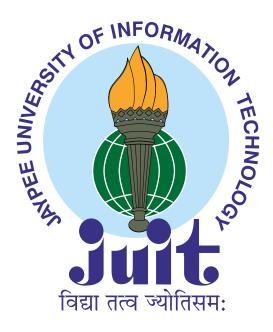
Jaypee University Of Information Technology

(Established by the H.P. Government Vide Act No. 14 of 2002)

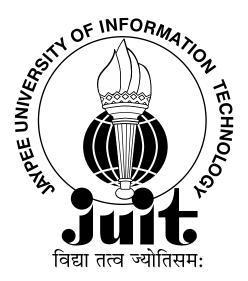
Waknaghat, Himachal Pradesh



Annual Report 2023-2024

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY WAKNAGHAT

Himachal Pradesh



ANNUAL REPORT 2023-2024

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1. UNIVERSITY ESTABLISHMENT

Name : Jaypee University of Information Technology Waknaghat

(Established by HP 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 09 Dec 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 Shiv Pratap Shukla

Hon'ble Governor of Himachal Pradesh

Pro-Chancellor : Shri Manoj Gaur

Executive Chairman, Jaiprakash Associates Ltd

Vice Chancellor : Prof (Dr) Rajendra Kumar Sharma

Registrar : Maj Gen Rakesh Bassi, SM (Retd)

Tele/Website

Vice Chancellor : (O) 01792-239201

(R) 01792-239250

Registrar : (O) 01792-239203

(R) 01792-239272

EPBAX : 01792-257999 (30 lines)

Website : www.juit.ac.in

2. INTRODUCTION

2.1 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 by the JSS 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).

2.2 Salient Features of the University

2.2.1 **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) Programs for award of BTech degrees in Biotechnology, Bioinformatics, Computer Science & Engineering, Electronics & Communication Engineering, Information Technology and Civil Engineering. Post Graduate and Doctoral Programs leading to award of MTech and PhD degrees were added subsequently and are being conducted in the University.

2.2.2 **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.

2.2.3 **Mission**

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

2.2.4 Objectives of the University

As provided for in the JUIT Act, the objective of the University is 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.

2.3 Governance

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

2.3.1 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 2023-24 is given at **Appendix A**.

2.3.2 Executive Council

The Executive Council is responsible for the general management and administration of the University. The composition of Executive Council for the year 2023-24 is at **Appendix B**.

2.3.3 Finance Committee

The Finance Committee is responsible for examining accounts and screutinize proposals for expenditure. The annual accounts of financial estimates of the University shall be prepared by the Finance Officer and shall be laid down before the Finance Committee for consideratina nd comments and thereafter submitted to the Governing Council for approval with or without amendments. The composition of Finance Committee for the year 2023-24 is at **Appendix C**.

2.3.4 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 2023-24 is listed at **Appendix D**.

2.4 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 H.P. for JUIT.

2.5 Infrastructure

JUIT has been developed as a modern world-class campus, in serene and lush green environment. The state of the art campus covers a total built up area of around 74,372.56

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 environment for students in an eco-friendly campust. The details of the infrastructure are attached as **Appendix E**.

2.6 Education System

An academic year consists of two semesters. The education system is based on credit system along with 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.

2.7 Accreditation

The University has been accredited by the National Assessment and Accreditation Council thrice. The first was in 2011, second time was in 2017 and the third in 2024. The NAAC accreditation is valid up to 29 October 2029 with A+ Grading.

The NIRF Ranking of the University is band of 201-300 among all Engineering Institutes in the country in the year 2023-24.

The Biotechnology undergraduate Program of the University has been accredited by National Board of Accreditation (NBA) under Washington Accord for three academic years: 2024-25, 2025-26, and 2026-27.

2.8 International Rankings

S No	Ranking Year	Ranking Source	Grade / Rank	Remarks
1.	2024	SCIMAGO	107	Institution ranking
2.	2023	SCIMAGO	84	Institution ranking
3.	2024	Times Higher Education (THE)	601-800	World University Rankings 2024 by subject: Computer Science
4.	2024	Times Higher Education (THE)	501-600	World University Rankings 2024 by subject: Engineering
5.	2024	Times Higher Education (THE)	801-1000	World University Rankings 2024

6.	2024	Times Higher Education (THE)	251-300	World University Rankings 2024-ASIA
7.	2024	Times Higher Education (THE)	201-250	Young University Rankings 2024
8.	2024	QS	238	Asia University Ranking 2024: Southern Asia
9.	2024	QS	751-800	Asia University Ranking 2024
10.	2023	R World Institutional Rankings-2023	Diamond Band	Top Institution for Campus Life.

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

3. PROGRAMS OF STUDY

3.1 **UG Programs**

JUIT offerered following Undergraduate Programs to award BTech degrees in the respective discipline during the year: -

3.1.1 **BTech**

- (a) Bioinformatics
- (b) Biotechnology
- (c) Civil Engineering
- (d) Computer Science & Engineering
- (e) Computer Science & Engineering with Specilization in AI-ML/AI-DS/Cyber Security
- (f) Information Technology
- (g) Electronics & Communication Engineering
- (h) Electronics & Computer Engineering
- (i) Civil Engineering with Computer Application

3.1.2 BSc (Hons) Mathematics & Computing

3.1.3 Bachelor of Business Administration (BBA)

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 the undergraduate Programs is on the basis of marks-cumcredit 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).

3.1.4 Admissions

- (a) The admissions to BTech Program are 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.
- (b) The minimum academic qualification for admission to the Program is as laid down in the Admission Brochure.
- (c) 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.
- (d) Non-resident Indian (NRI) candidates shall also be eligible for admission in BTech in accordance with directives of the MHRD/UGC.
- (e) Admission in Biotechnology & Bioinformatics Program

- (f) 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.
- (g) A candidate with Mathematics and Biology/Biotechnology with Physics at 10+2 level is also eligible for admission to the Program.

3.1.5 **Lateral Entry**

A candidate who has qualified three-year diploma Program/BE/BTech-1st year in related branch of engineering is eligible for admission to BTech – 2nd year through Lateral Entry. Minimum 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.

3.1.6 **BSc**

Admission to BSc (Hons.) in Mathematics & Computing is based on the merit of the qualifying examination i.e., 10+2 examination. The minimum eligibility criteria for admission to the program is minimum 60% marks with Mathematics as a compulsory subject at 10+2 level or equivalent. Candidates having qualified CUET-UG Score / Rank are also eligible for admission to the program in order of merit.

3.1.7 **BBA**

Admission to BBA is based on the merit of the qualifying examination i.e., 10+2 examination. The minimum eligibility criteria for admission to the program is minimum 60% marks at 10+2 level or equivalent.

3.2 Post Graduate Programs

JUIT offers Post Graduate Programs towards the award of MSc and MTech Degrees in following disciplines: -

3.2.1 **MSc**

- (a) Biotechnology
- (b) Microbiology
- (c) Physics

3.2.2 **MTech**

- (a) Biotechnology
- (b) Civil Engineering (Construction Management)
- (e) Civil Engineering (Environmental Engineering)
- (f) Civil Engineering (Structural Engineering)

- (g) Computer Science & Engineering
- (h) Computer Science & Engineering (Information Security)
- (i) Computer Science & Engineering (Data Science)
- (j) Electronics & Communication Engineering
- (k) Electronics & Communication Engineering Internet of Things

3.2.3 MSc (Biotechnology) & (Microbiology)

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.

3.2.4 Admission (MSc)

- (a) The University offers regular fulltime MSc Program through classroom teaching.
- (b) Minimum qualification for applying to the first year MSc is Bachelor's 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.
- (c) Admission shall be done in the University based on merit list prepared on the basis of marks / grades obtained in the gualifying degree.
- (d) The specific admission process and eligibility for admission to the MSc Program is available in the Admission Brochure of the respective year.

3.2.5 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, bioseparation, enzyme technology, protein engineering, metabolic engineering and process and plant design.

3.2.6 MTech Civil Engineering with Specialisation in Construction Management

This two-year program aims to impart knowledge in areas like construction techniques, equipment, 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.

3.2.7 MTech Civil Engineering with Specialization in Environmental Engineering

The MTech Program 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.

3.2.8 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 Program is to prepare the students for working in structural design teams and if they wish, carry out research in the relevant fields.

3.2.9 <u>MTech (Computer Science & Engineering) & MTech (CSE with Specialization in Information Security) & MTech (CSE with Specialization in Data Science)</u>

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.

3.2.10 MTech (Electronics and Communication Engineering) & (Internet of Things)

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.

3.2.11 Admission (MTech)

- (a) 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.
- (b) 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.

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

3.3 <u>Doctor of Philosophy (PhD) Programs</u>

The University offers full time / part time PhD Programs 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 programs 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.

3.3.1 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 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 a MoU. Fifteen PhDs have been awarded by the Department and a few are in their final stages of Thesis writing and submission.

3.3.2 PhD Civil Engineering

The Department carries out research and development activities in the areas of 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, solid-waste management and pavement materials.

3.3.3 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.

3.3.4 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.

3.3.5 **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.

3.3.6 **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.

3.3.7 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 nanomaterials, 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.

3.4 Admission (PhD)

3.4.1 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.

4. ACADEMIC DEPARTMENTS

4.1 <u>DEPARTMENT OF BIOTECHNOLOGY & BIOINFORMATICS</u>

4.1.1 **Department Vision and Mission**

(a) Vision

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

(b) Mission

(i) **DM1**: To provide state of the art outcome-based teachings & learning practices.

(ii) **DM2**: To develop a research-based education model in Biotechnology & Bioinformatics.

(iii) **DM3**: To harness human capital for sustainable competitive edge and social relevance.

4.1.2 Faculty Details

SNo	Name	Qualification	Specialization
1.	Prof. (Dr.) Sudhir Kumar	PhD	Environmental Biotechnology – Bioremediation, Biofuels
2.	Prof. (Dr.) Jata Shankar	PhD	Fungal biology, Functional genomics
3.	Prof. (Dr.) Tiratha Raj Singh	PhD	Bioinformatics, Functional genomics, Molecular Evolution and Systems Biology
4.	Dr. Anil Kant Thakur	PhD	Plant Biotechnology, Molecular Biology
5.	Dr. Gopal Singh Bisht	PhD	Medicinal Chemistry, Peptides and Peptidomimetics
6.	Dr. Rahul Shrivastva	PhD	Microbial Pathogenesis, Mycobacteriology
7.	Dr. Hemant Sood	PhD	Plant Biotechnology and IPR
8.	Dr. Jitendraa Vashistt	PhD	Bacterial Resistance, Clinical Proteomics
9.	Dr. Poonam Sharma	PhD	Chemistry
10.	Dr. Saurabh Bansal	PhD	Protein engineering, Enzymology, Industrial Biotechnology
11.	Dr. Udayabanu M.	PhD	Neuropharmacology
12.	Dr. Vijay Kumar Garlapati	PhD	Bioprocess Engineering
13.	Dr. Abhishek Chaudhary	PhD	Nanobiotechnology
14.	Dr Ashok Nadda	PhD	Bioenergy/Biopolymer/Enzyme Technology/Biocatalysis
15.	Dr. Raj Kumar	PhD	Bioinformatics
16.	Dr. Shikha Mittal	PhD	Bioinformatics, Next generation
			Sequencing
17.	Dr. Tyson	MVSc	Veterinary Science

4.1.3 Programs

4.1.3.1 **Undergraduate Programs**

- (a) The program is designed to provide hands on training through appropriate laboratory courses to make better understanding of the theory courses.
- (b) The course curriculum encompasses courses from core Biotechnology, Bioinformatics, Mathematics, Physics and Material Sciences, Electronics & Communication, Computer Science Engineering, Humanities & Social Sciences.
- (c) Elective modules, proficiencies and minor specializations are offered in the course curriculum to strengthen and specialize students' knowledge (theoretical and practical) in their area of interest.
- (d) The students are encouraged to participate in various extra-curricular and cocurricular activities for developing leadership, communication, critical thinking and problem-solving skills.
- (e) 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.
- (f) Summer Internships with industry projects is a mandatory component.
- (g) Two undergraduate programs are currently running by the Department:
 - (i) B.Tech (Biotechnology)
 - (ii) B.Tech (Bioinformatics)

4.1.3.1.1 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 2021 for the B.Tech. Biotechnology programe. The B.Tech. Biotechnology Program got extended NBA accreditation till 30 June 2022. The next cycle inspection of NBA team is due in September-October 2024.

4.1.3.1.2 Course Structure

The scheme of Biotechnology and Bioinformatics was revised in 2018 (160 credits), detailed course structure is as:

SNo	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-II	19B11CI111			
8	Engineering Graphics	18B17GE173			
9	Basic Engineering Physics Lab-I	18B17PH172			
10	Programming for Problem Solving Lab-II	19B17CI171			
	BTECH (BIOTECHNOLOGY\BIOINFORMATICS) 2nd SE	MESTER			
1	Basic Mathematics-II	18B11MA212			
2	Bioinstrumentation Techniques	18B11PH212			
3	Basic Electrical Sciences	18B11EC212			
4	Basic Electrical Sciences lab	18B17EC272			
5	Data Structure & Algorithms	18B11Cl211			
6	Data Structure & Algorithms Lab	18B17Cl271			
7	Workshop Practices	18BI7GE171			
	BTECH (BIOTECHNOLOGY) 3 rd SEMESTER	1021102111			
1	Interpersonal Dynamics Values and Ethics	18B11HS311			
2	Probability & Statistical Techniques	18B11MA312			
3	Genetics	18B11BT311			
4	Biochemistry	18B11BT312			
5	Thermodynamics & Chemical Processes	18B11BT313			
6		18B11BT314			
7	General Chemistry 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 .02 .02 .00 .			
1	Downstream Processing	18B11BT611			
2	Food and Agricultural Biotechnology	18B11BT612			
	i ood and Agnoditatal Diotechnology	1001017			

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 SEMEST	ER
1	Departmental Elective- IV	
2	Open Elective – III	
3	Open Elective – IV	
4	Major Project Part I	18B19BT791
5	Indian Constitution	
	BTECH (BIOTECHNOLOGY) 8th SEMEST	ER
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	18B1WBT733
8	Intellectual Property Rights & Commercialization	18B1WBT734
9	Genetic Counselling	18B1WBT831
10	Traditional Bioprocessing & Their Up Scaling	18B1WBT832
11	Diagnostics & Vaccine Manufacture	18B1WBT833
12	NGS Data Analysis & Applications	18B1WBI834
	OPEN ELECTIVES	
13	Biology for Engineers	18B1WBT635
14	Industrial Chemistry	18B1WBT636
15	Sustainable Technologies for Waste Management	19B1WBT731
16	Food Nutrition & Health Care	19B1WBT732
	BIOINFORMATICS	
	1st& 2ndSEMESTER IS SAME FOR BOTH BT	
	BTECH (BIOINFORMATICS) 3 rd SEMEST	
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 SEMESTE	R
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 SEMESTE	R
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 SEMESTE	R
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	18B19Bl691
11	Industrial Training	
	BTECH (BIOINFORMATICS) 7th SEMESTE	R
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	18B1WBT734
9	Genetic Counselling	18B1WBT831
10	Computational Molecular Evolution	18B1WBI831
11	Diagnostics & Vaccine Manufacture	18B1WBT833
12	NGS Data Analysis & Applications	18B1WBI834

4.1.3.2 Post Graduate Programs

- (a) M.Tech. Biotechnology(b) M.Sc. Biotechnology(c) M.Sc. Microbiology

SNo	Course Name	Course Code
3110	1st SEMESTER	Course Code
1	Advances in Molecular Cell Biology	13M11BT111
2	Advances in Molecular Cell Biology Lab	13M17BT171
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	
	2 nd SEMESTER	·
1	Industrial Biotechnology	14M11BT211
2	Industrial Biotechnology Lab	14M17BT271
3	Immunotechnology	14M11BT212
4	Immunotechnology Lab	14M17BT272
5	Bioentrepreneurship Management	14M11BT214
6	Functional Genomics	14M11BT213
7	Functional Genomics Lab	14M17BT273
8	Metabolic Engineering	14M11BT215
9	DE-III	-
10	DE-IV	

	3 rd SEMESTER	
1	Seminar-I	14M19BT392
2	Project- Thesis Part I	14M19BT391
	4 th SEMESTER	
1	Seminar-II	21M19BT491
2	Project- Thesis Part II	15M19BT491
	M. Tech. Biotechnology Electives course	
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
11	Nano Biotechnology	11B1WBT840
	M.Sc. Biotechnology Course Structure (9	4 credits)
SNo	Course Name	Course Code
0.10	1 st SEMESTER (MS1)	
1	Biochemistry-MI	20MS1BT111
2	Cell and Molecular Biology-MI	20MS1BT112
3	Plant and Animal Biotechnology-MI	20MS1BT113
4	Microbiology-MI	20MS1BT114
5	Genetics-MI	20MS1BT115
6	Basics of Mathematics and Statistics-MI	20MS1MA111
7	Basics of Chemistry and Physics-MI	20MS1PH111
8	Laboratory I: Biochemistry and Analytical	20MS7BT171
	Techniques-MI	
9	Laboratory II: Microbiology-MI	20MS7BT173
10	Laboratory III: Plant and Animal Biotechnology-MI	20MS7BT172
	2 nd SEMESTER (MS2)	
1	Genetic Engineering-MII	20MS1BT211
2	Immunology-MII	20MS1BT212
3	Bioinformatics-MII	20MS1BT213
4	Genomics and Proteomics-MII	20MS1BT214
5	Molecular Diagnostics-MII	20MS1BT215
6	Research Methodology and Scientific	20MS1BT216
	Communication Skills-MII	
7	Elective-I-MII	
8	Seminar-I-MII	20MS9BT211
9	Laboratory IV: Molecular Biology and Genetic Engineering-MII	20MS7BT271
10	Laboratory V: Immunology-MII	20MS7BT272

	3rd SEMESTER (MS3)	
1	Bioprocess Engineering and Technology-MIII	20MS1BT311
2	Emerging Technologies-MIII	20MS1BT312
3	Critical Analysis of Classical Papers-MIII	20MS9BT312
4	Bioentrepreneurship-MIII	20MS1BT314
5	Intellectual Property Rights, Biosafety and	20MS1BT315
	Bioethics-MIII	
6	Project Proposal Preparation and Presentation-MIII	20MS9BT313
7	Seminar-II-MIII	20MS9BT311
8	Laboratory VI: Bioprocess Engineering and	20MS7BT371
	Technology-MIII	
9	Laboratory VII: Bioinformatics-MIII	20MS7BT372
10	Dissertation-MIII	20MS9BT391
	4 th SEMESTER (MS4)	
1	Dissertation-MIV	20MS9BT491
2	Elective-II-MIV	
	M.Sc. Biotechnology Electives courses:	
1	Nanobiotechnology-MII	20MSWBT231
2	Environmental Biotechnology-MII	20MSWBT232
3	Protein Engineering-MII	20MSWBT233
4	Vaccines-MIV	20MSWBT431
5	Drug Discovery and Development-MIV	20MSWBT432
6	Computational Systems Biology-MIV	20MSWBT433
	M.Sc. Microbiology Course Structure (75 credi	ts)
SNo	Subject	Course Code
	1stSEMESTER (MB1)	
1	General Microbiology and Bacteriology	21MS1MB111
2	Basics of Mathematics and Statistics	20MS1MA111
3	Biochemistry	21MS1BT111
4	Molecular Biology	
5	07	21MS1MB112
	Virology	
6	Virology Fungal Biology	21MS1MB112
7	Virology Fungal Biology General Microbiology and Bacteriology Lab	21MS1MB112 20B1WBI831 21MS1MB113 21MS7MB171
7 8	Virology Fungal Biology General Microbiology and Bacteriology Lab Biochemistry Lab	21MS1MB112 20B1WBI831 21MS1MB113 21MS7MB171 21MS7BT171
7 8 9	Virology Fungal Biology General Microbiology and Bacteriology Lab Biochemistry Lab Molecular Biology Lab	21MS1MB112 20B1WBI831 21MS1MB113 21MS7MB171 21MS7BT171 21MS7MB172
7 8	Virology Fungal Biology General Microbiology and Bacteriology Lab Biochemistry Lab Molecular Biology Lab GLP and Bioinstrumentation Lab	21MS1MB112 20B1WBI831 21MS1MB113 21MS7MB171 21MS7BT171
7 8 9	Virology Fungal Biology General Microbiology and Bacteriology Lab Biochemistry Lab Molecular Biology Lab GLP and Bioinstrumentation Lab 2nd SEMESTER (MB2)	21MS1MB112 20B1WBI831 21MS1MB113 21MS7MB171 21MS7BT171 21MS7MB172 21MS7MB173
7 8 9 10	Virology Fungal Biology General Microbiology and Bacteriology Lab Biochemistry Lab Molecular Biology Lab GLP and Bioinstrumentation Lab 2nd SEMESTER (MB2) Immunology and Immunotechnology	21MS1MB112 20B1WBI831 21MS1MB113 21MS7MB171 21MS7BT171 21MS7MB172 21MS7MB173
7 8 9 10	Virology Fungal Biology General Microbiology and Bacteriology Lab Biochemistry Lab Molecular Biology Lab GLP and Bioinstrumentation Lab 2nd SEMESTER (MB2) Immunology and Immunotechnology Enzymes and Bioprocess Technology	21MS1MB112 20B1WBI831 21MS1MB113 21MS7MB171 21MS7BT171 21MS7MB172 21MS7MB173 18MS1BT211 21MS1MB211
7 8 9 10 1 2 3	Virology Fungal Biology General Microbiology and Bacteriology Lab Biochemistry Lab Molecular Biology Lab GLP and Bioinstrumentation Lab 2ndSEMESTER (MB2) Immunology and Immunotechnology Enzymes and Bioprocess Technology Microbial Genetics and Physiology	21MS1MB112 20B1WBI831 21MS1MB113 21MS7MB171 21MS7BT171 21MS7MB172 21MS7MB173 18MS1BT211 21MS1MB211 21MS1MB212
7 8 9 10 1 2 3 4	Virology Fungal Biology General Microbiology and Bacteriology Lab Biochemistry Lab Molecular Biology Lab GLP and Bioinstrumentation Lab 2nd SEMESTER (MB2) Immunology and Immunotechnology Enzymes and Bioprocess Technology Microbial Genetics and Physiology Recombinant DNA Technology	21MS1MB112 20B1WBI831 21MS1MB113 21MS7MB171 21MS7BT171 21MS7MB172 21MS7MB173 18MS1BT211 21MS1MB211 21MS1MB212 18MS1BT313
7 8 9 10 1 2 3 4 5	Virology Fungal Biology General Microbiology and Bacteriology Lab Biochemistry Lab Molecular Biology Lab GLP and Bioinstrumentation Lab 2nd SEMESTER (MB2) Immunology and Immunotechnology Enzymes and Bioprocess Technology Microbial Genetics and Physiology Recombinant DNA Technology Bioinformatics	21MS1MB112 20B1WBI831 21MS1MB113 21MS7MB171 21MS7BT171 21MS7MB172 21MS7MB173 18MS1BT211 21MS1MB211 21MS1MB211 21MS1MB212 18MS1BT313 20MS1BT213
7 8 9 10 1 2 3 4 5 6	Virology Fungal Biology General Microbiology and Bacteriology Lab Biochemistry Lab Molecular Biology Lab GLP and Bioinstrumentation Lab 2ndSEMESTER (MB2) Immunology and Immunotechnology Enzymes and Bioprocess Technology Microbial Genetics and Physiology Recombinant DNA Technology Bioinformatics Immunology and Immunotechnology Lab	21MS1MB112 20B1WBI831 21MS1MB113 21MS7MB171 21MS7BT171 21MS7MB172 21MS7MB173 18MS1BT211 21MS1MB211 21MS1MB211 21MS1MB212 18MS1BT313 20MS1BT213 18MS7BT211
7 8 9 10 1 2 3 4 5 6 7	Virology Fungal Biology General Microbiology and Bacteriology Lab Biochemistry Lab Molecular Biology Lab GLP and Bioinstrumentation Lab 2nd SEMESTER (MB2) Immunology and Immunotechnology Enzymes and Bioprocess Technology Microbial Genetics and Physiology Recombinant DNA Technology Bioinformatics Immunology and Immunotechnology Lab Enzymes and Bioprocess Technology Lab	21MS1MB112 20B1WBI831 21MS1MB113 21MS7MB171 21MS7BT171 21MS7MB172 21MS7MB173 18MS1BT211 21MS1MB211 21MS1MB212 18MS1BT313 20MS1BT213 18MS7BT211 21MS7MB271
7 8 9 10 1 2 3 4 5 6 7	Virology Fungal Biology General Microbiology and Bacteriology Lab Biochemistry Lab Molecular Biology Lab GLP and Bioinstrumentation Lab 2ndSEMESTER (MB2) Immunology and Immunotechnology Enzymes and Bioprocess Technology Microbial Genetics and Physiology Recombinant DNA Technology Bioinformatics Immunology and Immunotechnology Lab Enzymes and Bioprocess Technology Lab Enzymes and Bioprocess Technology Lab Basic Bioinformatics Lab	21MS1MB112 20B1WBI831 21MS1MB113 21MS7MB171 21MS7BT171 21MS7MB172 21MS7MB173 18MS1BT211 21MS1MB211 21MS1MB211 21MS1BT313 20MS1BT213 18MS7BT211 21MS7MB271 18MS7B1214
7 8 9 10 1 2 3 4 5 6 7	Virology Fungal Biology General Microbiology and Bacteriology Lab Biochemistry Lab Molecular Biology Lab GLP and Bioinstrumentation Lab 2nd SEMESTER (MB2) Immunology and Immunotechnology Enzymes and Bioprocess Technology Microbial Genetics and Physiology Recombinant DNA Technology Bioinformatics Immunology and Immunotechnology Lab Enzymes and Bioprocess Technology Lab	21MS1MB112 20B1WBI831 21MS1MB113 21MS7MB171 21MS7BT171 21MS7MB172 21MS7MB173 18MS1BT211 21MS1MB211 21MS1MB212 18MS1BT313 20MS1BT213 18MS7BT211 21MS7MB271

3 rd SEMESTER (MB3)				
1	Environmental Microbiology	21MS1MB311		
2	Diagnostic Microbiology and vaccines	21MS1MB312		
3	Elective-I			
4	Master's Dissertation &Thesis Part-I	21MS9MB311		
	4 th SEMESTER (MB4)			
1	Food & Dairy Microbiology MBIV	21MS1MB411		
2	Plant and Agricultural Microbiology MBIV	21MS1MB412		
3	Elective-II			
4	Master's Research Thesis Part-II	21MS9MB411		
	M.Sc. Microbiology Electives courses	S		
1	IPR, Biosafety and Bioethics	21MS2MB311		
2	Biosensors: Principles & Applications	21MS2MB312		
3	Computational Systems Biology	21MS2MB411		
4	Protein Engineering	21MS2MB314		
5	Microbial Toxicology	21MS2MB313		
6	Experimental models in microbial Research	21MS2MB412		
7	Nano-Biotechnology	21MS2MB413		
8	QC Analysis and Management	21MS2MB414		

4.1.3.3 **PhD Program**

- Doctoral Degree Program in Biotechnology Doctoral Degree Program in Bioinformatics (b)

The following courses are available for Ph.D. students

SNo	Course Title	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
8	Bioprocess Engineering and Technology	20MS1BT311
9	Bioprocess Engineering and Technology Lab	20MS7BT371
10	Microbiology	20MS1BT114
	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

4.1.3.3.1 PhD Completed (2023-2024)

SNo	Name & Enrollment No	Program	Title of Thesis
1.	Nadia 176501	PhD Bioinformatics	Database construction and machine learning approach to interrogate the microbiome for different diseases
2.	Monika Choudhary 176556	PhD Biotechnology	Global proteome analysis of <i>Acinetobacter</i> baumannii biofilm for identification of novel drug targets
3.	Rolika Gupta 186551	PhD Biotechnology	Optimizing conditions for growth of <i>Trillium</i> govanianum and production of its secondary metabolites
4.	Tanvi Sharma 186552	PhD Biotechnology	Improved properties of bacterial lipase by direct evolution and immobilization and its application
5.	Pooja Thakur 186553	PhD Biotechnology	Bioleaching of metals from waste computer printed circuit boards (CPCBs) using indigenous bacterial isolates from metal contaminated soil

4.1.3.3.2 New PhD Students Enrolled

S. No.	Roll No.	Name		
1	236501	Priyanka Rattan		
2	236551	Priya Gautam		
3	236552	Ankita Bharti		
4	236553	Kritika Singh		
5	236554	Alefia Jaret		
6	236555	Akansha Nayyar		
7	236556	Bandana Thakur		
8	236557	Anjali Sharma		
9	236559	Manisha Thakur		
10	236560	Megha Mourya		

4.1.3.4 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 for educating students in algorithm design, bioprogramming & 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.

4.1.3.5 **Centres**

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

- (a) Centre of Healthcare Technologies and Informatics (CEHTI): The Centre is working with the following objectives:
 - (i) Carry out training activities that are concentrated in the field of health information of national importance and strategic dimension.
 - (ii) 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.
 - (iii) Strengthen cooperation in the areas of health informatics between national and international universities and other centres of excellence.
 - (iv) Working to submit projects that are emanating from the distinguished research ideas in the field of health informatics, in order to benefit health sectors.
- (b) Centre of Sustainable Technologies for Rural Development (CESTRD): The Centre is working with the following objectives:
 - (i) General awareness program for the rural youth, women and children of the rural areas on interactive basis.
 - (ii) To survey and analyze the problems in planning and implementation of the Government schemes & programs for rural development.
 - (iii) To run the innovative training workshops, seminars, disseminate information and transfer technology (Biogas, vermicompost, biomass Briqquets) to the rural people in an integrated sustainable mode of rural development.
 - (iv) To make rural people aware about education especially vocational trainings to make earnings other than agriculture.

4.1.3.6 Lab Staff with Qualification

Name	Designation	Qualification
Sh. Mohd. Ismail Siddiqui	Sr. Lab Engineer	M.Sc.
Ms. Somlata Sharma	Sr. Lab Engineer	M.ScIT
Sh. Baleshwar Prasad Shukla	Sr. Lab Technician	M.Sc.
Ms. Mamta Mishra	Lab Technician	M.Sc.
Ms. Sonika Gupta	Lab Technician	D. Pharma

4.1.3.7 Research Projects Sanctioned during the Years 2023-2024/ In Progress

Name of Faculty	Project title	Funding Agency	Amount sanctioned	Duration	Current Status
			(In Lakhs)		
Dr. Anil Kant	Postgraduate teaching program	DBT	130	2020-25	Ongoing
Dr. Sudhir Kumar	Pine needles' conversion to biofuel for rural empowerment	Directorate of Innovation, Research and Development (DRID) -JES	7	2022-24	Ongoing
Dr. Poonam Sharma	Synthesis and physicochemical characterization of ethosomes as an effective carrier for transdermal delivery of antifungal agents	SERB (DST- Core Research Grant)	30.25	2022-26	Ongoing
Dr. Ashok Kumar Nadda	Extraction of keratin from poultry waste biomass of and its application in the production of value-added products	DEST Himachal Pradesh	7.6	2021-23	Ongoing
Dr. Ashok Kumar Nadda	CO 2 -phillic nanotextured surface immobilized enzymes for expedited microalgal biomass production through CO 2 enrichment and production of eco-friendly pigments	HIMCOSTE Himachal Pradesh Govt	6.8	2021-23	Ongoing

Dr. Sudhir Kumar	Pine needles based dark fermentation towards biohydrogen production	Directorate of Innovation, Research and Development (DRID) -JES	1.5	2022-23	Ongoing
Dr. Sudhir Kumar	Production and phyco- upgradation of biogas from pine straw co-digested with food waste	Directorate of Innovation, Research and Development (DRID) -JES	0.50	2022-23	Ongoing
Dr. Tiratha Raj Singh	Al-based effective and adaptive learning	Directorate of Innovation, Research and Development (DRID) -JES	1	2022-23	Ongoing
Dr. Hemant Sood	Herbal formulation for the treatment and prevention of Dementia	Directorate of Innovation, Research and Development (DRID) -JES	0.50	2022-24	Ongoing
Dr. Raj Kumar	Enhanced catalytic potential of microbial carbonic anhydrase for increased carbon dioxide sequestration	Directorate of Innovation, Research and Development (DRID) -JES	2 (Not yet approved)	2022-24	Ongoing
Dr. Anil Kant	Development of nano particle-based formulations of agrochemicals, their testing and commercialization	Kanpur Fertilizer Ltd.	20	2024- 2027	Ongoing

Dr. Garlapati Vijay Kumar	Integration of Dark fermentation and Microbial Electro- hydrogenesis cell using lignocellulosic waste towards enhanced biohydrogen production	Directorate of Innovation, Research and Development (DRID) -JES	1.5	2022- 2023	Ongoing
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4.1.3.8 <u>Conferences, Seminars and Workshops/Faculty development program</u>

4.1.3.8.1 **Conferences**

(a) Conferences Organized

Dates	Subject	Venue	Participation (Nos.)	Remarks
11-13 July	2nd International	BT & BI	180	Prof. (Dr.) Jata
2023	Conference on	Jaypee		Shankar, Dr.
	Biotechnology and	University of		Udaybanu M & Dr
	Bioinformatics	Information		Abhisheh
	(ICBAB-2)	Technology		Chaudhary
		Solan HP		

(b) Conferences Attended

Dates	Subject	Venue	Faculty Name	Remarks
11-13 July 2023	Chaired a session in "2nd International Conference on Biotechnology and Bioinformatics (ICBAB-2023)" organized by The Department of BT and BI, Jaypee University of Information Technology, Solan, Himachal Pradesh supported by DST-SERB at Jaypee University of Information Technology (JUIT), Waknaghat	Department of BT and BI, JUIT, Waknaghat	Dr Hemant Sood	Chair session

29-30 Sep 2023	Member of Advisory Committee of International Conference on Synergetic Innovations & Biotechnological Advancement for Sustainable Development (Plant, Food and Chemical sciences) (SIBA_SD- 2023) organized by School of Applied and Life sciences, Uttaranchal Univ., Dehradun.	School of Applied and Life sciences, Uttaranchal Univ., Dehradun	Dr Hemant Sood	Advisory member
30 Sep 2023	Oral presentation on Production of medicinal compounds from endangered and commercially important medicinal plants of Himalayas through cell and tissue culture technology for Herbal Industry (case study of Picrosides) in International Conference on Synergetic Innovations & Biotechnological Advancement for Sustainable Development (Plant, Food & Chemical Sciences) organized by School of Applied Science, Uttranchal University, Dehradun from 29th – 30th September 2023.	School of Applied and Life sciences, Uttaranchal Univ., Dehradun	Dr Hemant Sood	Oral presentation
14-17 May 2024	Pooja Thakur, Anil Kumar, Jatindra Kumar Pradhan, Sudhir Kumar. Urban Mining of e-scrap – Biohydrometallurgy is the future. Conference on Science at the Sanford Underground Research Facility,	SD Mines, SD, Rapid City, USA	Prof. Sudhir Kumar	Resource Person

23 Oct 2023	Resource Person for a talk on Teaching Philosophy in SD Mines, USA.		Prof. Sudhir Kumar	Resource Person
24 Oct 2023	Resource Person for Karen M. Swindler Seminar on Community Engagement and Sustainable Biofuels for Rural Population.	SD Mines, SD, Rapid City, USA	Prof. Sudhir Kumar	Resource Person
08 Aug 2023	Keynote Talk on Biohydrometallurgy by Prof. Sudhir Kumar in symposium of WITS University, Johannesburg, SA in a symposium on "Bioprocessing: Unlocking Prospects for a Sustainable Future". Online	WITS University, Johannesburg, SA	Prof. Sudhir Kumar	Resource Person
29 Aug 2023	Invited talk by Prof. Sudhir Kumar for the Cavendish Living Lab (CLL) talk series at the University of Westminster London, UK, (29 August, 2023) Online Mode.	University of Westminster London, UK	Prof. Sudhir Kumar	Resource Person
20 Jan 2024	One day online conference in Intellectual Property and Startups organized by Turnip Innovations Pvt. Ltd. and Qualcomm	Online	Dr. Saurabh Bansal	Attendee
11-13 Jul 2023	Participated in "2rd International Conference on Biotechnology and Bioinfromatics (ICBAB-2023)"organized by The Department of BT and BI, Jaypee University of Information of Information Technology, Solan, Himachal Pradesh supported by DST-SERB at Jaypee University of Information Technology (JUIT), Waknaghat	Department of BT and BI, JUIT, Waknaghat	Dr. Saurabh Bansal	Attendee

11-13 Jul 2023	Participated in "2rd International Conference on Biotechnology and Bioinfromatics	Department of BT and BI, JUIT, Waknaghat	Dr. Poonam Sharma	Attendee
	(ICBAB-2023)" organized by The Department of BT and BI, Jaypee University of Information Technology, Solan, Himachal Pradesh supported by DST-			
	SERB at Jaypee University of Information Technology (JUIT), Waknaghat			
25-26 Nov 2023	Participated in "1st International Conference Science and Technology for Sustainable Future" Organizing by Sardar Patel University Mandi (H.P.)	Department of chemistry, SPU, Mandi	Dr. Poonam Sharma	Oral Presentation
24-15 Feb, 2024	International Conference on "Emerging issues of Biodiversity and environment for sustainable development, organized by Vallabh Government College (VGC) Mandi, Himchal Pradesh, India.	Department of Zoology and Environment Science	Dr. Raj Kumar	Oral Presentation and Session Co- chairman

4.1.3.8.2 **Seminars**

- (a) **Seminars Organized** Nil.
- (b) **Seminars Attended**

Dates	Subject	Venue	Faculty Name	Remarks
10-Jul- 2023	Webinar on "Exploring Open Access: Strategies for Successful Publications" organized by Taylor & Francis Group	Online	Dr. Saurabh Bansal	Attendee
19-Jul-2023	Webinar on "Data Sharing and Collaboration: Enhancing Scientific Discoveries through Open Data" organized by Taylor & Francis Group	Online	Dr. Saurabh Bansal	Attendee
27-Jul-2023	Webinar on "Demystifying comprehensive two-dimensional gas chromatography" organized by Separation Science	Online	Dr. Saurabh Bansal	Attendee
01-Mar-2024	Entrepreneur Unleashed: A Journey from ideas to Impact; Organised by IIC, Ministry of HRD & TIEDC, JUIT	JUIT	Dr. Udayabanu	Attendee
11-Jul-2023	RMDR meeting on "Computational approaches to identify potential drug molecules"	University of Illinois College of Medicine Rockford, USA	Dr. Raj Kumar	Resource person

4.1.3.8.3 **Workshops**

(a) Workshops Organized

Dates	Subject	Venue	Faculty Name	Particip ation (Nos.)	Remarks
18-Aug-2023	Training Workshop on "Chemistry Innovations at Department of BT/BI of Jaypee University of Information technology, Waknaghat (HP) on 18th August 2023	BT/BI of Jaypee universit y of	Dr. Hemant Sood	50	Coordinator: Dr. Poonam Sharma, Co-Coordinator: Dr. Hemant Sood

20- Feb-2024	Joint Workshop on Molecular and Plant Tissue Culture Techniques of Department of BT and BI of JUIT Waknaghat Department of Zoology, RKMV, at RKMV Shimla, HP		Dr. Hemant Sood	82	Convener: Dr. Hemant Soof
27- Feb-2024	Joint Workshop on Molecular and Plant Tissue Culture Techniques of Department of BT and BI, JUIT and Department of Biotechnology, GSSDSS at Giani Shivdev Singh Dewan Gurbachan Singh Khalsa College, Patiala, Punjab on 27th Feburary,2024	Singh Dewan Gurbac han Singh	Dr. Hemant Sood	55	Convener: Dr. Hemant Soof
30 June-14 July 2023	Two Week Training Program on Drug Discovery & Development, Department of BT & BI	JUIT	Dr. Udayabanu	98	Coordinator: Dr. Udayabanu

(b) Workshops Attended

Dates	Subject	Venue	Faculty Name	Remarks
22-27 Apr 2024	One-week Short Term Course titled "Sustainable Construction Practices for Sustainable Environment" organized by The Department of Civil Engineering, JUIT.	Department of Civil Engineering, JUIT.	Dr. Hemant Sood	Attendee
14 Mar 2024	Participated in IPR awareness/training program organized by "National Intellectual Property Awareness Mission (NIPAM) and National IP Awareness Mission Office of Controller General of Patents, Designs and Trade Marks, at JUIT.	JUIT, Waknagaht	Dr. Hemant Sood	Attendee
22 Aug 2023	Endnote Certification Series 2023 organized by Clarivate	Online	Dr. Saurabh Bansal	Attendee
18 Aug 2023	One day workshop on "Chemistry Innovations" organized by Department of Biotechnology and Bioinformatics under Scientific Social Responsibility Scheme in DST-SERB sponsored project	JUIT, Waknagaht	Dr. Saurabh Bansal	Attendee
02-Jun-2023 to 14-Jul-2023	Summer Training-2023	JUIT, Waknagaht	Dr. Saurabh Bansal	Resource Person
18 Aug 2023	One day workshop on "Chemistry Innovations" organized by Department of Biotechnology and Bioinformatics under Scientific Social Responsibility Scheme in DST-SERB sponsored project	JUIT, Waknagaht	Dr. Udayabanu	Attendee
02-Dec 2023- 04-Dec 2024	Matlab Modeling and Simulation	Inspire Softech Solution Chennai	Dr. Abhishek Chaudhary	Attendee

4.1.3.8.4 Faculty Development Programs

(a) Faculty Development Programs Organized Nil.

