THAT AFFECT THE REPORTED AMOUNT OF ASSETS AND LIABILITIES ON THE DATE OF THE FINANCIAL STATEMENTS AND THE REPORTED AMOUNT OF REVENUES AND EXPENSES DURING THE REPORTING PERIOD. DIFFERENCE BETWEEN ACTUAL RESULT AND ESTIMATES ARE RECOGNIZED IN THE PERIOD IN WHICH THE RESULTS ARE KNOWN/ MATERIALIZED.

C) FIXED ASSETS

FIXED ASSETS ARE STATED AT COST OF ACQUISITION INCLUSIVE OF FREIGHT AND OTHER INCIDENTAL EXPENSES.

D) DEPRECIATION

DEPRECIATION ON FIXED ASSETS HAS BEEN PROVIDED ON WRITTEN DOWN VALUE AS PER THE CLASSIFICATION AND ON THE BASIS OF PROVISIONS OF INCOME TAX ACT, 1961.

E) INVENTORY: INVENTORY OF CONSUMABLES LIKE GROCERY & EATABLES, STATIONARY, MEDICINES, LABORATORY CONSUMABLES, STORES & SPARE ARE VALUED AT COST OR NET REALIZABLE VALUE WHICHEVER IS LESS. INVENTORY OF DIESEL IS VALUED AT YEARLY WEIGHTED AVERAGE BASIS.

F) CLAIMS

CLAIMS LIKE INTEREST ON INCOME TAX REFUND, INSURANCE CLAIMS ETC. ARE ACCOUNTED FOR ON RECEIPT BASIS.
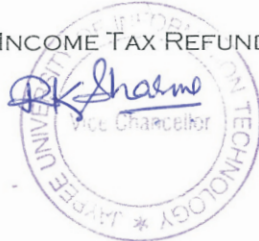
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G) REVENUE: Tuition, Hostel and Development Fees collected from students for a semester has been prorated over the period of semester. Other charges recovered from students have been recognized in the year of receipt.
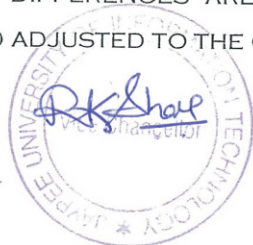
BORROWING COST: Borrowing Cost incurred during construction period is directly charged to Profit & Loss A/c.

H) EMPLOYEE BENEFITS

- Short term employee benefits are recognized as an expense at the undiscounted amount in Income & Expenditure Account of the year in which the related service is rendered.
- Post employment and other long term employee benefits are recognized as an expense in the Income & Expenditure Account for the year in which the employee has rendered services. The expense is recognized at the present value of the amount payable determined using actuarial valuation techniques. Actuarial gains and losses in respect of post employment and other long term benefits are charged to Income and Expenditure Account.

I) FOREIGN CURRENCY TRANSECTIONS:

Transactions in Foreign Currency like fees received in foreign currency are recorded at the exchange rate prevailing on the date of transaction. Amount payable and receivable in foreign currency as at the Balance Sheet date are reinstated at the applicable exchange rates prevailing on that date. All exchange differences are charged to Income & Expenditure Account if relate to revenue transactions and adjusted to the cost of capital assets if relate to Capital transactions.

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III. NOTES ON ACCOUNTS

1. CONTINGENT LIABILITIES:

   A) DISPUTED VAT LIABILITY UNDER APPEAL   RS. 38,17,348/- (PREVIOUS YEAR: RS. 38,17,348/-)
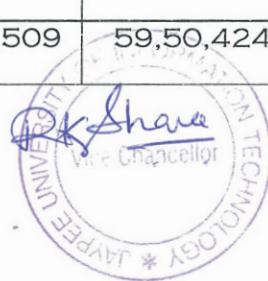
   B) DISPUTED INCOME TAX LIABILITY UNDER APPEAL   RS. 1,02,02,851/- (PREVIOUS YEAR: 1,02,02,851/-)