(b) Faculty Development Programs Attended

(b) <u>Fa</u>	(b) <u>Faculty Development Programs Attended</u>						
Dates	Subject	Venue	Faculty Name	Remarks			
23-Jan to 02 Feb 2024	Participated in Online FDP on the theme NEP2020 orientation and sensitization Program by Malaviya Mission Teacher Training Program (MM-TTP) of UGC organized by Malviya Mission Training Centre, HPU, Shimla	Training Centre,	Dr. Hemant Sood	Attendee			
20 - 24 Nov 2023	Participated in Online FDP on the theme "Role of Intellectual Property Rights in Higher Education" organized by Shri Vaishnav Vidyapeeth Vishwavidyalaya, Indore under the aegis of Association of Indian Universities (AIU) and AADC	Vidyapeeth Vishwavidyalaya, Indore under the aegis of AIU-	Dr. Hemant Sood	Attendee			
11-15 Mar 2024	Participated in faculty Development program on Women in innovation and Entrepreneur Development (WIED) organized by IPR Cell and IIC of JUIT, at JUIT	JUIT, Waknaghat	Dr. Hemant Sood	Attendee			
12-20 Feb 2024	Participated in Online FDP on the theme NEP2020 orientation and sensitization Program by Malaviya Mission Teacher Training Program (MM-TTP) of UGC organized by Malviya Mission Training Centre, HPU, Shimla	Training Centre,	Dr. Saurabh Bansal	Attendee			
22-28 July 2024	7 Days FDP on Research Methodology, Bibliometric Analysis and Data Analysis using R	Society of Education, India, University of Agricultural Sciences, Raichur Karnataka, European Laser Academy, Germany, Genome Biotech Mathura	Dr. Saurabh Bansal	Attendee			

26-Feb- 2024 to 05-Mar- 2024	Participated in Online FDP on the theme NEP2020 orientation and sensitization Program by Malaviya Mission Teacher Training Program (MM-TTP) of UGC organized by Malviya Mission Training Centre, HPU, Shimla	Malviya Mission Training Centre, HPU, Shimla	Dr. Tyson	Attendee
26-Feb- 2024 to 05-Mar- 2024	Participated in Online FDP on the theme NEP2020 orientation and sensitization Program by Malaviya Mission Teacher Training Program (MM-TTP) of UGC organized by Malviya Mission Training Centre, HPU, Shimla	Malviya Mission Training Centre, HPU, Shimla	Dr. Udayabanu	Attendee
12-20 Feb 2024	Participated in Online FDP on the theme NEP2020 orientation and sensitization Program by Malaviya Mission Teacher Training Program (MM-TTP) of UGC organized by Malviya Mission Training Centre, HPU, Shimla	Malviya Mission Training Centre, HPU, Shimla	Dr. Raj Kumar	Attendee
23-Jan to 02-Feb- 2024	Participated in Online FDP on the theme NEP2020 orientation and sensitization Program by Malaviya Mission Teacher Training Program (MM-TTP) of UGC organized by Malviya Mission Training Centre, HPU, Shimla	Malviya Mission Training Centre, HPU, Shimla	Dr. Abhishek Chaudhary	Attendee

4.1.3.8.5 **Publications**

(a) **Journal Publications**

Name of Faculty	Title of Article	Name of Journal	Reference	Citation (Since
lacally		Joanna		publication)
Dr Hemant Sood	Effect of LEDs in phytochemical accumulation and biomass production in callus cultures of Podophyllum hexandrum	Journal of Chemical Health Risks	1.Jan 2024 vol.14(1), pp.1681-1690 (ISSN:2251- 6727) (Scopus, IF: 0.1)	0
Prof. Sudhir Kumar	Heavy metal status and distribution in various soils and river sediment of cold desert high altitude microclimate	Journal of the Indian Society of the Soil Science	71 (4), 428-435	0
Prof. Tiratha Raj Singh	Comprehensive analysis of non-synonymous missense SNPs of human galactose mutarotase (GALM) gene: an integrated computational approach.	Journal of Biomolecular Structure and Dynamics	2023, 41(20):11178- 11192 IF: 4.4, Indexing: SCI, SCOPUS	0
Prof. Tiratha Raj Singh	A computational study on structural and functional consequences of nsSNPs in human dopa decarboxylase.		2024, 10.1080/073911 02.2023.230151 7, IF: 4.4, Indexing: SCI, SCOPUS	
Dr. Rahul Shrivastava	Comparative proteomic investigation unravels the pathobiology of Mycobacterium fortuitum biofilm	Applied Microbiology and Biotechnology	2023, [107.; 6029-6046] IF = 4.9, Indexing: SCI, Scopus, SCIE, UGC Care	6
Dr. Rahul Shrivastava	Optimization of protocol for quantification of biofilm formed by pathogenic rapidly-	Methods in Microbiology	2023, [53.; 67- 69] IF =3.0, Indexing: SCI, Scopus, SCIE, UGC Care	

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	growing			
	nontuberculous			
	mycobacteria for			
Drof Joto	diagnostic screening	laveral of Frenci	2024 [40 (4):254]	2
Prof. Jata	Interplay of	Journal of Fungi	2024 [10 (4):251]	2
Shankar	Cytokines and		IF =4.5,	
	Chemokines in		Indexing: SCI,	
	Aspergillosis		Scopus, SCIE, UGC Care	
Prof. Jata	over 51 A mutations	Scientific Reports	2024 [14	2
Shankar	cyp51A mutations, protein modeling,	Scientific Reports	(1):6156] IF =3,	۷
Silalikai	and efflux pump		Indexing: SCI,	
	gene expression		Scopus, SCIE,	
	reveals multifactorial		UGC Care	
	complexity towards		OGO Gaic	
	understanding			
	Aspergillus section			
	Nigri azole			
	resistance			
	mechanism			
Prof. Jata	Accelerating the	Current	2024 [6:100220	2
Shankar	understanding of	Research in	IF =4.5,	
	Aspergillus terreus:	Microbial	Indexing: SCI,	
	Epidemiology,	Sciences	Scopus, SCIE,	
	physiology,		UGC Care	
	immunology and			
	advances			
Prof. Jata	Identification of	Eurasian Journal	2023 [7 (4):334-	
Shankar	High-Risk Single	of Medicine and	344 IF =2.5,	
	Nucleotide	Oncology	Indexing: SCI,	
	Polymorphisms		Scopus, SCIE,	
	(SNPs) of Epidermal		UGC Care	
	Growth Factor			
	Receptor (EGFR)			
	and Their Interaction			
	with Various TKI			
Prof. Jata	Drugs A natural small	Journal of	2023 [00:1-15 IF	2
Shankar	molecule-mediated	Neurochemistry	=4.2, Indexing:	_
- Charman	inhibition of alpha-	1 10 di Odi Oli liloti y	SCI, Scopus,	
	synuclein		SCIE, UGC Care	
	aggregation leads to		33.2, 333 Jui	
	neuroprotection in			
	Caenorhabditis			
	elegans			
Prof. Jata	Edible mushroom:	Food Materials	2023 [3:21] IF	2
Shankar	occurrence,	Research	=0, Indexing:	
	management and		Scopus,	
	health benefits			
·	i	1	1	

Dr. Jitendraa Vashistt	Mutagenic primer- based novel multiplex PCR-RFLP technique to genotype BECN1 SNPs rs10512488 and rs11552192	Molecular Biology Reports	2024, IF-2.6, SCI, SCOPUS	0
Dr. Jitendraa Vashistt	Computational investigation of regulatory region SNPs of autophagy gene BECN1	Defence Life Science Journal	2024, SCOPUS	1
Dr. Jitendraa Vashistt	Autophagy Gene BECN1 Intronic Variant rs9890617 Predisposes Individuals to Hepatitis B Virus Infection	Biochemical Genetics,	2023, (IF-2.4, SCI, SCOPUS)	0
Dr. Jitendraa Vashistt	Identification of molecular signatures and molecular dynamics simulation of highly deleterious missense variants of key autophagy regulator beclin 1: a computational based approach	Journal of Biomolecular Structure and Dynamics	2023. (IF-4.4, SCI, SCOPUS)	1
Dr. Abhishek Chaudhary	Comprehensive review on nanopollutant detoxification in plants: Unravelling physiological, biochemical and molecular mechanism employed by plants to mitigate nanopollution	Environmental Nanotechnology, Monitoring and management	2024, SCI, Scopus	0
Dr. Poonam Sharma	Ethosomes as a carrier for transdermal drug delivery system: methodology and recent developments.	Journal of Liposome Research	34 pp. 1-18, DOI: https://doi.org/10 .1080/08982104. 2024.2339896	0

Dr. Ashok Kumar Nadda	Agri-food Waste as Environmental Pollutant: Root Causes, Challenges and Solution.	Environmental Pollution,	2023 SCI IF *8.9	4
Dr. Ashok Kumar Nadda	Chemistry of CO ₂ - philic materials in enzyme-based hybrid interfacial systems: Implications, strategies and applications	Fuel Processing Technology	2023 SCI IF 7.8	9
Dr. Ashok Kumar Nadda	Synergetic anaerobic digestion of food waste for enhanced production of biogas and value-added products: strategies, challenges, and techno-economic analysis	Critical reviews in Biotechnology	2023 SC IF 9.1	1
Dr. Gopal Singh Bisht	Short Antimicrobial Peptides: Therapeutic Potential and Recent Advancements.	Current Pharmaceutical Design,	2023, SCI IF 2.6	0
Dr. Gopal Singh Bisht	In Vitro Biological Evaluation and Mechanism of Action of Peptoid Analogue Based on Cationic, Amphipathic Peptide A-12.	International Journal of Peptide Research and Therapeutics volume,	2023, SCI IF 2.0	0
Dr. Gopal Singh Bisht	Synergistic effects of short peptides and antibiotics against bacterial and fungal strains.	Journal of peptide science	2023, SCI IF 2.408	6
Dr. Gopal Singh Bisht	Recent Updates on Folate Targeted Drug Delivery Systems in Cancer: A Mini Review	Current Cancer Therapy Reviews	2023, SCI IF 0.4	0

Dr. Raj Kumar	Identification of Activated Cdc42- Associated Kinase Inhibitors as Potential Anticancer Agents Using Pharmacoinformatic Approaches	Biomolecules	2023, SCIE, IF 4.8	0
Dr. Raj Kumar	Neferine Targets the Oncogenic Characteristics of Androgen- Dependent Prostate Cancer Cells via Inducing Reactive Oxygen Species	Journal of	2023, SCIE, IF 4.9	0
Dr. Raj Kumar	New SARS-CoV-2 Mpro Inhibitor by Ascorbic Acid: Design, Molecular Docking, Lipinski's Rule and ADMET Analysis	Coronaviruses	2024, Scopus CiteScore: 1.5	0
Dr. Anil Kant	Exogenous dsRNA trigger RNAi in Venturia inaequalis resulting in down regulation of target genes and growth reduction	Molecular Biology Reports,	vol. 50, pp. 8421–8429, 2023. Doi: 10.1007/s11033-023-08736-3. (IF-2.742)	4
Dr. Anil Kant	Comparative expression profile of selected genes in Venturia inaequalis Cooke (Wint.) infecting apple fruits and leaves	Gene Reports,	vol. 36, pp. 101961, 2024. Doi: 10.1016/j.genrep .2024.101961. (IF-1.37)	0
Dr. Garlapati Vijay Kumar	Advancements in Bioelectrochemical Systems for Solid Organic Waste Valorization: A Comprehensive Review	Processes	12(4):805. IF:3.5, Indexing: SCI, Scopus and SCIE	0
Dr. Garlapati Vijay Kumar	Paradigm of Integrative OMICS of Microbial Technology Towards Biorefinery	Biocatalysis and Agricultural Biotechnology	58:103226, IF:4.0, Indexing: SCI, Scopus and SCIE	0

4.1.3.8.6 **Patents**

S	Patent No. and Date	Application		Donartment and
No	of	Application No.	Title	Department and Inventors
1	Grant/published/filed 09-02-2024, Published	202411004565	Aromatic Herbal Formulation for Dementia Management through OLfactory Induction.	Sirina Kalia, Naina Puri, Khushboo Pandey, Hemant Sood and Udayabanu M
2	12-04-2024, Published	202411019524	A method for producing tissue-grown Swertia chirayita-based formulation for curing diabetes and cancer.	Rolika Gupta and Hemant Sood
3	22-05-2024, Filed	417682-001	Design application filed for "Phytoreactor"	Shivam Sharma and Hemant Sood
4	456625/04-10-2023, Granted	202011002065	Metal leaching from e- waste using cyanogenic waste	Dr. Sudhir Kumar, Anil Kumar
5	10-05-2024, Published	202411032279	Utilization of Biogas Spent Slurry as binder for Pine Needles Biofuel briquettes/Pellets	Anup Kumar Sinha, Ashish Kumar, Sudhir Kumar
6	07-06-2024, Published	202411039825	Biodegradable Fungal Based Biocomposite Sheet (FBBS) for Sustainable Materials Manufacturing	Manisha Sharma, Jata Shankar, Kannu Priya, Ashok Kumar Nadda,
7	09-02-2024, Published	202411006017	Sustainable Water Filtration System using Banana Pseudostem- derived Membranes	Swastik Manibhushan Mondal, Abhishek Chaudhary, Jitendraa Vashistt, Sudhir Kumar, Sandhya Tegta, Purba Kundu, Tanvi Chadha

8	24-11-2023, Published	202311072203 A	A Process and Composition for Preparing 4- Methoxyphenoxo Complexes of Mono and Bis (2,4- Pentanedionato) Zirconium (IV) Chlorides	Poonam Sharma, Rita Chandel, Vikrant Abbot
9	21-06-24, Published	202411045713	Biodegradable Keratin-Based Biocomposite for Dye Removal from Waste water	Sanskriti Sauhta, Megha Mourya, Ashok Kumar Nadda
10	458122/11-10-2023, Granted	201711024373	Novel Thiazole Compounds, Process for Preparing the Same and Pharmaceutical Formulation Thereof	Ram Singh, Deepak Mishra, Atiya Fatima, Chittaranjan Rout, Vineet Mehta, Udayabanu Malairaman, Mamta Chaudhary
11	17-05-2024, Published	202411035405	Polyherbal Gel Formulation for Treating Diabetic Foot Ulcer	Diksha, Udayabanu Malairaman

4.1.3.8.7 Books/Book Chapters Published

(a) Books

Name of Faculty	Name of Book	Reference	Publisher
	Renewable Hydrogen	2024, Mohit Bibra, Rajesh	
Sudhir	Opportunities and Challenges in	Sani, Sudhir Kumar, ISBN:	Elsevier
Kumar	Commercial Success	9780323953801	
Prof.	Bioinformatics and	2023, Tiratha Raj Singh,	
Tirotho Doi	Computational Biology:	Hemraj Saini, Moacyr Comar	CRC Press
Cinah	Computational Biology: Technological Advancements,	Junior, ISBN:	CRC Pless
Singn	Applications and Opportunities.	9781032361581	
Drof loto	Microbial Approaches for	2024 June. Jata Shankar,	
	Microbial Approaches for	Pradeep Verma, Maulin P.	CRC Press
Shankar	Sustainable Green Technologies	Shah. ISBN 9781032526485	

(b) Book Chapters

Name of Faculty	Book Chapter Title	Name of Book	Reference	Remark
Dr. Rahul Shrivastava	Neuroprotection induced by epigallocatechin-3-gallate	Natural Molecules in Neuroprotection and Neurotoxicity	[1321-1339] 2024, Marcos Roberto de Oliveira, ISBN: 9780443237638	Netherlands: Elsevier B. V
Dr. Rahul Shrivastava	Unveiling the neuroprotective benefits of biochanin-A	Natural Molecules in Neuroprotection and Neurotoxicity	[1307-1320] 2024, Marcos Roberto de Oliveira, ISBN: 9780443237638	Netherlands: Elsevier B. V
Dr. Rahul Shrivastava	Unlocking new ways to tackle tuberculosis using CRISPR-Cas as a potent weapon	CRISPR-Cas System in Translational Biotechnology	[151-162] 2023, Swati Joshi, Digvijay Verma, Ravi Kr. Gupta, ISBN: 9780323918084	Netherlands: Elsevier B. V
Dr. Abhishek Chaudhary	Microbial Sensor: A tool for accelerating sustainable green technology	Microbial Approaches for Sustainable Green Technologies	[1-20] 2024, Jata Shankar, Pradeep Verma, Maulin P., ISBN 9781032526485	CRC Press
Dr. Poonam Sharma	Zn-F-Co Substituted nanocrystalline hydroxyapatite Bone tissue Application	Advanced Synthesis and Medical Applications of Calcium Phosphates	[20] 2024, S.S. Nanda, Jitendra Pal Singh, Sanjeev Gautam, Dong Kee Yi, ISBN 9781003360605	CRC Press
Dr. Poonam Sharma	Nanotechnology- based Tools to Overcome Antimicrobial Resistance	Nanotechnology Based Strategies for Combating Antimicrobial Resistance	[61-80] 2024, Mohmmad Younus Wani, Irshad Ahmad Wani, Akhilesh Rai, ISBN 978- 981-97-2023-1	Springer
Dr. Raj Kumar	Computational strategies and tools for protein tertiary structure prediction	Basic Biotechniques for Bioprocess and Bioentrepreneurship	[225-242] Arvind Kumar Bhatt, Ravi Kant Bhatia and Tek Chand Bhalla, [ISBN: 978-0-12-	India: Elsevier

Dr.	Protein	Basic Biotechniques	[217-223] Arvind	India: Elsevier
Abhishek	Sequence	for Bioprocess and	Kumar Bhatt,	
Chaudhary	Analysis	Bioentrepreneurship	Ravi Kant Bhatia	
			and Tek Chand	
			Bhalla, [ISBN:	
			978-0-12-	
			816109-8]	
Dr.	Applications of	Bioreactor Design	[35-46] S Sevda	Elsevier, USA
Garlapati	biochemical	Concepts for Viral	&S Kumar (eds),	
Vijay	stoichiometry in	Vaccine Production	ISBN:	
Kumar	biotechnology		9780443153785.	

(c) Conference Publications

Name of Faculty	Title of Article	Conference Title/Name of Journal	Reference	Dates
Dr. Rahul Shrivastava	Analysis of differentially expressed <i>M. fortuitum</i> proteins for biomarker prediction using Support Vector Machine	Proceedings of the 2023 Seventh International Conference on Image Information Processing (ICIIP) [7th: JUIT, Waknaghat	pp.212-217. [SCOPUS].	
Dr. Rahul Shrivastava	Prediction of Protein Biomarkers for Mycobacterium fortuitum using Machine Learning Technique	Proceedings of the International Conference on Signal Processing and Communication (ICSC) [9th: JIIT, Noida]	pp.416-421. [SCOPUS]	21-23 Dec 2023

4.1.3.8.8 **Guest Speakers / Lectures**

(a) **Guest Speakers**

Speaker Name	Affiliation	Title of Talk	Dates
Prof. Ashwani Chauhan	Florida A&M University	Various aspects of cutting- edge research and development in Gut microbes as the new field for research, shedding light on emerging trends, challenges, and opportunities in the field.	1 May 2024
Dr. Taruna	Scientist-G NIRRH-ICMR	Collectins: The Sentinels of	11 Jul
Madan Gupta	Mumbai-INDIA	Mucosal Health	2023
Dr. Priyanka	Head of R& D Biologicals,	Technology Trends in Drug	11 Jul
Priyadarsiny	Panacea Biotech-INDIA	Discovery and Development	2023
Prof. Dinesh	Thapar Institute of	Biorefining of lignocellulosic	11 Jul
Goyal	Engineering and	waste biomass into bioethanol	2023
	Technology, Patiala, India	and value-added products	

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Dr. Rupesh K. Srivastava	Associate Professor AIIMS New Delhi	Discovering the Osteoclastogenic role of Th9 cells in Osteoporosis	11 Jul 2023
Prof. Vladimír Havlicek	Institute of Microbiology- Academy of Sciences of the Czech Republic Videnska 1083, CZ-142 20 Prague	Metallomics and metabolomics with a special focus on next- generation infection diagnostics	11 Jul 2023
Dr. Pradeep Kumar Shukla	Associate Professor College of Medicine - Memphis Department of Physiology University of Tennessee Health Science Center Memphis, Tennessee-USA	Effects of dietary probiotics on alcohol-induced intestinal inflammation, dysbiosis, barrier dysfunctions and tumorigenesis	12 Jul 2023
Prof. Ruplal	Department of Zoology University of Delhi-INDIA	Combinatorial Biosynthesis Approaches to Manipulate rif PKS Gene Cluster of Amycolatopsis mediterranei for the Production of Rifamycin B Analogues Effective Against Mycobacterium tuberculosis	12 Jul 2023
Dr. Sandeep K. Sharma, Senior Scientist	CSIR-Indian Institute of Toxicology Research (IITR)-Lucknow	- Point-of-care methods and sensors for ensuring food quality and human health	12 Jul 2023
Dr. Anand Mohan	Lovely Professional University/School of Bioengineering and Biosciences	Agro-technological strategies with nano-fertilizer application to enhance secondary metabolites formation in Cannabis sp	12 Jul 2023
Dr. Jessie Uehling	Oregon State University USA	Decoding fungal symbioses using computational evolutionary genomics	13 Jul 2023
Prof. Rajesh K. Sani	Departments of Chemical and Biological Engineering & Applied Biological Sciences-South Dakota School of Mines and Technology (SDSMT)-Rapid City, SD-USA	Single-Step Biomass-to- Bioplastic in Mini-cell Factories	13 Jul 2023
Prof. Suresh Kumar Sharma	Punjab University, Chandigarh	Statistical Techniques in Biological and Medical Sciences	10-11 June 2024
Prof. Amar Nath Gill	IIIT, Una	Advanced Statistical Techniques in Biological and Medical Sciences	14-15 June 2024
Dr. Kamaljit Kaur Sangha	Charles Darwin University, Australia	Environmental sustainability and economics	12 Dec 2023

(b) Lectures Delivered by Faculty

Name of Faculty	Designation of Faculty	Topic of Lecture	Dates	Venue
Dr. Hemant Sood	Associate Professor	Expert for 2 Days Workshop on IPR and PATENT and took sessions on IPR and Commercialization on 15th June and Patent process overview on 16th June, 2024 organized by The Progress Research and Publication An initiative of Sri Aurobindo Yoga and Knowledge Foundation and Research Centre: Sri Aurobindo Yoga and Knowledge Foundation, Chattisgarh.	15-16 June 2024	Sri Aurobindo Yoga and Knowledge Foundation and Research Centre at Chattisgarh via online mode
Dr. Hemant Sood	Associate Professor	Delivered lecture in The Progress Research and Publication Workshop on "Ethical considerations in Research IPR organized by An initiative of Sri Aurobindo Yoga and Knowledge Foundation and Research Centre, Powered by IIT, Bhilai at Chhattisgarh.	20 May 2024	Sri Aurobindo Yoga and Knowledge Foundation and Research Centre at Chattisgarh via online mode
Dr. Hemant Sood	Associate Professor	Delivered expert lecture on "IPR management and Commercialization nt in Training—cum-workshop on IPR organized by RKMV Shimla in collaboration with HIMCOSTE at RKMV, Shimla.	22 Mar 2024	RKMV, Shimla
Dr. Hemant Sood	Associate Professor	Delivered expert lecture on "IPR management and Commercialization in a one-week Faculty Development Program on "Women in Innovation and Entrepreneur Development (WIED) organized by Intellectual Property Rights (IPR) cell and Institution's Innovation Council (IIC) JUIT from March 11-15, 2024 in online mode at JUIT Waknaghat.	14 Mar 2024	JUIT Waknaghat

Dr. Hemant Sood	Associate Professor	Delivered expert lecture on "Intellectual property Rights &Building Knowledge economy" for In-service Teaching Training Program for lectures and PGT organized by SCERT, Solan HP.	2 Mar 2024	SCERT, Solan
Dr. Hemant Sood	Associate Professor	Delivered expert lecture on "Entrepreneur unleashed - A journey from ideas to impact" at IIC, JUIT Waknaghat.	1 Mar 2024	JUIT Waknaghat
Dr. Saurabh Bansal	Associate Professor	Delivered expert lecture on "Idea generation and Validation: A key to success for startup" in faculty Development program on Women in innovation and Entrepreneur Development (WIED) organized by IPR Cell and IIC of JUIT from 11-15 th March,2024	12 Mar 2024	JUIT Waknaghat
Prof. Sudhir Kumar	Professor & Head BT-BI	Bioprocessing: Unlocking Prospects for a Sustainable Future	08 Aug 2023	JUIT(Online)
Prof. Sudhir Kumar	Professor & Head BT-BI	Sustainable Biofuels for Rural Population	29 Aug 2023	JUIT (Online)
Prof. Sudhir Kumar	Professor & Head BT-BI	Community Engagement and Sustainable Biofuels for Rural Population	24 Oct 2023	SDSMT,USA
Prof. Sudhir Kumar	Professor & Head BT-BI	Joy of Teaching	23 Oct 2023	SDSMT, USA
Prof. Sudhir Kumar	Professor & Head BT-BI	Biohydrometallurgy	14 May 2024	SDSMT, USA
Dr. Udayabanu	Associate Professor	Antihypertensive Drugs	23 Feb 2024	Govt Polytechnic, Kandaghat
Dr. Raj Kumar	Assistant Professor (SG)	Computational approaches to identify potential drug molecules	11 Jul 2023	University of Illinois College of Medicine Rockford, USA
Dr.	Associate	Given Invited Talk on	16	IIT Kharagpur, India

Garlapati	Professor	"Bacterial cellulose from	Feb	
Vijay		alternative cheap and waste	2024	
Kumar		resources: Cost-effective and		
		sustainable avenues for		
		polymer production" in		
		"Advanced Entrepreneurship		
		and Skill Development		
		Program (E-SDP): Waste to		
		Wealth,		
		Given Invited Talk on		
		"Circular economy approach		
		for sustainable solid waste		
Dr.		management: Environmental		
Garlapati	Associate	sustainability, drivers and	16	
Vijay	Professor	barriers from a developing	Feb	IIT Kharagpur, India
Kumar	1 10163301	economy perspective" in	2024	
Kumai		"Advanced Entrepreneurship		
		and Skill Development		
		Program (E-SDP): Waste to		
		Wealth		

4.1.3.8.9 Recognition & Awards

(a) By Faculty

Name of Faculty	Designation of Faculty	Award in full details	Date	Achievement
Dr. Hemant Sood	Associate Professor	Dr. Sarvepalli Radhakrishnan Distinguished Associate Professor & Researcher Award 2023 in Plant Biotechnology which was given by the Center for Professional Advancement Executive Council and the National Teachers Day Awards 2023 Committee at the Center for Professional Advancement International Campus, India on September 5th 2023.	5 Sept 2023	Distinguished Associate Professor and Researcher Award
Prof. Sudhir Kumar	Professor & Head BT-BI	Travel support by SD Mines University and Jaypee University of information Technology for an invited lecture in a conference at SD Mines, USA	14-22 May 2024	
Prof. Sudhir Kumar	Professor & Head BT-BI	Travel support by SD Mines University for an invited lecture in the dept. of Chemical and Biological Engineering, SD Mines, USA.	16-23 Oct2023	

Dr. Garlapati Vijay Kumar	Associate Professor	Invited External Examiner	01-02 May 2024	Served as an "Invited External Examiner" for M. Sc and B. Sc Final Practical Exams
Dr. Garlapati Vijay Kumar	Associate Professor	Top 2% World's Scientists: 2023	1 Oct 2023	Listed in "Top 2% World's Scientists (2023) by Stanford University, USA.
Dr. Garlapati Vijay Kumar	Associate Professor	World Scientist and University Rankings: 2023	1 Sept 2023	Listed in "AD Scientific index 2023: World Scientist and University Rankings ".

(b) <u>Students</u>

Name of Students, Enrolment No.	Program	Award in full details	Date	Achievement
Abheek Rai 221010007	B.Tech. 3 rd Sem	Table Tennis Runner up in Parakaram 2023 organized by JUIT Waknaghat	06- Oct- 2023	Table Tennis Runner up
Jayant Anand 221010005	B.Tech. 4 th Sem	Cricket Runner Up team member, Semester Tournament 2024 organized by JUIT Waknaghat	12-18 Feb 2024	Cricket Runner Up team member
Pakhi Gupta 221010011	B.Tech. 4 th Sem	Won 3 rd Prize in Face Guardian, case study competition in Cognizance 2024, Annual Technical Fest of IIT Roorkee	15-17 Mar- 2024	3 rd Prize in Face Guardian, case study competition in Cognizance 2024
Anushka Gupta 221011026, Kartikey Srivastava 221011023, Nidhi 221011027, Ibadat Kaur 221011017, Nandini Chauhan 221011016	B.Tech. 4 th Sem	Won 2 nd Prize in Biohackathon 2.0	8-9 Mar- 2024	Won 2 nd Prize in Biohackathon 2.0

Khushi 221011005, Nidhi 221011027, Sneha Kaur 221011004	B.Tech. 4 th Sem	Won 1st Prize in Cidering organized by Synapse club of Department of Biotechnology and Bioinformatics, JUIT Waknaghat	08 May 2024	Won 1 st Prize in Cidering
Khushi 221011005	B.Tech. 3 rd Sem	Runner up in Badminton in Parakaram 2023 organized by JUIT Waknaghat	6-8 Oct 2024	Runner up in Badminton
Khushi 221011005	B.Tech. 3 rd Sem	Gold Medal in Table Tennis in Parakaram 2023 organized by JUIT Waknaghat	6-8 Oct 2024	Gold Medal in Table Tennis
Khushi 221011005, Ibadat Kaur 221011017	B.Tech. 4 th Sem	Silver Medal in Badminton in Semester Tournament organized by JUIT Waknaghat	12-18 Feb 2024	Silver Medal in Badminton
Ibadat Kaur 221011017	B.Tech. 4 th Sem	Gold Medal in Athletics in Semester Tournament organized by JUIT Waknaghat	12-18 Feb 2024	Gold Medal in Athletics
Ibadat Kaur 221011017, Jyoti 221011002, Nandini 221011016	B.Tech. 4 th Sem	Won 1st Prize in Cidering organized by Synapse club of Department of Biotechnology and Bioinformatics, JUIT Waknaghat	08 May 2024	Won 1 st Prize in Cidering
Yudhvir Singh Rana 221010013	B.Tech. 4 th Sem	Won 1 st prize in Mobile Photography, organized by BITS Pilani	4-5 Mar 2024	Won 1 st prize in Mobile Photography
Harshita 221011033, Prachi 221011032	B.Tech. 4 th Sem	Won 1st Prize in Biomodelling organized by Synapse club of Department of Biotechnology and Bioinformatics, JUIT Waknaghat	8-May- 2024	Won 1 st Prize in Biomodelling
Harshita 221011033	B.Tech. 4 th Sem	Won 2 nd Prize in Article Writing organized by Gender Champion Club, JUIT Waknaghat	8-Mar- 2024	Won 2 nd Prize in Article Writing

4.1.3.8.10 Composition of Board of Studies (BOS)

S No	Name	Designation	Institution
1	Prof. (Dr.) Sudhir Kumar	Professor and Head, Dept. of BT & BI	JUIT Waknaghat
2	Dr. Anil Kant	Associate Professor, Dept. of BT & BI	JUIT Waknaghat
3	Prof. (Dr.) TC Bhalla	Professor (Retd.), Dept. of BT	HPU, Shimla
4	Prof. GPS Raghava	Prof and Head, Dept of Computational Biology	IIIT-Dehli
5	Mr. Aditya Sahni	Alumni, Dept. of BT & BI,	Founder ELEM India, Roorkee
6	Prof. (Dr.) Tiratha Raj Singh	Professor, Dept. of BT & BI	JUIT Waknaghat
7	Dr. Hemant Sood	Associate Professor, Dept. of BT & BI	JUIT Waknaghat
8	Dr. Rahul Shrivastava	Associate Professor, Dept. of BT & BI	JUIT Waknaghat
9	Dr. Gopal Singh Bisht	Associate Professor, Dept. of BT & BI	JUIT Waknaghat
10	Dr. Jitendraa Vashistt	Associate Professor, Dept. of BT & BI	JUIT Waknaghat
11	Dr. Garlapati Vijay Kumar	Associate Professor, Dept. of BT & BI	JUIT Waknaghat
12	Dr. Poonam Sharma	Associate Professor, Dept. of BT & BI	JUIT Waknaghat
13	Dr. Uday Banu M	Associate Professor, Dept. of BT & BI	JUIT Waknaghat
14	Dr. Saurabh Bansal	Associate Professor, Dept. of BT & BI	JUIT Waknaghat
15	Dr. Ashok Kumar Nadda	Assistant Professor, Dept. of BT & BI	JUIT Waknaghat
16	Prof. (Dr.) Shruti Jain	Professor & Associate Dean, Dept. ECE	JUIT Waknaghat
17	Prof. (Dr.) Sunil Kumar Khah	Coordinator IQAC	JUIT Waknaghat

4.2 DEPARTMENT OF CIVIL ENGINEERING

4.2.1 **Department Vision and Mission**

(a) 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 centers of research and education in all the areas of Civil Engineering.

(b) Mission

- (i) **M1**: 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.
- (ii) **M2**: 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.
- (iii) M3: 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.

4.2.2 Faculty Details

S No	Faculty	Qualificatio n	Specializations		
1	Ashish Kumar	PhD	Scouring around Hydraulic Structures, Fluvia Hydraulics		
2	Ashok Kumar Gupta	PhD	Constitutive Modeling of Geological Materials, Rock Mechanics and FEM		
3	Saurabh Rawat	PhD	Slope Stability problems (including Seismic), Soil-nailing, Landfill Design		
4	Amardeep	PhD	Transportation Engineering, Traffic Operation and Analysis, Pedestrian Behavior, Pavemen Materials		
5	Rishi Rana	PhD	Environmental Engineering, Solid Waste Management, Life Cycle Assessment		
6	Saurav	PhD	Concrete Rheology, Development of HPC with Alcofine		
7	Sugandha Singh	PhD	Structural dynamics, Earthquake engineering, Structural analysis, multi-hazard risk assessment.		

8	Tanmay Gupta	PhD	Structural behavior of RCC and Composite Bridges, FEA of Concrete Structures, Seismic behavior of Concrete bridges.			
9	Chandra Pal Gautam	MTech, PhD (Pursuing)	Rehabilitation of Structure, Concrete Technology, Fracture Mechanics			
10	Kaushal Kumar	MTech, PhD (Pursuing)	Structural Dynamics and Earthquake Engineering; Service Life Assessment of Structures, Structural Modeling and Analysis			
11	Niraj Singh Parihar	PhD	Liquefaction, Slope Stability, Hazard Assessment			
12	Akash Bhardwaj	MTech, PhD (Pursuing)	Urban Planning, Transportation Planning, Urban Housing, Water Treatment Processes			

4.2.3 **PROGRAMS**

4.2.3.1 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. The department offers two programs in Civil engineering; BTech in Civil Engineering and BTech in Civil Engineering with Computer Application. The department of Civil Engineering is offeringcutting-edgeinterdisciplinary 4-year BTech degree program in civil engineering with computer application, which is a new emerging trend from session 2022-23. Present day practice of civil engineering applications in real life includes design of smart highway systems, sensor-based technology for monitoring of pollution, cyber security of buildings, use of data analysis techniques to check feasibility of construction projects, use of Al systems for predicting soil and rock properties, use of ML in identifying hydrological responses in a catchment after precipitation and many more applications. The purpose of this program is to produce undergraduates who are fully prepared to work in an engineering position requiring expertise in the field of computer applications to apply the same in the infrastructure industry.

4.2.3.2 **Post Graduate Programs**

4.2.3.2.1 MTech (Construction Management)

The 2-year MTech program provides preparation for effective leadership in the field which includes light (residential and small office buildings) and heavy (large office buildings and facilities, infrastructure) projects. It aims to educating the students with regulatory, insurance, management, safety, planning tools, estimation, and environmental aspects of management necessary for the overall planning and control of construction projects. The course helps in gaining innovative problem-solving skills to determine costs and apply time-value-of-money concepts to effectively evaluate alternatives. With a curriculum developed in collaboration with the University of Florida (USA), the programs assures relevant and global standards of education.

4.2.3.2.2 MTech (Environmental Engineering)

MTech in Environmental Engineering is a two-year post-graduate program aimed to give insights on the topics of advanced process of environmental policy planning and how to ensure efficient and timely implementation of sustainable environment projects. Students are imparted advanced learning in Process design in Environment Engineering, Industrial wastewater treatment, Environmental law and Policy, Risk Management, Optimization Techniques, Environmental Policy Management and treatment facilities. The students are exposed to practical learning through Industry-academia interaction as well as research work, by working on real-world projects in the field of environmental engineering.

4.2.3.2.3 MTech (Structural Engineering)

This 2-year program is designed for students who wish to pursue their career as Structural Engineer. Under this course, the study is focused on scientific principles to design and build various structures such as multi-storey buildings, bridges, tunnels, dams etc. The course introduces numerically demanding research and design exercises relating to a wide-range of structures using simulation, modeling and computational software programs such as STAAD pro, Abaqus, Ansys, SAP, Revit etc. The program lays equal emphasis on laboratory work, industrial visits, and research-based dissertation. MTech program in Structural Engineering provides basic preparation for professional careers and anunderstanding of design, comprehension of the commercial world and competence in transferable skills.

4.2.3.3 **PhD Program**

The Department carries out research anddevelopment activities in the three broad thrust areas: Ground Improvement and Slope Stability, Municipal Solid Waste Management&Air Quality Monitoring, and Construction Materials& Structural Dynamics. The main area of research isSoil Nailing and Helical Soil Nailing, slope Stability Analysis and Mitigation, Stone Columns for Ground Improvement, Assessment of Methane and energy Potential from different types of Biodegradable Waste, Environmental Monitoring and Pollution, Enhancing the Strength Properties of Recycled Aggregate Concrete, Innovative Solution to Prevent the Dampness in Concrete Structure, Analysis of Special Geometrical Layout for Bridges, Seismic Behavior of Concrete Bridges, Low–Cost Material Utilization in Construction Blocks, 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.

4.2.4 Lab Facilities

New Equipment

S. No	Name of Apparatus	Quantity	Lab
1	Orifice meter and Venturi meter	1	Fluid Mechanics
2	Reynolds Number Apparatus	1	Fluid Mechanics
3	Power Hacksaw	1	Workshop
4	Lathe Machine medium	1	Workshop
5	Spring Tension meter	1	Concrete
6	Hardness Tester	1	Concrete

7	Radial Drilling Machine	1	Workshop	
8	Milling Machine	1	Workshop	
9	Bomb Calorimeter	1	Environmental Engineering	
10	Torsion Testing Machine	1	Concrete	
11	Law of Parallelogram of force	1	Concrete	
12	Inclined Plane Apparatus	1	Concrete	
13	Impact of Jet Apparatus	1	Fluid Mechanics	
14	Meta Ceramic Height Apparatus	1	Fluid Mechanics	
15	Bernoulli's Apparatus	1	Fluid Mechanics	
16	Losses due to pipe, fitting enlargement	1	Fluid Mechanics	
17	Pipe Friction Apparatus	1	Fluid Mechanics	

4.2.5 **<u>Lab Staff</u>**

Name	Designation	Qualification
Mr Jaswinder Singh	Sr. Lab Technician	Diploma, Civil Engineering
Mr Amar Kumar	Sr. Lab Technician	Diploma, Civil Engineering
Mr Rajesh Sahu	Lab Technician	Diploma in CSE Engineering
Mr Pradeep Kumar	Jr Lab Assistant	BSc
Mr Shiva	Lab Boy	10 th class

4.2.5.1 <u>Labs</u>

1	Chemistry Laboratory
2	Civil 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	Fluvial Hydraulics & Research Lab

C No	List of Major Carrierante
S.No.	List of Major Equipments
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.	
8.	Direct Shear Test Apparatus 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.	
14.	Accelerated Curing Tank
15.	Universal Testing Machine
16.	Respirable Dust Sampler Total Station
17.	
	Spectrophotometer Multiparameter Testing Apparatus (pLI/ROD)
18.	Multiparameter Testing Apparatus (pH/BOD)
19.	Unconfined Compression test Apparatus
20.	Dynamic Cone Penetration Test Apparatus (DCPT)
21. 22.	Triaxial Electronic Conversion Kit
	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
25	Operated) Lathe Machine
25. 26.	
27.	Milling Machine
28.	Furnace (Maximum Temperature 1200 °C)
	10m long 0.75m wide and 0.6m deep rectangular open channel flume
29.	Uniaxial Shake Table
30.	Acoustic Doppler velocimeter
31.	Triaxial Test Pure Pressure and Saturation Tester
32.	Core Cutter Diesel Engine Operated
33.	Dell Workstation
34.	Ultrasonic Pulse Velocity Tester
35.	Concrete Test Hammer
36.	Air Flow Meter
37.	Cover Meter / Rebar
38.	Half Cell Potential Tester
39.	Stone cutter

4.2.5.2 List of Software

S No.	Name of Software	Version
1	AutoCAD Student	2022
2	Autodesk Revit	2022
3	Autodesk Software Suite includes about 100 Software	2020 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	SIMULIA Academic includes SIMULIA Abaqus, SIMULIAInsight, SIMULIA Tosca & SIMULIA fe-Safe	2019
14	MS PROJECT	2003
15	ETABES Ultimate (10 Users)	V-21

4.2.5.3 **Equipments**



- Jar Test Apparatus
 Respirable Dust Sampler

- 2. Hot Bath Apparatus4. COD Digester



- 5. Civil Engineering Software Lab7. CBR Testing Machine

- 6. Ductility Apparatus8. Bitumen Extractor/ Marshall Mould Sampler



9. Compression Testing Machine11. Soil Pulling Apparatus

10. Flexural Strength Testing Apparatus12. Humidity Apparatus



13. Civil Engineering Software Lab15. Triaxial Shear Test Apparatus

14. Direct Shear Test Apparatus16. Unconfined Compression Machine



17. Muffle Furnace

19. Kjeldahl Nitrogen Apparatus

18. Water Distillation Setup **20.** BOD Incubator



21. Bitumen Mixer/ Impact Testing Machine23. Los angles Abrasion testing machine

22. Hobart Mixer

24. Marshall Testing Apparatus



25. Open Channel Flume27. Apparatus for conducting orifice experiments (Cd, Cc, Cv)

26. Universal Testing Machine28. Soil Pulling Machine



29. Biodegradation Settlement Analyzer31. Lathe machine/ Milling Machine

30. Consolidation Apparatus

32. Oven



33. Biogas Incubator 35. Open Channel Flume

34. Total Station/ Theodolite/ Auto Level/ Dumpy Level36. COD Digester/ pH Meter/ Conductivity Meter/ Turbidity Meter



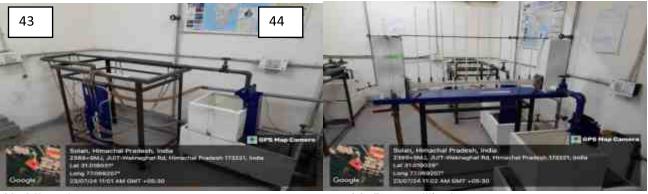
37. Core Cutter Diesel Engine

39. Triaxial test pure pressure and saturation tester



40. Cover meter/ rebar

41. Ultrasonic pulse velocity tester **42.** Half cell potential tester



43. Minor Losses

44. Bernoulli's Apparatus



45. Meta Ceramic

46. Impact of Jet Apparatus **47.** Frictional Losses Height Apparatus

4.2.6 **Patents**

S.No.	Patent No. and Date of Grant	Application No.	Title	Department and Inventors
1	202311028088 Published	20231102808 8	An apparatus for testing a helical soil nail	Civil Engineering Saurabh Rawat, Ashok Kumar Gupta and Pankaj Sharma
2	202311029769 Published	202311029769	Use of waste plastic/glass as an antiglare component to avoid road accidents	JUIT Archit Kaushal, Shruti Jain, Sudhir Kumar, Aman Sharma, Saurabh Rawat.
3	Patent Filed	Patent Filed	"Utilization of Biogas Spent Slurry as binder for Pine Needles Biofuel briquettes/Pel lets System"	BT & BI and Civil Engineering Anup Kumar Sinha, Ashish Kumar, Sudhir Kumar.

4.2.7 Research Projects Sanctioned during the Academic Year / In Progress

SNo	Name of Faculty	Project title	Funding Agency	Amount sanction ed	Duratio n	Current Status
1.	Prof (Dr) Ashok Kumar Gupta, Dr.Tanmay Gupta, Dr. Saurabh Rawat,	Geological Hazards mitigation using stone concrete block retaining walls and helical soil nailing	State Disaster Managemen t Authority (SDMA), Govt. of Himachal Pradesh, HP	25 lakhs	36 months	Ongoing

2.	Prof. Ashok Kumar Gupta, Prof. Vivek Sehgal, Prof. Ashish Kumar, Dr. Saurabh Rawat, Dr. Tanmay Gupta, Mr. Chandra Pal Gautam, Dr. EmjeePuthoo ran, Mr. Janardan Verma, Mr. SK Sharma, Dr. Yash Pal Vasistha	Evaluation and Rehabilitation of	DRID	38 lakhs	24 months	Ongoing
3	Dr. Sudhir Kumar (PI), Dr Garlapati Vijay Kumar (Co- PI), Dr. Ashish Kumar (Co- PI)	Phyco-	DRID	0.5	24 Months	ongoing

4.2.8 <u>Conferences, Seminars and Workshops / Faculty development program</u>

4.2.8.1 **Conferences**

• Conferences Organized

Dates	Subject	Venue/Particip	Faculty Name	Remarks	
		ations			
Nil					

• Conferences Attended

<u>Dates</u>	Subject	<u>Venue</u>	Faculty Name	<u>Remarks</u>
22 nd - 24 th November, 2023	7th International Conference on Image Information	JUIT	Dr. Saurabh Rawat	Session Chair
ooth ooth	Processing (ICIIP 2023)			
26 th - 27 th October, 2023	37th National Convention of Environmental Engineers on Eco- Friendly and Sustainable Approaches for Landslide and Land Subsidence Management in Hilly Regions,	The Institution of Engineers (India), Himachal Pradesh State Centre, Shimla, India	Dr. Tanmay Gupta	Published 2 papers, gave keynote speech
3 rd February, 2024	International Conference on "Transformational Digital Technologies, ICTDT-24"	Chevalier T. Thomas Elizabeth College for Women department of computer science, CTTE IQAC & CTTE Research Cell in collaboration with CSIR – Institute of Minerals and Materials Technology (Innovative Technology Enabling Center -InTEC) Bhubaneswar, Odisha, India	Dr. Rishi Rana	Attended
4 th - 8 th March, 2024	27 th International Conference on Structural Mechanics in Reactor Technology	Yokohama, Japan	Dr. Sugandha Singh	Attended
7 th -8 th June, 2024	Int. Conference on Geo Disaster and Construction Engineering	University of Waterloo, Canada (Online)	Dr. Niraj Singh Parihar	Attended

4.2.8.2 **Seminars**

• Seminars Organized

<u>Dates</u>	<u>Subject</u>	<u>Venue</u>	Faculty Name	<u>Remarks</u>
26 th -28 th April, 2023	"Startup Mania 2.0"	Technology Incubation & Entrepreneurship Development Cell (TIEDC), JUIT Waknaghat.	Prof. Ashish Kumar	Organizer
16 th May, 2024	Seminar on Cement Manufacturing Process &Vastu	Civil engineering department, JUIT	Dr. Tanmay Gupta	Seminar on Cement Manufacturing ocess &Vastu

• Webinars Organized

<u>Dates</u>	Subject	<u>Venue</u>	Faculty Name	Remarks
31 st January, 2024	Webinar on Decarbonising Cities, In collaboration with the Indian Green Building Council (IGBC) Chandigarh Chapter	Civil engineering department, JUIT	Gupta	150 Participants from Industry and Academia
30 th April - 4 th May, 2024	Advances in Geotechnical Engineering' hosted by IGS Shimla chapter and Civil Engg. Department, Jaypee University of Information Technology	Civil engineering department, JUIT	Dr. Niraj Singh Parihar	Advances in Geotechnical Engineering' hosted by IGS Shimla chapter and Civil Engg. Department, Jaypee University of Information Technology

• Seminars Attended

<u>Dates</u>	Subject	<u>Venue</u>	Faculty Name	Remarks
Eth E - L	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	TEDLELAGE		Attack 1 2
5 th February, 2024	Webinar on "Assessing the potential of wetland restoration for climate change mitigation"	TERI EIACP under EIACP scheme funded by Ministry of Environment & Forest, Government of India	Dr. Rishi Rana	Attended online
22 nd May, 2024	Webinar on "Act4Earth Dialogue"	TERI New Delhi	Dr. Rishi Rana	Attended online
1 st March, 2024	Expert Talk on Entrepreneur Unleashed- A Journey from ideas to Impact	JUIT, Wakhnaghat	Dr. Rishi Rana	Attended online
30 th April, 2024 – 4 th May, 2024	Advances in Geotechnical Engineering' hosted by IGS Shimla chapter and Civil Engg. Department, Jaypee University of Information Technology	CED, JUIT	Saurabh Rawat	Attended
30 th April, 2024 – 4 th May, 2024	"Advances in Geotechnical Engineering"	CED, JUIT	Dr. Saurav	Attended
30 th April, 2024 – 4 th May, 2024	Advances in Geotechnical Engineering' hosted by IGS Shimla chapter and Civil Engg. Department, Jaypee University of Information Technology	CED, JUIT	Kaushal Kumar	Attended
30 th April, 2024 – 4 th May, 2024	Advances in Geotechnical Engineering' hosted by IGS Shimla chapter and Civil Engg. Department, Jaypee University of Information Technology	CED, JUIT	Dr. Rishi Rana	Attended
30 th April, 2024 – 4 th May, 2024	Advances in Geotechnical Engineering' hosted by IGS Shimla chapter and Civil Engg. Department, Jaypee University of Information Technology	CED, JUIT	Akash Bhardwaj	Attended
30 th April, 2024 – 4 th May, 2024	Advances in Geotechnical Engineering	Civil engineering department,JUIT	Dr Tanmay Gupta	Attended
13 th April, 2024	Workshop cum Seminar on Reforms in Secondary and Higher Education Post New Education Policy (NEP).	Auditorium JUIT	Dr Tanmay Gupta	Moderated and attended
9 th December, 2023	An Expert Lecture On "Innovation Entrepreneurship & Sustainability"	Civil engineering department, JUIT	Dr Tanmay Gupta	Attended

10 th October,	Webinar on Celebratory	NIDM with Child	Dr Tanmay	Attended in online
2023	Webinar for World Mental	rights and you	Gupta	mode
	Health Day International	riginio aria you	Capta	mode
	Day of Girl Child and			
	International Day for DRR			
1 st September,	How sick building syndrome	NIDM with	Dr Tanmay	Attended in online
2023	works	BMTPC	Gupta	mode
16 th -18 th August,	Online Training on Child	NIDM with	Dr Tanmay	Attended in online
2023	Protection and Child Rights	Periyar	Gupta	mode
	in Disasters and	University		
	Emergencies			
12 th -13 th	Green and Resilient Eco-	IGBC(JUIT)	Dr. Niraj	Attended
September,	Sensitive approach for hill		Singh	
2023	ecosystem	DDAC and AEA	Parihar	A tt a sa al a al
16 th September, 2023	Tunneling preparedness:	DDAG and AFA, New Delhi	Dr. Niraj	Attended
2023	Ensuring success through comprehensive	(Online)	Singh Parihar	
	investigation	(Offilitie)	Falliai	
4 th October,	Isues and challenges with	IGS Kochi	Dr. Niraj	Attended
2023	tunneling and	(Online)	Singh	7 Monada
	underground space	(**************************************	Parihar	
	construction in India			
28 th October,	Reinforced soil wall failure:	Macafferi Delhi	Dr. Niraj	Attended
2023	Causes and prevention	(Online)	Singh	
			Parihar	
14 th -16 th	Geotechnical aspects of	IGS Trichy	Dr. Niraj	Attended
February, 2024	heritage structures		Singh	
1046			Parihar	
19 th October -	Int. webinar series-	IGS (Online)	Dr. Niraj	Attended
16 th November, 2023	Geotechnical Engineering-		Singh Parihar	
2023	Sustainability and resiliency		Pannar	
23 rd -	Let's talk geotech	IGS Kannaur	Dr. Niraj	Attended
29 th February,	Let's talk geoteen	(Online)	Singh	Attended
2024		(3111113)	Parihar	
1 st March, 2024	Field Monitoring in	TC220-ISSMGE	Dr. Niraj	Attended
	Geomechanics-Tunnel	(Online)	Singh	
	monitoring during	,	Parihar	
	construction			
6 th April, 2024	Indo-Nepal Webinar-	IGS (Online)	Dr. Niraj	Attended
	Tunneling in Himalayas		Singh	
4 = th A . II . C . C .	and associated challenges	LOGUETE	Parihar	A.c.
17 th April, 2024	FEM analysis of slope	IGS IIT Roorkee	Dr. Niraj	Attended
	stability problems in		Singh	
18 th April, 2024	ABAQUS Paraproducts: Proven	Maccaferri India	Parihar Dr. Niroi	Attended
10" April, 2024	durability in high alkaline	(Online)	Dr. Niraj Singh	Allended
	environment	(Omme)	Parihar	
18 th April, 2024	Case histories of the	Environment	Dr. Niraj	Attended
	impact of chemical and	Geotechnique	Singh	,
	microbiological process in	Forum (Online)	Parihar	
	geotechnical engineering			
				<u>l</u>

26 th April, 2024	Microplastics derived from traditional fossil fuel based sources	Environment Geotechnique Forum (Online)	Dr. Niraj Singh Parihar	Attended
6 th May, 2024	Good practices in geotechnical investigation field testing for viaduct structures and foundation recommendation	IGS Kochi (Online)	Dr. Niraj Singh Parihar	Attended
16 th May, 2024	Cement manufacturing process-Vastu and Science	CED, JUIT	Dr. Niraj Singh Parihar	Attended
7 th June, 2024	Landslide Risk Assessment and protective measures	IEI, IGS and ICI Kochi (Online)	Dr. Niraj Singh Parihar	Attended

4.2.8.3 **Workshops**

• Workshops Organized

<u>Dates</u>	Subject	<u>Venue</u>	<u>Participation</u>	Faculty Name	<u>Remarks</u>
18 th June, 2024	Training program on the MY Bharat portal, scheduled for 18th June 2024. This event is being organized by Jaypee University of Information Technology, Waknaghat, Solan, in collaboration with the Ministry of Youth Affairs and Sports, Government of India.	CR-3/CL-10 JUIT	Master Training	Dr. Saurabh Rawat	Organizer
22 nd -27 th April, 2024	STC on Sustainable Construction Practices for Sustainable Environment	JUIT, Waknaghat	Short Term Course	Prof. Ashish Kumar	Program Chair
20 th -21 st June, 2023	Two days Hands on workshop on 3 D printing Technology	JUIT, Waknaghat	Workshop	Prof. Ashish Kumar	Organizer
22 nd -27 th April, 2024	STC on Sustainable Construction Practices for Sustainable Environment	JUIT, Waknaghat	Short Term Course	Akash Bhardwaj	Coordinator

22 nd -27 th April, 2024	STC on Sustainable Construction Practices for Sustainable Environment	JUIT, Waknaghat	Short Term Course	Dr. Rishi Rana	Convener
22 nd -27 th April, 2024	STC on Sustainable Construction Practices for Sustainable Environment	JUIT, Waknaghat	Short Term Course	Dr. Amardeep	Convener
30 th April - 4 th , May, 2024	Advances in Geotechnical Engineering	JUIT Waknaghat	513 members	Dr. Niraj Singh Parihar	Organized and hosted
19 th Septembe r, 2024	One Day Workshop cum Presentation on Innovative Construction Techniques Showcase	Arki Sayar Mela, Arki	300 Participants	Dr. Tanmay Gupta	In collaboration with SDM office Arki
12 th - 13 th Septembe r, 2023	Green & Resilient Himachal Pradesh - Hill-centric Development is the Key	Civil engineering department, JUIT	700 Participants from Industry and Academia	Dr. Tanmay Gupta	In collaboration with the Indian Green Building Council (IGBC)

• Workshops Attended

<u>Dates</u>	Subject	Venue	Faculty Name	Remarks
18 th -22 nd December , 2023	Short term course on Sustainable and durable green concrete- future and applications	Department of civil engineering, NIT, Jalanadhar	Prof. Ashish Kumar	Attended
18 th August, 2023	One day Workshop on "Chemistry Innovations"	JUIT, Waknaghat	Dr. Rishi Rana	Attended
28 th -29 th August, 2023	Two Day workshop on "Launch of Malaviya Mission Teachers Training Program"	JUIT, Waknaghat	Dr. Rishi Rana	Attended (Online)
4 th February, 2024	One day Workshop on "Tax Planning"	Tax Account	Dr. Rishi Rana	Attended (Online)
19 th March, 2024	National Conclave on Sustainability, Productivity and Green Growth	National Productivity Council DPIIT, Ministry of Commerce & Industry, GOI and Jaypee University of Information Technology with Indian Potash Limited as Industry Partner	Dr. Rishi Rana	Attended

13 th April, 2024	Workshop cum Seminar on Reforms in Secondary and Higher Education Post NEP"	JUIT, Waknaghat	Dr. Rishi Rana	Attended
7 th -11 th August, 2023	Post Disaster Needs Assessment (PDNA)	HIPA, Fairlawns, Shimla	Saurabh Rawat	Attended
12 th - 20 th February, 2024	NEP2020 Sensitization Program under MMTTP under UGC	Online	Dr. Saurav	Certificate Recieved
22 nd — 27 th April, 2024	One Week Short Term Course (STC) on Sustainable Construction Practices for Sustainable	Civil engineering department, JUIT	Dr Tanmay Gupta	Attended and Delivered a Lecture
11 th -15th March, 2024	Sustainable Advancement in Structural and Transportation Engineering	Department of Civil Engineering Dr. B. R. Ambedkar National Institute of Technology, Jalandhar	Dr Tanmay Gupta	Attended in online mode
12 th - 20 th February, 2024	NEP 2020: Orientation & Sensitization Program on "Holistic & Multidisciplinary Education"	Organized by Malaviya Mission Teacher Training Centre, Himachal Pradesh University, Shimla	Dr. Rishi Rana	Attended
26 th February- 20 th March, 2024	NEP 2020: Orientation & Sensitization Program on "Academic Leadership, Governance & Management"	Organized by Malaviya Mission Teacher Training Centre, Himachal Pradesh University, Shimla	Kaushal Kumar	Attended
23 rd January - 2 nd Februa ry, 2024	NEP 2020: Orientation & Sensitization Program on "Holistic & Multidisciplinary Education"	Organized by Malaviya Mission Teacher Training Centre, Himachal Pradesh University, Shimla	Akash Bhardwaj	Attended
July 2023 to Oct 2023	Urban Landuse and Transportation Planning	Swayam NPTEL	Akash Bhardwaj	Attended
26 th -30 th July, 2023	Advancements in geotechnical and foundation engineering for difficult ground conditions	NIT Srinagar	Dr. Niraj Singh Parihar	Attended
09 th - 18 th August , 2023	Integrated design approach and energy simulation to make building ECBC complaint	DOE Shimla and SEEA	Dr. Niraj Singh Parihar	Attended
21 st -25 th August, 2023	STTP on Advances in Rock Engineering	IGS Aurangabad	Dr. Niraj Singh Parihar	Attended
22 nd -27 th April, 2024	STC on Sustainable construction practices for sustainable environment	CED, JUIT	Dr. Niraj Singh Parihar	Attended and delivered
9 th –11 th August,	Five Days Capacity Building Program on "Energy	Online	Dr. Sugandha	

2023 & 17 th –18 th August, 2023	Conservation Building Code (ECBC) & Eco–Niwas Samhita (ENS)"		Singh
13 th January, 2024, to 24 th February, 2024 (7 Saturdays)	Online course on "Analysis, Design, and Construction Aspects of Precast Structures"	Online	Dr. Sugandha Singh
14 th – 22 nd March, 2024	NEP 2020 Orientation and Sensitization Program	Online	Dr. Sugandha Singh

4.2.9 Faculty Development Program

• FDPs Organized

<u>Dates</u>	<u>Subject</u>	<u>Venue</u>	<u>Participation</u>	Faculty Name	<u>Remarks</u>
11 th -15 th March, 2024	FDP on 'Women in Innovation and Entrepreneur Development (WIED)'	JUIT	Organizer, session hosting, report making and documentation	Prof. Ashish Kumar	Organizer
11 th -15 th March, 2024	FDP on 'Women in Innovation and Entrepreneur Development (WIED)'	JUIT	Organizer, session hosting, report making and documentation	Dr. Saurabh Rawat	Organizer as co- coordinator of IPR cell

• FDPs Attended

<u>Dates</u>	<u>Subject</u>	<u>Venue</u>	Faculty Name	Remarks
26 th February- 5 th March, 2024	NEP 2020 Orientation &Sensitization Program under Malviya Mission Teacher Training Program (MM-TTP) of UGC organized byMalviya Mission teacher Training Centre, HPU Shimla	Organized by HPU, Summer Hills, Shimla (HP)	Prof. Ashish Kumar	Attended online
23 rd January – 2 nd February, 2024	Malaviya Mission Training Program for capacity building of FacultyMembers in	Organized by HPU, Summer Hills, Shimla (HP)	Dr. Saurabh Rawat	Attended

21st -27thAugust,	Higher Education Institutions (HEI's) NEP – 2020. Eight Day Orientation and Sensitization Program under MMTTP Academic Leadership, Governance & amp; Management One week FDP on	Bhau Rao-	Dr. Rishi Rana	Attended
2023	"Research Methodology based data analysis using R	Devras Shodh Pe eth, University of Luck now, Lucknow, UP and Science- Tech Institute, Lu cknow	DI. MSIII Nalia	Online
18 th -24 th May, 2024	One Week FDP on "Environmental Sustainability and Green Technologies in Research and Education"	AIU-Chitkara University Himachal Pradesh Academic and Administrative Development Centre, in association with IQAC, Chitkara University, Himachal Pradesh.	Dr. Rishi Rana	Attended Online
11 th -15 th March, 2024	One-week Faculty Development Program on "Women in Innovation and Entrepreneur Development (WIED)	Intellectual Property Rights (IPR) and Institution's Innovation Council (IIC) JUIT	Dr. Rishi Rana	Attended
22 nd -27 th April, 2024	Short Term Course spanning six days titled "Sustainable Construction Practices for Sustainable Environment	CED, JUIT	Dr. Saurabh Rawat	As a Keynote and Participant
22 nd -27 th April, 2024	Short Term Course spanning six days titled "Sustainable Construction Practices for Sustainable Environment	CED, JUIT	Mr. Kaushal Kumar	Participant
18 th -22 nd December, 2023	Self-Sponsored One Week Online Short-Term Course on "Sustainable and Durable Green Concrete-Future and Applications"	Department of Civil Engineering, National Institute of Technology, Jalandhar	Mr. Kaushal Kumar	Participant

22 nd -27 th April, 2024	Short Term Course spanning six days titled "Sustainable Construction Practices for Sustainable Environment	CED, JUIT	Mr. Akash Bhardwaj	Participant
13 th -21 st May, 2024	MMTTC-NEP 2020: Orientation and Sensitization Program on Indian Knowledge System and Multilingualism	HPU Shimla	Dr. Niraj Singh Parihar	Attended
14 th March, 2024	IP Awareness Training Program under National IP Awareness Mission	IPR Cell New Delhi (Online)	Dr. Niraj Singh Parihar	Attended
3 rd - 8 th June, 2024	6-day Online UHV-II FDP	Universal Human Values Cell, All India Council for Technical Education, New Delhi	Dr Tanmay Gupta	Attended in online mode and obtained UHV-II certification
6 th -10 th May, 2024	One week FDP on Recent advances in structural engineering	Hindustan Institute of Technology and Sciences, Chennai	Dr Tanmay Gupta	Attended in online mode
1 st -5 th April, 2024	5 days Online UHV-I FDP	Universal Human Values Cell, All India Council for Technical Education, New Delhi	Dr Tanmay Gupta	Attended in online mode and obtained UHV-I certification
11 th -15 th March, 2024	"Women in Innovation and Entrepreneur Development (WIED)"	IPR Cell and Institution's Innovation Council (IIC), Jaypee University of Information Technology	Dr Tanmay Gupta	Attended
26 th February- 5 th March, 2024	8-days Program on "Academic Leadership, Governance and Management"	NEP – 2020: Orientation and Sensitization Program under MMTTP, HPU, Shimla.	Dr Tanmay Gupta	Attended online
12 th -20 th February, 2024		NEP – 2020: Orientation and Sensitization Program under MMTTP, HPU, Shimla.	Dr Tanmay Gupta	Attended online
15 th – 20 th January, 2024	ATAL FDP on Building smarter cities: Strategies for sustainable future	College of Engineering, Pune	Dr Tanmay Gupta	Attended

4.2.10 **Publications**

• Journal Publications

Name of Faculty	Title of Article	Name of Journal	Reference	Citation
Saurabh Rawat	An experimental and analytical study of slope stability utilizingFlexible facing for Soil nail wall	Journal of Harbin Engineering University	Tangri, A and S. Rawat. 2023 "An experimental and analytical study of slope stability utilizing Flexible facing for Soil nail wall" Journal of Harbin Engineering University, 44 (12), pp. 321-330	0
Prof. Ashok Kumar Gupta	Life cycle assessment of municipal solid waste generated from hilly cities in India: a case study.	Heliyon, 9 (11), pp. e21575- e21575,	DOI: https://doi.org/10.1016/j.heliy on.2023.e21575 [SCOPUS, SCI, UGC Care].	2
Prof. Ashok Kumar Gupta	XGBoost-SHAP framework for asphalt pavement condition evaluation	Construction and Building Materials,	426 (May 2024), pp. 1-21, DOI: https://doi.org/10.1016/j.conb uildmat.2024.136182	2
Saurabh Rawat	Experimental and Analytical Investigation of Wall Strengthened with Soil Nail Facing: An Approach to Enhance Soil Stability	International Journal of Science, Mathematics and Technology Learning,	Tangri, A and S. Rawat. 2023 "Experimental and Analytical Investigation of Wall Strengthened with Soil Nail Facing: An Approach to Enhance Soil Stability" International Journal of Science, Mathematics and Technology Learning, 31 (2), pp. 780-791	0
Saurabh Rawat and Prof. Ashok Kumar Gupta	Closure to "Effect of Underreamed Pervious Concrete Columns on Load - Carrying Capacity of Loose Cohesionless Soils	International Journal of Geomechani cs, ASCE	Jala, S. K., S. Rawat, and A. K. Gupta. 2024 "Closure to "Effect of Underreamed Pervious Concrete Columns on Load - Carrying Capacity of Loose Cohesionless Soils" International Journal of Geomechanics, ASCE https://ascelibrary.org/doi/10.1061/IJGNAI.GMENG-9540	1
Dr. Saurav	Experimental Analysis of the Mechanical Performance of AAC block	Journal of Harbin Engineering University	Vol. 45 Issue 06	0

Dr. Saurav	Experimental Analysis of The Mechanical Performance of AAC Block	Advanced Engineering Science	Vol. 55 Issue 02	0
Mr. Kaushal Kumar	Analytical modeling of stress concentration in composite box girders	Journal of Engineering Research Express	Sharma, I., G. J. Singh, K. Kumar, K. P. Singh, and R. Kumar. 2024. "Analytical modeling of stress concentration in composite box girders." <i>Eng. Res.</i> <i>Express</i> . https://doi.org/10.10 88/2631-8695/ad257a	0
Dr. Niraj Singh Parihar and Prof. Ashok Kumar Gupta	Stabilization of Expansive Soils Using Non- Conventional Waste Stabilizers: A Review	Indian Geotechnical	54(8), DOI: 10.1007/s40098-024-00923-8	2
Dr. Rishi Rana, Dr. Amardeep	Artificial Intelligence for Surface Water Quality Evaluation, Monitoring and Assessment	Water	DOI: 10.3390/w15223919	3
Prof. Ashok Kumar Gupta	Ensemble Learning for Structure Longevity. SIAM News Blog, (), pp. 1-	SIAM News Blog,		2
Achyut Tiwari, Prof. Ashok Kumar Gupta, Dr. <u>Tanmay</u> <u>Gupta</u>	A robust approach to shear strength prediction of reinforced concrete deep beams using ensemble learning with SHAP interpretability.	Soft Computing, online	(online), pp, DOI: 10.1007/s00500-023-09495- w [SCOPUS, SCI, UGC Care].	2
Thakur, A.S., Dr. Tanmay Gupta	Assessment of Response Reduction Factor for Ordinary RC Frames by IS Code and PSPD Method. In: Hau, K.K., Gupta, A.K., Chaudhary, S., Gupta, T. (eds) Recent Advances in Structural	Engineering and Construction Management . Lecture Notes in Civil Engineering, vol 277. Springer,	https://doi.org/10.1007/978- 981-19-4040-8_23.	0

Dr.	Slag and Bagasse	ACS Omega,	https://doi.org/10.1021/acsom	2
Amardeep	Ash: Potential	American	ega.3c04089	
Boora, Kavita	Binders for	Chemical		
Rani, Manju	Sustainable Rigid	Society		
Suthar, Dr.	Pavement			
Rishi Rana,				
Parveen				
Berwal,				
Abdullah Faiz				
Saeed Al				
Asmari,				
Mohammad				
Amir khan,				
Saiful Islam				

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
Dr. Sugandha Singh	Closed-Form Equation for Site- Specific Kappa	Transactions of the 27 th International Conference on Structural Mechanics in Reactor Technology	International Conference on Structural Mechanics in Reactor Technology	4 th -8 th March, 2024
Dr Tanmay Gupta	Himachal Pradesh Disaster and its aftermath - Management Strategies in the face of Natural Calamities	37th National Convention of Environmental Engineers on Eco- Friendly and Sustainable Approaches for Landslide and Land Subsidence Management in Hilly Regions,	Souvenir, 37th National Convention IEI Shimla, page 66	26 th -27 th October, 2023
Dr Tanmay Gupta	A Sectoral Overview of the Himachal Pradesh Disaster	37th National Convention of Environmental Engineers on Eco- Friendly and Sustainable Approaches for Landslide and Land Subsidence Management in Hilly Regions,	Souvenir, 37th National Convention IEI Shimla, page 67	26 th -27 th October, 2023

4.2.11 **Guest Speakers/Lectures/ Visits**

• Guest Speakers

Name of the Guest Speaker	Designation of the Speaker	Topic of Lecture	Date
Dr. Gyanendra Kumar	Founder Director & CEO of Sustainable Solutions Noida, India	Innovation, Entrepreneurship & Sustainability	9 th December, 2023
Er. Mukesh Jha	Area Head –Technical Customer Solution North Zone, UltraTech Cement Ltd.	Cement Manufacturing Process, Vastu& Science	16 th May, 2024
Er. Abhay Tomar	Regional Head –Technical Customer SolutionHimachal Pradesh, UltraTech Cement Ltd.	Cement Manufacturing	16 th May, 2024
Dr. Ran Bir Singh,	Assistant Professor, CED, CUH	Recycling of Construction and Demolition Waste and its Potential Applications in Construction Practices	22 nd April, 2024
Prof. (Ar) Jit Kumar Gupta	Former Director College of Architecture, IET Bhaddal, Punjab	Approach and Options for Planning and Designing Green and Sustainable Buildings	24 th April, 2024
Ar. Vaibhav Gupta,	Partner and Principal, Architect Lucknow Uttar Pradesh (U.P)	Energy Efficiency in Low Rise 24 Hour Operating Buildings	25 th April, 2024
Dr. Ankit Kathuria,	Department of Civil Engineering, IIT Jammu	Utilization of Inferior Quality Aggregate in Asphalt mix	26 th April, 2024
Dr. Bhupendra	Assistant Professor, Department of Civil Engineering,	Use of Alternate Aggregates in Road Construction	26 th April, 2024

• Lectures Delivered by Faculty

Name of Faculty	Designation of Faculty	Topic of Lecture	Date	Venue
Prof. Ashish Kumar	Head, CED	Startups, Innovation and Startup scheme	27 th July, 2023	B Tech First year students in Orientation Program at JUIT Waknaghat
Prof. Ashish Kumar	Head, CED	Startup ecosystem and Role of HEI	3 rd August, 2023	MSc First year in Orientation Program at JUIT Waknaghat
Prof. Ashish Kumar	Head, CED	Innovation & Startup ecosystem	11 th -15 th March, 2023	One-week Faculty Development Program on Women in innovation and Entrepreneur Development (WIED) organized by Institute Innovation Council (IIC) and IPR Cell, JUIT Waknaghat
Prof. Ashish Kumar	Head, CED	How to plan for Start-up and legal and Ethical steps	27 th March, 2024	CDTP Block, Institute Innovation Council (IIC), Guru Daksh Govt. Polytechnic Hisar
Dr. Rishi Rana	Assistant Professor	Integrated Waste Management	21 st July, 2023	2 weeks refresher course on Information & Communication Technology (Inter/Multidisciplinary) being conducted through online mode w.e.f. 10.07.2023 to 22.07.2023, UGC-HRDC, HPU, Shimla
Prof. Ashish Kumar	Head, CED	Remote Sensing and GIS	26 th April, 2024	Government Polytechnic Rohru and Government Polytechnic Kinnaur (campus at Rohru).
Dr. Saurav	Assistant Professor	Current construction practices in District Shimla.	3 rd October, 2023	DDMA Shimla
Dr. Saurav	Assistant Professor	Current construction practices in District Solan	9 th October, 2023	DDMA Solan
Dr. Amardeep	Assistant Professor	Performance analysis of two-lane highway by identifying followers and non followers.	8 th December, 2023	University Institute of Technology, Himachal Pradesh University, Shimla. (Online)
Dr. Rishi Rana	Assistant Professor	Integrated Waste Management-Looking beyond solid waste horizon	13 th December, 2023	University Institute of Technology, Himachal Pradesh University, Shimla. (Online)

Mr. Kaushal Kumar	Assistant Professor	Career Opportunities for Civil Engineers	15 th February, 2024	Govt. Polytechnic College, Hamirpur
Dr. Saurav	Assistant Professor	Safe Construction Practices in Himachal Pradesh	13 th March, 2024	Gov. Polytechnic Sundernagar
Dr. Amardeep	Assistant Professor	Application of Industrial and Plastic Waste to Create a Sustainable Environment: A Review	22 nd April, 2024	CR-13. CED, JUIT
Dr. Rishi Rana	Assistant Professor	The Inventor Role of Technologies in Waste Management Towards Sustainable Development	22 nd April, 2024	CR-13. CED, JUIT
Dr. Saurabh Rawat	Associate Professor	Stabilization of failed soil slopes –A sustainable approach	23 rd April, 2024	CR-13. CED, JUIT
Dr. Niraj Singh Parihar	Assistant Professor (G-II)	Sustainable solutions to soil stabilization techniques	26 th April,2024	JUIT Waknaghat
Dr. Saurav	Assistant Professor	Ductile Detailing for Earthquake Resistant R C Structures - an overview	9 th October, 2023	DDMA Solan
Dr. Sugandha Singh	Assistant Professor (SG)	Structural Dynamics & Seismic Risk on Structures	February 6, 2024	Dev Bhoomi Uttarakhand University, Dehradun, Uttarakhand
Dr. Tanmay Gupta	Assistant Prof (SG)	Solan's landslide Challenges and Potential Transformation by Cutting edge Mitigation Techniques	26 th October 2023	The Institution of Engineers (India), Himachal Pradesh State Centre, Shimla, India
Dr. Tanmay Gupta	Assistant Prof (SG)	Engineering a resilient future: Building Stronger, Smarter, Safer	15 th September 2023	The Institution of Engineers (India), Himachal Pradesh State Centre, Shimla, India
Dr. Tanmay Gupta	Assistant Prof	Roles and responsibilities of authorities and professionals to provide seismically safe build environment to the citizens	30 th September 2023	HIPA, Shimla
Dr. Tanmay Gupta	Assistant Prof	Earthquake safety and retrofitting of structures	9 th October 2023	DC Office Solan

Dr. Tanmay Gupta	Assistant Prof	Best Practices on Safe Construction.	9 th October 2023	DC Office Solan
Dr. Tanmay Gupta	Assistant Prof	Earthquake safety and retrofitting of structures in Shimla City.	7 th October 2023	Bachat Bhawan DC Office Shimla
Dr. Tanmay Gupta	Assistant Prof	Best Practices on Safe Construction.	7 th October 2023	Bachat Bhawan DC Office Shimla
Dr. Tanmay Gupta	Assistant Prof	Strategies of resilient infrastructure: Engineering solution for sustainable future	23 rd October 2023	JUIT Solan

4.2.12 Visits Organized

4.2.12.1 **Training Program**

Online 5-day capacity building training program on 'Integrative design approach and energy simulation to make the building ECBC compliant' was organized by Directorate of Energy, Shimla and State Energy Efficiency Agency on August 9-11, 2023 & August 17-18, 2023. A total 4 faculty members namely Dr. Sugandha Singh, Dr. Saurabh, Dr. Niraj Singh Parihar and Mr. Akash Bharadwaj from CED, JUIT participated in the 5-day workshop. The workshop aimed to provide basic knowledge and hands-on training towards development of energy-efficient architecture of buildings in different climatic environments with focus on development of energy efficient infrastructure in hilly regions such as Himachal Pradesh. A comprehensive detailing was presented during the workshop about the parameters to be considered for integrated, passive and thermal comfort in such buildings in compliance with guidelines presented by Energy Conservation Building Code (ECBC) and Eco-Niwas Samhita (ENS). A hands on training was also provided by the experts for a application based exposure of e-Quest software for fulfillment of the foresaid purpose.

4.2.12.2 <u>Industrial Visit Report: Sawara Kuddu Hydroelectric Project, Hatkoti, Shimla, H.P. 4 th May 2024</u>

The industrial visit to the Sawara Kuddu Hydroelectric Project was organized as part of the academic curriculum for students of [Department/Program Name] at Jaypee University of Information Technology. The primary objective of the visit was to provide students with practical exposure to the functioning and operations of a hydroelectric dam and powerhouse. Additionally, the visit aimed to enhance students understanding of renewable energy sources and their role in sustainable development. The visit commenced with a guided tour of the dam site, led by experienced personnel from the hydroelectric project. Students were provided with insights into the construction, design, and functioning of the dam, including its role in regulating water flow and ensuring

efficient energy generation. The industrial visit to the Sawara Kuddu Hydroelectric Project provided students with a comprehensive understanding of hydroelectric power generation and its relevance in the context of sustainable development. The firsthand exposure to the operational aspects of a hydroelectric plant enhanced students; theoretical knowledge and prepared them for future endeavors in the field of renewable energy.

4.2.12.3 **Summer Training**

Department of Civil engineering organized a summer training course on "Advanced STADD PRO Application in Structural Engineering" from 15th June, 2023 to 15th July, 2023. The training provided the learning of STADD Pro software: - introduction of STAAD Pro Software, Analysis of different structural elements like beams columns using STADD Software. Analysis of 2D and 3D trusses. Analysis and Design of RCC Buildings, Reinforcement detailing of beams and columns, earthquake load application.

4.2.12.4 School Outreach Activity and Career Counseling Program

Dr. Saurav, Department of Civil Engineering visited different schools in Kullu district of Himachal Pradesh from Nov. 5-8 2023. As outreach activity he was accompanied by Prof. Tirath Raj Singh, Dept. of Bl and Mr. Praveen from Admission Cell.

Six different schools namely :-

- 1. Kullu Valley School
- 2. Cambridge International School
- 3. Agmik public Sr. Sec. School
- 4. Kullu Science School
- 5. Arunodaya Sr. Sec. School
- 6. Ambition Classes were visited in this tour and students were given detailed information about JUIT and its admission procedure. Dr. Saurav delivered lecture on career counseling and told them various options after 10+2 exams. On an average 70 students were counseled from each school.

4.2.12.5 Visit to Polytechnic Colleges in Haryana

Itinerary for the workshop Tour:-

S. No	Activity	Date	No of Students
1	Guru Daksh Government Polytechnic, Hisar	27/03/2024	80
2	Govt Polytechnic Mandi Adampur Haryana	27/03/2024	60
3	Govt. Polytechnic Dhangar (Fatehabad)Haryana	28/03/2024	65

4	Govt Polytechnic JamalapurShekhonTohana	28/03/2024	45
5	Haryana Rajiv Gandhi Govt.	29/03/2024	61
	Polytechnic, Narwana, Haryana		

Department of Civil Engineering organized outreach activity and delivered series of expert lectures at different Government Polytechnic Colleges at Haryana from 26th – 29thMarch, 2024 (as aforementioned). The main focus of the expert lectures was towards the introduction to Remote Sensing & GIS and about the usage of different advanced equipments for sustainable construction. On 27th March 2024, Dr. Ashish Kumar, Professor and HCED delivered an expert talk on "How to plan for start-up and legal & ethical step" at Guru Daksh Government Polytechnic, Hisar. A total of 80 students were interacted during the session. On 27th March 2024, Dr. Ashish Kumar discussed about the Remote Sensing & GIS and their importance in current era at Govt Polytechnic Mandi Adampur Haryana. A total of 60 students were interacted during the session.

On 28th March 2024, Dr. Amardeep, Assistant Professor discussed about the usage of different advanced equipments and sustainable construction practices across the world to preserve the environment at Govt. Polytechnic Dhangar (Fatehabad) Haryana. On 29th March 2024, Dr. Ashish Kumar discussed about the Remote Sensing & GIS and their importance in current era at Rajiv Gandhi Govt. Polytechnic, Narwana Haryana.