   * AMOUNT PAID RS. 55,73,000/- SHOWN IN SCHEDULE -D

2. BALANCES IN PARTIES' ACCOUNTS ARE SUBJECT TO CONFIRMATION FROM THEM.

3. FUNDS RECEIVED FROM VARIOUS GOVERNMENT AUTHORITIES/RESEARCH FUNDING AGENCIES FOR UTILIZATION IN VARIOUS PROJECTS AS DIRECTED BY THAT AUTHORITIES/AGENCIES ON THEIR BEHALF HAS BEEN SHOWN UNDER "RESEARCH PROJECT FUND". DETAILS OF UTILIZATION OF RESEARCH PROJECT FUND DURING THE YEAR IS AS FOLLOWS:-

PARTICULARS	OPENING BALANCE AS ON 01.04.2020 (RS)	RECEIVED DURING THE YEAR* (RS)	REFUND DURING THE YEAR (RS)	UTILIZATION DURING THE YEAR			CLOSING BALANCE AS ON 31.03.2021 (RS)
				REVENUE EXPENDITURE (RS)	CAPITAL EXPENDITURE (RS)	TOTAL (RS)	
DST/DBT/ HIMCOST- PROJECTS	47,80,574	34,50,424	1,97,313	26,51,215	-	26,51,215	53,82,470
OTHER PROJECTS	5,81,935	25,00,000	-	-	-	-	30,81,935
TOTAL	53,62,509	59,50,424	1,97,313	26,51,215	-	26,51,215	84,64,405

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

III. NOTES ON ACCOUNTS

1. CONTINGENT LIABILITIES:

   A) DISPUTED VAT LIABILITY UNDER APPEAL   Rs. 38,17,348/- (PREVIOUS YEAR: Rs. 38,17,348/-)

   B) DISPUTED INCOME TAX LIABILITY UNDER APPEAL   Rs. 1,02,02,851/- (PREVIOUS YEAR: 1,02,02,851/-)

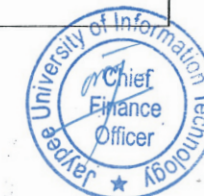   * AMOUNT PAID Rs. 55,73,000/- SHOWN IN SCHEDULE -D

2. BALANCES IN PARTIES' ACCOUNTS ARE SUBJECT TO CONFIRMATION FROM THEM.

3. FUNDS RECEIVED FROM VARIOUS GOVERNMENT AUTHORITIES/RESEARCH FUNDING AGENCIES FOR UTILIZATION IN VARIOUS PROJECTS AS DIRECTED BY THAT AUTHORITIES/AGENCIES ON THEIR BEHALF HAS BEEN SHOWN UNDER "RESEARCH PROJECT FUND". DETAILS OF UTILIZATION OF RESEARCH PROJECT FUND DURING THE YEAR IS AS FOLLOWS:-

PARTICULARS	OPENING BALANCE AS ON 01.04.2020 (RS)	RECEIVED DURING THE YEAR* (RS)	REFUND DURING THE YEAR (RS)	UTILIZATION DURING THE YEAR			CLOSING BALANCE AS ON 31.03.2021 (RS)
				REVENUE EXPENDITURE (RS)	CAPITAL EXPENDITURE (RS)	TOTAL (RS)	
DST/DBT/ HIMCOST-PROJECTS	47,80,574	34,50,424	1,97,313	26,51,215	-	26,51,215	53,82,470
OTHER PROJECTS	5,81,935	25,00,000	-	-	-	-	30,81,935
TOTAL	53,62,509	59,50,424	1,97,313	26,51,215	-	26,51,215	84,64,405

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4. PREVIOUS YEAR FIGURES HAVE BEEN REGROUPED/ REARRANGED OR RECLASSIFIED WHEREVER FOUND NECESSARY TO CONFIRM WITH CURRENT YEAR'S CLASSIFICATION.

5. FIGURES HAVE BEEN ROUNDED UP TO NEAREST RUPEES.

FOR DASS GUPTA & ASSOCIATES
CHARTERED ACCOUNTANTS
REGISTRATION NO: 000112N

(ASHOK KUMAR JAIN)
PARTNER
MEMBERSHIP NO: 090563

PLACE: NEW DELHI
DATE: 29.10.2021

(CHANDRA KUMAR SHARMA)
VICE CHANCELLOR

FOR JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY

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

(HEMANT VYAS)
CHIEF FINANCE OFFICER