4.2.12.6 Expert Talk On "Innovation, Entrepreneurship & Startups"

To sensitize the students about innovation and startups, Prof. Ashish Kumar, Professor & Head, Civil Engineering Department, Jaypee University of Information Technology, Waknaghat, Solan conducted an interactive session on April 24, 2024, with students of MRA DAV Public School, Solan. A total of around 600 students from classes 9 th to 12th in 4 different sessions, attended the talk. In this interactive session, Prof. Ashish directed the students on Idea Generation, and Principles of Innovation. He also motivated them towards the idea of self–employment. He also highlighted the significant features of this Chief minister's startup scheme and encouraged them to materialize their ideas through TIEDC. Students were happy to know about the opportunities available to support their innovative ideas.

4.2.12.7 <u>Sensitization Workshop on Startup Ecosystem</u>

To sensitize the students about startups and initiatives, Prof. Ashish Kumar – Nodal Officer Incubation centre and Head Civil Engineering Department, Jaypee University of Information Technology, Waknaghat, Solan had interactive session on 18 may 2024 with students of Pinegrove School, Shubathu, Solan. A total of around 200 students of class 9th to 12th attended the workshop. The main aim of the session was to sensitize the students about entrepreneurship and startups. He also highlighted the significant features of this Chief minister's startup scheme and encouraged them to materialize

their ideas through incubation centre. Students were happy to know about the opportunities available to support their innovative ideas. The event was coordinated by Faculty member of the school Ms. Ria Yadav. During the session Capt Renu Sharma Head of School, Sh. Pankaj Sharma Head Teacher, Sh. Gurpreet Singh, Head of Activities, IT and Round Square Representative were present. Capt Renu Sharma extended gratitude to Prof. Ashish Kumar for sensitizing their students on the aspects of startup and innovations.

4.2.12.8 <u>Career Counseling Program at Various Government Polytechnic Colleges in</u> Hamirpur and Kangra areas of Himachal Pradesh

An outreach and career counseling activity for Polytechnic college students was carried out by Jaypee University of Information Technology, Waknaghat, from 15th—17thFebruary, 2024. The Department of Computer Science & Engineering, Civil Engineering, and Electronics and Communication Engineering participated in the activity. Prof. Dr. Vivek Kumar Sehgal, Mr. Kaushal Kumar, Dr. Harsh Sohal, and Mr. Praveen Kumar from Admission Cell visited Hamirpur and Kangra area Polytechnic colleges to guide the students for their future education and career plan. Students were informed about engineering courses available after their diploma course at JUIT and were also sensitized about their future prospects in these engineering streams such as Computer Science and Engineering, Civil, Electronics and Communication Engineering, and Information Technology along with current trends in Data Mining, Machine learning, Deep learning, Artificial Intelligence, Drone Technologies, etc.

Outcome of the activity:

- 1. Informal feedback from participants in this activity has been very positive. For the activity, the responding students indicated that they had a better understanding of engineering and recent technologies.
- Most of Student queries solved regarding the admission process, eligibility criteria, required documents and deadlines. Encouraging them to consider attending further higher education through lateral entry.
- 3. Overall, the student's as well as faculty's responses were very positive for the activity

4.2.13 Recognition & Awards

• By Faculty

Name of Faculty	Designatio n of Faculty	Award	Date	Achievement
Dr. Saurabh Rawat	Associate Professor	Session Chair Certificate and momento	22 nd -24 th Novembe r, 2023	Chaired a Session during 7 th International Conference on Image Information Processing (ICIIP 2023)
Mr. Kaushal Kumar	Assistant Professor	IGS Shimla Chapter	3 rd April, 2024	Life Membership of IGS
Mr. Akash Bhardwaj	Assistant Professor	IGS Shimla Chapter	3 rd April, 2024	Life Membership of IGS
Dr. Rishi Rana	Assistant Professor	IGS Shimla Chapter	3 rd April, 2024	Life Membership of IGS

4.2.14 Composition of Various Bodies

BOS Members

Sr. No.	Name	Designation	Institution
1	Dr Ashish Kumar, Chairman	Head of the Department, Civil Engineering	Jaypee University of Information Technology, Waknaghat
2	Dr. Ashok Kumar Gupta, Member	Professor& Dean (Academics and Research)	Jaypee University of Information Technology, Waknaghat
3	Dr. Saurabh Rawat, Member	Associate Professor	Jaypee University of Information Technology, Waknaghat
4	Dr. Sugandha Singh, Member (By Rotation)	Assistant Professor	Jaypee University of Information Technology, Waknaghat
5	Dr. Hemant Sood, Member	Associate Professor	Department of Biotechnology, Jaypee University of Information Technology, Waknaghat
6	Prof. Arun Goel, Member	Professor	NIT Kurkushtra
7	Mr. Rijul Bajaj, Member	Assistant Manager, L & T, Gurgaon	L & T, Gurgaon
8	Er. Kapil Dutt Sharma, Member	Sr. Manager (Civil)	HPPCL
9	Prof. Sunil Kumar Khah, Member	Professor	Department of PMS, Jaypee University of Information Technology, Waknaghat

• <u>List of Various Departmental Coordinators/Committee</u>

Sr. No.	Coordinator/Committee	Name
1	PhD Coordinator	Dr Rishi Rana
2	MTech Coordinator	MTech EE: Dr. Rishi Rana Dr. Saurav Kumar MTech CM: Dr. Saurabh Rawat
3	BTech Project Coordinator	Mr. Chandra Pal Gautam
4	Training and Placement Coordinator	Mr Kaushal Kumar
4	BOS Coordinator	Dr. Saurabh Rawat
5	NAAC Coordinator	Dr Saurabh Rawat Mr Akash Bhardwaj (member)
5	NBA Coordinator	Dr Saurabh Rawat Mr Akash Bhardwaj(member)
6	Program Assessment and Quality Improvement Committee	Dr Ashish Kumar (Convenor) Dr Ashok Kumar Gupta (member) Dr. Sugandha Singh (member) Dr. Tanmay Gupta (member) Dr. Saurav (member) Mr. Chandra Pal Gautam (Coordinator)
6	MOOC/SWAYAM courses Coordinator	Mr Akash Bhardwaj
7	Academically Weak Students Committee/feedback/mentorship	Dr. Niraj Singh Parihar
7	Website Maintenance Coordinator	Dr Sugandha Singh
8	Lab Coordinator	Dr. Niraj Singh Parihar
8	Lab In charge	Fluid Mechanics - Mr Kaushal Kumar Concrete Lab Dr Saurav Highway Lab - Dr Amardeep Engineering Drawing Lab- MrChandrapal Workshop Lab - Mr Kaushal Kumar CAD Lab - MrChandrapal Geotechnical Eng. Lab - Dr. Niraj Singh Parihar Surveying lab- Akash Bhardwaj Structural Mechanics Lab- Dr Sugandha Singh Environmental Lab- Dr Rishi Rana Fluvial hydraulic and Research Lab- Dr. Tanmay Gupta

9	Research Publications, Patents and IPR, Faculty project Proposal Coordinator	Dr. Sugandha Singh
10	Attendance Review Coordinator	Mr Aakash Bharadwaj
11	Event data Coordinator	Dr Sugandha Singh
12	Hilly Ramblings Coordinator	Dr Rishi Rana
13	Stock Verification	Dr. Tanmay Gupta (Coordinator) Dr. Niraj Singh Parihar (member)
14	Alumni Affairs	Dr. Amardeep
15	Department Annual Report Coordinator	Dr Ashish Kumar Dr Rishi Rana
16	Outreach Team	Dr. Amardeep (Coordinator) Dr. Tanmay Gupta, Mr. Akash Bhardwaj Mr. Amar
17	Consultancy Coordinator	Dr Tanmay Gupta
18	Proficiency Coordinator	Dr Tanmay Gupta
19	Department Club Coordinator (CEC)	Mr Chandra Pal Gautam
20	Mock Interviews Committee	Dr. Tanmay Gupta (Coordinator) Dr. Amardeep (member) Dr. Rishi Rana (member) Mr. Kaushal Kumar (member)

• <u>Civil Engineering Department- Consultative Committee (teacher-student interaction)</u>

Faculty members:

Dr Saurav, Assistant Professor [SG]

Dr Rishi Rana, Assistant Professor [SG]

Dr Tanmay Gupta, Assistant Professor [SG]

Mr Niraj Parihar, Assistant Professor [Gr-II]

Mr Kaushal Kumar, Assistant Professor [Gr-II]

Student members:

Mr Lalkapthanh, Representative BTech Ist year Civil Engineering
Mr Ayush Gupta, Representative BTech IInd year Civil Engineering
Mr Rajat Sheetal, Representative BTech IInd year Civil Engineering
Mr Dechen Wangmo, Representative BTech IIIrd year Civil Engineering
Mr Sharad Singh, Representative BTech IIIrd year Civil Engineering
Mr Ronit Mahajan, Representative BTech IVth year Civil Engineering
Mr YeshiJatsho, Representative BTech IVth year Civil Engineering

4.3 DEPARTMENT OF COMPUTER SCIENCE ENGINEERING & INFORMATION TECHNOLOGY

4.3.1 Department Vision and Mission

(a) 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.

(b) Mission:

- (i) 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.
- (ii) 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.
- (iii) **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.

4.3.2 Faculty Details

All faculty, their qualification and specialization as Appendix F

Name	Qualification	Specialization	
Prof. Dr. Vivek Sehgal	PhD	Embedded Systems, Advanced Computer Architecture	
Dr Pradeep Kumar Gupta	PhD, post- doctorate	Internet-of-Things, Sustainable Computing	
Dr Pardeep Kumar	PhD	Computational and Machine Intelligence	
Dr Rajni Mohana	PhD	Software engineering, Sentiment analysis, Health informatics	
Dr Ravindara Bhatt	PhD	Sensor Networks, Deployment modeling, communication and energy efficient algorithms.	

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	
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. Deepak Gupta	PhD	Big Data Analytics, Cyber Security, Machine/Deep Learning, and Programming Languages	
Dr Ekta Gandotra	PhD	Malware Threat Profiling, Cyber Threat Intelligence, Machine Learning	
Dr Hari Singh	PhD	Distributed and Parallel Computing, Grid Computing	
Mr. Aayush Sharma	M.Tech	Artificial Intelligence, Machine Learning	
Mr. Faisal Firdous	M.Tech	Programming Languages, Data Science	
Ms. Nitika	M.Tech	Machine Learning and Deep Learning, Transfer Learning, Natural Language Processing	
Mr. Ramesh Narwal	M.Tech	Human Behaviour Prediction, Machine Learning, Artificial Intelligence.	
Ms. Seema Rani	M.Tech	cyber-attack detection, machine learning, computer networks, and threat detection	
Dr Kapil Rana	PhD	Cloud computing, fog computing, machine learning	
Dr Rakesh Kanji	PhD	Personalized medicine, Natural language processing	
Dr Ruchi Verma	PhD	Information systems, social networks	
Dr Shubham Goel	PhD	Machine Learning, Pattern Recognition and Data Mining	
Dr. Vipul Sharma	PhD	Computer Vision, Deep learning, Steganography & Pattern Recognition.	
Dr. Pankaj Dhiman	PhD	Cryptography, Network Security, Employing secure communication techniques in IoT and Cloud Computing	
Dr. Kushal Kanwar	PhD	Complex Networks, Artificial Intelligence, Machine Learning, Modelling & Simulation, and Quantum Computation	
Dr. Diksha Hooda	PhD		
Dr. Nancy Singla	PhD	Image processing, Biometrics and forensics, Information Security	
Dr. Nishant Sharma	PhD	Wireless Sensor Network, Internet of Things and Vehicular Networks	

Mr Arvind Kumar	PhD (Pursuing)	Internet of Things, Computer Networks, Algorithms
Mr Surjeet Singh	PhD (Pursuing)	Computer Networks, Mobile Computing
Mr Praveen Modi	PhD (Pursuing)	Data Mining with Statistical Analysis
Mr Prateek Thakral	M.Tech.	Graph theory, discrete mathematics

4.3.3 **Programs**

4.3.3.1 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.

- B.Tech. (Computer Science Engineering)
- B.Tech. (Information Technology)

Course Structure (Computer Science Engineering)

The scheme of Computer Science & Engineering and Information Technology was revised in 2018 (160 credits), detailed course structure is as-

S.No	Course Name	Couese code		
	BTECH (CSE) 1st SEMESTER			
1	English	21B11HS111		
2	Engineering Mathematics -1	18B11MA111		
3	Engineering Physics-I	18B11PH111		
4	Programming for Problem Solving-II	19B11CI111		
5	Workshop Practices	18B17GE171		
6	Engineering Graphics	18B17GE173		
7	Engineering Physics Lab-I	18B17PH171		
8	Programming for Problem Solving Lab- II	19B17CI171		
9	English Lab	21B17HS171		
10	Mandatory Induction Program	18B17GE172		

BTECH (CSE) 2nd SEMESTER				
1	Engineering Mathematics -II	18B11MA211		
2	Engineering Physics-II	18B11PH211		
3	Engineering Physics Lab - II	18B11PH271		
4	Electrical Sciences	18B11EC211		
5	Electrical Sciences Lab	18B17EC271		
6	Engineering Graphics	18B17GE173		
7	Workshop Practices	18B17GE171		
8	Data Structures and Algorithms	18B11Cl211		
9	Data Structures and Algorithms Lab	18B17Cl271		
10	Universal Human Values II: Understanding Harmony	23B11HS211		
11	Professional Communication Practice	23B11HS212		
	BTECH (CSE) 3rd SEMESTER			
1	Python Programming Essentials	18B11Cl314		
2	Object Oriented Systems and Programming	18B11Cl311		
3	Database Management systems	18B11Cl313		
4	Probability & Statistics	18B11MA313		
5	Python programming Lab	18B17Cl374		
6	Object Oriented Systems and Programming Lab	18B17Cl371		
7	Database Management Systems Lab	18B17Cl373		
8	IT Workshop (SciLab/MATLAB) Lab	18B17Cl372		
9	Life Skills and Interpersonal Dynamics	23B11HS311		
10	Computational Fundamentals for Optimization	24B11Cl311		
11	Computational Fundamentals for Optimization Lab	24B17Cl371		
12	Information and Cyber Security Foundations	24B11Cl312		
13	Information and Cyber Security Foundations Lab	24B17Cl372		
BTECH (CSE) 4th SEMESTER				
1	Discrete Computational Mathematics	18B11Cl414		
2	Modeling and Simulation Techniques	18B11Cl413		
	<u> </u>			
3	Operating Systems	18B11Cl411		

5	Environmental Studies	23B11GE411	
6	Finance & Accounts	18B11HS411	
7	Data Simulation Lab	18B17CI473	
8	Operating System Lab	18B17Cl471	
9	Design and Analysis of Algorithms Lab	18B17Cl472	
10	Web Tech Lab	18B17CI474	
	BTECH (CSE) 5th SEMESTER		
1	Computer Graphics	18B11Cl515	
2	Science Elective		
3	Formal Language & Automata Theory	18B11Cl513	
4	Computer Organization and Architecture	18B11Cl514	
5	Project Management and Entrepreneurship	18B11HS511	
6	Computer Graphics Lab	18B17CI575	
7	Computer Organization and Architecture Lab	18B17CI574	
8	Multimedia Lab	18B1WCI575	
	BTECH (CSE) 6th SEMESTER		
1	Compiler Design	18B11Cl612	
2	Computer Networks	18B11Cl611	
3	Compiler Design Lab	18B17Cl672	
4	Computer Networks lab	18B17Cl671	
5	Minor Project	18B19Cl691	
	BTECH (CSE) 7th SEMESTER		
1	Elective IV		
2	Elective IV Lab		
3	Elective V		
4	Open Elective II / MOOC Course*		
5	Open Elective III / MOOC Course*		
6	Indian Constitution	18B11HS711	
7	Major Project - I	18B19Cl791	
BTECH (CSE) 8th SEMESTER			
1	Elective VI		
2	Open Elective IV / MOOC Course*		

3	Open Elective V / MOOC Course*				
4	Major Project - II	18B19Cl891			
	BTECH (CSE) ELECTIVE-I				
1	Data Compression	18B1WCI532			
2	Principal of Programming Languages	18B1WCI533			
3	Java Programming	18B1WCI534			
4	Information Theory & Coding	18B1WCI531			
5	Data Compression Lab	18B1WCI572			
6	Principal of Programming Languages Lab	18B1WCI573			
7	Java Programming Lab	18B1WCI574			
8	Information Theory & Coding Lab	18B1WCI571			
9	Foundation for Data Science and Visualization	20B1WCI531			
10	Data Science and Visualization Lab	20B1WCI571			
11	Big Data using Hadoop	19B1WCI531			
12	Big Data using Hadoop Lab	19B1WCI571			
13	Image Analysis and Pattern Recognition	19B1WCI532			
14	Image Analysis and Pattern Recognition Lab	19B1WCI572			
15	Cloud Computing: Concepts, Technology & Architecture	20B1WCI532			
16	Cloud Computing: Concepts, Technology & Architecture Lab	20B1WCI572			
17	Human-Computer Interaction	19B1WCI533			
18	Human-Computer Interaction Lab	19B1WCI573			
19	Social Media	19B1WCI534			
20	Social Media Lab (Node XL)	19B1WCI574			
	BTECH (CSE) ELECTIVE-II				
1	Software Testing Fundamentals	18B1WCl633			
2	Machine Learning	18B1WCl634			
3	C# and VB.NET	18B1WCl637			
4	Data Structure and Software Design	18B1WCl631			
5	Software Testing Fundamentals Lab	18B1WCI673			
6	Machine Learning Lab	18B1WCI674			
7	C# and VB.NET Lab	18B1WCI677			
8	Data Structure and Software Design Lab	18B1WCI671			

9	Digital Forensics	19B1WCl631	
10	Digital Forensics lab	19B1WCl671	
11	Computer Animation	19B1WCl633	
12	Computer Animation Lab	19B1WCl673	
13	Computer and Robot Vision	19B1WCl634	
14	Computer and Robot Vision lab	19B1WCl674	
15	Computability, Complexity & Algorithms	19B1WCl636	
16	Computability, Complexity & Algorithms Lab	19B1WCI676	
17	Statistics and Data Science	19B1WCl638	
18	Statistics and Data Science Lab	19B1WCI678	
	BTECH (CSE) ELECTIVE-III		
1	Pattern Recognition	18B1WCl638	
2	Data Mining & Data Warehousing	18B1WCl635	
3	Parallel and Distributed Algorithms	18B1WCl632	
4	Digital Image processing	18B1WCl636	
5	Pattern Recognition Lab	18B1WCI678	
6	Data Mining & Data Warehousing Lab	18B1WCI675	
7	Parallel and Distributed Algorithms Lab	18B1WCI672	
8	Digital Image processing Lab	18B1WCI676	
9	Information Security	19B1WCl632	
10	Information Security Lab	19B1WCI672	
11	From Graph to Knowledge Graph	20B1WCI732	
12	From Graph to Knowledge Graph Lab	20B1WCI772	
13	Architecting Distributed Cloud Applications	19B1WCl635	
14	Architecting Distributed Cloud Applications Lab	19B1WCl675	
15	Statistics and Exploratory Data Analytics	19B1WCl637	
16	Statistics and Exploratory Data Analytics Lab	19B1WCl677	
BTECH (CSE) ELECTIVE-IV			
1	Cryptography& network security	18B1WCI734	
2	Advanced Algorithms	18B1WCI743	
3	R-Programming	18B1WCI741	
4	Artificial Intelligence	18B1WCI742	

5	Cryptography& network security lab	18B1WCI774
6	Advanced Algorithms Lab	18B1WCI773
7	R-Programming Lab	18B1WCI771
8	Artificial Intelligence Lab	18B1WCI772
9	Computational Data Analysis	19B1WCI731
10	Computational Data Analysis lab	19B1WCI771
11	Game Development and Design	19B1WCI732
12	Game Development Lab	19B1WCI772
	BTECH (CSE) ELECTIVE-V	
1	Storage Networks	18B1WCI736
2	Internet of Things	18B1WCI738
3	Mobile Computing	18B1WCI735
4	Cloud Computing	18B1WCI737
5	Computational Techniques and Algorithms in Engineering	18B1WCI740
6	Information Auditing & Risk Management	19B1WCI736
7	Optimization Methods in Business Analytics	19B1WCI737
8	Computer Vision	18B1WCI840
9	Introduction to Deep Learning	19B1WCI738
	BTECH (CSE) ELECTIVE-VI	
1	Data Analytics	18B1WCI843
2	BIG DATA	18B1WCI844
3	Network Management	18B1WCI845
4	Graph Theory	18B1WCI846
5	Ethics and Information Technology	19B1WCI831
6	Social and Information Network Analysis	18B1WCI832
7	Probabilistic Graphical Models	19B1WCI832
8	Information Modeling	19B1WCI833
9	Information Visualization	19B1WCI834
10	Cloud Computing Security	19B1WCI835
11	Knowledge-Based AI: Cognitive Systems	19B1WCI836
12	Reinforcement Learning	19B1WCI837
13	Machine Learning Engineering for Production Systems	21B1WCl833

BTECH (CSE) OPEN ELECTIVE II (7th Semester)			
1	Introduction to C++ Programming	19B1WCI733	
2	Object-Oriented Technologies using Java	19B1WCI734	
3	Software Testing Methodologies	19B1WCI735	
4	Introduction to C++ Programming Lab	19B1WCI773	
5	Object-Oriented Technologies using Java Lab	19B1WCI774	
6	Software Testing Methodologies Lab	19B1WCI775	
BTECH (CSE) OPEN ELECTIVE III (7th Semester)			
1	ARM based Embedded System Design	18B1WCI735	
2	Software Defined Network	19B1WCI739	
3	Introduction to Statistical learning	19B1WCI740	
	BTECH (CSE) OPEN ELECTIVE IV (8th Semester)		
1	Principles of Distributed Database Systems	19B1WCI838	
2	Foundations of Blockchain	19B1WCI839	
3	Computational Biology	19B1WCI840	
4	Digital Twin – Fundamental Concepts of Application in Advanced Manufacturing	21B1WCl831	
BTECH (CSE) OPEN ELECTIVE V (8th Semester)			
1	Wireless Sensor Networks: Protocols and Applications	19B1WCI841	
2	Service Oriented Architecture	19B1WCI842	
3	Multimedia Systems and Applications	19B1WCI843	
4	Affective Computing	21B1WCl832	

• Course Structure (Information Technology)

S.No	Course Name	Couese code	
BTECH (IT) 1st SEMESTER			
1	English	21B11HS111	
2	Engineering Mathematics -1	18B11MA111	
3	Engineering Physics-I	18B11PH111	
4	Programming for Problem Solving-II	19B11CI111	
5	Workshop Practices	18B17GE171	
6	Engineering Graphics	18B17GE173	
7	Engineering Physics Lab-I	18B17PH171	

8	Programming for Problem Solving Lab- II	19B17CI171		
9	English Lab	21B17HS171		
10	Mandatory Induction Program	18B17GE172		
	BTECH (IT) 2nd SEMESTER	,		
1	Engineering Mathematics -II	18B11MA211		
2	Engineering Physics-II	18B11PH211		
3	Engineering Physics Lab - II	18B11PH271		
4	Electrical Sciences	18B11EC211		
5	Electrical Sciences Lab	18B17EC271		
6	Engineering Graphics	18B17GE173		
7	Workshop Practices	18B17GE171		
8	Data Structures and Algorithms	18B11Cl211		
9	Data Structures and Algorithms Lab	18B17Cl271		
10	Life Skills & Effective Communication	21B11HS211		
11	Life Skills & Effective Communication	21B17HS271		
	BTECH (IT) 3rd SEMESTER	·		
1	Python Programming with Raspberry Pi	18B11Cl315		
2	Object Oriented Systems and Programming	18B11Cl311		
3	Database Management systems	18B11Cl313		
4	Probability & Statistics	18B11MA313		
5	Interpersonal Dynamics, Values and Ethics	21B11HS312		
6	Python programming with Raspberry Pi Lab	18B17Cl375		
7	Object Oriented Systems and Programming	18B17Cl371		
,	Lab	1001/03/1		
8	Database Management Systems Lab	18B17Cl373		
9	IT Workshop (SciLab/MATLAB) Lab	18B17Cl372		
10	Professional Communication Practice	21B11HS311		
	BTECH (IT) 4th SEMESTER			
1	Discrete Computational Mathematics	18B11Cl414		
2	Modeling and Simulation Techniques	18B11Cl413		
3	Operating Systems	18B11Cl411		
4	Software Engineering Practices	19B11Cl411		

5	Environmental Studies	18B11GE411	
6	Finance & Accounts	18B11HS411	
7	Data Simulation Lab	18B17Cl473	
8	Operating System Lab	18B17Cl471	
9	Software Engineering Practices Lab	19B17Cl471	
10	Web Tech Lab	18B17CI474	
	BTECH (IT) 5th SEMESTER		
1	Information Systems	18B11Cl512	
2	Science Elective		
3	Advanced Java	18B11Cl511	
4	Computer Organization and Architecture	18B11Cl514	
5	Project Management and Entrepreneurship	18B11HS511	
6	Information Systems Lab	18B17Cl572	
7	Computer Organization and Architecture Lab	18B17Cl574	
8	Advanced Java Lab	18B17Cl571	
BTECH (IT) 6th SEMESTER			
1	Compiler Design	18B11Cl612	
2	Computer Networks	18B11Cl611	
3	Compiler Design Lab	18B17Cl672	
4	Computer Networks lab	18B17Cl671	
5	Minor Project	18B19Cl691	
	BTECH (IT) 7th SEMESTER		
1	Elective IV		
2	Elective IV Lab		
3	Elective V		
4	Open Elective II / MOOC Course*		
5	Open Elective III / MOOC Course*		
6	Indian Constitution	18B11HS711	
7	Major Project - I	18B19CI791	
BTECH (IT) 8th SEMESTER			
1	Elective VI		
2	Open Elective IV / MOOC Course*		

3	Open Elective V / MOOC Course*			
4	Major Project - II	18B19Cl891		
	BTECH (IT) ELECTIVE-I			
1	Data Compression	18B1WCI532		
2	Principal of Programming Languages	18B1WCI533		
3	Java Programming	18B1WCI534		
4	Information Theory & Coding	18B1WCI531		
5	Data Compression Lab	18B1WCI572		
6	Principal of Programming Languages Lab	18B1WCI573		
7	Java Programming Lab	18B1WCI574		
8	Information Theory & Coding Lab	18B1WCI571		
9	Foundation for Data Science and Visualization	20B1WCI531		
10	Data Science and Visualization Lab	20B1WCI571		
11	Big Data using Hadoop	19B1WCI531		
12	Big Data using Hadoop Lab	19B1WCI571		
13	Image Analysis and Pattern Recognition	19B1WCI532		
14	Image Analysis and Pattern Recognition Lab	19B1WCI572		
15	Cloud Computing: Concepts, Technology & Architecture	20B1WCI532		
16	Cloud Computing: Concepts, Technology & Architecture Lab	20B1WCI572		
17	Human-Computer Interaction	19B1WCI533		
18	Human-Computer Interaction Lab	19B1WCI573		
19	Social Media	19B1WCI534		
20	Social Media Lab (Node XL)	19B1WCI574		
	BTECH (IT) ELECTIVE-II			
1	Software Testing Fundamentals	18B1WCI633		
2	Machine Learning	18B1WCI634		
3	C# and VB.NET	18B1WCl637		
4	Data Structure and Software Design	18B1WCl631		
5	Software Testing Fundamentals Lab	18B1WCl673		
6	Machine Learning Lab	18B1WCI674		
7	C# and VB.NET Lab	18B1WCI677		
8	Data Structure and Software Design Lab	18B1WCI671		

9	Digital Forensics	19B1WCl631	
10	Digital Forensics lab	19B1WCI671	
11	Computer Animation	19B1WCl633	
12	Computer Animation Lab	19B1WCl673	
13	Computer and Robot Vision	19B1WCl634	
14	Computer and Robot Vision lab	19B1WCI674	
15	Computability, Complexity & Algorithms	19B1WCl636	
16	Computability, Complexity & Algorithms Lab	19B1WCl676	
17	Statistics and Data Science	19B1WCl638	
18	Statistics and Data Science Lab	19B1WCl678	
	BTECH (IT) ELECTIVE-III		
1	Pattern Recognition	18B1WCl638	
2	Data Mining & Data Warehousing	18B1WCl635	
3	Parallel and Distributed Algorithms	18B1WCl632	
4	Digital Image processing	18B1WCI636	
5	Pattern Recognition Lab	18B1WCI678	
6	Data Mining & Data Warehousing Lab	18B1WCI675	
7	Parallel and Distributed Algorithms Lab	18B1WCl672	
8	Digital Image processing Lab	18B1WCI676	
9	Information Security	19B1WCl632	
10	Information Security Lab	19B1WCI672	
11	From Graph to Knowledge Graph	20B1WCI732	
12	From Graph to Knowledge Graph Lab	20B1WCI772	
13	Architecting Distributed Cloud Applications	19B1WCI635	
14	Architecting Distributed Cloud Applications Lab	19B1WCI675	
15	Statistics and Exploratory Data Analytics	19B1WCl637	
16	Statistics and Exploratory Data Analytics Lab	19B1WCI677	
BTECH (IT) ELECTIVE-IV			
1	Cryptography& network security	18B1WCI734	
2	Advanced Algorithms	18B1WCI743	
3	R-Programming	18B1WCI741	
4	Artificial Intelligence	18B1WCI742	

6 Advanced Algorithms Lab 18B1WCI773 7 R-Programming Lab 18B1WCI771 8 Artificial Intelligence Lab 18B1WCI772 9 Computational Data Analysis 19B1WCI731 10 Computational Data Analysis lab 19B1WCI771 11 Game Development and Design 19B1WCI772 12 Game Development Lab 19B1WCI772 BTECH (IT) ELECTIVE-V 1 Storage Networks 18B1WCI736 2 Internet of Things 18B1WCI738 3 Mobile Computing 18B1WCI735 4 Cloud Computing 18B1WCI737 5 Computational Techniques and Algorithms in Engineering 18B1WCI736 6 Information Auditing & Risk Management 19B1WCI736 7 Optimization Methods in Business Analytics 19B1WCI737 8 Computer Vision 18B1WCI738 9 Introduction to Deep Learning 19B1WCI738 1 Data Analytics 18B1WCI840 2 BIG DATA 18B1WCI844 3 Network Management 18B1WCI844 4 Graph Theory 18B1WCI845 5 Ethics and Information Network Analysis 18B1WCI832 7 Probabilistic Graphical Models 19B1WCI833 9 Information Noteling 19B1WCI833 10 Cloud Computing Security 19B1WCI835 11 Knowledge-Based Al: Cognitive Systems 19B1WCI837 13 Machine Learning 19B1WCI837 13 Machine Learning 19B1WCI837	5	Cryptography& network security lab	18B1WCI774
8 Artificial Intelligence Lab 18B1WCI772 9 Computational Data Analysis 19B1WCI731 10 Computational Data Analysis lab 19B1WCI771 11 Game Development and Design 19B1WCI732 12 Game Development Lab 19B1WCI772 BTECH (IT) ELECTIVE-V 1 Storage Networks 18B1WCI736 2 Internet of Things 18B1WCI738 3 Mobile Computing 18B1WCI735 4 Cloud Computing 18B1WCI737 5 Computational Techniques and Algorithms in Engineering 18B1WCI736 6 Information Auditing & Risk Management 19B1WCI736 7 Optimization Methods in Business Analytics 19B1WCI737 8 Computer Vision 18B1WCI840 9 Introduction to Deep Learning 19B1WCI738 BTECH (IT) ELECTIVE-VI 1 Data Analytics 18B1WCI843 2 BIG DATA 18B1WCI844 3 Network Management 18B1WCI844 4 Graph Theory	6	Advanced Algorithms Lab	18B1WCI773
9 Computational Data Analysis 19B1WCI731 10 Computational Data Analysis lab 19B1WCI771 11 Game Development and Design 19B1WCI732 12 Game Development Lab 19B1WCI772 BTECH (IT) ELECTIVE-V 1 Storage Networks 18B1WCI736 2 Internet of Things 18B1WCI738 3 Mobile Computing 18B1WCI735 4 Cloud Computing 18B1WCI737 5 Computational Techniques and Algorithms in Engineering 18B1WCI736 7 Optimization Auditing & Risk Management 19B1WCI736 7 Optimization Methods in Business Analytics 19B1WCI737 8 Computer Vision 18B1WCI840 9 Introduction to Deep Learning 19B1WCI738 BTECH (IT) ELECTIVE-VI 1 Data Analytics 18B1WCI843 2 BIG DATA 18B1WCI844 3 Network Management 18B1WCI844 4 Graph Theory 18B1WCI831 5 Ethics and Information Network	7	R-Programming Lab	18B1WCI771
10 Computational Data Analysis lab 19B1WCI771 11 Game Development and Design 19B1WCI732 12 Game Development Lab 19B1WCI772 BTECH (IT) ELECTIVE-V 1 Storage Networks 18B1WCI736 2 Internet of Things 18B1WCI738 3 Mobile Computing 18B1WCI735 4 Cloud Computing 18B1WCI737 5 Computational Techniques and Algorithms in Engineering 18B1WCI736 7 Optimization Auditing & Risk Management 19B1WCI736 8 Computer Vision 18B1WCI840 9 Introduction Methods in Business Analytics 19B1WCI738 BTECH (IT) ELECTIVE-VI 1 Data Analytics 18B1WCI840 9 Introduction to Deep Learning 19B1WCI843 2 BIG DATA 18B1WCI843 2 BIG DATA 18B1WCI844 3 Network Management 18B1WCI846 4 Graph Theory 18B1WCI846 5 Ethics and Information Network Analysis	8	Artificial Intelligence Lab	18B1WCI772
11 Game Development and Design 12 Game Development Lab 13	9	Computational Data Analysis	19B1WCI731
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BTECH (IT) ELECTIVE-V 1 Storage Networks 18B1WCI736 2 Internet of Things 18B1WCI738 3 Mobile Computing 18B1WCI735 4 Cloud Computing 18B1WCI737 5 Computational Techniques and Algorithms in Engineering 18B1WCI740 6 Information Auditing & Risk Management 19B1WCI736 7 Optimization Methods in Business Analytics 19B1WCI737 8 Computer Vision 18B1WCI840 9 Introduction to Deep Learning 19B1WCI738 BTECH (IT) ELECTIVE-VI 1 Data Analytics 18B1WCI843 2 BIG DATA 18B1WCI844 3 Network Management 18B1WCI845 4 Graph Theory 18B1WCI846 5 Ethics and Information Technology 19B1WCI831 6 Social and Information Network Analysis 18B1WCI832 7 Probabilistic Graphical Models 19B1WCI833 9 Information Modeling 19B1WCI834 10 Cloud Computing Security 11 Knowledge-Based Al: Cognitive Systems 19B1WCI836 12 Reinforcement Learning 19B1WCI837	11	Game Development and Design	19B1WCI732
1 Storage Networks 2 Internet of Things 3 Mobile Computing 4 Cloud Computing 5 Computational Techniques and Algorithms in Engineering 6 Information Auditing & Risk Management 7 Optimization Methods in Business Analytics 8 Computer Vision 9 Introduction to Deep Learning 1 Data Analytics 1 BIB WCI738 1 BIB WCI738 2 BIG DATA 1 BIB WCI843 3 Network Management 1 BIB WCI844 4 Graph Theory 1 Ethics and Information Technology 1 Social and Information Network Analysis 7 Probabilistic Graphical Models 1 Information Visualization 1 Informa	12	Game Development Lab	19B1WCI772
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3 Mobile Computing 18B1WCI735 4 Cloud Computing 18B1WCI737 5 Computational Techniques and Algorithms in Engineering 18B1WCI740 6 Information Auditing & Risk Management 19B1WCI736 7 Optimization Methods in Business Analytics 19B1WCI737 8 Computer Vision 18B1WCI840 9 Introduction to Deep Learning 19B1WCI738 BTECH (IT) ELECTIVE-VI 1 Data Analytics 18B1WCI843 2 BIG DATA 18B1WCI844 3 Network Management 18B1WCI845 4 Graph Theory 18B1WCI845 5 Ethics and Information Technology 19B1WCI831 6 Social and Information Network Analysis 18B1WCI832 7 Probabilistic Graphical Models 19B1WCI833 9 Information Modeling 19B1WCI833 9 Information Visualization 19B1WCI834 10 Cloud Computing Security 19B1WCI835 11 Knowledge-Based Al: Cognitive Systems 19B1WCI837	1	Storage Networks	18B1WCI736
4 Cloud Computing 18B1WCI737 5 Computational Techniques and Algorithms in Engineering 18B1WCI740 6 Information Auditing & Risk Management 19B1WCI736 7 Optimization Methods in Business Analytics 19B1WCI737 8 Computer Vision 18B1WCI840 9 Introduction to Deep Learning 19B1WCI738 BTECH (IT) ELECTIVE-VI 1 Data Analytics 18B1WCI843 2 BIG DATA 18B1WCI844 3 Network Management 18B1WCI845 4 Graph Theory 18B1WCI845 5 Ethics and Information Technology 19B1WCI831 6 Social and Information Network Analysis 18B1WCI832 7 Probabilistic Graphical Models 19B1WCI833 9 Information Modeling 19B1WCI833 10 Cloud Computing Security 19B1WCI835 11 Knowledge-Based Al: Cognitive Systems 19B1WCI836 12 Reinforcement Learning 19B1WCI837	2	Internet of Things	18B1WCI738
5 Computational Techniques and Algorithms in Engineering 6 Information Auditing & Risk Management 7 Optimization Methods in Business Analytics 8 Computer Vision 9 Introduction to Deep Learning 19B1WCI738 BTECH (IT) ELECTIVE-VI 1 Data Analytics 18B1WCI843 2 BIG DATA 18B1WCI844 3 Network Management 18B1WCI845 4 Graph Theory 18B1WCI846 5 Ethics and Information Technology 6 Social and Information Network Analysis 7 Probabilistic Graphical Models 19B1WCI832 8 Information Wodeling 19B1WCI833 9 Information Visualization 19B1WCI835 11 Knowledge-Based Al: Cognitive Systems 19B1WCI837	3	Mobile Computing	18B1WCI735
6 Information Auditing & Risk Management 19B1WCI736 7 Optimization Methods in Business Analytics 19B1WCI737 8 Computer Vision 18B1WCI840 9 Introduction to Deep Learning 19B1WCI738 BTECH (IT) ELECTIVE-VI 1 Data Analytics 18B1WCI843 2 BIG DATA 18B1WCI844 3 Network Management 18B1WCI845 4 Graph Theory 18B1WCI846 5 Ethics and Information Technology 19B1WCI831 6 Social and Information Network Analysis 18B1WCI832 7 Probabilistic Graphical Models 19B1WCI833 9 Information Visualization 19B1WCI833 10 Cloud Computing Security 19B1WCI835 11 Knowledge-Based AI: Cognitive Systems 19B1WCI836 12 Reinforcement Learning 19B1WCI837	4	Cloud Computing	18B1WCI737
7 Optimization Methods in Business Analytics 19B1WCI737 8 Computer Vision 18B1WCI840 9 Introduction to Deep Learning 19B1WCI738 BTECH (IT) ELECTIVE-VI 1 Data Analytics 18B1WCI843 2 BIG DATA 18B1WCI844 3 Network Management 18B1WCI845 4 Graph Theory 18B1WCI846 5 Ethics and Information Technology 19B1WCI831 6 Social and Information Network Analysis 18B1WCI832 7 Probabilistic Graphical Models 19B1WCI833 9 Information Modeling 19B1WCI833 9 Information Visualization 19B1WCI834 10 Cloud Computing Security 19B1WCI835 11 Knowledge-Based Al: Cognitive Systems 19B1WCI836 12 Reinforcement Learning 19B1WCI837	5	Computational Techniques and Algorithms in Engineering	18B1WCI740
8 Computer Vision 18B1WCI840 9 Introduction to Deep Learning 19B1WCI738 BTECH (IT) ELECTIVE-VI 1 Data Analytics 18B1WCI843 2 BIG DATA 18B1WCI844 3 Network Management 18B1WCI845 4 Graph Theory 18B1WCI846 5 Ethics and Information Technology 19B1WCI831 6 Social and Information Network Analysis 18B1WCI832 7 Probabilistic Graphical Models 19B1WCI832 8 Information Modeling 19B1WCI833 9 Information Visualization 19B1WCI834 10 Cloud Computing Security 19B1WCI835 11 Knowledge-Based Al: Cognitive Systems 19B1WCI836 12 Reinforcement Learning 19B1WCI837	6	Information Auditing & Risk Management	19B1WCI736
BTECH (IT) ELECTIVE-VI 1 Data Analytics 18B1WCI843 2 BIG DATA 18B1WCI844 3 Network Management 18B1WCI845 4 Graph Theory 18B1WCI846 5 Ethics and Information Technology 19B1WCI831 6 Social and Information Network Analysis 18B1WCI832 7 Probabilistic Graphical Models 19B1WCI833 9 Information Visualization 19B1WCI834 10 Cloud Computing Security 19B1WCI835 11 Knowledge-Based AI: Cognitive Systems 19B1WCI837	7	Optimization Methods in Business Analytics	19B1WCI737
BTECH (IT) ELECTIVE-VI 1 Data Analytics 18B1WCl843 2 BIG DATA 18B1WCl844 3 Network Management 18B1WCl845 4 Graph Theory 18B1WCl846 5 Ethics and Information Technology 19B1WCl831 6 Social and Information Network Analysis 18B1WCl832 7 Probabilistic Graphical Models 19B1WCl832 8 Information Modeling 19B1WCl833 9 Information Visualization 19B1WCl834 10 Cloud Computing Security 19B1WCl835 11 Knowledge-Based AI: Cognitive Systems 19B1WCl836 12 Reinforcement Learning 19B1WCl837	8	Computer Vision	18B1WCI840
1 Data Analytics 18B1WCl843 2 BIG DATA 18B1WCl844 3 Network Management 18B1WCl845 4 Graph Theory 18B1WCl846 5 Ethics and Information Technology 19B1WCl831 6 Social and Information Network Analysis 18B1WCl832 7 Probabilistic Graphical Models 19B1WCl832 8 Information Modeling 19B1WCl833 9 Information Visualization 19B1WCl834 10 Cloud Computing Security 19B1WCl835 11 Knowledge-Based AI: Cognitive Systems 19B1WCl836 12 Reinforcement Learning 19B1WCl837	9	Introduction to Deep Learning	19B1WCI738
2 BIG DATA 18B1WCI844 3 Network Management 18B1WCI845 4 Graph Theory 18B1WCI846 5 Ethics and Information Technology 19B1WCI831 6 Social and Information Network Analysis 18B1WCI832 7 Probabilistic Graphical Models 19B1WCI832 8 Information Modeling 19B1WCI833 9 Information Visualization 19B1WCI834 10 Cloud Computing Security 19B1WCI835 11 Knowledge-Based Al: Cognitive Systems 19B1WCI836 12 Reinforcement Learning 19B1WCI837		BTECH (IT) ELECTIVE-VI	
3 Network Management 18B1WCl845 4 Graph Theory 18B1WCl846 5 Ethics and Information Technology 19B1WCl831 6 Social and Information Network Analysis 18B1WCl832 7 Probabilistic Graphical Models 19B1WCl832 8 Information Modeling 19B1WCl833 9 Information Visualization 19B1WCl834 10 Cloud Computing Security 19B1WCl835 11 Knowledge-Based Al: Cognitive Systems 19B1WCl836 12 Reinforcement Learning 19B1WCl837	1	Data Analytics	18B1WCI843
4 Graph Theory 18B1WCl846 5 Ethics and Information Technology 19B1WCl831 6 Social and Information Network Analysis 18B1WCl832 7 Probabilistic Graphical Models 19B1WCl832 8 Information Modeling 19B1WCl833 9 Information Visualization 19B1WCl834 10 Cloud Computing Security 19B1WCl835 11 Knowledge-Based Al: Cognitive Systems 19B1WCl836 12 Reinforcement Learning 19B1WCl837	2	BIG DATA	18B1WCI844
5 Ethics and Information Technology 19B1WCl831 6 Social and Information Network Analysis 18B1WCl832 7 Probabilistic Graphical Models 19B1WCl832 8 Information Modeling 19B1WCl833 9 Information Visualization 19B1WCl834 10 Cloud Computing Security 19B1WCl835 11 Knowledge-Based Al: Cognitive Systems 19B1WCl836 12 Reinforcement Learning 19B1WCl837	3	Network Management	18B1WCI845
6 Social and Information Network Analysis 18B1WCl832 7 Probabilistic Graphical Models 19B1WCl832 8 Information Modeling 19B1WCl833 9 Information Visualization 19B1WCl834 10 Cloud Computing Security 19B1WCl835 11 Knowledge-Based Al: Cognitive Systems 19B1WCl836 12 Reinforcement Learning 19B1WCl837	4	Graph Theory	18B1WCI846
7 Probabilistic Graphical Models 19B1WCl832 8 Information Modeling 19B1WCl833 9 Information Visualization 19B1WCl834 10 Cloud Computing Security 19B1WCl835 11 Knowledge-Based Al: Cognitive Systems 19B1WCl836 12 Reinforcement Learning 19B1WCl837	5	Ethics and Information Technology	19B1WCI831
8 Information Modeling 19B1WCl833 9 Information Visualization 19B1WCl834 10 Cloud Computing Security 19B1WCl835 11 Knowledge-Based AI: Cognitive Systems 19B1WCl836 12 Reinforcement Learning 19B1WCl837	6	Social and Information Network Analysis	18B1WCI832
9 Information Visualization 19B1WCl834 10 Cloud Computing Security 19B1WCl835 11 Knowledge-Based AI: Cognitive Systems 19B1WCl836 12 Reinforcement Learning 19B1WCl837	7	Probabilistic Graphical Models	19B1WCI832
10Cloud Computing Security19B1WCl83511Knowledge-Based AI: Cognitive Systems19B1WCl83612Reinforcement Learning19B1WCl837	8	Information Modeling	19B1WCI833
11 Knowledge-Based AI: Cognitive Systems 19B1WCI836 12 Reinforcement Learning 19B1WCI837	9	Information Visualization	19B1WCI834
12 Reinforcement Learning 19B1WCl837	10	Cloud Computing Security	19B1WCI835
Ţ ,	11	Knowledge-Based AI: Cognitive Systems	19B1WCI836
13 Machine Learning Engineering for Production Systems 21B1WCl833	12	Reinforcement Learning	19B1WCI837
	13	Machine Learning Engineering for Production Systems	21B1WCI833

	BTECH (IT) OPEN ELECTIVE II (7th Semester)		
1	Introduction to C++ Programming	19B1WCI733	
2	Object-Oriented Technologies using Java	19B1WCI734	
3	Software Testing Methodologies	19B1WCI735	
4	Introduction to C++ Programming Lab	19B1WCI773	
5	Object-Oriented Technologies using Java Lab	19B1WCI774	
6	Software Testing Methodologies Lab	19B1WCI775	
	BTECH (IT) OPEN ELECTIVE III (7th Semester)		
1	ARM based Embedded System Design	18B1WCI735	
2	Software Defined Network	19B1WCI739	
3	Introduction to Statistical learning	19B1WCI740	
	BTECH (IT) OPEN ELECTIVE IV (8th Semester)		
1	Principles of Distributed Database Systems	19B1WCI838	
2	Foundations of Blockchain	19B1WCI839	
3	Computational Biology	19B1WCI840	
4	Digital Twin – Fundamental Concepts of Application in Advanced Manufacturing	21B1WCl831	
	BTECH (IT) OPEN ELECTIVE V (8th Semester)		
1	Wireless Sensor Networks: Protocols and Applications	19B1WCI841	
2	Service Oriented Architecture	19B1WCI842	
3	Multimedia Systems and Applications	19B1WCI843	
4	Affective Computing	21B1WCl832	

4.3.3.2 Post Graduate Program

• M.Tech. (Computer Science Engineering)

Course Structure (Computer Science Engineering)

S.No	Course Name	Couese code
	MTECH (CSE) (1st Semester)	
1	Advanced Data Structures	22M11Cl111
2	Mathematical Foundations for Data Science	22M11MA111
3	Introduction to Data Science	22M11Cl112
4	DE-I	

5	DE-II			
6	DE-III			
7	Advanced Data Structures Lab	22M17Cl171		
8	Data Science Lab	22M17Cl172		
9	Mathematical Foundations for Data Science Lab	22M17MA171		
	MTECH (CSE) (2nd Semester)	I		
1	Soft computing	22M11Cl211		
2	Deep Learning Techniques	22M11Cl212		
3	Big Data Analytics	22M11Cl213		
4	DE-IV			
5	DE-V			
6	DE-VI			
7	Soft Computing Lab	22M17Cl271		
8	Deep Learning Techniques Lab	22M17Cl272		
9	Big Data using Hadoop Lab	22M17Cl273		
	MTECH (CSE) (3rd Semester)			
1	Seminar	22M19Cl491		
2	Project, Part I	22M19Cl492		
	MTECH (CSE) (4th Semester)			
1	Seminar	22M19Cl491		
2	Project, Part II	22M19Cl492		
	MTECH (CSE) (Electives)			
1	Data Storage Technologies - and Data	22M1WCI134		
2	Data Warehousing Mining -	22M1WCI131		
3	Data Visualization	22M1WCI136		
4	Artificial Intelligence Techniques	22M1WCI132		
5	Introduction to Statistical Learning -	22M1WCI133		
6	Cryptography and Information System security	22M1WCI135		
7	Advanced Computational Techniques	22M1WCl231		
8	Medical Image Analysis	22M1WCl232		
9	Knowledge-Based AI: Cognitive Systems	22M1WCl233		
10	Social and Information Network Analysis	22M1WCl234		
11	Reinforcement Learning	22M1WCl235		
12	Natural Language Processing	22M1WCI236		

4.3.3.3 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.

4.3.4 Lab Facilities

4.3.4.1 **New Labs**

Lab No.	Lab Name
	NVidia Supported: Embeded System Lab

4.3.4.2 Equipments details of Computer Science Lab:

S. N	Lab Name	System with Configuration	Nos
		HP 280 G2 MT (8GB RAM, 1TB HDD, Intel core i5@ 6500 GHZ, Windows 10 Pr. 64 bit)	60
1	Computer Lab3	Dell Vostro core i5 7400, 8GB RAM, 1TB HDD, Windows 10 Pro 64 bit	1
		Dell Precision Tower (8GB RAM, 1TB HDD, Intel Xeon Processor @ 6500 GHZ, Windows 10 Pr. 64 bit)	1
2	Computer Lab4	HP 280 G2 MT (8GB RAM, 1TB HDD, Intel core i5@ 6500 GHZ, Windows 10 Pr. 64 bit)	49
3	Computer Lab5	HP Pro Tower 400G9 PCI Desktop PC Processor 12th Gen Intel Core i7,12700x20 Operating system Ubuntu 22.04 LTS, 64 bit, 16GB RAM, 500GB SSD Graphics Mesa Intel UHD graphics 770 (ADL-SGTI)	29
		Dell Optiplex 5000 Desktop PC Processor 12th Gen Core i7 Intel Core i7,12700 @2.10 GHz, Operating System Windows 11 Pro, 64-bit, 16 GB RAM, 500GB SSD	16
		HP Pro Tower 280G9 Processor i7-13700, 13th gen, 16GB RAM, 500GB SSD Windows11 Pro 64 Bit	17

	т	1	1
		DELL VOSTRO 3669/INTEL CORE i5 @ 3.00 GHZ, 8GB RAM,1TB HDD	25
4 Computer Lab6		HP Desktop-Core i5-6500 cpu @3.2 Ghz with 8GB RAM and 1 TB HDD, Windows 10 Pro 64 bit	20
	Computer Lab6	Dell Workstation-Intel Xeon @ 3.3 GHZ, 64-bit, 8 GB RAM, I	
		TB Hard disk, DELL tower 3420, Windows 10 Pro 64 bit	1
		HP Pro Tower 280G9 Processor i7-13700, 13th gen, 16GB	
		RAM, 500GB SSD Windows11 Pro 64 Bit	3
		Dell 12th Gen Intel(R) Core (TM) i7-12700 2.10 GHz	
		500SDD, 16 GB RAM, Windows 11 Pro	34
		HP PRO TOWER 280G9 DESKTOP i7 13th gen 16gb RAM,	
5	Computer Lab7	500GB SSD, WINDOWS 11 PRO	4
		HP PRO TOWER CORE I7 12th Gen, UHD 770, SSD-	
		500GB, 16 GB RAM, Windows 11 pro 64 bit	5
		Dell Workstation-Intel Xeon @ 3.3 GHZ, 64-bit, 8 GB RAM, 1	
		TB Hard disk, DELL tower 3420, Windos 10 Pro 64 bit	1
		HP PRO TOWER 280G9 DESKTOP i7 13th gen 16gb RAM,	'
		500GB SSD, WINDOWS 11 PRO 64 BIT	7
		HP PRO DESK CORE I7 12th Gen, UHD 770, SSD-500GB,	, , , , , , , , , , , , , , , , , , ,
6	Computer Lab8	16 GB RAM, Windows 11 pro 64 bit	29
		HP PRO TOWER CORE I7 12th Gen, UHD 770, SSD-	23
		500GB, 16 GB RAM, Windows 11 pro 64 bit	35
		Dell Optiplex 5080, i7 10th, 16 GB, HDD-1TB, 16GB RAM,	00
		WINDOWS11 PRO 64 BIT	1
		HP PRO 440-238-G9 ALL IN ONE, i7 13th gen windows 11	'
	Computer Lab9	pro 64 gb. 16gbRam, 500gb ssd	59
		ThinkCentre Core i3-2120 @3.30 GHZ,320 GB HDD, 2 GB	00
		RAM, Windows 7 64 bit	2
7		Dell Vostro 3669 Intel Core i5-7400 CPU@3.0GHZ,1 TB	_
		HDD, 8GB RAM Windows 10 Pro 64 bit	1
		Dell Workstation Intel Xeon e3-1225 V5@3.30GHZ, I TB	
		HDD, 16GB RAM, Windows 10 Pro 64 bit	2
		Dell Vostro Desktop-intel® Core™ i5-7400 CPU@3.00GHz	
		RAM 8 GB 64-bit OS Windows 10 Prof, 1 TB	80
		Dell Optiplex 5080, Desktop-intel® Core™ i7-10700	
8	Computer Lab10	CPU@2.90GHz 2.90GHz RAM 16 GB 64-bit OS Windows 10	
	Joinpator Labro	Prof, 1TB	12
		HP 280 G4 MT 8GB RAM, i7 8th gen 1tb hdd, windows 10	
		pro 64 bit	1
		DELL PRECISION 3460 Desktop intel core i7-	
9	Computer Lab11	12700CPU@2.10 GHZ 16GB RAM, 512 GB SSD, Windows	
	·	11 64 bit	30
		Desktop-Intel Core i5-7400 @ 3.0 GHZ, 64-bit, 1 TB Hard	
		disk, 8GB RAM, Windows 10 Pro. 64 bit	12
10	Computer Lab12	Desktop-intel® Core™ i5-6500 CPU @3.20GHz 3.20 GHz	
		RAM 8GB 64-bit OS (60), 1TB	1
L	1	· //	1

4.3.5 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.	Sh Vijay Kumar	MCA, A LEVEL, APGDIT	Sr. Lab Technician
5.	Sh Hardeep Singh	Diploma in Computer Engg, B.com, MS-CIT, MCA Pursuing	Sr. Lab Technician
6.	Sh Mohan Sharma (Associated with ECE Dept)	BCA, Diploma in H/N,CCNA	Lab Technician
7.	Sh Ranvijai Singh	MA, ADCA, PGDCA	Lab Technician
8.	Sh Ravi Raina	3 Years Diploma in Computer, BCA, MCSE and Network+: Concepts and Application Complete	Lab Assistant
9.	Sh Rajesh Kumar Sahu (Associated with Civil Dept)	3 Years Diploma in Computer Science and Engg., BCA	Lab Assistant
10.	Sh Vineet Paliwal	Diploma In Computer H/W and Networking, BCom	Lab Assistant
11.	Sh Arun Kumar Guleria	BTech CSE, 3-Years Diploma in Computer Engg	Jr. Lab Assistant
12.	Sh. Pramod Kumar	B.Tech. (ECE), Three Year Diploma in ECE, Diploma in Computer Application, Diploma in Computer Programming	Sr. Lab Engineer
13.	Sh. Deep Narayan Tripathi	Three Year Diploma in ECE, COPA (Computer Operator and Programming Assistant)	

4.3.6 Research Projects Sanctioned during the Academic Year/In Progress

S.No.	Project Title	Principal Investigator (PI)	Co-PI	Sponsored Agency	Amount
1.	Development and Promotion of Crop Surveillance System for forecasting Leaf Diseases and Protection against Wild Animals using Artificial Intelligence and IoT	Dr. Pradeep Kumar Gupta	Dr. Ravindara Bhatt	HIMCOSTE	6,20,000
2.	S&T Communication Reseach for Community Knowledge Sharing Informatics and Risk Communication based on Block Chain Technology	Dr. Ruchi Verma	Dr. Pradeep Kumar Gupta	NCSTC	34,87,011
3.	IT based Intervention to enhance access to quality care at doorstep to improve adhrerence of care and reduce adverse events in patients with CVD in model district Shimla	Dr. Ruchi Verma	Dr. P. C Negi	HIMCOSTE	5,70,000
4.	Automated Attendance Monitoring System	Dr. Ekta Gandotra	Dr. Nancy Singla Dr. Deepak Gupta	DRID, JIIT NOIDA	40,000

4.3.7 Conferences, Seminars and Workshops / Faculty Development Program

<u>2023 Seventh International Conference on</u> <u>ImageInformationProcessing (ICIIP-2023)</u>



November 22-24, 2023

Jaypee University of Information Technology Waknaghat, Solan-173234, Himachal Pradesh, INDIA

Edited by

Ruchi Verma, Vipal Sharma, Pankaj Dhiman, Vivek Sehgal, Pradeep Kumar Gupta

Technically Co-Sponsored by:

- IEEE Jaypee University of Information Technology INDIA
- IEEE Delhi Section, INDIA

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4.3.7.1

KeynoteSpeaker#

Prof. (Dr.) Sudhir kumar Barai

Director, BITS Pilani, Pilani Campus at Birla Institute of Technology and Science, Pilani, Rajasthan, India



Sudhirkumar Barai is a Director and Senior Professor of Civil Engineering at BITS Pilani-Pilani cam pus, Rajasthan. He is also a Professor in the Department of Civil Engineering, Indian Institute of Technology, Kharagpur 721 302, India availing lien for the current position from January 2022. In 1995, he obtained Ph. D (Eng.) from Indian Institute of Science, Bangalore, India. He received the degrees of B.E.(Civil) and M.E.(Civil) with specialization in Structural Engineering in 1987 and 1989, respectively, from the Faculty of Engineering, MS University of Baroda, Baroda, India. He was Er skine Visiting Fellow at University ofCanterbury, Christchurch, New Zealand during May-June2008. He was visitingscientist at National University of Singaporeduring May-July2003. He was a recipient of the BOYSCASTfellowship and visited the Department of Civil and Environmental En gineering, Carnegie Mellon University, Pittsburgh, USA during May-November, 2000. He was a post doctoral fellow at the Department of Solid Mechanics, Materials and Structures, Tel Aviv University, Tel Aviv, Israel during February, 1997-July, 1998. His areas of research are Sustainable Construction Materials, Structural Health Monitoring and Computational Intelligence in Engineering. He has published more than 240+ papers in leading international journals and conferences in hisresearch fields. He has co-authored four books- (1) Concrete Fracture Models and Applications (2) Shear Strengthening of T-beam with GFRP: A Systematic Approach and (3) Systematic Approach of Char acterisation and Behaviour of Recycled Aggregate Concrete, (4) Stability and Failure of High Per formance Composite Structures, which have been published by Springer.

Title: Understanding Behaviour of Recycled Aggregate Based Concrete Using Image Processing

Abstract: The presentation discusses the technical limitation of the gray value thresholding technique to detect the voids, aggregate andmortar phases. A two-stage <u>image processing</u> methodologyis pro posed for the segmentation of the three phases of concrete using the X-ray microtomographic im ages. In the first stage, the gray value thresholding technique is used to detect the voids. A machine learning basedtechnique is proposed in the second stage for the segmentation of aggregate and mortar. The training data is used to model a planar decision boundary using thelogistic regression method. For this, the<u>radial distance</u> from the centre of the image, gray value, and gray value of the filtered embossed image features are considered. The accuracy of the model to quantify the voids is validated with the commercial software. The machine learning model based on logistic regression method exhibits very good accuracy in detecting the aggregate.

Prof. (Dr.) Xin-SheYang

Reader in Simulation & Modelling, Middlesex University London, UK

Xin-She Yang obtained his DPhil in Applied Mathematics from the University of Oxford. He then worked at Cambridge University and National Physical Laboratory (UK) as a Senior Research Scientist. Now he is Reader at Middlesex University London, and a co-Editor of the Springer Tracts in Nature-Inspired Computing. He is also an elected Fellow of the Institute of Mathematics and itsApplications. He was the IEEE Computational Intelligence Society (CIS) chair fort heTask Force on Business Intelligence and Knowledge Management (2015 to 2020). He has published more than 300 peer-reviewed research papers with more than 82,000 citations, and he has been on the prestigious list of highly-cited researchers (Web of Sciences) for eight consecutive years (2016-2023).

Title: Nature-Inspired Computing: Algorithms and Open Problems

Abstract: Nature-inspired algorithms such as the particle swarm optimization, bat algorithm and firefly algorithm have been widely used to solve problems in optimization, data mining and com putational intelligence. The number of nature-inspired algorithms has increasedignificantly in recent years. However, it lacks some in-depth mathematical analysis of these algorithms. This talk summarizes the latest developments, and provide some analysis of these algorithms. In addition, some challenges and open problems will also be highlighted.

Prof. (Dr.) Ankit Agrawal

Research Professor ECE), Northwestern University, USA.



Dr. Ankit Agrawal is a Research Professor in the Department of Electrical and Computer Engineering at Northwestern University, USA. He specializes in interdisciplinary artificial intelligence (AI) and big data analytics via high-performance data mining, based on a coherent integration of AI and high-performance computing (HPC) to develop customized AI solutions for big data problems with real world impact. His research has contributed to large-scale data-driven discoveries in various scientific and engineering disciplines, such as materials science, healthcare, social media, and bioinformatics. He has co-authored 200+peer-reviewed publications, co-developed and released 20+ software, de livered 50+invited/keynote talks atmajor conferences, universities, and companies all over the world, been on program/organizing committees of 50+conferences/workshops, and served as a PI/Co-PI on 20+ projects funded by various US federal agencies (e.g., NSF, DOE, AFOSR,

NIST, DARPA, DLA) as well as industry (e.g., Toyota Motor Corporation Japan). He is one of the few computer scientists who are actively introducing Al and advanced data science techniques in the field of materials sci ence and has successfully led several large-scale materials informatics projects. As an example, heis co-leading the Al group at the Center for Hierarchical Materials Design (CHiMaD), which is a \$60 million NIST-sponsored center of excellence. He is also serving as the Editor-in-Chief of Computers, Materials & Continua, and as the Specialty Chief Editor of HPC Applications section of Frontiers in HPC.

Title: Artificial Intelligence and High-Performance Data Mining for Accelerating Science and Engineering

Abstract: The increasing availability of data from the first three paradigms of science (experiments, theory, and simulations), along with advances in artificial intelligence and machine learning (Al/ML) techniques has offered unprecedented opportunities for data-driven science and discovery, which is the fourth paradigm of science. Within the arena of Al/ML, deep learning (DL) has emerged as a game-changing technique in recent years withits abilitytoeffectively work onrawbigdata, bypassing the (otherwise crucial) manual feature engineering step traditionally required for building accurate ML models, thus enabling numerous real-world applications, such as autonomous driving. In this talk, I will present our ongoing research in Al and high-performance data mining, along with illustrative real world scientific applications. In particular, we willdiscussapproachestogainfullyapplyDLonbigdata (byaccelerating DL and enabling deeper learning) as well as on small data (deep transfer learning) in the context of materials science. I will also demonstrate some of the software tools developed in our group.

Prof. Ramakrishnan, Angarai Ganesan

Adj.faculty, IITHyderabad& Prof (Retd.), IISc Bangalore. Principal Advisor, Bhashini Al Solutions Pvt Ltd.



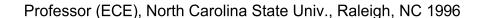
Ramakrishnan A. G. is an adjunct faculty at the Dept. of Heritage Science and Technology at IIT Hyderabad. Earlier, he retired as a professor of Electrical Engineering and Centre for Neuro science, Indian Institute of Science, Bangalore. He obtained his M.Tech. and Ph.D. from IIT Madras. He has graduated 21 Ph. Ds, 16 M. Tech.s by research, and guided over 100 M.Tech. projects at IISc. He is a Fellow of the Indian National Academy of Engineering. As the leader of a research consortium, he was instrumental in creating handwriting recognition technologies for eight Indian languages. He received Manthan award (South East Asia and Asia Pacific) twice for creating audio books for blind students through his OCR and TTS in Tamil and Kannada. His current areas of research include speechrecognition in Indic languages, decoding of imagined words from EEG, brain functional connectivity analysis in modified states of consciousness and the study of the neural control and physiological mecha nisms behindthe health and therapeutic effects of deep breathing. For his work on

evoked potentials from leprosy patients, he received Sir Watt Kay Young Researcher's Prize from the Royal College of Physicians and Surgeons, Glasgow. He was a Senior Research Scientist at Hewlett Packard Research Labs, Bangalore India from May 2002 to August 2003. He is aninvited member of the Senateof IIIT Allahabad, Prayagraj and the Federation of Indian Chambers of Commerce and Industry Indian Language Internet Alliance. He was a member of the Knowledge Commission, Government of Karnataka during 2017-2020.

Title: Feature extraction by the brain and it simplications for image processing

Abstract: Human vision is the most sophisticated pattern recognition system known to us. Human sensory path-ways use very rich, active feedback during the recognition process. For example, at the LGN, 31% of the synapses are due to feedback from the corticothalamic circuits, where as only 7% are due to the inputs from there tinalganglion (feed forward circuits). Also, attention plays a very important role in visual processing and perception by modulating the sensitivity and selectivity. Feedback connections are important in the differentiation no figure from ground, particu-larlyin the case of stimuli of low visibility. Studies on primates have shown that both spatial and feature based attention influence the neuronal representation of visual stimuli. Thus, there is a clear case for attention to finer details, based on feedback from higher level processes. Most machine learning systems use feedback to tune the system parameters during training. However, feedback is seldom used during testing. Ramakrishnan proposed in 2010 and patented the attention-feedback mechanism in machine learning systems for increasing their performance.

Prof. Gaurav Sharma





Gaurav Sharma is a professor in the Departments of Electrical and Computer Engineering, Computer Science, and Biostatistics and Computational Biology, and a Distinguished Researcher in Center of Excellence in Data Science (CoE) at the Goergen Institute for Data Science at the University of Rochester. Hereceived the PhDdegree in Electrical and Computer engineering from NorthCarolina State University, Raleigh in 1996. From 1993through2003, hewas with theXeroxInnovation group inWebster, NY, most recently in the position of Principal Scientist and Project Leader. His research interests include data analytics, cyber physical systems, signal and image processing, computervision, and media security; areas in which he has 55 patents and has authored over 220 journal and conference publications. He served as the Editor-in-Chief for the IEEE Transactions on Image Processing from 2018 through 2020, and for the Journal of Electronic Imaging from 2011 through 2015. He is a member of the IEEE Publications, Products, and Services Board (PSPB) and chaired the IEEE Conference Publications Committee in 2017-18. He is the editor of the Digital Color Imaging Handbook published by CRC press in 2003. Dr. Sharmais a fellow of th eIEEE, a fellow of SPIE, a fellow of the Society for Imaging Science and Technology (IS & amp; T) and has been elected to Sigma Xi, Phi Kappa Phi, and Pi Mu Epsilon. In recognition of his

research contributions, he received an IEEE RegionI technical innovation award in 2008 and the IS & amp; T Bowman award in 2021. Dr. Sharma served as a 2020-2021 Distinguished Lecturer for the IEEE Signal Processing Society.

Title: Visual Data Analytics for Wide Area MotionImagery

Abstract: The widespread availability of high-resolution aerial imagery covering wide geographical areas is spurring a revolution in large scale visual data analytics. Specifically, modern aerial wide area motion imagery (WAMI) platforms capture large high resolution at ratesof 1-3frames per second. Thesequences of images, which individually span several square miles of ground area, represent rich spatio-termporal datasets that are key enablers for new applications. The effectiveness of such analytics can be enhanced by combining WAMI with alternative sources of rich geo-spatial information such as road maps or prior georegistered images. We present results from our recent research in this area covering three topics. First, we describe a novel method for pixel accurate, real-time registration of vector roadmaps to WAMI imagery based on moving vehicle sinthescene. Next, wepresent aframework for trackingWAMIvehicles across multiple frames by using the registered roadmap and a new probabilistic framework that allows us to better estimate associations across multiple frames in a computationally tractable algorithm. Finally, in the third part, we highlight, how we can combine structure from motion and our proposed registration approach to obtain 3D georegistration for use in application such as change detection. We present results on multiple WAMI datasets, including nighttime infrared WAMI imagery, highlighting the effectiveness of the proposed methods through both visual and numerical comparisons.

Dr.S. N. Omkar

Chief Research Scientist, Department of Aerospace Engineeringat Indian Institute of Science, Bangalore.



Dr. S. N. Omkar's research interests includeSatellite image processing, Uninhabited Air Vehicles (UAV), Drone Computing, Nature-inspired algorithms, Biomechanics and Yoga. He is also pursuing several projects and research work in the area of Satellite and UAV image processing; Flood and Disaster Management; and Yoga. He has developed several algorithms and usedthem for a variety of applications like road extraction, flood assessment, crop classification, crop growth analysis, radiation monitoring etc. The other facet of Dr. Omkar's research includes composite design optimization using nature inspired techniques. He has also pioneered in using biomechanical simulation framework for analysis of yogic postures. He has established a laboratory facility towards this. Dr. Omkar is also a celebrated practitioner and eacher of Yoga. He has been conferred the Karnataka State Rajyothsava Award from the Government of Karnataka and the Kempegowda Award from Bruhat Bengaluru Mahanagara Palike for his contributions in the field of Yoga.

Title: Dronecomputing

Abstract: "Drone Computing": In a rapidly advancing world of computing technology and Artificial Intelligence, the significance of drones and satellites in remote sensing cannot be overstated. With their ability to traverse multiple dimensions, drones equipped with AI and satellites boasting large coverage areas are at the forefront of image analytics. Empowered by robust microproces sors and advanced imaging devices, drones have the capacity to capture and process data onthe fly. This includes tasks such as obstacle avoidance, image classification and identification, and agricultural analysis. During this presentation, we will explore various applications, including drone piloting, decoding drone-generated data, and creating high-resolution images by merging drone and satellite data.

Dr. Narendra Londhe

Associate Professor, NIT Raipur.



Dr. Narendra D. Londhe is presently working as Associate Professor in the Department of Electrical Engineering of National Institute of Technology Raipur, Chhattisgarh, India. He completed his B.E. from Amravati University in 2000 followed by M.Tech. and Ph.D. from Indian Institute of Technology Roorkee in the years 2006 and 2011, respectively. He has 14 years of rich experience in academics and research. He has published more than 160 articles in recognized journals, conferences, and books. His main areas of research include medical signal and image processing, biomedical instru mentation, speech signalprocessing, biometrics, intelligent healthcare, brain—computer interface, artificial intelligence, and pattern recognition. He has been awarded by organizations like Taiwan So ciety of Ultrasound in Medicine, Ultrasonics Society of India, and NIT Raipur. He is an active member of different recognized societies from his areas of research including senior membership of IEEE.

Title: Mutliparametric Behavioral Machine Based Pain Assessment

Abstract: Pain assessment is largely explored with a single behavioral parameter (i.e., facial expres sion) but it cannot fully describe the expressiveness of pain. To alleviate the problem of single parameter-based pain assessment systems, a multimodal-based system that combines both behavioral and physiological parameters. In this, the physiological parameter-based pain assessment is quite sensitive to missing data due to the unconstrained bodymovement of the patients. Additionally, these systems are based onbio-sensors which may cause discomfort to the patient in long-term pain monitoring. Hence in entirety, the existing pain severity assessment systems have many shortcom ings:

1. multimodal/multiparametricapproaches are trained on the dataset recorded in constrained settings.

- 2. utilize models with less discriminative capability since these models are trained from scratch and have no prior knowledge of pain.
- 3. only used facial expressions, moaning sounds, and physiological-based parameters for pain detection. The body movement or posture-based pain indicator is one of the crucial cues for pain assessment, but it has remained largely unexplored.
- 4. Finally, no previous work addressed the problem of behavioralmultiparametric pain assessment in an un constrained environment. In contrast, videos are acquired more conveniently and contain rich infor mation related to facial expression, body movement, and pain sounds without causing any discomfort to the patient. Although each pain parameter contains information related to pain, the overall perform ance can be improved by combining their scores. Therefore, in this proposed work, we have imple mented automated pain assessment using a novel multi-stream framework forbehavioural multi parametric pain assessment.

4.3.7.2 <u>Technical Program Committee</u>

S.No.	TPC Name, Affiliation and Country
1	Dr. Vijay Kumar, NIT, Hamirpur, INDIA
2	Dr. Ankit Chaudhary, Truman State University, Missouri
3	Dr. Ghanshayam Singh, University of Johannesburg, SouthAfrica
4	Dr. Prabhat Thakur, University of Johannesburg, SouthAfrica
5	Dr. Pradeep Chauhan, University of Kwazulu Natal, SouthAfrica
6	Dr. Deepak Garg, Bennet University, Noida, INDIA
7	Dr. Seema Verma, Amity University, Noida, INDIA
8	Dr. Om Prakash Singh, UniversitiTeknologi, Malaysia
9	Dr. Sanad AL Maskari, Sohar University, Oman
10	Dr. Razilqbal, College of Computer Information Technology, UAE
11	Dr. Yunyoung Nam, Soonchunhyang University, Asan 31538, Korea
12	Dr. Seema Bawa, Thapar University, Patiala, INDIA
13	Dr. Dinesh Verma, PIET, Panipat, INDIA
14	Dr. Vandana Bhatia, Amity Univrsity, Noida, INDIA
15	Dr. Bharti Saneja, B.R. Ambedkar Govt. College, Dabwali, Sirsa, INDIA

16	Dr.P.P. Shevatekar, Dr. D.Y. Patil Instituteof Engineering, Management & Research, Pune, INDIA
17	Dr. Amit Kamra, GNDEC, Ludhiana, INDIA
18	Dr. Ameur Bennaoui, University of Science and Technology (USTO), Algeria
19	Dr. Ameya Sanzgiri, University at Buffalo, USA
20	Dr. Manoj Sachan, SLIET Longowal, INDIA
21	Dr. Sarbjeet Singh, UIET, Chandigarh, INDIA
22	Dr. Ajay Mittal, UIET, Chandigarh, INDIA
23	Dr. Mohamed Khubeb Siddiqui, Charles Sturt University, Australia
24	Dr. Nick Rushby, Chantry Cottage, England
25	Dr. Anggia Rivani, Universitas Gadjah Mada, Indonesia
26	Dr. Arcangelo Castiglione, University of Salerno, Italy
27	Dr. Manu Sood, H.P. University, Shimla, HP, INDIA
28	Dr. Neelam, YMCA, Faridabad, INDIA
29	Dr. Sukhvir Singh, Inurture, INDIA
30	Dr. Bashar Tahayna, Monash University, Malaysia
31	Dr. Emin Zerman, Trinity College Dublin, Ireland
32	Dr. Eros Pasero, Politecnicodi Torino, Italy
33	Dr. EyhabAl-Masri, University of Washington & UW, USA
34	Dr. Farhad Mehran, University of Surrey, UK
35	Dr. Ferkan Yilmaz, Yıldız Technical University, Turkey
36	Dr. Filbert Juwono, Curtin University Malaysia, Malaysia
37	Dr. Firas A. Raheem, University of Technology- Iraq, Iraq
38	Dr. Mamta Mittal,G.B.Pant Engg.College,Delhi, INDIA
39	Dr. Nitin Goyal, Chitkara University, Punjab, INDIA
40	Dr. Sunil Khattri, Amity University, Noida, INDIA
41	Dr.K.K. Biswas, Bennet University, Noida, INDIA

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42	Dr.Arpan Kumar Kar, IIT Delhi, INDIA
43	Dr. Francisco Bellido-Outeiriño, University of Córdoba, Spain
44	Dr. Francisco Maldonado, American GNC Corporation, USA
45	Dr. Frank Wallhoff, Jade University of Applied Sciences, Germany
46	Dr. Bestoun S. Ahmed, Salahaddin University, KURDISTAN
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59	Dr. Mrityunjay Singh, IIIT Una, INDIA
60	Dr. Geetanjali Rathee, NSUT, Delhi, INDIA
61	Dr. Patricia Arias-Cabarcos, Paderborn University, Germany
62	Dr. Dragana Bajovic, University of NoviSad, Serbia
63	Dr. Claudio Bettini, Universitàdegli Studidi Milano, Italy
64	Dr. Chiara Boldrini, IIT-CNR, Italy
65	Dr. Tristan Braud, The Hong Kong University of Science and Technology, Hong Kong
66	Dr. Jiannong Cao, Hong Kong Polytechnical University, Hong Kong
67	Dr. XiChen, Samsung Electronics, Canada

68	Dr. Yiqiang Chen, Institute of ComputingTechnology
69	Mr. Syed Jaffar Abbas, Ranchi University, INDIA
70	Dr. Rakesh Ahuja, Chitkara University, INDIA
71	Ms. Shruti Arora, TIET Patiala, INDIA
72	Prof. Shakti Arora, PIET Panipat, INDIA
73	Dr. Ravi Kumar Arya, NIT Delhi, INDIA
74	Dr. Vikas Baghel, JUIT Waknaghat, INDIA
75	Dr. Gourav Bathla, UPES Dehradun, INDIA
76	Dr. Pronaya Bhattacharya, Nirma University, INDIA
77	Ms. Megha Chhabra, Sharda University, INDIA
78	Dr. Gaurav Dhiman, Thapar University, INDIA
79	Dr. Ekta Gandotra, JUIT Waknaghat, INDIA
80	Dr. Mayank Goyal, Sharda University, INDIA
81	Dr. Anuj Goel, Chandigarh University, INDIA
82	Ms. Preeti Gulia, MDU Rohtak, INDIA
83	Mr. Gaurav Gupta, Shoolini University, INDIA
84	Dr. Punit Gupta, Manipal University, Jaipur, INDIA
85	Dr. Shruti Jain, JUIT Waknaghat, INDIA
86	Dr. Naveen Jaglan, JUIT Waknaghat, INDIA
87	Dr. Amit Kumar, JUIT Waknaghat, INDIA
88	Mr. Praveen Modi, JUIT Waknaghat, INDIA
89	Mr. Surjeet Singh, JUIT Waknaghat, INDIA
90	Dr. Isha Kansal, Chitkara University, INDIA
91	Dr. Nagesh Kumar, Chitkara University, INDIA
92	Dr. Pradeep Kumar, ABES Ghaziabad, INDIA
93	Dr. Suneet Kumar, MMU Mullana, INDIA
-	

94	Ms. Ritu Aggarwal, MMU Mullana, INDIA
95	Mr. Shyam Akashe, ITM University, INDIA
96	Dr. Chinmay Chakraborty, BITS Mesra, INDIA
97	Mr. Suman De, SAP Labs, INDIA
98	Dr. Mohit Kumar, NIT Jalandhar, INDIA
99	Dr. Mamta Padole, The Maharaja Sayajirao University of Baroda, INDIA
100	Dr. Ashwini Saini, GBPIET Pauri Garhwal, INDIA
101	Dr. Ravindra Sharma, SRHU, INDIA
102	Ms. Gitika Sharma, Chandigarh University, Gharuan, INDIA
103	Ms. Vandana Mohindru, JUIT Waknaghat, INDIA
104	Ms. Diksha Hooda, JUIT, Waknaghat, INDIA
105	Dr. Andrew Chio, University of California, Irvine, USA
106	Dr. Marta Cimitile, Unitelma Sapienza University, Italy
107	Dr. Gabriele Civitarese, University of Milan, Italy
108	Dr. Marilia Curado, University of Coimbra, Portugal
109	Dr. Claudio Cicconetti, National Research Council, Italy
110	Dr. Chelsea Dobbins, The University of Queensland, Australia
111	Dr. Simon Dobson, University of St Andrews, UnitedKingdom
112	Dr. Klaus David, University of Kassel, Germany
113	Dr. Katayoun Farrahi, University of Southampton, United Kingdom
114	Dr. Niroshinie Fernando, Deakin University, Australia
115	Dr. Huber Flores, University of Tartu, Estonia
116	Dr. Hassan Ghasemzadeh, Arizona State University, USA
117	Dr. Sukhpal Singh Gill, Queen Mary University of London, United Kingdom
118	Dr. Ekaterina Gilman, University of Oulu, Finland
119	Dr. Shubham Goel, JUIT, Waknaghat, INDIA

120	Mr. Ashutosh Sharma, Lovely Professional University, INDIA
121	Mr. Sibo Prasad Patro, GIET University, Orissa, INDIA
122	Dr. Victor Toporkov, National Research University, Moscow, RUSSIA
123	Prof. AliWheeb, University of Baghdad
124	Prof. Pradeep Kumar, Maulana Azad National Urdu University
125	Mr. Akhilesh Singh, GLA University, Mathura, INDIA
126	Ms. Aditi Sharma, Delhi Technical University, INDIA
127	Ms. Abhilasha Sharma, NIT Jalandhar, INDIA
128	Ms. Simran Setia, Thapar University, INDIA
129	Ms. Manisha Chahal, PEC University of Technology, INDIA
130	Mrs. Nidhi Sindhwani, GGSIPU Delhi, INDIA
131	Mr. Vipul Sharma, JUIT Waknaghat, INDIA
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134	Mr. Ankit Mundra, Manipal University Jaipur, INDIA
135	Mr. Thaha Mohammed, Aalto University
136	Mr. Krishan Mishra, WIT Dehradun, INDIA
137	Mr. Nabajyoti Mazumdar, Indian School of Mines, Dhanbad, INDIA
138	Mr. Sanjay Madan, C-DAC Mohali, INDIA
139	Mr. Risheek Kumar, BPIT New Delhi, INDIA
140	Mr. MohitK umar, CIT Ranchi, INDIA
141	Mr. Anuj Gupta, ABVGIET Gumma, INDIA
142	Mr. Kamal Garg, Chitkara University, INDIA
143	Mr. Suresh Badhagouni, Vardhaman College of Engineering, Telangana
144	Mr. Boon Chong Ang, INTEL
145	Mr. Rattan Aneja, MMDU Mullana, INDIA

146	Dr. Divakar Yadav, IET Lucknow, INDIA
147	Dr. Mohd Wajid, Aligarh Muslim University, INDIA
148	Dr. Avani Vyas, JUIT Waknaghat, INDIA
149	Dr. Pawan Verma, MIT Art Design and Technology University, INDIA
150	Dr. Amol Vasudeva, JUIT Waknaghat, INDIA
151	Dr. Naveen Tewari, Graphic Era Hill University, Bhimtal, INDIA
152	Dr. Swapnesh Taterh, Amity University, INDIA
153	Dr. Kumara Swamy, CMR Engineering College, Telangana, INDIA
154	Dr. Nancy Singla, JUIT Waknaghat, INDIA
155	Dr. Sunita Singhal, Manipal University Jaipur, INDIA
156	Dr. Simar Preet Singh, Bennett University, Greater Noida, INDIA
157	Dr. Raman Singh, University of the West of Scotland
158	Dr. Tripti Sharma, Chandigarh University, INDIA
159	Dr. Sahil Sharma, JUIT Waknaghat, INDIA
160	Dr. Nitin Sharma, Chandigarh University, INDIA
161	Dr. Aman Sharma, JUIT Waknaghat, INDIA
162	Dr. Rakesh Nath Tiwari, Madanapalle Institute of Technology & Science, Andhra Pradesh, INDIA
163	Dr. Megha Bhushan, DIT University, DehraDun, Uttarakhand, INDIA

4.3.7.3 Conference Session Schedule

Paper ID	Title	Author	Track Name
1570941401	Enhancing the Resolution of Chest X-Ray Images with SRGAN and Sub-Pixel CNN	K Lokeshwar Reddy, Sudharson S, Natarajan B &Theetchenya S A	Track 1: Medical Image DataAnalytics
1570953241	Detection of Brain Tumor Using Novel Convolutional Neural Network with Magnetic Resonance Imaging	Kalpana Devi, Professor Aman Kumar Sharma	Track 1: Medical Image DataAnalytics
1570955016	Mammograms Image Quality Enhancement Using Center Adaptive Median Filter (CEAMF) for Noise and Artifact Removal	Neha Thakur, Pardeep Kumar, Amit Kumar	Track 1: Medical Image DataAnalytics
1570958710	Enhancing Low-Dose CT Imaging Reconstruction Through MLEM andDeep Convolutional Neural Network Priors	Ritu Gothwal, ShailendraTiwari, Shivendra Shivani	Track 1: Medical Image DataAnalytics
1570964148	Enhancing Ovarian Cancer Detection: A Deep Learning Approach with MobileNetV3 and ResNet50	Chetna Vaid Kwatra, Dr. Harpreet Kaur	Track 1: Medical Image DataAnalytics
1570971637	A ResNet-Powered Approach forBrain Tumor Detection with Particle Swarm Optimization	Ramya Polaki and Umamaheshwari Venkatasubramanian	Track 1: Medical Image DataAnalytics
1570965393	Analysis of Differentially Expressed M. Fortuitum Proteins for Biomarker Prediction Using Support Vector Machine	Shan Ghai, Prajjwal Jagwan, Rahul Shrivastava, Shruti Jain	Track 1: Medical Image DataAnalytics
1570966605	COVID 19, Pneumonia and Bacterial Infection Detection UsingMachine Learning	Dhruvin Vaid, Sonu Pant, Rakesh Kumar Saini	Track 1: Medical Image DataAnalytics
1570967043	Leveraging Machine Learning to Identify Synergistic Drug Combinations for Effective Cancer Treatment	P. Sujatha, K Saravanan, Mohammed Ali Sohail, Basi Reddy.A, Rohit R Dixit, Nallam Krishnaiah	Track 1: Medical Image DataAnalytics

1570964425	Deep Dive: Relative Analysis ofCutting-Edge Deep Learning Models for Cervical Cancer Detection	Chetna Vaid Kwatra andHarpreet Kaur	Track 1: Medical Image DataAnalytics
1570970680	Enhanced Synthetic MRI Generation from CT Scans Using CycleGAN with Feature Extraction	Saba Nikbakhsh, Lachin Naghashyar, Morteza Valizadeh, Mehdi Chehel Amirani	Track 1: Medical Image DataAnalytics
1570971290	AI-Enhanced Diagnosis: PediatricChest X-Ray Classification for Bronchiolitis and Pneumonia	Naveen Gehlot, Khushi Soni, Priyansh Kothari, Ankit Vijayvargiya, Rajesh Kumar	Track 1: Medical Image DataAnalytics
1570971699	Lumpy Skin Disease Detector	Vidur Sharma, Kushal Kanwar	Track 1: Medical Image DataAnalytics
1570971753	Enhancing Gastric Cancer Diagnosis Through Ensemble Learning for Medical Image Analysis	N V Sai Manoj, Rithani M, Syam Dev R S	Track 1: Medical Image DataAnalytics
1570971758	OCEAN Ovarian Cancer subtype classification and Outlier detectioNUsing DenseNet121	Paayas P, Dr. Annamalai R	Track 1: Medical Image DataAnalytics
1570971759	Alzheimer's Disease Detection Using Transfer Learning: Performance Analysis of InceptionResNetV2 and ResNet50 Models	Sanjeev Kumar K, B Saketh Reddy, M Ravichandran	Track 1: Medical Image DataAnalytics
1570971829	Enhancing Diabetic Retinopathy Screening with Sequential Deep Learning Models	Vankadari Mohith, KalpanaRaja, I. R. Oviya	Track 1: Medical Image DataAnalytics
1570971913	Enhancing Liver Tumor Segmentation with Novel UNet++Hybrid Models: ResNeXt, ResNet and InceptionV3	Sumash Chandra Bandaru, G. Bharathi Mohan	Track 1: Medical Image DataAnalytics
1570971940	Detection of Tumor-Infiltrating Lymphocytes in the Images of Immunohistochemistry Using Deep Learning Techniques	Dr. S. Baghavathi Priya, Manojna Karuparthi	Track 1: Medical Image DataAnalytics
1570970009	Hybrid Convolutional Recurrent Neural Network Architecture withAttention Mechanisms for Multi ModalMedical Image Segmentation	Narayan Vyas, Anand Gudur, Asif Ibrahim Tamboli, Anurag	Track 1: Medical Image DataAnalytics

1570969993	Distributed Deep ReinforcementLearning with Graph Neural Networks for Personalized Drug Interaction Analysis	Narayan Vyas, Nitin N. Jadhav, Vaishali V. Raje, Chahil Choudhary	Track 1: Medical Image DataAnalytics
1570970060	Hypergraph Neural Networks withAttention-Based Fusion for Multimodal Medical Data Integration and Analysis	Abhishek Kumar, Abhijieet Nashte, Porwal Amit R., ChahilChoudhary	Track1: Medical Image DataAnalytics
1570966456	Energy Consumption Pattern andIts Impact on Urban Habitat	Jitendra Kumar Sarohi, AnjaliKrishan Sharma, Rakesh Kumar Saini	Track 2: Image Processing forUrban Planning
1570966595	IoT-Powered Traffic Monitoring: Revolutionizing Urban Mobility Through Innovative Solutions	Ayush Sharma, Shalini Chatterjee and Kaushiki Karanwal	Track 2: Image Processing forUrban Planning
1570969122	Applications of Machine Learning and Deep Learning in Agriculture for Enhanced Crop Management	Vishal Thakur, Ravindara Bhatt, R. S. Raja Durai	Track 2: Image Processing for Urban Planning
1570954065	Traffic Signal Recognition Using YOLO, a Comparative Analysis	Ashish Kumar Dogra, Dr. Vipul Sharma, Dr Harsh Sohal	Track 2: Image Processing for Urban Planning
1570971709	Artificial Intelligence Based Vehicular Networks: A Step Towards Smart Transportation System	Piyush Chauhan, Nishant Sharma, Alok Kumar	Track 2: Image Processing for Urban Planning
1570970108	Gen-Al Perspective in Digital Healthcare: Ownership Versus Practicality	Atantra Das Gupta, Sahil Sharma	Track 2: Image Processing for Urban Planning
1570967044	Advancing Precision Heart Disease Diagnosis for Proactive Healthcare Management Using RF-IGE	Zahraa M. Rashid, T.B Sivakumar, S K Rajesh Kanna, Minal Saxena, U Saritha, Malik Jawarneh	Track 2: Image Processing for Urban Planning
1570967048	Efficient Route Analysis and Content Delivery in IoT-Fog Networks with ETLO	M.Radhika, R. Jayavadivel, M. Ramkumar Prabhu, Vijay Kumar, Minal A. Pardey, Anil Kumar N	Track 2: Image Processing forUrban Planning
1570967050	Error Assessments of Power Generation Using Logistic Regression in Smart Grid Connected to Natural Energy Resources	S. Sivarajan, Dr.S.D. Sundar Singh Jebaseelan	Track 2: Image Processing forUrban Planning

1570970173	A Robust Approach for Road TrafficPrediction by Using Markov Chain Model	M Ranjith Kumar, Sri Surya Shobith kamisetty, Syed Ayan, Nikhileshwar Reddy, Raghunandan, Vediyappan Govindan	Track 2: Image Processing forUrban Planning
1570971218	Stacking Ensemble Model for Celestial Object Classification: Galaxies, Stars and Quasars	Sudharson S, Annamalai R, Avuthu Avinash Reddy, VarshaP	Track 2: Image Processing forUrban Planning
1570970110	A Framework for Product Review Prediction Using TCSN Meta Model	Priyank Pandey, Vishan KumarGupta, Avdhesh Gupta, Anurag Shukla, Monika Bharti, Ashutosh Gupta	Track 2: Image Processing forUrban Planning
1570969964	A Survey of Object Detection Techniques for Improving Smart Surveillance	Himani Sharma, Navdeep Kanwal	Track 2: Image Processing forUrban Planning
1570962683	Empirical Analysis of Different Existing Methods for Image Enhancement in Underwater Scenarios	Vidhi, Rajesh Rohilla	Track 3: Computational Photography & Applications
1570971901	A Comparative Analysis of SatelliteImage to Map Image Translation Using GANs	Dr Uma Maheshwari V, Sakilam Abhiman	Track 3: Computational Photography & Applications
1570974899	Impact of Convolutional Neural Network Hidden Layers on BrainTumor Detection	Devanshi Vashistha, Shubham Goel & Shruti Jain	Track 4: Multimedia Systems &Applications
1570943501	Cropping Resistant Watermarking Framework for Smart Healthcare	Andleeb Jan, Shabir Parah andSamrah Khateeb	Track 4: Multimedia Systems &Applications
1570958457	Tech-Enabled Banking Revolt: TheTransformational Era of IT in the Financial Sector	G S Pradeep Ghantasala, Anjaneyulu Kunchala, Pellakuri Vidyullatha, Dr. Shaik Rehana Banu, Prof. DrAmiya Bhaumik, Dr Shaik Balkhis Banu, Dr GauravGupta	Track 4: Multimedia Systems &Applications
1570964382	The Influence of the Artificial Intelligence Based CGI on the Growth of the Film Industry	Hardeep Singh and RahulAmba	Track 4: Multimedia Systems &Applications
1570964656	Network Traffic Classification Techniques: A Survey	Mamta Punia, Krishan Kumar, Vandana	Track 4: Multimedia Systems &Applications

	Intelligent Supply Chain		
1570966504	Intelligent Supply Chain Orchestration: A Framework for Seamless Integration of Industry 4.0 Technologies	V Harish, Ravindra Sharma, Rakesh Kumar Saini, DeepakNegi	Track 4: Multimedia Systems &Applications
1570968985	A Method for Encrypting Images Based on the AES Algorithm	Nidhi Sharma, Panakj Dhiman, Amit Chauhan, Neha Sharma, Sanjay Kumar	Track 4: Multimedia Systems &Applications
1570967056	Navigating Flood Prediction Complexities: Harnessing FuzzyExpert Systems and Real-Time Sensor Integration	Sridhar Madasamy, K.V.S. Praveena, Vaitla Sreedevi, Basi Reddy.A, CH. Nirosha, S K Lokesh Naik	Track4: Multimedia Systems &Applications
1570969505	Edge Detection Based Segmentation of Wheat PlantsDiseases	Mukesh Kumar Singh, Madhup Agrawal, Vishan Kumar Gupta, Kunti Mishra	Track 4: Multimedia Systems &Applications
1570967062	Predictive EQCi-Optimized Load Scheduling for Heterogeneous IoT-Data in Fog Computing Environments	Sridhar Madasamy, Vikkram R, Basi Reddy.A, T. Nandhini, Shipra Gupta, A Nagamani	Track4: Multimedia Systems &Applications
1570943377	Access Grant and Revocation of Electronic Health Records Using CP-ABE Dynamic Policy Updation	Shardha Porwal, SangeetaMittal	Track 5: Digital Image Forensics& Security
1570943655	Autonomous Detection and Evaluation of Deepfakes: A Comprehensive Study	Reshma Sunil, Parita Mer andAnjali Diwan	Track 5: Digital Image Forensics& Security
1570943675	Advancements in Image Forgery Detection: A Comprehensive Survey	Parth Parmar, Dr. Anjali DiwanMonisha Mohan	Track 5: Digital Image Forensics& Security
1570954176	A New Forensic Framework for NoSQL Databases: Wide Column asCase Studies	Kuldeep Singh, Rizwan Ur Rahman, Devanshi Pathak	Track 5: Digital Image Forensics& Security
1570958572	Multi-Level Passive Video ForgeryDetection Based on Temporal Information and Structural Similarity Index	Hitesh D. Panchal, Hitesh B.Shah	Track 5: Digital Image Forensics& Security
1570961686	College Management System UsingBlockchain	Sanjay Singla, Tushar Gangurde, Geet kiran Kaur	Track 5: Digital Image Forensics& Security
1570965996	Design and Analysis of Authentication in IoT-Based SmartHomes	Neha Sharma, Pankaj Dhiman	Track 5: Digital Image Forensics& Security

1570966405	CNN-LSTM for Secure Distributed Demand Response in Smart Grids	Aschalew Tirulo Abiko, Siddhartha Chauhan	Track 5: Digital Image Forensics& Security
1570970112	A Hybrid Framework for Secure Data Transfer for Enhancing theBlockchain Security	Priya Batta, Sachin Ahuja, Abhishek Kumar	Track 5: Digital Image Forensics& Security
1570970842	Next Generation Firewall and Self Authentication for Network Security	Bhagwant Singh, SikanderSingh Cheema	Track 5: Digital Image Forensics& Security
1570970915	Web Seal Image Analysis for Evaluating User Trust and Privacy Protection	Rashmi S Chaudhry, Prof AnilChandhok	Track 5: Digital Image Forensics& Security
1570971091	Secure VPN Gateway with Pi- Router	Usman Haider, Qanmber Ali, Gunjan Chhabra, Keshav Kaushik, Suleman Mir, Rizwan Hanif	Track 5: Digital Image Forensics& Security
1570971129	Efficient Fund Tracking System Using Blockchain and Graph DB	Arpit Kaushal, Shiveen Nadda, Praveen Modi	Track 5: Digital Image Forensics& Security
1570969114	Prediction Based Reversible Data Hiding for Gray-Scale Images	Ravi Uyyala, Sriramulu Bojjagani	Track 5: Digital Image Forensics& Security
1570970005	Genetic Algorithm-Driven Hyperparameter Optimization of Capsule Networks for Predictive Analysis of Genetic Mutations	Narayan Vyas, V. C. Patil, Desai Jabbar V, Anurag	Track 5: Digital Image Forensics & Security
1570974184	Identification of Phishing Attacks Using Machine Learning	Nikhil Jindal, Dhruv Rastogi, Kartik Joshi, Deepak Gupta	Track 5: Digital Image Forensics & Security
1570967815	Taxonomy of Technical Challenges in Digital Forensics	Nisha Kumari, Tejpal Sharma, Anuj Kumar Gupta, Gaurav Dua	Track5: Digital Image Forensics& Security
1570951979	Learning Face Expression Features from Video Using Spatio-Temporal Feature Extractor and CNN-LSTM	Priyanka A. Gavade, Vandana S.Bhat, Anil B.Gavade	Track 6: Computer Vision
1570954111	FaceReZero Transformer for Unbiased Occlusion Invariant Deep Face Recognition with Train-Time Augmentations	Ronak Shah, Mrugank Purohit, Suraj Gadhe, Kapil Mehrotra, Swati Mehta	Track 6: Computer Vision

	Low-Resolution Face		
1570954339	Recognition Using Multi- Stream CNN in Siamese Framework	Rushi Vachhani, Srimanta Mandal & Bakul Gohel	Track 6: Computer Vision
1570955456	Performance Evaluation of Various Load Balancing Techniques in Cloud Computing	Shyama Barna Bhattacharjee, Ajay Jangra	Track 6: Computer Vision
1570957390	Artificial Intelligence in Learning & Development: A Bibliometric Analysis of 32 Years	Sonika, Ashita Chadha	Track 6: Computer Vision
1570964121	Diabetic Retinopathy Classification Using PSO-SVM Based Deep Learning Model	Shobhana Lakhera, Amit Garg	Track 6: Computer Vision
1570966911	YOLO-NAS-Powered Forest Monitoring System: A New Frontier in Forest Management	Aman Yadav, Jyoti Saini and Ibrahim Khan	Track 6: Computer Vision
1570967054	Enhancing Content-Based Image Retrieval for Lung Cancer Diagnosis: Leveraging Texture Analysis and Ensemble Models	K A Jayabalaji, Bagam Laxmaiah, Jayendra Gopal Thatipudi, Chandraprabha K, Pravin Badhe, Allam Balaram	Track 6: Computer Vision
1570967074	Design and Analysis of Microstrip Patch Antenna Using Metamaterial for Biomedical Applications	Anshul Shrivastava, Dr. Rajesh Kumar	Track 6: Computer Vision
1570967809	Artificial Intelligence Based Automated Appliances in Smart Home	Mohammed Yaseen, Durai P, Gokul P, Justin S, Jose Anand A	Track 6: Computer Vision
1570967053	Softsign Gaussian Deep Belief Neural Network (SGDBNN): A Novel Technique for Improving Pedestrian Detection Accuracy and Processing Efficiency	N. P. G. Bhavani, R V Sudha, K. Shanmuga Priya, Arun Raj SR, Vinay Kumar Yadav, Allam Balaram	Track 6: Computer Vision
1570967816	Empowering Rural India with Machine Learning: The Impact ofPersonalized Learning on English Education	P. Sasikumar, S. Suganya Karpagam, S. Soundarya, K. Nagarathinam, S. Balamurugan	Track 6: Computer Vision
1570967817	An Ensemble Learning ApproachTowards Prediction of Diabetic Retinopathy	Mr. Khaja Mannanuddin, Dr. Logeshwari Dhavamani, V. Selvakumar, Praveen B. R, Dr.T.G. Sakthivel, Saranya P	Track 6: Computer Vision

1570968497	Deep Learning-Based Paddy Doctorfor Sustainable Agriculture	Vijay Garg, Stuti Agarwal, SahilSharma	Track 6: Computer Vision
1570968910	Dynamic ISL Word Recognition System Using ResNet50 and RNN Deep Learning Models	Naman Bansal, Abhilasha Jain	Track 6: Computer Vision
1570967046	Enhancing House Price Prediction Accuracy Using Deep Learning and Hyperparameter Tuning withAEDA	R. Padma Priya, K.Raghuveer, K Srinivas, Basi Reddy.A, P. J. Shriidhar, N Shirisha	Track 6: Computer Vision
1570969818	An Energy Efficient System for IoT Enabled Smart Applications: Research Challenges and Open Issues	Shivani Kumari Meenakshi Srivastava	Track 6: Computer Vision
1570969841	Skeleton Data is All About: Dynamic Hand Gesture Recognition	Reena Tripathi, Bindu Verma	Track 6: Computer Vision
1570969892	Autonomous Cars: A Comprehensive Survey	Manu Narula, Deepali Tyagi	Track 6: Computer Vision
1570969900	A Comprehensive Exploration: Attention Mechanisms in Facial Emotion Recognition	Nidhi, Bindu Verma	Track 6: Computer Vision
1570970918	Enhancing Transportation Security: Automated Prohibited Object Detection for Baggage Inspection Leveraging YOLO- NAS	Rohan Reddy B, SP. Chokkalingam	Track 6: Computer Vision
1570970556	Cloud Computing Infrastructure in Smart Home Devices	Rajarshi Roy, Nidhi Sharma	Track 6: Computer Vision
1570970770	Deep Reinforcement Learning for Autonomous Robot Navigation in Dynamic Environments	Abdul Khayyum Farooqui	Track 6: Computer Vision
1570970771	A State-Of-Art in Mid-Air Handwriting Recognition Techniques	Aradhana Kumari Singh, Deepika Koundal	Track 6: Computer Vision
1570971765	A Hybrid Model for Disaster Damage Detection Using SatelliteImages	Aravinda swamy Penta andRithani M	Track 6: Computer Vision

1570971798	Deep Learning-Powered Concrete Crack Classification for Improved Structural Integrity	G Bharathi Mohan, G Bharathi Mohan, Bhagavatula Yogiraj	Track 6: Computer Vision
1570936692	Voting-Based Ensemble Frameworkfor Crop Recommendation	Mayan Aryaman, Yashica Paliwal, Aman Sharma	Track 7: Pattern Recognition
1570971904	Sign Language Detection ThroughVideo Frame Feature Extraction and Neural Network Synthesis	NagaJyothi Devabathini, P Mathivanan	Track 7: Pattern Recognition
1570952721	Age Classification Through Handwriting Analysis Using Convolutional Neural Networksand Pre Segmented Offline Handwritten Gurumukhi Characters	Chinu Singla, Raman Maini, Munish Kumar	Track 7: Pattern Recognition
1570943373	CMViT: Printed Hindi Line Recognition Using ConvMixer andVision Transformer	Manish Kumar Gupta and Siddharth Dhawan & AjaiKumar	Track 7: Pattern Recognition
1570943357	Analysis and Visualization of Tweets Using Data Science: A CaseStudy of Qatar Airways	Malvika Tuli, Dr. Rajni Mohana& Dr. Anupriya Kaur	Track 7: Pattern Recognition
1570965968	Automated Fever Detection by Essemble Learning Technique: AnInvestigative Study	Kumari Monika, Kushal Kanwar	Track 7: Pattern Recognition
1570956137	Writer Identification: Deep Learning with ResNet50 for Offline Urdu Handwritten Documents	Syed Tufael Nabi, Paramjeet Singh, Munish Kumar	Track 7: Pattern Recognition
1570972330	An Ensemble Hybrid Encryption Technique for Single and Group Channel	Himanshu Jindal, Monika Bharti, Vishan Kumar Gupta	Track 7: Pattern Recognition
1570958450	A Hybrid Optimized Model for Opinion Mining with Dual Weightage Aspects	Shilpi Gupta, Niraj Singhal, Gaurav Gupta, Abhishek Tomar	Track 7: Pattern Recognition
1570958947	An Intelligent Fusion of Machine Learning and Optimization for Performance Improvisation in Wireless Sensor Networks	Puja Thakur, Jagpreet Sidhuand Kushal Kanwar	Track 7: Pattern Recognition

1570966236	Anomaly Detection in Network Traffic: A Review	Arjun Solanki, Kshitiz Sharma, Aryan Tiwari, Payal Thakur	Track 7: Pattern Recognition
1570966436	Utilizing Internet of Things for the Purpose of Air Quality Monitoring	Shailesh Bahadur Singh, Aditya Rawat, Abhinav Bartwal, Rakesh Kumar Saini, Sonu Pant	Track 7: Pattern Recognition
1570967059	Decomposition of Electrical and Electronic Waste Management byUsing Artificial Intelligence	Rahul Suryawanshi, Chatrapathy K, Ameer Al khaykan, W. Deva Priya, Ch. Venkata Krishna Reddy, K.V.S.Prasad	Track 7: Pattern Recognition
1570967814	Predictive and Comparative Analysis of LENET, ALEXNET and VGG-16 Network Architecture in Smart Behavior Monitoring	Reshma R., Jose Anand A	Track 7: Pattern Recognition
1570968176	Comparison and Characterization of Some Selected Models on the Basis of Their Suitability for Various Applications	Kirti Gupta, Pardeep Kumar, Shuchita upadhyaya	Track 7: Pattern Recognition
1570974302	Gesture Controlled Virtual Mouse	Aditya Bansal, I R Oviya, Natarajan B, Elakkiya R	Track 7: Pattern Recognition
1570970848	A Survey of Crop Recommendation System	Prof. Sarika Pabalkar, Sanket Patil, Vipul Chavan, Sanidhya Ingle, Gaurav Nayak	Track 7: Pattern Recognition
1570971573	Fake News Detection Using NaturalLanguage Processing and Machine Learning Techniques	Charu Kanwar, Yogesh Mohan	Track 7: Pattern Recognition
1570971811	Indian Language Analysis with XLM-RoBERTa: Enhancing Parts ofSpeech Tagging for Effective Natural Language Preprocessing	KKrishna Jayanth, Bharathi Mohan G, R Prasanna Kumar	Track 7: Pattern Recognition
1570971938	Identifying and Mitigating GenderBias in Language Models: A Fair Machine Learning Approach	Sangeeth Ajith, Rithani M, SyamDev R S	Track 7: Pattern Recognition

1570974195	Fake News Detection and Classification Using Machine Learning	Aditi Gupta, Geetanjali Singh, Deepak Gupta	Track 7: Pattern Recognition
1570972547	Improving Enhanced Clinical Decision Making: Chronic KidneyDisease Detection	Bharathi Mohan G, BharathiMohan G, Sreenath Vadlamudi, Pinjari Haneef, Pranav Reddy, G. Chaitanya Reddy	Track 7: Pattern Recognition
1570972310	Potato Leaf Disease DetectionUsing Machine Learning Techniques for Precision Agriculture	Urshita Gupta, Surbhi Vijh, Sumit Kumar, Nihar Ranjan Roy, Jitendra Singh Jodan	Track 7: Pattern Recognition
1570972303	Predictive Analysis of Cardiovascular Disease Using Machine Learning Techniques	Sreekruti, Surbhi Vijh, SumitKumar, Neetu Gupta, Nihar Ranjan Roy	Track 7: Pattern Recognition
1570972277	Advancements in Environmental Sound Classification Using Machine Learning and Deep Learning Approaches on the Urban Sound 8k Dataset	Priyanshu Malaviya, YogeshKumar, Nandini Modi	Track 7: Pattern Recognition
1570967058	HEECCNB: An Efficient IoT CloudArchitecture for Secure Patient Data Transmission and Accurate Disease Prediction in Healthcare Systems	C.Veena, Mulagundla Sridevi, Kazi Kutubuddin Sayyad Liyakat, Bishal Saha, Sheri Ramchandra Reddy, N Shirisha	Track SS-1: Emerfing MedicalImage Data Analytics Technologies
1570969039	Classification of Emphysema in Computed Tomography Images Using Convolutional Neural Network	Punitha N, Shivapriya S, Anusha A, Ruban V	Track SS-1: Emerfing MedicalImage Data Analytics Technologies
1570970199	Deep Learning Based Tuberculosis and Pneumonia Disease Detection Using CNN	Basitur Rahman Bappi, S M Masfequier Rahman Swapno, Gunjan Chhabra, Keshav Kaushik, SM Nuruzzaman Nobel and Md Babul Islam	Track SS-1: Emerfing MedicalImage Data Analytics Technologies
1570971441	Artificial Intelligence Based Medical Prescription Through Optimization Algorithm with Cloud Computing Techniques	Govinda Rajulu, Lanke, Priya Parameswarappa, BharatwajaNamatherdhala, Taral Shah	Track SS-1: Emerfing MedicalImage Data Analytics Technologies
1570971825	Detection andClassification of Arrhythmia Using Hybrid Deep Learning Model	Trinaya Kodavati, K Venkatraman, M Rithani, SyamDev R S	Track SS-1: Emerfing MedicalImage Data Analytics Technologies

	Din Data Dinna Ol III		Track SS-1: Emerging
1570971897	Big Data, Bigger Challenges: A Comparative Study of Performance Testing	Vijay Hasanpuri, ChanderDiwaker	MedicalImage Data Analytics Technologies.
1570971410	A Deep Learning-Based Model for Mutation Rate Prediction of COVID-19 Using Genomic Sequences	Rajit Nair, Maki Mahdi Abdulhasan, Hameed HassanKhalaf, Mahmood Hasen shuhata alubiady, Ashraf Mohammed Shareef	Track SS-1: Emerging MedicalImage Data Analytics Technologies.
1570966421	Face Recognition Based HelmetDetection System Designed for Integration at Toll Plazas	Krishan Kumar, Mohit Prajapat	Track SS-2: Integrating ImageProcessing with Learning Algorithms and Analytics.
1570966585	Integration of Artificial Intelligenceand Internet of Things Technology in Classroom Attendance Systems	Faisal Firdous, Saimul Bashir, Syed Zoofa Rufai, Sanjeev Kumar	Track SS-2: Integrating ImageProcessing with Learning Algorithms and Analytics.
1570966629	Object Detection in UAV Images Using Portable Attention Model Based YOLOv5	Surendra Kumar Dr Ajit KumarKrishan kuma	Track SS-2: Integrating ImageProcessing with Learning Algorithms and Analytics.
1570970124	Cloud Cover Removal from Remote Sensing Data Using GANs Based on Attention Mechanism	Siva Jyothi Natha Reddy B, Sasikala D	Track SS-2: Integrating ImageProcessing with Learning Algorithms and Analytics.
1570966655	Revolutionizing Face Detection: Exploring the Potential of MTCNN Algorithm for Human Face Recognition	Honey, Dr. Sukhwinder SinghOberoi	Track SS-2: Integrating ImageProcessing with Learning Algorithms and Analytics.
1570967052	Computer-Aided Design for Skin Disease Identification and Categorization Using Deep Learning	K.Varalakshmi, A.Revathi	Track SS-2: Integrating ImageProcessing with Learning Algorithms and Analytics.
1570967060	Enhancing IoT-Edge Computation with Data Forwarding Based Decentralized Deep Neural Networks	BMG Prasad, Rachappa Jopate, Pankaj Savita, Basi Reddy.A, B Prabu Shankar, Arunkumar M S	Track SS-2: Integrating ImageProcessing with Learning Algorithms and Analytics.

1570969790	Real-Time Basketball Scoring and Player Performance Tracking System Utilizing AI Powered Court Vision Technology	Muthaiah U, Veeramani Sonai,Ranjith Kumar M, Sachin kumar	Track SS-2: Integrating ImageProcessing with Learning Algorithms and Analytics.
1570970128	An Assistive Tool for OrthopedicStudents: CNN LSTM Based Continuous Speech Recognition System for Writing Exams	Shaik Huzaifa Fazil, Sasikala D,Theetchenya S	Track SS-2: Integrating ImageProcessing with Learning Algorithms and Analytics.
1570969348	Categorization, Detection, and Prevention of Ransomware Attack: A Review	Priyank Pandey, Paras Jain,Vishan Kumar Gupta, Himanshu Jindal, Avdhesh Gupta, Ashutosh Gupta	Track SS-2: Integrating ImageProcessing with Learning Algorithms and Analytics.
1570971539	ANALYSIS of DATA of OMICRON VARIANT WORLDWIDE	Shipra Gupta and Vijay Kumar	Track SS-2: Integrating ImageProcessing with Learning Algorithms and Analytics.
1570967057	An Intricate Spectrogram Processing in Speech EnhancementUsing Machine Learning with Cloud Computing	Yenna Geetha Reddy, G Mahendran, Ameer Al khaykan, Omar A. Alkawak, S. A. Kalaiselvan, A. Priya	Track SS-3: Machine LearningEnhanced Network Slicing & Resource Management in 5G Software.
1570967061	Recent Trends of Granular Computing Approaches for Image Processing in Medical Imaging	Shankar Shambhu, Prasenjit Das, Karan Bajaj, Mukesh Kumar	Track SS-2: Integrating ImageProcessing with learning algorithms and analytics.
1570967047	Machine Learning and IoT BasedSolid Waste Management: Revolutionizing Efficiency and Sustainability for a Clean Environment	Dr. D. Thayalnayaki, Dr. J. Santhosh, S. J. Princess Rosaline, P. Latha, V. A. Shanmugavelu, Tamilmani A	Track SS-3: Machine LearningEnhanced Network Slicing & Resource Management in 5GSoftware.
1570967051	Optimizing Offloading in MEC Enabled Vehicular Networks Using Adaptive PSO and V2V Communication	Sunita Sunil Shinde, S Parameswari, Arun Raj S R, Kannan K, N.Rajesh, Ajmeera Kiran	Track SS-3: Machine LearningEnhanced Network Slicing & Resource Management in 5G Software.

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1570971819	Emotion Detection in Punjabi Audio: A CNN-Based Sentimental Analysis	Priyanka Sharma, ShavetaRani, Paramjeet Singh	Track SS-2: Integrating ImageProcessing with Learning Algorithms and Analytics.
1570967055	Development of a Machine Learning Model for Pulmonary Carcinoma Prediction Using Computer Tomography (CT) Images	Jampani Chandra Sekhar, Priyanshu singh, T. Rajesh Kumar, G. Mahendran, Katta Subba Rao, Ramya Maranan	Track SS-3: Machine LearningEnhanced Network Slicing & Resource Management in 5G Software.
1570967500	Implementing Machine Learning Algorithms to Identify Distributed Denial-Of-Service Attacks	Ankush Mehra, Gurpreet Singh, Sumit Badotra	Track SS-3: Machine Learning Enhanced Network Slicing & ResourceManagement in 5G Software.
1570968774	Al and Ml Based Systemic Analysis on Highly Advanced Life Threatening Cybernetics for Future Wireless Network	Anita priyadarshini Durai pandian	Track SS-3: Machine Learning Enhanced Network Slicing & Resource Management in 5G Software.
1570968933	An Analysis on Usability of Progressive Web Applications in Business Management	Pradeep Kumar, Amit Verma, Sumit Badotra	Track SS-3: Machine Learning Enhanced Network Slicing & Resource Management in 5G Software.
1570970826	Tumor and Stroke Lesions Recognition and Investigation for Involuntary Detection of Brain Irregularity	Trapti Sharma, Hameed Hassan Khalaf, Maki Mahdi Abdulhasan, Ashraf Mohammed Shareef	Track 11: Emerging Imaging Trends and Future Scope for Artificial Intelligence and Machine Learning in Healthcare Data Analytics.
1570969194	A Comprehensive Analysis of Intrusion Detection Datasets: Evaluation, Challenges, and Insights	Seema Rani, Sanjeev Kumar	Track SS-3: Machine Learning Enhanced Network Slicing & Resource Management in 5G Software.
1570971653	Empowering Rural and SuburbanDental Care with Open-Source Image Processing	Shambhavi M Shukla, Prof Ganga Ram Mishra, RameshMishra	Track SS-3: Machine LearningEnhanced Network Slicing & Resource

			Management in 5G Software.
1570974728	Emotion Detection from Text by Contextual Analysis Using BiLSTM	Vimal Kumar, Shashank Bopanna, Manisha Kallem,Prashant Kumar	Track SS-3: Machine Learning Enhanced Network Slicing and Resource Management in 5G Software-Defined Networks
1570973058	CusCP: Al-Driven System for Predictive Modeling of Customer Churn in E Commerce Using Machine Learning	Jagdeep Sharma, Shantanu Neema	rack SS-3: Machine Learning Enhanced Network Slicing and Resource Management in 5G Software-Defined Networks
1570968943	Optimizing Length of Stay Prediction After Intubation: An Advanced Machine Learning Modelwith Real-Time Vital Sign Integration	Amit Sundas, Gurpreet Singh,Sumit Badotra, Amit Verma	rack SS-3: Machine Learning Enhanced Network Slicing and Resource Management in 5G Software-Defined Networks
1570971438	Development of Greenhouse Automation Using Machine Learning with Remote Monitoring Control	Prashant Agrawal, Omar A.Alkawak, C Aravindan, S. Sendilvelan, Kolli Himantha Rao, K Shiva Bhavani	rack SS-3: Machine Learning Enhanced Network Slicing and Resource Management in 5G Software-Defined Networks
1570971490	Strategic Feature Selection for Precision Augmentation in Cement Sales Forecasting	Gagandeep Kaur, Harpreet Kaur, Sonia Goyal	Track 11: Emerging Imaging Trends and Future Scope for Artificial Intelligence and Machine Learning in Healthcare Data Analytics.
1570971875	Transfer Learning with CNN LSTMfor Detection of Cardiac Events in Arrhythmia Disease	Shruti Arora, Sawinder Kaur, Aanshi bhardwaj	Track 11: Emerging Imaging Trends and Future Scope for Artificial Intelligence and Machine Learning in Healthcare Data Analytics.

1570971693	The Convergence of DevOps and Cloud: Redefining Software Development	M.P.Dhanveer Prakash, Nidhi Sharma	Track 11: Emerging Imaging Trends and Future Scope for Artificial Intelligence and Machine Learning in Healthcare Data Analytics.
1570973195	Optical Character Recognition Based Analysis of Generic and Brand Medication Costs	Sakshi Parate, Pranita Dadhe, Sudhanshu Maurya, Monali Gulhane, Vrince Vimal	Track 11: Emerging Imaging Trends and Future Scope for Artificial Intelligence and Machine Learning in Healthcare Data Analytics.
1570957097	Pattern Recognition Approach to Customer Relationship Management in Banking Sector	Rajat Goel and Anil Kalotra	Track 11: Emerging Imaging Trends and Future Scope for Artificial Intelligence and Machine Learning in Healthcare Data Analytics.

ICIIP Proceeding Link: https://ieeexplore.ieee.org/xpl/conhome/10537602/proceeding

2023 Seventh International Conference Image Information Processing (ICIIP-2023) Photos









4.3.8 JUIT ACM Student Chapter 2023

4.3.8.1 **Orientation**

During the ACM JUIT orientation for first year students, acomprehensive introduction to the club's features and teams was provided. The session highlighted the club's focus on coding, research, and technological innovation. Various teams, including those for competitive programming, web development, artificial intelligence, learning, and event management, showcased. Emphasis was placedon collaborative projects, skill building workshops, and participation in hackathonsand conferences. The orientation aimed to inspire students to engage with the techcommunity, develop their skills, and contribute to the club's dynamic environment, fostering growth and innovation within the university. (Number in Attendance: 150, September 18-21, 2023)





4.3.8.2 Smart India Hackathon

The Smart India Hackathon internal round, organized by ACM JUIT, recorded the highest foot fall in the university's recent history of hackathons. This vibrantevent saw enthusiastic participation from students across all years, working in team stotackle real world problems through innovative tech solutions.

Participants show cased their skills in coding, problem solving, and reativity, presenting their projects to a panel of judges. The hackathon fostered acompetitive yet collaborative atmosphere, with workshops and mentoring sessions enhancing the learning experience. The event not only highlighted the university's thriving tech community but also prepared students for the national-level competition, reinforcing ACM JUIT's commitment to





fostering innovation and excellence. (NumberinAttendance: 280, September 23-24, 2023)

4.3.8.3 Git & Git-hub Workshop

During the Git and GitHub event, first and second-year students gained acomprehensive understanding of version control. The session introduced key concepts suchas creating repositories, committing changes, branching, andmerging. Students also learned about collaborative workflows, including pull requests, conflict resolution, and best practices for using Git and GitHub effectively. Practical demonstrations and handson activities reinforced these concepts, enablingattendees to manage their code efficiently and



collaborate seamlessly on softwaredevelopment projects. The event provided essential skills for academic andprofessional growth, preparing students for future technical challenges and team-based coding endeavors. (Number in Attendance: 50, September 26-27, 2023)

4.3.8.4 Linux & VM Ware Sessions

In the Linux and VMware session, first and second-year students explored essentialaspects of using Linux and virtual machines. The workshop covered installing and configuring Linux, basic command-line operations, and file system navigation.

Students were introduced to VM ware for creating and managing virtual environments, learning how to set up virtual machines,



allocate resources, and install operating systems. Hands-on activities reinforced these skills, demonstrating practical applications of Linux and virtualization in real-world scenarios. The sessionaimed to build a strong foundation in Linux and virtualization technologies, equipping students with valuable tools for their academic and professional pursuits in IT andsoftware development. (Number in Attendance: 80, October 10-11, 2023)

4.3.8.5 C-sessions & Pointer Sessions

In the C-Sessions and Pointer-Session, second-year students mentored first year students to prepare for their upcoming exams. The sessions focused on key C programming concepts, including data types, control structures, functions, and arrays. Special emphasis was placed on understanding pointers, memory allocation, and pointer arithmetic, which are crucial for mastering the language. Through hands-on coding exercises and real-time



problem solving, the second-year mentors provided practical insights and tips. These peer-led sessions aimed to clarify complex topics, boost confidence, and enhance the first-year students' programming skills, ensuring they were well-prepared for their exams. (Number in Attendance: 75, October 18-21, 2023)

4.3.8.6 **Tech-o-ween (Coding-Ninjas)**

Techoween, a Halloween-themed event organized for first-year students, combined festive fun with tech exploration. The event featured engaging activities that introduced participants to various tech domains such as web development, artificial intelligence, and cyber security. Acentral highlight was the coding competition, where students showcased their programming skills. The top



three performers in the coding event were rewarded with exciting goodies, adding to the competitive spirit. Techoween provided a unique platform for first year students to discover their tech interests, interact with peers, and gain in sights into different fields, all with in a lively and celebratory atmosphere. (Number in Attendance: 100, October 27-29, 2023)

4.3.8.7 **Qriosity 3.0**

Qriosity 4.0 promised asix-hour competition where participants raced against time to solve diverse challenges, demonstrating their creativity and analytical thinking skills. The event, held exclusively online, encouraged contestants to harness the power of the internet as they embarked on an exhilarating quest for answers. The



competition aimed to immerse participants in there almsof technology, fostering aspirit of curiosity and continuous learning. (Number in Attendance: 120, January 14, 2024)

4.3.8.8 FintechWeek

In the Fin Tech session, students were introduced to the rapidly evolving intersection of finance and technology. The session covered key topicssuch as blockchain, crypto currencies, digital payments, and financialanalytics. Experts discussed the impact of FinTech on traditional banking, highlighting innovations like mobile banking,



peer-to-peerlending, and robo-advisors. Through case studies and real-world examples, students gained in sights in to how technology is transforming financial services. The interactive session included Q&A segments, allowing students to engage with industry professionals and explore career opportunities in FinTech. This informative event aimed to equip students with knowledge of current trends and future developments in the financial technology landscape. (Number in Attendance: 60, February 9-11, 2024)

4.3.8.9 WebDevelopmentBootcamp

The objective of Web Development Workshop was to equip participants with practical skills and knowledge in web development technologies, such as HTML, CSS, and SASS, while also offering insights into current industry trends. These sessions provided a platform for networking, project showcasing, and community building among web developers, inspiring participants to excel in their craft and stay updated with the latest advancements in the field. (Number in Attendance: 100, February 14-16, 2024)



4.3.8.10 Code Relay

Recalling the exhilarating journey in to the realm of coding excellence at Murious! ACM proudly presented the annual Code Relay, a captivating event where teams off our ventured into an exhilarating odyssey, pitting their witsand skills against the clock to unravel intricate coding puzzles and emerge as champions. From the very onset,



participants were engulfed in an atmosphere charged with anticipation, camara derie, and unwavering determination. As the competition unfolded, teams plunged into a series of challenges that rigorously tested their coding acumen, strategicacuity, and resilience under pressure. Each line of code crafted and every obstaclesur mounted heightened the energy in the room, spurred by the thrill of the chase and the ferventpursuit of victory. Yet,

beyond there almsof competition, Code Relay served as animmersive platform uniting individuals driven by as hared passion for codingand technology. Through out the event, participants engaged invibrant exchanges of ideas, fostered collaborations, and gleaned insights from their peers, enriching heir knowledge and honing their craft. As the event reached its climax, acrescendo of cheers and applauseechoed through the venue, marking the crowning of the winning team. However, irrespective of the out come, every participant departed Code Relay enriched with a sense of achievement, forged bonds of camara derie, and a deepened appreciation for the art of coding. Code Relay transcended merecompetition; it stood as a testament to the spirit of innovation, collaboration, and limit less potential inherent in technology. As attendees dispersed, carrying with them the echoes of exhilaration and inspiration, they left armed within delible memories and fortified with the skills to surmount any coding challenge that liesahead. (Number in Attendance: 80, March 7-9, 2024)

4.3.8.11 Blockchain

BlockBlaze: Forging the Future of Blockchain was a transformative event that brought together industry leaders, innovators, and enthusiasts to explore the latestrends and advancements in block chain technology. With keynote speaker Mr. Samarth Saxena from Sharedum leading the discussions, attendees delved into topics such as decent realized finance (DeFi) and non-fungible tokens (NFTs), gaining invaluable insights and

inspiration. The interactive hands-on learning bootcamp provided practical experience and skills for attendees to apply in their own blockchain projects, fostering collaboration and innovation. BlockBlaze was more than just an event; it was a catalyst forchange, shaping the future of decentralized technology and leaving a lasting impact on the industry. (Number in Attendance: 50, April 4, 2024)



4.3.8.12 **DesignWorkshop**

The workshop provided participants with an indepthunder standing of UI/UX design over three days. Through interactive sessions, expert presentations, and hands-on projects, attendees learned both the theoretical and practical aspects of design. The event fostered acollaborative and creative environment, encouraging students to experiment



with new ideas and approaches. Participants not only gained essential design skills butalsohad the opportunity to network with industry professionals and fellow students, inspiring them to continue their journey in UI/UX design with enthusiasm and confidence. (Number in Attendance: 80, April 25-26, 2024)

4.3.8.13 Artificial Intelligence and Data Science

The objective of the AI/ML Workshop was to provide participants with a solid foundation in artificial intelligence and machine learning, covering both theoretical concepts and practical skills. The workshop aimed to demystify AI/ML, introduce participants to Python



programming, and offer hands-on experience with datamanipulation and predictive modeling. This event fostered acollaborative learning environment, encouraging participants to explore the potential of AI/ML and gain confidence in their ability to apply these technologies inreal-world scenarios. (Number in Attendance: 50, April 25-May 2, 2024)

4.3.8.14 App Development

The objective of the App Development Workshop was to introduce participants to the fundamentals of mobile app development, covering essential concepts, tools, and technologies. The workshop aimed to equip attendees with the skills needed to design, develop, and deploy mobile applications,



while also fostering creativity and problem-solvingabilities. By the end of the workshop, participants were expected to have a comprehensive understanding of the app development lifecycle and be prepared to create their own mobile apps. (Number in Attendance: 60, May 15-18, 2024)

4.3.8.15 **OpenSourceOdyssey**

ACM-JUIT proudly conducted the OSO (Open-Source Odyssey) 2024, a dynamic event that spanned from June 16th to July 22nd. During this period, teams worked diligently on projects across





various tech domains, including web development, app development, AI/ML, anddesign. Each team was paired with a mentor who provided guidance and support through out the project development phase. Upon the completion of OSO 2024, each team had the opportunity to showcase their projects to the entire ACM-JUIT community. The eventnotonly highlighted the innovative solutions and creativity of the participants but also fosteredcollaboration and learning. The mentors' insights were invaluable, helping teams refine their projects and achieve remarkable outcomes. (Number in Attendance: 30, June 15, 2024)

4.3.9 Society for Industrial and Applied Mathematics Jaypee University of Information Technology Student Chapter Final Report 2023-24

4.3.9.1 This document serves for internal purposes of the Chapter only and should be perceived as an overview of the Chapter activities in the past year extending the information filled outin the Final Report online form provided by SIAM.

Date of report: 14 August, 2024

Student Chapter: Jaypee University of Information Technology,

India Chapter of SIAM

Chapter Website: https://www.juit.ac.in/siam

Chapter LinkedIn Page: https://in.linkedin.com/company/siamjuit
Chapter Instagram Handle: https://www.instagram.com/siamjuit/
Chapter YouTube Handle: https://www.youtube.com/@siamjuit
Chapter Listing at SIAM Website: https://www.siam.org/students-education/studentchapters/student-chapter-directory#Jaypee-

List of the set in the second second

University-of-Information TechnologyStudent-Chapter **Faculty Advisor:** Prof. (Dr) Vivek Kumar Sehgal

Executive Committee Members: President, Vice President, Secretary, Joint Secretary,

Treasurer, Webmaster Orientation for the Batch of Fall 2023.

JUIT, Waknaghat, August 17, 2023 the SIAM (Society for Industrial and Applied Mathematics) JUIT chapter marked a significant achievement by successfully concluding its orientation for the incoming batch of Fall 2023. Held on Thursday, August17, 2023, the event drew a remarkable turn out, with eager students seeking to gain insight into the workings of this esteemed chapter at their university.

The atmosphere in the orientation hall buzzed with enthusiasm, reflecting the palpable excitement among attendees to become part of the prestigious SIAM chapter. The orientation began with an introduction to SIAM as an internationally recognized organization dedicated to promoting the application of mathematics in various industrial and practical contexts. Ms. Shambhavi Singh, the President of the SIAM JUIT chapter, set the tone with an engaging presentation. Shedelved into the intricate details of chapter operations and passionately articulated



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thereasons why joining SIAM presents an exceptional opportunity for students.

Faculty advisor, Prof. (Dr.) Vivek Sehgal, addressed the students, adding to the motivationand prestige of SIAM membership. Dr. Sehgal emphasised the importance of

SIAM in theacademic and professional journey of students, highlighting how SIAM opens doors to a world of possibilities at the intersection of mathematics, computation, and technology.

In essence, SIAM represents the convergence of coding, logic building, and mathematics, forming the foundation for advancements in computational mathematics, coding, machinelearning, data science, and the pursuit of limitless knowledge.

Members of SIAM enjoy numerous benefits, including dual activity group memberships, exclusive conference registration discounts, accesstoannual conference travel awards exceeding \$320,000, international networking opportunities, and valuable job search resources through the organisation's job board. The SIAM JUIT chapter's orientation for the Fall 2023 batch was an overwhelming success, setting the stage for students to embark on a journey of exploration and excellence in the realm of mathematics and its real-world applications. With dedicated leader ship and a commitment to empowering students, SIAM promises to be a beacon of opportunity and growth for all its members. As the new academic year begins, SIAM JUIT chapter invites all interested students to join this thriving community and be part of atrans formative mathematical adventure. Prof. Dr. Vivek Kumar Sehgal addressing the interested students during the orientation Ms. Shambhavi Singh, the President of the Chapter, Introducing SIAM to the attendees, JUIT, Waknaghat, September 27, 2023 the SIAM (Society for Industrial and Applied Mathematics) JUIT chapter celebrated a remarkable milestone by successfully concluding its inaugural event of the 2023-24 tenure, titled "Opening Doors to Research Excellence". Held on Wednesday, September 27, 2023, the event witnessedan impressive turn out of enthusiastic students eagertoem barkon their research journey. The atmosphere in the hall was electrifying, reflecting the palpable excitement among attendees as they prepared to step into the fascinating world of research.

The event commenced with a comprehensive introduction to the essence of research, its significance, and the fundamental steps involvedin crafting and publishing a research paper. Ms. Shambhavi Singh, the President of the SIAM JUIT chapter, and Mr.





Ankush Singh, the Secretary of the SIAM JUIT chapter, initiated the event with an engaging presentation.

They provided an insightful overview of research and itspivotal role, followed by a discussion on the approach to writing a research paper and the plethora of opportunities within this domain.

Dr. Himanshu Dhumras, a distinguished scholar with a Ph.D. in mathematics and a portfolio ofresearch papers published in prestigious high impact factor journals, shared profound insights into therealm of research. He passionately advocated that undergraduate student aspiring for master's

degreesshouldpromptlyimmersethemselvesinresearchendeavours.

Expanding on the horizons of research opportunities, the event shed light on prestigious internshipsavailable in esteemed government institutions like IITs and IISc Bangalore, as well as government organizations such as ISRO, DRDO, and NITIA ayog. The session emphasized how these internships offer invaluable experiences and expose students to cutting-edge research in the field of ComputerScience.

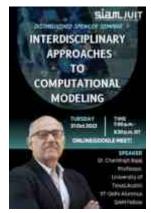
Additionally, the event highlighted international internship programs for Indian students, including opportunities provided by esteemed institutions such as MITACS, IUSSTF, EPFL, DAAD, and the coveted internship program at CERN. These international internships were discussed as transformative experiences that open doors to global perspectives and advanced research methodologies. Recognizing the crucial role of networking in therealm of Computer Science research, the event emphasised the significance of establishing meaningful connections within the academic and professional communities. Networking was highlighted as a vital tool for aspiring researchers to collaborate, learn, and access a myriad of opportunities that can shape their research journey.

The event culminated with an engaging Q&A session, where students eagerly posed questions related to research and explored the diverse opportunities available to them. By the event's conclusion, amultitude of students expressed their enthusiasm to commence research in Computer Science, marking this event as a resounding success. The SIAM JUIT chapter is committed to conducting moresuch events in the future, aiming to foster the growth and development not only of the students associated with us but the entire JUIT studentbody.

4.3.9.2 Dr. Chandrajit Bajaj, Distinguished Speaker Seminar

The SIAM (Society for Industrial and Applied Mathematics) JUITchapter successfully conducted a captivating session with Dr. Chandrajit Bajaj, Professor at the University of Texas (SIAM fellow), on the topicof "Interdisciplinary Approaches to Computational Modeling" under its Distinguished Speaker Seminar Series. The event, held on Wednesday, October 31,2023, was an enlightening and enriching experience eforall attendees.

Professor Chandrajit Bajaj, an accomplishedfigure in the fields of Computer Science and Computational Visualization, currently serves as the Computational and Applied Mathematics Chair in visualisation



and as a Professor of Computer Sciences at UT, Austin. His diverse research in terestsencompass image processing, computational geometry, geometric modelling, and much more.

During this engaging session, Dr. Bajaj shared his extensive knowledge and experience,



shedding light on the fusion of mathematics and computer science to tackle complex problems. Not able highlights of his presentation included the application of optimal control gradient flow (OCF) and black box optimization on surrogate models, his ground breaking work in bio informatics, and the use of neural networks and reinforcement learningin modelling the dynamic nature of biological systems using Al. Dr. Chandrajit Bajaj delivered anengaging and thought-provoking presentation that left a lasting impact on the audience. His deepknowledge and insightful perspectives provided valuable insights into the latest developments and trends, making it a must-attendevent for those seeking to stay on the cuttingedge.

The webinar was proficiently hosted by Ankush Singh, who adeptly guided the conversation and ensured that the webinar was a captivating experience for all. Later on, all participants had the opportunity to interact with Dr. Chandrajit, ask questions, and engage in discussions.

The event was a truetestament to our commitment to fostering a community of learning and professional growth, and we will continue to conduct such great events in the future, which will helpin the growth and development of the students associated with us. Your SIAM JUIT chapter remains dedicated to bringing the latest developments in mathematics and applied sciences to your doorstep.

4.3.9.3 Innovate with NVIDIA: From Zero to Hero 'Ignitesa Technological Revolution at JUIT

The SIAM (Society for Industrial and Applied Mathematics) JUIT Chapter has proudly ushered in a new era of innovation with the successful execution of its flag ship event, "Innovate with NVIDIA: From Zeroto Hero." Held over five immersive days, from November 23 -27, 2023, this ground breaking event saw a convergence of aspiring technologists and visionaries eager to explore the spectacularunion of software and hardware with realmsof IoT, NVIDIA Kit, Microcontrollers, and various other cutting-edge components.

The electric atmosphere at JUIT buzzed with enthusiasm as participants embarkedon a journey from zero to hero, guided by none other than Mr. Ekal Sharma, anex-SIAM JUIT council man who is well versed in IoT and Robotics with work experience in prestigious institutions like IIT stobackitup!

Mr. Sharma spear headed an enlightening three-day workshop from November 23, 2023 to November 25, 2023, introducing participants to the intricacies of IoT, NVIDIA kit, microprocessors, and several other pivotal components that form the backbone of modern technological advancements.



The workshop not only served as a comprehensive primer on the capabilities of IoT, Jetson Nano NVIDIA kit but also delved into the exciting world of Arduino and other key components. Participants were equipped with hands-on experience, enabling them to

grasp the nuances of these cutting-edge technologies and laying the foundation for their transformative ideas.

Following the workshop, the event seamlessly transitioned into an exhilarating hackathon from November 26, 2023 to November 28, 2023 where participants put their new found knowledge intoaction. Teams collaborated tirelessly, harnessing the power of Jetson Nano NVIDIA kit and IoT to create innovative solutions that pushed the boundaries of technological possibilities.

For the first-year participants, the excitement continued with an exclusive ideathon, providing a platform for budding innovators to showcase their creativity. This segment of the event aimed to inspire and encourage then ext generation of tech enthusiasts from the outset of their academic journey.

The culmination of the hackathon and ideathon during "Innovate with NVIDIA: From Zero to Hero"showcased the remarkable ingenuity of the participants. In the ideathon, Team Dot 04, led by Manya Sethi, emerged victorious, claiming the first position and a coveted prize of Rs.3000. Their innovative idea sand creative approach set them apart in this platform for budding innovators.

Simultaneously, in the hackathon, Team Innovision, under the leadership of Saurav Kumar, secured the first position with an outstanding demonstration of their technological prowess, earning them asubstantial cash prize of Rs.4000. Following closely, Team Incognito, led by Anant Sharma, secured the second position, garnering a prize of Rs.3000. These results underscored the depth of talent and dedication displayed by the participants, reinforcing the success of the event in fostering a culture of innovation and practical application with in the academic community at JUIT.

The success of "Innovate with NVIDIA: From Zero to Hero" is a testament to the commitment of SIAM, JUIT Chapter to foster innovation and provide students with a platform to bridge the gap between theoretical knowledge and practical application.

4.3.9.4 Workshop Phase One: Innovate with NVIDIA

The "Innovate with NVIDIA: From Zero to Hero" event, organised by the SIAM JUIT Chapter, began with palpable excitement and enthusiasm as participants delved into the dynamic worlds of IoT and micro-controllers. This journey of innovation is set to unfold

over three days, with today's sessions laying a solid foundation for the technological exploration ahead.





The day commenced with an insightful introduction to the vast potential of the Internet of Things (IoT) and its transformative impact on various industries. Participants were actively engaged in hands-on sessions that involved working with microcontroller components, such as sensors, breadboards, and Arduino. These activities provided a practical understanding of the intricacies of IoT and the tools used to bring these

technologies to life.

A significant portion of the day was dedicated to virtual learning, where participants sharpened theirskills on the Tinkercad platform. Through simulating circuitry on Tinkercad, they gained a deeperunderstanding of the practical applications of IoT. The sessions were led by Mr. Ekal Sharma, adistinguished former SIAM-JUIT councilman, whose expert guidance brought Arduino circuits to life. Participants successfully illuminated LEDs, merging technical knowledge with creative expression.

As the day concluded, the atmosphere was charged with anticipation for the upcoming sessions. The next two days promise to delve deeper into IoT, with hands-on experimentation on the Jetson Nano Developer Kit, generously provided by NVIDIA. We extend our heartfelt thanks to NVIDIA for enabling this innovative event.

4.3.9.5 Workshop Phase Two Report: Innovate with NVIDIA

Phase Two of "Innovate with NVIDIA: From Zero to Hero" workshop brought participants closer to the heart of technology as they explored the complexities of Arduino and its applications. The day began with an indepth examination of advanced circuits, where participants were challenged to push their creative limits using potentiometers. The room was filled with energy and enthusiasm as attendees actively engaged in crafting and experimenting with intricate Arduino setups.

The learning experience was further enriched with practical demonstrations of sensors, whichhighlighted their real-world applications. Participants observed the functionality of alarm systems and explored the dynamic capabilities of a gyrometer. Thesehands-on sessions provided a deeper understanding of sensor technology, making the learning experience both engaging and immersive.

As Day 2 concluded, anticipation grew for the next phase of the event. Day 3 promises to be asignificant milestone, with a focus on the convergence of IoT, Machine Learning, and

the powerful Jetson Nano platform. Participants can look forward to a day filled with collaborative exploration and hands-on experiences designed to deepen their understanding and spark creativity.





4.3.9.6 Hackathon Evaluation: Innovate with NVIDIA

Following the workshop, the event transitioned into an exhilarating hackathon from November 26th to 28th. Participants were challenged to apply their new found knowledge creatively,



resulting in a variety of innovative projects. Some of the stand out projects included:

- D-FOG: An innovative solution to prevent fogging of car windshields.
- Jeevan Shakti: A next generation emergency response system utilizing drone sand Reinforcement Learning for enhanced manoeuvrability.
- Fire Alarm System: Anadvanced alert system designed for fire emergencies.
- Mask Detection System: A monitoring system for sensitive areas with in hospitals.
- Food Wastage Prevention App: An IoT-based application aimed a treducing food wastage.

These projects exemplified the creativity and problem-solving abilities of the participants, highlighting the event's success innurturing a culture of innovation at JUIT.

The event concluded with a certificate distribution ceremony, where the winners were honoured by the Vice Chancellor, Prof. (Dr.) Rajendra Kumar Sharma. The recognition added a prestigious touch to the participants' achievements, marking the event as a significant milestone in their academic journey.



The success of "Innovate with NVIDIA: From Zero to Hero" is a testament to SIAM-JUIT's commitment to bridging the gap between theoretical knowledge and practical application. The event has undoubtedly fostered an environment of innovation and technological advancement within the academic community at JUIT.

Special thanks are extended to the Head of the CSE and IT departments, and faculty supervisor of the SIAM JUIT Student Chapter, Prof. (Dr.) Vivek Kumar Sehgal, Vice Chancellor Prof. (Dr.) Rajendra Kumar Sharma, and the entire SIAM JUIT Team, including chapter mentors Ayush Vaish and Ekal Sharma, for their unwavering support in making this event are sounding success.



The Winner sand the Runner-Ups being felicitated by the Honourable Vice Chancellor of the University, Prof. Dr. Rajendra Kumar Sharma, with certificates

4.3.9.7 SIAM JUIT's Seminar with Dr. George Biroswas a Resounding Success

The SIAM (Society for Industrial and Applied Mathematics) JUIT Chapter hosted its 6th Distinguished Speaker Seminar with Dr. George Biros on the topic "Fast Algorithms and Machine Learning."





Dr. George Biros, the distinguished W. A. "Tex' 'Moncrief Chairin Simulation-Based Engineering Science sat the University of Texas at Austin, isaprominent figure in computational engineering and sciences. Holding full professor appointments in Mechanical Engineering and Computer Science, he has made significant contributions throughout his career, including serving as an Associate Professor at Georgia Tech and an Assistant Professor at the University of Pennsylvania.

Dr. Biros's expertise spans fast numerical methods and parallel algorithms, particularlyin data analysis and simulation, with not able achievements in medical image analysis and its integration with biophysical modelling. His ground breaking work extends to the development offast algorithms for simulating complex fluids, showcasing a multidisciplinary approach. Recognized for his excellence,

Dr. Biros was part of a team that received the prestigious IEEE/ACM SC03 and SC10 Gordon Bell Awards, highlighting his dedication to advancing computational science and engineering.

For the seminar at JUIT, he discussed the field of SciML (Scientific Machine Learning). He began the discussion by addressing the need for this emerging field and how it differs from the typical machine learning we are familiar with. He then introduced us to one of the key features of SciML: ROMs (Reduced Order Models). After thoroughly explaining the theory behind ROMs, he demonstrated their applications in several complex domains, such as brain tumour modelling, particle separation in a Stokesianfluid, and crystal formation on melted metal surfaces.

Council member Vanshi Goyal then initiated the Question and Answer session, where the speaker responded to audience queries with great patience and deep sincerity. The session concluded with anengaging intellectual discussion between the speaker and the Vice Chancellor of JUIT, Dr. R.K.Sharma. We are pleased to report that the seminar was a tremendous success, with over 80 studentsand faculty members in attendance. The event received high praise from both the Head of the CSE-IT Department and the Vice Chancellor.

Dr. Biros's exploration of SciML during the seminar not only highlighted the theoretical under pinnings of this innovative field but also emphasised its practical importance in solving complex scientific and engineering problems. SciML, which blends traditional machine learning with domain-specific scientific knowledge, offers new avenues for tackling challenges that are beyond thereach of conventional machine learning methods. By integrating physics-based models and machine learning, SciML enables more accurate and efficient simulations in various fields, from biomedical engineering to climate science. The seminar underscored the potential of SciML to revolutionise how we approach scientific research, making it a crucial area of study for aspiring engineers and scientistsat JUIT. The guidance and support of our Vice Chancellor, Dr. R.K. Sharma, and our faculty advisor, Prof. (Dr.) Vivek Kumar Sehgal, were essential to the success of this event.

4.3.9.8 Dr. Alfred Hero's Phenomenal Distinguished Speaker Seminar

The SIAM JUIT Student Chapter had the honour of hosting Dr. Alfred Hero, adistinguished expert in the field of datascience. Dr. Hero, renowned for his contributions and leadership in the academic realm, delivered an insightful presentation on "Al for Anomaly Detection and Security in Healthcare. "Despite the physical distance, Dr. Hero seamlessly connected with the audience online, joining the session from Ann Arbor, Michigan.



In his impressive career, Dr. Hero holds the prestigious position of John H. Holland

Distinguished University Professor of Electrical Engineering and Computer Scienceat the University of Michigan. His remarkable expertise extends to various inter disciplinary programs, including the UM Center for Computational Medicine and Bioinformatics (CCMB), the UM Graduate Programin Applied and Inter disciplinary Mathematics (AIM), the UM Applied Physics



Program, and the Michigan Institutefor Data Science (MIDAS). Delving into his research focus, Dr. Hero is at the forefront of developing theories and algorithms for multimodality data collection, fusion, analysis, and visualization with in the realm of data science. His work is characterised by the utilisation of statistical machine learningand distributed optimization, and it spans across diverse applications. These applications include thedevelopment of wearable technologies for personalised health and predictive medicine, exploration of spatio-temporal networks in biology, climate, and social discourse, anomaly detection methodologies, and data analysis for international security.

Dr. Hero's commitment to advancing the field of data science was evident throughout the session, showcasing not only his impressive academic standing but also his passion for pioneering innovations in the ever-evolving landscape of artificial intelligence and healthcare security. The Secretary of the chapter, Mr. Ankush Singh, served as the host for this enlightening session.

The session delved into the realm of integrative medicine, emphasising a holistic approach that considers individuals as a whole rather than just focusing on specific illnesses or diseases. The discussion extended to the future of healthcare, particularly integrative precision medicine, where patient data, medical phenotype, family history, environmental factors, social behaviour, lifestyle, and genetics are integrated to build a continuous and holistic awareness of one's health over time. Enablers such as Al and wearable body area networks (WBAN) were explored as integral components. WBAN involves the collection of data streams from devices placed around the body, while Al integrates and exploits these data streams using machine learning, enabling continuous monitoring and prediction of health andisease.

The presentation also introduced Bayesian Linear Unmixing (BLU) as a learning

approach, focusing on factors like small explanatory variables, M and A. The core of the presentation included an adaptive transfer learning algorithm and a statistical measure of baseline cognitive variability known as Cognitive Performance Variability (CPV) Score.

Following the detailed discussion of these topics, the session concluded with perspectives on the significant role networks of wearable sensors play in health. Al/MLwas highlighted as a key technology for accurately predicting health outcomes from WBANs, with existing wearable devicesand ML providing accurate predictions of susceptibility. Challenges were acknowledged, such asgeneralising findings to larger, more diverse populations, less intrusive measures of CPV, and thesecurity of WBANs against intrusions, with a consideration for the potential role of deep learning models inclinical health prediction.

While concluding his talk, the speaker emphasised that, despite the significant advancements and successes observed in various domains, DLNs are not yet mature enough to be seamlessly integrated into health care practices.

Theseminar's conclusion featured an interactive Q&A session, where the Host of th. Dr. Hero expressed his appreciation for the insightful questions posed by the audience, further emphasising the intellectual engagement and curiosity of the attendees. As the SIAM JUIT Student Chapter continues its commitment to academic and professional growth, it looks forward to organizing more enlightening events, bringing together distinguished speakers and eager learners to explore the fore front of applied mathematics and its inter disciplinary applications.

4.3.9.9 Tech Prep Rally: Mock Coding Challenge for SDE Roles

The SIAM-JUIT Student Chapter, organised a valuable two-day event titled the Tech Prep Rally: Mock Coding Challenge for SDE Roles. Held on February 14th and 15th, 2024, at CL-10, thecomputer lab on the first floor of the main academic building, this initiative aimed to equip students with the necessary skills and experience to succeed in Software Development Engineer (SDE) roles.



The event provided a practical introduction to coding challenges, designed to simulate the real-world technical assessments that students may encounter in their careers. Participants had the opportunity toengage with a specially developed coding competition platform, aligned with the current demands of software engineering roles. Through a series of thoughtfully designed coding exercises, attendees were able to enhance their problem-solving abilities and develop their algorithmic thinking.

The enthusiasm and dedication of the participants were evident in the impressive turnout, with 57 submissions received over the two days. Each submission reflected the hard work and commitment of the student community, showcasing their determination to

excel in the field of software engineering.

Reflecting on the success of the Tech Prep Rally, Mr. Ayush Vaish, the former President of theSIAM-JUIT Student Chapter, expressed his gratitude for the collaborative efforts that made the eventpossible. He shared that the goal of the Tech Prep Rally was to provide students with a platform to sharpen their coding skills and gain valuable insights for technical interviews. Mr. Vaish acknowledged the strong response from the students, which highlighted the talent and enthusiasm with in the community.

Mr. Vaish's own experience, including securing an internship at Microsoft India during his 3rd year, has given him a deep appreciation for the importance of coding proficiency in professional growth. His active involvement in competitive programming and data structures and algorithms reflects his commitment to helping fellow students on their path to SDE roles.

The Tech Prep Rally: Mock Coding Challenge for SDE Roles represents the SIAM-JUIT Student Chapter's continued dedication to supporting and empowering the next generation of software engineers.

4.3.9.10 Cyber Savvy-Secure your Digital World

The cyber security session titled "Cyber savvy: Securing Your Digital World," organized by SIAM JUIT on March 7th, 2024, brought together students from various technical institutions across Himachal Pradesh for an engaging exploration of the critical aspects of cyber security. The event offered an immersive journey into the intricate world of cyber threats and defences, equipping participants with the knowledge and skills necessary to safe guard their digital environments.



The session commenced with an insightful presentation by Mr. Anant Sharma, a second-year B.Tech. student and SIAM JUIT member, who captivated the audience with his deep

dive into the world of hackers and network vulner abilities. He provided a comprehensive overview of the diverse motivations behind cyber-attacks and illuminated the complexities of various network architectures, including wiredand wireless networks, IoT devices, and cloud infrastructures. His discussion further extended to advanced persistent threats (APTs), social engineering tactics, and the crucialrole of threat intelligence inenhancing network defences.

Following this, Mr. Aman Shrivastava, Treasurer of SIAM JUIT, delivered a practical demonstration on Data Confidentiality (DC) techniques. His hands-on approach allowed attendees to experience first hand the implementation of robusten cryption protocols and accesscontrols, essential for protecting sensitive data. This segment also covered secure

communication channels, data storage practices, and the importance of regular backups, reinforcing the critical need for safe guarding information in today's digitalage.



The session continued with a comprehensive discourse by Ms. Vanshi Goyal, Joint Secretary of SIAM JUIT, on the insidious nature of viruses and their detrimental impacts. She provided a thorough analysis of various forms of malware, including ransomware, trojans, and worms, while also offering preventive strategies to mitigate their effects. Her discussion also encompassed the importance of intrusion detection systems (IDS), firewalls, and endpoint security solutions as integral components of a holistic cyber security strategy.

The event concluded with an interactive quiz that sparked enthusiastic participation among attendees. This dynamic platform served to reinforce the key insights shared during the session, ensuring that the knowledge imparted was both engaging and memorable.

Overall, the "CYBERSAVVY: Securing Your Digital World" session proved to be a transformative experience, empowering participants with a profound understanding of cybersecurity fundamentals. The session equipped them with actionable strategies to navigate the complexities of the digital landscape with confidence and vigilance.

4.3.9.11 Dr. David A. Bader gave a phenomenal talk on Analysis of Data using Massive Scale Graphs in collaboration with SIAM JUIT

JUIT, Waknaghat, March 14, 2024 – The Society for Industrial and Applied Mathematics (SIAM) JUIT chapter hosted acaptivating lecture by Dr. David A. Bader, adistinguished Professor at the New Jersey Institute of Technology. Dr. Bader, a SIAM fellow and renowned researcher, delved into the fascinating world of big data analytics using massive-scalegraphs. Dr. Bader's accomplishments are at estament to his exceptional career.



He has co-authored over 300 scholarly papers, garnered best paper

awardsat top conferen ces, and currently serves on the leadershi





p team of Northeast Big Data Innovation Hub. His influence extends beyond academia, asevidenced by his recognition as a technology influencer and his pioneering role in building the first Linux super computer, adevelopment credited with revolutionizing high-performance Computing.

Dr. Bader's biography further illuminates his remarkable career. He has served as a lead scientist in numerous DARPA programs, programs knownfor fostering ground breaking research, and is a recipient of prestigious awards, including the NVIDIA AI Lab (NVAIL)

award and a Facebook Research Al Hardware/Software Co-Designaward.

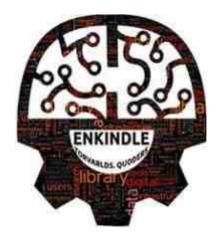
The session offered a unique glimpse into Dr. Bader's research at the NJIT Bader Lab. He specifically discussed open-source libraries, Arkouda and Arachne, designed for large-scale graph data analytics. Arkouda provides a powerful foundation for graph analytics, while Arachne, an extension built on Arkouda, of ers high-performance implementations of graph kernels using the Chapel programming language. These tools empower researchers to

tackle complex data analysis challenges that would be intractable with traditional methods. The audience had the invaluable opportunity to engage with Dr. Bader through a question and answer session, further enhancing their understanding of the presented topics and fostering meaningful dialogue.

Special gratitude is extended to the faculty advisor, Prof. (Dr.) Vivek Kumar Sehgal, whose stead fast support has been instrumental in the success of SIAM JUIT. Additionally, sincere appreciation is extended to the Vice Chancellor, Prof. (Dr.) Rajendra Kumar Sharma, for his continuous encouragement and endorsement of academic excellence at JUIT.

The SIAM JUIT chapter remains stead fast initsmission to promote learning, professional development, and collaboration through its acclaimed Special Speaker Seminar Series. By featuring esteemed speakers like Dr. David A. Bader, the chapter underscores its dedication to staying at the forefront of advancements in applied mathematics, computational science, and related fields. These initiatives significantly benefit the academic community and contribute to the professional growth ofstudents and professionals associated with SIAM JUIT. The chapter's commitment to hosting suchevents ensures that students and researchers have access to the latest developments in data science and high-performance computing, preparing them to be future leaders in these rapidly evolving fields.

4.3.10 TECHNICAL CLUB



4.3.10.1 **Enkindle**

The technical club of Department of Computer Science and the Department of Information Technology "ENKINDLE" has been started with the objective of development and exchange of relevant knowledge to learn and develop skills in various aspects of programming and hardware development and become aware of the technological advancements in various spheres of computer science engineering.

The club aims to work in collaboration with all the departments of JUIT to be able to meet their software requirements.

The technical club has two dedicated wings QUODERS & TORVALDS.

Quoders – The Open-Source Community Open-Source languages and applications are becoming popular by the day. The purpose of QUODERS is to introduce students to the vibrant Open-Source community which is filled with experienced and technically gifted programmers from across the globe. By helping students connect to the open-source community, QUODERS wants to make it easy for the programmers to get help, inputs, or maybe even partners for a project.

Torvalds – The Programming Hub TORVALDS creates a common platform for the students to share their programming experiences, get help with every day programming and create useful projects for the community. The objective of TORVALDS is to make students efficient and responsible coders and prepare them for various coding competitive platforms.

4.3.10.2 **Vision of Club**

ENKINDLE envisions a collaborative hub of innovation at JUIT, uniting students across disciplines to explore the forefronts of IoT, robotics, and machine learning. Our vision is to foster a dynamic environment where members, guided by experienced mentors, unleash their creativity and pioneer transformative solutions. Through our wings, QUODERS and TORVALDS, we aim to equip students with the skills and resources to excel in programming and hardware development. By collaborating with departments university-wide, we strive to address diverse software needs and become integral to JUIT's pursuit of academic excellence and technological advancement. Ultimately, ENKINDLE seeks to inspire the next generation of tech leaders, driving progress and making a positive impact on society.

4.3.10.3 Faculty Coordinators:

Dr. Aman Sharma, Assistant Professor (SG), CSE/IT, Email: aman.sharma@juitsolan.in, Dr. Diksha Hooda, Assistant Professor (SG), CSE/IT, Email: diksha.hooda@juitsolan.in

Student Coordinators:

Naman Pratap Singh, Email: 211171@juitsolan.in

Shruti Kadyan, Email: 211177@juitsolan.in

Note: Interested Students can contact the faculty and student coordinators

4.3.10.4 Technical Contributions

"Innovation in Motion" Hands on Workshop

The Enkindle club of Department of CSE/IT at Jaypee University of Information Technology (JUIT) successfully concluded its three-day workshop on "Innovation in Motion: Robotic Arm Technology" with a grand valedictory session held on March 20th, 2024. The event was marked by a high tea session and the distribution of prizes to the winners of the Ideathon competition and for innovative



implementations. During the valedictory session, esteemed faculty members Dr. Aman Sharma and Dr. Diksha Hooda, Assistant Professors of CSE/IT, were honored with mementos for their significant contributions to the workshop. The awards were presented by Honorable Vice Chancellor Prof. (Dr.) R. K. Sharma, along with Dean Academics and Research Prof. (Dr.) Ashok Kumar Gupta, Associate Dean Innovation Prof. (Dr.) Shruti Jain, and Head of Department CSE/IT Prof. (Dr.) Vivek Kumar Sehgal. The Vice Chancellor took the opportunity to inspire and motivate students by sharing a keynote video of Nvidia CEO at the Global Technology Conference (GTC) 2024. The video showcased cutting-edge advancements in technology, encouraging students to strive for excellence in their respective fields. Students actively participated in the workshop, showcasing their innovative ideas with great enthusiasm. Their dedication and creativity were recognized and rewarded during the prize distribution ceremony. The event also acknowledged the invaluable contributions of Enkindle student club coordinators, Naman Pratap Singh and Shruti Kadiyan, both third-year students of CSE/IT, and Lab coordinators Mr. Pramod Singh (CSE/IT) and Dr. Ajay Kumar (ECE). Overall, the "Innovation in Motion" workshop was a resounding success, thanks to the collaborative efforts of students, faculty, and coordinators. It provided a platform for learning, creativity, and skill development, reaffirming JUIT's commitment to fostering innovation and excellence in technology education.

4.3.10.5 Artificial Intelligence (AI) for Youth training

The AI for Youth initiative by Intelwill help bridge the skill gap byleveraging impactful AI pedagogyenabling educators and studentsalike. Technology innovation andeducation is key tobuilding the

Key Highlights of the Program:

- Deep Understanding of AI: Gain a comprehensive understanding of AI concepts and applications.
- Access and Use of Al Toolset: Learn how to access and utilize cutting-edge Al tools and resources.

• Creating Solutions with AI: Develop the skills to create practical AI solutions. Duration of program was 16 october 2023 to 21 october 2023

The following faculty has participated in the program.

S.No	Email address	Name	Designation
1	vivek.sehgal@juitsolan.in	Prof. (Dr.) Vivek Kumar Sehgal	Professor and Head of Department
2	shubham.goel@juitsolan.in	Dr. Shubham Goel	Assistant Professor (Senior Grade)
3	alok.kumar@juitsolan.in	Alok Kumar	Assistant Professor (Senior Grade)
4	anita@juitsolan.in	Dr Anita	Assistant Professor (Senior Grade)
5	tiratharaj.singh@juitsolan.in	Tiratha Raj Singh	Professor
6	prateek@juitsolan.in	PRATEEK	Assistant Professor (Grade II)
7	nishant.jain@juitsolan.in	Nishant Jain	Assistant Professor (Senior Grade)
8	sunildatt.sharma@juitsolan.in	Dr. Sunil Datt Sharma	Associate Professor
9	nancy.singla@juitsolan.in	Dr. Nancy Singla	Assistant Professor (Senior Grade)
10	kushal.kanwar@juitsolan.in	Kushal Kanwar	Assistant Professor (Senior Grade)
11	jata.shankar@juitsolan.in	Dr. Jata Shankar	Professor
12	diksha.hooda@juitsolan.in	diksha hooda	Assistant Professor (Senior Grade)
13	nishant.sharma@juitsolan.in	Nishant Sharma	Assistant Professor (Senior Grade)
14	amol.vasudeva@juitsolan.in	Amol Vasudeva	Assistant Professor (Senior Grade)
15	ravindara.bhatt@juitsolan.in	Ravindara Bhatt	Associate Professor
16	hari.singh@juitsolan.in	Hari Singh	Assistant Professor (Senior Grade)
17	vipul.sharma@juitsolan.in	Vipul Sharma	Assistant Professor (Senior Grade)
18	raj.kumar@juitsolan.in	Dr. Raj Kumar	Assistant Professor (Grade II)
19	ekta.gandotra@juitsolan.in	Ekta Gandotra	Associate Professor
20	pardeep.kumar@juit.ac.in	Dr. Pradeep Kumar	Associate Professor
21	yugal.kumar@juitsolan.in	Dr. Yugal Kumar	Associate Professor

22	amit.kumar@juitsolan.in	Dr. Amit Kumar	Assistant Professor (Senior Grade)	
23	gopal.singh@juit.ac.in	Dr. Gopal Singh Bisht	Associate Professor	
24	jitendraa.vashistt@juit.ac.in	Dr. Jitendraa Vashistt	Associate Professor	

4.3.11 Workshops attended in the academic year 2023-24

Dates	Subject	Venue	Faculty Name
March 11-15, 2024	Women in Innovation and Entrepreneur Development	Jaypee University of Information Technology	Dr. rakesh kanji
Feb12-20, 2024	UGC-MMTCP programme	Himachal pradesh University	Dr. rakesh kanji
March 11, 2024	Research Methodology	Shri Muktanand College Gangapur, Dist. Chhatrapati Sambhajinagar	Mr. Faisal Firdous
March 01-31, 2024	Remotely Monitored Controlled and Real time implementation of incubation parameters via IOT and cloud Technology	Osmania University	Mr. Faisal Firdous

4.3.12 FDPs attended in the academic year 2023-24

Dates	Subject	Venue	Faculty Name
May 27-June 1, 2024	High Performance Computing and Emerging Trends	JIIT Noida	Prateek
Jan 23-Feb 02, 2024	Information and Communication Technology (ICT)	HPU Shimla	Prateek
Jan 01-07, 2024	Research Papers and Project Writing	CT University, Ludhiana	Prateek
Jan 20-27, 2024	Latest trend and techniques in a software engineering	CHRIST Bangalore	Mr. Faisal Firdous
Feb 05-09, 2024	Data Science and its Applications	Dr. B. C Roy Academy of Professional Courses	Mr. Faisal Firdous
Feb 13-17, 2024	Intellectual Property Rights, Product Development & Entrepreneurship	Poornima Innovation & Incubation Cell, PCE, Jaipur, Rajasthan, India	Mr. Faisal Firdous
Feb 12-20, 2024	UGC-MMTCP programme	Himachal pradesh University	Mr. Praveen Modi

Feb 26-Mar 05, 2024	UGC-MMTCP programme	Himachal pradesh University	Dr. Maneet Singh
April, 2024	Certified as a coach of Al for Youth Program in India by Dell Technologies.	JUIT, Waknaghat	Dr. Ekta Gandotra
March 14, 2024	IP Awareness/Training Program under National Intellectual Property Awareness Mission organized by Intellectual Property Office, India.	JUIT, Waknaghat	Dr. Ekta Gandotra
Feb 26- Mar 05, 2024	NEP 2020 orientation and sensitization programme under Malaviya Mission Teacher Training Programme (MM-TTC) of University Grant Commission (UGC) organized by Malaviya Mission Teacher Training Centre, HPU, Shimla.	Himachal Pradesh University	Dr. Ekta Gandotra
Jan 23-Feb 02, 2024	NEP 2020 orientation and sensitization programme under Malaviya Mission Teacher Training Programme (MM-TTC) of University Grant Commission (UGC) organized by Malaviya Mission Teacher Training Centre, HPU	Himachal Pradesh University	Dr. Ekta Gandotra
Mar 11-15, 2024	Women in Innovation and Entrepreneur Development (WIED)	JUIT, Waknaghat	Dr. Ekta Gandotra
Feb 26-Mar 05, 2024	NEP 2020 orientation and sensitization programme under Malaviya Mission Teacher Training Programme (MM-TTC) of University Grant Commission (UGC) organized by Malaviya Mission Teacher Training Centre, HPU, Shimla.	Himachal Pradesh University	Dr. Deepak Gupa
Jan 23- Feb 05, 2024	NEP 2020 orientation and sensitization programme under Malaviya Mission Teacher Training Programme (MM-TTC) of University Grant Commission (UGC) organized by Malaviya Mission Teacher Training Centre, HPU	Himachal Pradesh University	Dr. Deepak Gupa

Jan 23- Feb 05, 2024	NEP 2020 orientation and sensitization programme under Malaviya Mission Teacher Training Programme (MM-TTC) of University Grant Commission (UGC) organized by Malaviya Mission Teacher Training Centre, HPU	Himachal Pradesh University	Dr. Nancy Singla
Feb 26-Mar 05, 2024	NEP 2020 orientation and sensitization programme under Malaviya Mission Teacher Training Programme (MM-TTC) of University Grant Commission (UGC) organized by Malaviya Mission Teacher Training Centre, HPU, Shimla.	Himachal Pradesh University	Dr. Nancy Singla
Mar 11-15, 2024	Women in Innovation and Entrepreneur Development (WIED)	JUIT, Waknaghat	Dr. Nancy Singla
Mar 14, 2024	IP Awareness/Training Program under National Intellectual Property Awareness Mission organized by Intellectual Property Office, India.	JUIT, Waknaghat	Dr. Nancy Singla
April, 2024	Certified as a coach of Al for Youth Program in India by Dell Technologies	JUIT, Waknaghat	Dr. Nancy Singla
April, 2024	Certified as a coach of Al for Youth Program in India by Dell Technologies	JUIT, Waknaghat	Dr. Vipal Kumar Sharma
Mar 18-27, 2024	UGC-MMTCP programme	Himachal pradesh University	Dr. Vipal Kumar Sharma
Mar 01, 2024	Entrepreneur Unleashed: A Journey from ideas to Impact	JUIT, Waknaghat	Dr. Nancy Singla
April, 2024	Certified as a coach of Al for Youth Program in India by Dell Technologies	JUIT, Waknaghat	Dr. ANITA SARDANA
Mar 11-15, 2024	Women in Innovation and Entrepreneur Development	Jaypee University of Information Technology	Dr. ANITA SARDANA
Feb12-20, 2024	UGC-MMTCP programme	Himachal pradesh University	Dr. ANITA SARDANA

Feb 26-Mar 05, 2024	NEP 2020 orientation and sensitization programme under Malaviya Mission Teacher Training Programme (MM-TTC) of University Grant Commission (UGC) organized by Malaviya Mission Teacher Training Centre, HPU, Shimla.	Himachal pradesh University	Dr. ANITA SARDANA
Mar 01, 2024	Entrepreneur Unleashed: A Journey from ideas to Impact	JUIT, Waknaghat	Dr. ANITA SARDANA
Mar 14, 2024	IP Awareness/Training Program under National Intellectual Property Awareness Mission organized by Intellectual Property Office, India.	JUIT, Waknaghat	Dr. ANITA SARDANA

4.3.13 **Publications: 2024:**

4.3.13.1 **Book(s):**

Name of Faculty	Name of Book	Reference	Publisher
Pardeep Kumar, Prabhishek Singh, Manoj Diwakar, Deepak Garg	Healthcare Industry Assessment: Analyzing Risks, Security, and Reliability (Ist)	2024, [ISBN: 978-3- 031-65433-6]. Google Search	London: Springer Cham.

4.3.13.2 **Book Chapter(s):**

Name of faculty	Book Chapter Title	Name of Book	Reference	Remark
Nadia, Ekta Gandotra , Mohd Faizan Siddiqui	Deep Learning Ensembles in Translational Bioinformatics	In Advances in Ubiquitous Sensing Applications for Healthcare	2024, pp. 1-15: [ISBN: 9780443222993]. Google Search	Academic Press.

4.3.13.3 **Journal(s):**

Name of Faculty	Title of Article	Name of Journal	Referenc e	Citation (Since publication)
Raghavendra Kumar, Pardeep Kumar, Yugal Kumar	Addressing stock market time series trends and volatility using optimised DE- LSTM model.	International Journal of Operational Research	50 (4), 426-445	DOI: 10.1504/IJOR.2024 .140482 [SCOPUS, UGC Care]. Google Citation

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Shailendra Pratap Singh, Prabhishek Singh, Manoj Diwakar, Pardeep Kumar	Improving quality of service for Internet of Things(IoT) in real life application: A novel adaptation based Hybrid Evolutionary Algorithm.	Internet of Things (Elsevier),	27 (101323), 1-20	DOI: https://doi.org/10.1 016/j.iot.2024.1013 23 [SCOPUS, SCI, UGC Care]. Google Citation
Digvijay Puri, Deepak Gupta	H-Mrk-Means: Enhanced Heuristic Mrk-Means for Linear Time Clustering of Big Data Using Hybrid Meta-Heuristic Algorithm.	Journal of Information & Knowledge Management	Online (), 2450054	DOI: https://doi.org/10.1 142/S0219649224 500540 [SCOPUS]. Google Citation
Digvijay Puri, Deepak Gupta	A novel linear time clustering using heuristically improved mrk-medoids based on modified squirrel search algorithm	Australian Journal of Electrical and Electronics Engineering,	Online (), 1-16	DOI: https://doi.org/10.1 080/1448837X.202 4.2333670 [SCOPUS]. Google Citation
Monika, Rakesh Kumar Bajaj, Aman Sharma	Developing Neutrosophic Cubic Spherical Fuzzy Sets along with their Exponential Aggregation Operators for Decision-Making Problems.	Neutrosophic Sets and Systems	70 (), 197- 216	DOI: https://doi.org/10.5 281/zenodo.13173 139 [SCOPUS, UGC Care]. Google Citation
Surjeet Singh, Vivek Kumar Sehgal	A hybrid data fusion approach with twin CNN architecture for enhancing image source identification in IoT environment	Computational Intelligence	18 March 2024	https://doi.org/10.1 111/coin.12631

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Payal Thakur, Vivek Kumar Sehgal	Synergizing edge computing and blockchain for cyber-physical systems	Concurrency and Computation: Practice and Experience	28 February 2024	https://doi.org/10.1 002/cpe.8066
Prateek Thakral, Yugal Kumar	An Improved Water Flow Optimizer for Data Clustering.	SN Computer Science	5 (715)	DOI: https://doi.org/10.1 007/s42979-024- 03048-0 [SCOPUS, UGC Care]. Google Citation
Amit Chauhan, Aman Sharma, Rajni Mohana	A Pre-Trained Model for Aspect-based Sentiment Analysis Task: using Online Social Networking.	Procedia Computer Science	233 (), 35- 44	DOI: https://doi.org/10.1 016/j.procs.2024.0 3.193 [SCOPUS, UGC Care]. Google Citation
Aman Sharma, Divyam Goyal, Rajni Mohana	An ensemble learning-based framework for breast cancer prediction.	Decision Analytics Journal	10 (2024)	DOI: https://doi.org/10.1 016/j.dajour.2023.1 00372 [SCOPUS, UGC Care, ABDC]. Google Citation
Aman Sharma, Raghav Dalmia, Aarush Saxena, Rajni Mohana	A stacked deep learning approach for multiclass classification of plant diseases.	Plant and Soil	Online (), 1-18	DOI: https://doi.org/10.1 007/s11104-024- 06719-2 [SCOPUS, SCI, UGC Care, ABDC]. Google Citation
Piyush Sewal, Hari Singh	Algorithmic Proficiency in Spark Configuration Tuning: An Empirical Study using Execution Time Metrics across Varied Workloads.	Procedia Computer Science	235 (), 2307-2317	DOI: https://doi.org/10.1 016/j.procs.2024.0 4.219 [SCOPUS, UGC Care]. Google Citation

Neha Thakur, Pardeep Kumar, Amit Kumar	Reinforcement learning (RL)-based semantic segmentation and attention based backpropagation convolutional neural network (ABB-CNN) for breast cancer identification and classification using mammogram images.	Neural Computing and Applications	Online (online), 1- 27	DOI: https://doi.org/10.1 007/s00521-024- 09721-y [SCOPUS, SCI, UGC Care]. Google Citation
Piyush Sewal, Hari Singh	Performance optimization of Spark MLlib workloads using cost efficient RICG model on exponential projective sampling.	Cluster Computing	27 ()	DOI: 10.1007/s10586- 024-04478-4 [SCOPUS, SCI, UGC Care]. Google Citation
Monika , Aman Sharma , Rakesh Kumar Bajaj	On identifying suitable hydrogen power plant location under T-spherical fuzzy hypersoft matrix structures.	International Journal of Hydrogen Energy	68 (2024), 1057-1071	DOI: https://doi.org/10.1 016/j.ijhydene.2024 .04.221 [SCOPUS, SCI]. Google Citation
Rajshree Srivastava, Pardeep Kumar	Deep-GAN: an improved model for thyroid nodule identification and classification.	Neural Computing and Applications	36 (), 7685-7704	DOI: https://doi.org/10.1 007/s00521-024- 09492-6 [SCOPUS, SCI, UGC Care]. Google Citation
Rajshree Srivastava, Pardeep Kumar	Performance comparison of various machine learning classifiers using fusion of LBP, intensity and GLCM feature extraction techniques for thyroid nodules classification.	International Journal of Grid and Utility Computing	15 (1), 84- 96	DOI: https://doi.org/10.1 504/IJGUC.2024.1 36708 [SCOPUS, UGC Care]. Google Citation

Jigyasa Goyal, Yugal Kumar, Pardeep Kumar, Arvinder Kaur	An enhanced human learning optimisation algorithm for effective data clustering.	International Journal of Grid and Utility Computing	15 (2), 127-142	DOI: https://doi.org/10.1 504/IJGUC.2024.1 37905 [SCOPUS, UGC Care]. Google Citation
Pardeep Kumar, Raghavendra Kumar	A hybrid framework for time series trends: embedding social network's sentiments and optimized stacked LSTM using evolutionary algorithm.	Multimedia Tools and Applications	83 (9), 34691– 34714- 34714	DOI: https://doi.org/10.1 007/s11042-023- 16997-0 [SCOPUS, SCI, UGC Care]. Google Citation
Neha Thakur, Pardeep Kumar	A systematic review of machine and deep learning techniques for the identification and classification of breast cancer through medical image modalities.	Multimedia Tools and Applications	83 (9), 35849- 5942	DOI: https://doi.org/10.1 007/s11042-023- 16634-w [SCOPUS, SCI, UGC Care]. Google Citation
Piyush Sewal, Hari Singh	Performance Comparison of Apache Spark and Hadoop for machine learning based iterative GBTR on HIGGS and Covid-19 datasets.	Scalable Computing: Practice and Experience	25 (3), 1373-1386	DOI: 10.12694/scpe.v25i 3.2687 [SCOPUS, UGC Care]. Google Citation
Righa Tandon, Ajay Verma, Pradeep Kumar Gupta	D-BLAC: A dual blockchain-based decentralized architecture for authentication and communication in VANET.	Expert Systems with Applications	237 (B), 1- 10	DOI: https://doi.org/10.1 016/j.eswa.2023.12 1461 [SCOPUS, SCI, UGC Care, ABDC]. Google Citation

Meghn Dhalaria, Ekta Gandotra	MalDetect: A classifier fusion approach for detection of Android malware. Expert Systems with Applications	Expert Systems with Applications	235 (2024), 1- 13	DOI: https://doi.org/10.1 016/j.eswa.2023.12 1155 [SCOPUS, SCI, UGC Care]. Google Citation
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4.3.14 **Conference(s):**

Name of Faculty	Title of Article	Conference Title/Name of Journal	Reference	Date
Neha Thakur, Pardeep Kumar	Image Quality Enhancement of Digital Mammograms Through Hybrid Filter and Contrast Enhancement.	Proceedings of the Advancements in Smart Computing and Information Security [2nd.: Marwadi University, Rajkot	pp.194-212. [SCOPUS]. Google Citation	21-May-24

4.3.14.1 **Book(s):**

Name of Faculty	Name of Book	Reference	Publisher
Mayank Singh, Vipin Tyagi, Pradeep Kumar Gupta, Jan Flusser, Tuncer Ören	Advances in Computing and Data Sciences (7th)	2023, [ISBN: 978-3- 031-37940-6] Google Search	Springer Cham
Hari Singh, Ravindara Bhatt, Pradeep Kumar Gupta, Vivek Kumar Sehgal	2022 Seventh International Conference on Parallel, Distributed and Grid Computing (PDGC)(7th) JUIT, Solan, HP, India:	2023, [ISBN: 978-1- 6654-5400-1]. Google Search	IEEE

4.3.14.2 **Book Chapter(s):**

Name of faculty	Book Chapter Title	Name of Book	Reference	Remark
Deepak Gupta, Ekta Gandotra, Yogesh Mohan, Sukhvir Singh	Analysis of Ensemble Methods for Phishing Detection	In Intelligent Multimedia Signal Processing for Smart Ecosystems	2023, pp. 85-100: [ISBN: 978-3- 031-34872-3]. Google Search	Switzerland: Springer, Cham.
Pinki, Pardeep Kumar	A Hybrid Compression Technique with Region of Interest for Medical Images in Wireless Sensor Networks	IoT, Big Data and Al for Improving Quality of Everyday Life: Present and Future Challenges	2023, pp. 3-13: Springer, Cham. [ISBN: 978-3- 031-35782-4]. Google Search	
Akash Kumar Singh, Prateek Thakral	Analysis of Employee Attrition using Statistical and Machine Learning Approaches	Artificial Intelligence of Things 1930, pp. 269-279 Switzerland: Springer Nature.	2023, [ISBN: 978- 3-031-48781-1]. Google Search	
Paras Sharma, Adhiraj Gupta, Rakesh Kumar Bajaj, Prateek Thakral	A Comprehensive Study of Cryptocurrency Trend Analysis Based on a Novel Machine Learning Technique	Cryptology and Network Security with Machine Learning, 1st	2023, pp. 53-61: [ISBN: 978-981- 99-2229-1]. Google Search	Singapore: Springer.
Urvashi Sharma, Meenakshi Sood, Emjee Puthooran, Yugal Kumar	A block-based arithmetic entropy encoding scheme for medical images	Research Anthology on Improving Medical Imaging Techniques for Analysis and Intervention, 1st	2023, pp. 190- 206: [ISBN: 9781668475447]. Google Search	Hershey, Pennsylvani a, USA: IGI Global.
Achyut Tiwari, Aryan Chugh, Aman Sharma	Uses of artificial intelligence with human-computer interaction in psychology	Innovations in Artificial Intelligence and Human-Computer Interaction in the Digital Era	2023, pp. 173- 205: [ISBN: 978- 0-323-99891-8]. Google Search	Elsevier.
P Agarwal, D Rastogi, Aman Sharma	Face Mask Detection Alert System for COVID Prevention Using Deep Learning	Applications of Machine Learning and Deep Learning on Biological Data 1st ed.	2023, pp. 57-74: [ISBN: 9781003328780]. Google Search	New York: Auerbach Publications
Meghna Dhalaria, Ekta Gandotra, Deepak Gupta	Comparative Analysis of Feature Selection Methods for Detection of Android Malware	Convergence of Deep Learning and Internet of Things: Computing and Technology	2023, pp. 263- 284: [ISBN: 9781668462751]. Google Search	IGI Global.

Manoj Diwakar, Prabhishek Singh, Pardeep Kumar	Multimodality medical image fusion in shearlet domain	Digital Image Enhancement and Reconstruction	2023, pp. 317- 328: [ISBN: 9780323985789]. Google Search	Academy Press, Elsevier.
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4.3.15 **Journal(s):**

Name of Faculty	Title of Article	Name of Journal	Referen ce	Citation (Since publication)
Aman Sharma, Rajni Mohana, Ashima Kukkar, Varun Chodha, Pranjal Bansal	An ensemble learning–based experimental framework for smart landslide detection, monitoring, prediction, and warning in IoT- cloud environment.	Environmental Science and Pollution Research	Online (online), 1-23	DOI: https://doi.org/10.10 07/s11356-023- 30683-6 [SCOPUS, SCI, UGC Care, ABDC]. Google Citation
R Mohana, A Nayyar, P Kumar, Aman Sharma	Introduction to the Special Issue on Sentiment Analysis and Affective computing in Multimedia Data on Social Network.	Scalable Computing: Practice and Experience	24 (4), 1- 10	DOI: https://doi.org/10.12 694/scpe.v24i4.2863 [SCOPUS, UGC Care]. Google Citation
Aman Sharma, Divyam Goyal, Rajni Mohana	An ensemble learning-based framework for breast cancer prediction.	Decision Analytics Journal	10 (100372) , 1-15	DOI: https://doi.org/10.10 16/j.dajour.2023.100 372 [SCOPUS, UGC Care, ABDC]. Google Citation
Piyush Kanungo, Hari Singh	A feature extraction based improved sentiment analysis on Apache Spark for real-time twitter data.	Scalable Computing: Practice and Experience	24 (4), 847-855	DOI: https://doi.org/10.12 694/scpe.v24i4.2343 [SCOPUS, UGC Care]. Google Citation
Surjeet Singh, Vivek Kumar Sehgal	Deep Learning-based Cnn Multi-modal Camera Model Identification for Video Source Identification	Informatica	Vol 47, No 3 (2023)	https://doi.org/10.31 449/inf.v47i3.4392 }

Piyush Sewal, Hari Singh	Analyzing distributed Spark MLlib regression algorithms for accuracy, execution effciency and scalability using best subset selection approach.	Multimedia Tools and Applications		DOI: https://doi.org/10.10 07/s11042-023- 17330-5 [SCOPUS, SCI, UGC Care]. Google Citation
Surjeet Singh, Vivek Kumar Sehgal	Deep Learning-based CNN Multi-modal Camera Model Identification for Video Source Identification.	Informatica (Slovenia)	47 (3), 417-430	DOI: https://doi.org/10.31 449/inf.v47i3.4392 [SCOPUS, UGC Care]. Google Citation
Sudhanshu Saurabh, Pradeep Kumar Gupta	Functional Network of Neurocognitive Development in Correlations of BOLD Signals.	Journal of Physics: Conference Series	2570 (), 1-9	DOI: 10.1088/1742- 6596/2570/1/012027 [SCOPUS, UGC Care]. Google Citation
Pankaj Sharma, Pradeep Kumar Gupta	Novel Particle Bee Optimisation based Framework for Fault Tolerance in Fog Environment.	Journal of Physics: Conference Series	2570 (), 1-9	DOI: 10.1088/1742- 6596/2570/1/012029 [SCOPUS, UGC Care]. Google Citation
Vipin Tyagi, Mayank Singh, Pradeep Kumar Gupta, Shailendra Mishra	Recent Multidisciplinary Research Advancements in Information Technology and Applied Management for Sustainable Development.	International Journal of Applied Management Science	15 (2), 87-89	DOI: 10.1504/IJAMS.202 3 [SCOPUS, UGC Care]. Google Citation
Himanshu Jindal, Monika Bharti, Singara Singh Kasana, Sharad Saxena	An Ensemble Mosaicing and Ridgelet based Fusion Technique for Underwater Panoramic Image Reconstruction and its Refinement.	Multimedia Tools and Applications	Online (In Press), 1-54	DOI: https://doi.org/10.10 07/s11042-023- 14594-9 [SCOPUS, SCI]. Google Citation

Amit Kumar, Aman Gupta, Mrityunjay Singh	SELF: a stacked- based ensemble learning framework for breast cancer classification.	Evolutionary Intelligence	Online (In Press), 1-16	DOI: https://doi.org/10.10 07/s12065-023- 00824-4 [SCOPUS, UGC Care]. Google Citation
Anju Devi, Amit Kumar , Geetanjali Rathee , Hemraj Saini	User authentication of industrial internet of things (IIoT) through Blockchain.	Multimedia Tools and Applications	82 (12), 19021- 19039	DOI: https://doi.org/10.10 07/s11042-022- 14154-7 [SCOPUS, SCI, UGC Care]. Google Citation
P Rana, V Sharma, Pradeep Kumar Gupta	Lung Disease Classification using Dense Alex Net Framework with Contrast Normalisation and FiveFold Geometric Transformation.	International Journal on Recent and Innovation Trends in Computing and Communication	11 (2), 94-105	DOI: 10.17762/ijritcc.v11i 2.6133 [SCOPUS, UGC Care]. Google Citation
Shefali Varshney, Rajinder Sandhu, Pradeep Kumar Gupta	Cost-Effective Scheduling in Fog Computing: An Environment Based on Modified PROMETHEE Technique.	JUCS: Journal of Universal Computer Science	29 (4), 397-416	DOI: 10.3897/jucs.90429 [SCOPUS, SCI, UGC Care]. Google Citation
Sudhanshu Saurabh, Pradeep Kumar Gupta	Deep Learning-Based Modified Bidirectional LSTM Network for Classification of ADHD Disorder.	Arabian Journal for Science and Engineering	Online (In Press), 1-18	DOI: https://doi.org/10.10 07/s13369-023- 07786-w [SCOPUS, SCI, UGC Care]. Google Citation
Ashok Kumar Tripathi, Pradeep Kumar Gupta , Hemraj Saini , Geetanjali Rathee	MVI and Forecast Precision Upgrade of Time Series Precipitation Information for Ubiquitous Computing.	Informatica (Slovenia)	47 (5), 83-94	DOI: https://doi.org/10.31 449/inf.v47i5.4152 [SCOPUS, UGC Care]. Google Citation

Poonam Rana, Pradeep Kumar Gupta , Vineet Sharma	Detection and Prediction of Breast Cancer Using Improved Faster Regional Convolutional Neural Network Based on Multilayer Perceptron's Network.	Optical Memory and Neural Networks	32 (2023), 86-100	DOI: https://doi.org/10.31 03/S1060992X2302 0054 [SCOPUS, UGC Care]. Google Citation
Shefali Varshney, Rajinder Sandhu, Pradeep Kumar Gupta	An effective multi- criteria decision- making approach for allocation of resources in the fog computing environment.	International Journal of Information Technology & Decision Making	In Press (Accepte d Papers), 1-10	DOI: https://doi.org/10.11 42/S0219622023500 712 [SCOPUS, SCI, UGC Care]. Google Citation
Monika, Rakesh Kumar Bajaj, Aman Sharma	On some new aggregation operators for T-spherical fuzzy hypersoft sets with application in renewable energy sources.	International Journal of Information Technology	Online (In Press), 1-10	DOI: https://doi.org/10.10 07/s41870-023- 01258-y [SCOPUS, UGC Care]. Google Citation
Shivani Rana, Rakesh Kanji, Shruti Jain	Automated System for Movie Review Classification using BERT.	Recent Advances in Computer Science and Communications	16 (8), 1- 9	DOI: 10.2174/266625581 6666230507182018 [SCOPUS, UGC Care]. Google Citation
Ashima Kukkar, Rajni Mohana, Aman Sharma, Anand Nayyar	Prediction of student academic performance based on their emotional wellbeing and interaction on various e-learning platforms.	Education and Information Technologies	In Press (online), 1-12	DOI: https://doi.org/10.10 07/s10639-022- 11573-9 [SCOPUS, SCI, UGC Care]. Google Citation
Ashima Kukkar, Rajni Mohana, Aman Sharma, Anand Nayyar, Mohd Asif Shah	Improving Sentiment Analysis in Social Media by Handling Lengthened Words.	IEEE Access	11 (2023), 9775- 9788	DOI: 10.1109/ACCESS.2 023.3238366 [SCOPUS, SCI, UGC Care]. Google Citation

Rajshree Srivastava, Pardeep Kumar	Performance comparison of various machine learning classifiers using a fusion of LBP, intensity and GLCM feature extraction techniques for thyroid nodules classification.	International Journal of Grid and Utility Computing	In Press (), 1-13	DOI: [SCOPUS, UGC Care]. Google Citation
Rajshree Srivastava, Pardeep Kumar	Optimizing CNN based model for thyroid nodule classification using data augmentation, segmentation and boundary detection techniques.	Multimedia Tools and Applications	In Press (In Press), 1-36	DOI: https://doi.org/10.10 07/s11042-023- 15068-8 [SCOPUS, SCI, UGC Care]. Google Citation
Righa Tandon, Pradeep Kumar Gupta	A Hybrid Security Scheme for Intervehicle Communication in Content Centric Vehicular Networks.	Wireless Personal Communications	Online (In Press), 1-14	DOI: https://doi.org/10.10 07/s11277-023- 10175-z [SCOPUS, SCI, UGC Care]. Google Citation
Meghna Dhalaria, Ekta Gandotra	Binary and Multi-class Classification of Android Applications using Static Features.	International Journal of Applied Management Science	15 (2), 117-140	DOI: https://doi.org/10.15 04/IJAMS.2023.131 670 [SCOPUS]. Google Citation
PankajSharma, Pradeep Kumar Gupta	Optimization of IoT- Fog Network Path and fault Tolerance in Fog Computing based Environment.	Procedia Computer Science	218 (2023), 2494- 2503	DOI: https://doi.org/10.10 16/j.procs.2023.01.2 24 [SCOPUS, UGC Care]. Google Citation

Manoj Diwakar, Pardeep Kumar, Prabhishek Singh, Amrendra Tripathi, Laxman Singh	An efficient reversible data hiding using SVD over a novel weighted iterative anisotropic total variation based denoised medical images.	Biomedical Signal Processing and Control	82 (2023), 1-10	DOI: https://doi.org/10.10 16/j.bspc.2022.1045 63 [SCOPUS, SCI, UGC Care]. Google Citation
Name of Faculty	Title of Article	Conference Title/Name of Journal	Referen ce	Date
Nikhil Jindal, Dhruv Rastogi, Kartik Joshi, Deepak Gupta	Identification of Phishing Attacks using Machine Learning.	Proceedings of the International Conference on Image Information Processing (ICIIP), 7th: Solan, India	pp.941- 946. [SCOPU S]. Google Citation	22-24 November 2023
Mayank Aryaman, Yashica Paliwal, Aman Sharma, Rajni Mohana	Voting Based Ensemble Framework For Crop Recommendation.	Proceedings of the 2023 Seventh International Conference on Image Information Processing (ICIIP), JUIT, Solan, India	pp.7-11. [SCOPU S]. Google Citation	22-24 November 2023
Amit Chauhan, Aman Sharma, Rajni Mohana	A Transformer Model for end-to-end Image and Text Aspect- Based Sentiment Analysis.	Proceedings of the 2023 Seventh International Conference on Image Information Processing (ICIIP), JUIT, Waknaghat, Solan	pp.277- 282. [SCOPU S]. Google Citation	22-24 November 2023
Rajshree Srivastava, Pardeep Kumar	A Novel Model for the Identification and Classification of Thyroid Nodules Using Deep Neural Network.	Proceedings of the International Conference on Machine Intelligence and Signal Processing (MISP), 4th: NIT Raipur	pp.357- 368. [SCOPU S]. Google Citation	12-14 March, 2022

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Himanshu Sharma, Shruti Jain, Amol Vasudeva	Recognition System for Malarial Parasites Causing Protozoa Infections in Thin Blood Smears.	Proceedings of the Annual Flagship India Council International Subsections Conference (INDISCON), Mysore, India 4th: Mysore, India	pp.1-6. [SCOPU S]. Google Citation	5-7 August, 2023
Kshamta Chauhan, Ekta Gandotra	Risk Analysis of Android Applications using Static Permissions and Convolutional Neural Network.	Proceedings of the International Conference on Contemporary Computing (IC3-2023) 15th: JIIT, Noida, India	pp.269- 273. [SCOPU S]. Google Citation	3-5 Aug. 2023
Ruchi Verma	Analyzing the machine learning models for seizure detection using EEG frequencies.	Proceedings of the International Conference on Parallel Distributed and Grid Computing (PDGC) [7th: Juit, Waknaghat	pp.99- 103. [SCOPU S]. Google Citation	25-27 November 2022
Mrityunjay Singh, Amit Kumar , Aashima Juneja, Shivam Pandey	Machine Learning Based Framework for Cryptocurrency Price Prediction.	Proceedings of the International Conference on Secure Cyber Computing and Communication (ICSCCC), Jalandhar, India [3rd: Jalandhar India	pp.31- 36. [SCOPU S]. Google Citation	26-28 May 2023
Righa Tandon, Ajay Verma, Pradeep Kumar Gupta	Nature-inspired whale optimization technique for efficient information exchange in vehicular networks.	Proceedings of the International Conference on Communication Systems and Network Technologies (CSNT) [12th: Bhopal India	pp.833- 838. [SCOPU S]. Google Citation	08-09 April 2023

R. Verma, Ravindara Bhatt	Security Issues and Challenges of Big Data Analytics.	Proceedings of the International Conference on Parallel, Distributed and Grid Computing (PDGC) [7th: JUIT Waknaghat, India	pp.61- 66. [SCOPU S]. Google Citation	25-27 November, 2022
Righa Tandon, Ajay Verma, Pradeep Kumar Gupta	RVTN: Recommender system for vehicle routing in transportation network.	Proceedings of the International Conference on Parallel, Distributed and Grid Computing (PDGC) [7th: JUIT, Waknaghat, Solan	pp.352- 356. [SCOPU S]. Google Citation	25-27 November 2022
Harshit Saxena, Divyansh Joshi, Hari Singh , Rohit Anand	Comparison of Classification Algorithms for Alzheimer's Disease Prediction.	Proceedings of the 2022 Seventh International Conference on Parallel, Distributed and Grid Computing (PDGC) [7th: JUIT, Solan, HP, India	pp.687- 692. [SCOPU S]. Google Citation	25-27 November 2022
Meghna Dhalaria, Ekta Gandotra	Android Malware Risk Evaluation Using Fuzzy Logic.	Proceedings of the International Conference on Parallel, Distributed and Grid Computing (PDGC) [7th: JUIT, Waknaghat	pp.341- 345. [SCOPU S]. Google Citation	25-27 November 2022
Righa Tandon, Ajay Verma, Pradeep Kumar Gupta	Blockchain enabled vehicular networks: a review.	Proceedings of the International Conference on Multimedia, Signal Processing and Communication Technologies (IMPACT) [5th: AMU, Aligarh, India	pp.1-6. [SCOPU S]. Google Citation	26-27 November 2022

Arush Kaushal; Vivek Kumar Sehgal	Landslide Susceptibility Detection Using ResNet	2023 3rd Asian Conference on Innovation in Technology (ASIANCON)	PP 1-9 [SCOPU S]. Google Citation	27 August 2023
Arush Kaushal; Vivek Kumar Sehgal	Threshold Based Real-Time Landslide Prediction System Using Low-Cost Sensor Networks	2023 3rd Asian Conference on Innovation in Technology (ASIANCON)	PP 1-9 [SCOPU S]. Google Citation	27 August 2023
Shefali Varshney, Rajinder Sandhu, Pradeep Kumar Gupta	Developing MCDM-Based Technique to Calculate Trustworthiness of Advertised QoE Parameters in Fog Computing Environment.	Proceedings of the International Conference on Machine Learning, Image Processing, Network Security and Data Sciences [3rd: NIT Raipur, India	pp.705- 714. [SCOPU S]. Google Citation	11-12 December 2021

4.4 DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

4.4.1 **Department Vision and Mission**

(a) Vision

To be a centre of excellence with highest scholarly and entrepreneurial benchmarks in Electronics and Communication Engineering in India and abroad

(b) Mission

M1: To provide a thorough grounding in electronics & communication engineering and computer engineering through investigative laboratory work and classroom lectures and field demonstrations.

M2: To promote the establishment of centres of excellence in niche technology areas to nurture the spirit of innovation and creativity among faculty and students.

M3: To discover and disseminate new findings from rigorous research that advances and improves the overall quality of life.

4.4.2 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.	Emjee Puthooran	PhD	Medical Instrumentation and Signal Processing, Image Processing, Soft Computing Techniques	
4.	Harsh Sohal	PhD	VLSI Design, FPGA based Algorithm Implementation	
5.	Naveen Jaglan	PhD	Microwave Communication, Planar and Conformal Microstrip Antennas	
6.	Nafis Uddin Khan	PhD	Signal and Image Processing	
7.	Salman Raju	PhD	RF & Microwave Engineering, Digital Filter Design	
8.	Shweta Pandit	PhD	Cognitive Radio, Wireless Communication	
9.	Sunil Datt Sharma	PhD	Signal Processing & Applications	
10.	Nishant Jain	PhD	Biomedical Signal Processing, Image Processing	
11.	Vikas Baghel	PhD	Radar Signal Processing, Adaptive Signal Processing, Soft and Evolutionary Computing	

12.	Alok Kumar	PhD	Communication Systems, Cognitive Radio, Wireless Sensor Networks
13.	Pradeep Garg	PhD	Genomic Signal Processing
14.	Pragya Gupta	MTech	Communication Engineering, Image Processing
15.	Munish Sood	MTech, MBA (HR)	Computer Vision, Deep Learning

4.4.3 Programs

4.4.3.1 Undergraduate Programs

The Department of Electronics and Communication Engineering focuses not only on the fundamentals of Communication Engineering but also the basic engineering and field implementation aspects of analog and digital electronics. The courses are designed deftly to make the fundamentals of students strong to be able to pursue career in both industry and research with poise. To ensure that the courses remain pertinent to industry and cater to the needs of students, the department offers the following courses in Under-Graduate Degree Program:

B.Tech. in Electronics & Communication Engineering (ECE):

B.Tech. in Electronics and Computer Engineering (ECM)

The candidates are selected for admission to BTech through JEE and 10+2 basis. 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 hardware/software tools such as MATLAB, LABVIEW, PSPICE, Xilinx Vivado, Model-Sim, Xilinx Zed Board, FPGA kit, Cadence Virtuouso, and Ansys HFSS etc. Other activities like workshops, seminars, hackathons, and expert talks are also organized by the department regularly. With an aim to nurture and develop the young minds, ECE Department have Robotic and Technovatorz Clubs. Along with that department facilitate the University student with the loT lab, Drone Lab, Mitsubshi Factory Automation Lab, and Robotix Lab.

4.4.3.2 Post Graduate Programs

The department offers two MTech Programs in Electronics and Communication Engineering and Electronics and Communication Engineering with specialization in IoT. The candidates are selected based on the GATE score or an entrance test (PGET). The program covers a number of areas like next generation wireless systems, IoT architecture and protocols; Industrial automation; Robotics; Computer communication systems and networks; Signal and image processing; Machine learning for IoT; Microelectronics and VLSI Design; embedded system 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.

4.4.3.3 PhD Program

The Department of ECE offers PhD program in Electronics & Communication Engineering. The Department promotes strong exposure in the area of Digital Signal and Image Processing, Microwave Engineering, VLSI Design, Speech Processing, Digital and Data Communication, Wireless and Mobile Communication Systems, Automation, Robotics and Control.

4.4.4 Laboratory Facilities

Laboratory support for the lecture courses is 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, HFSS, and Cadence VIRTUOUSO. 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.

4.4.5 Placement

For the academic year 2023-24, there were 12 eligible participating students for placement and all 12 students got placed in various companies. There was a total of 12 offers to these students. The students are placed in companies like Rockwell Automation, Coforge, Infostride, Planet Spark, MWIDM, Geekster, Kusho.Al, Agsure, SRAAS, Wissen Research.

4.4.6 New Courses introduced during the year

NIL

4.4.7 PhD Completed

No student completed his/her PhD in the academic year 2023-24.

4.4.8 PhD Enrolled

For the academic year 2023-24, two new scholars enrolled in Ph.D. program.

SNo	Roll No.	Name
1	236001	Shalini Bhickta
2	236002	Ritika Rattan

4.4.9 Lab Facilities

4.4.9.1 **New Labs**

Following new labs are established in the academic year 2023-24

• ROBOTIC ARM LAB SET-UP IN MITSUBISHI FACTORY AUTOMATION LAB

The department of ECE has signed a MoU with Mitsubishi Electric India Private Limited. Under this MoU, students will be trained in the area of Industrial Automation by the experts from Mitsubishi Electric India Private Limited. This will enable the students to acquire the skill set required for the industry 4.0. Earlier Mitsubishi had provided FA Learning setup and in this academic year a new Robotic arm setup consisting of an Articulated Robot having six Degrees of Freedom (DOF) 6 and 4Kg payload capacity is made available. Robotic arms are devices that have been designed to do a given activity or job swiftly, correctly, and effectively. These are usually motor-driven consisting of a collection of joints, articulations, and manipulators, and are employed to accomplish heavy and/or repetitive processes quickly and consistently. Robotic arms enhance the safety of workers, accelerate production, and improve overall productivity. These are particularly valuable in the industries of industrial production, manufacturing, machining, and assembly.

Drone Lab and 3D Printing Facility in Drone Lab

In the Drone Lab, a cutting-edge facility designed to foster innovation and research in unmanned aerial systems (UAS). This initiative aligns with our commitment to staying at the forefront of technological advancements and providing students with hands-on experience in emerging technologies. The Drone Lab aims to equip students with practical knowledge in drone technology, facilitate R&D projects, support interdisciplinary collaboration in robotics, automation, and AI, and prepare students for careers in drone-related industries. It features state-of-the-art facilities, including high-precision GPS systems, flight simulators, and a fabrication workshop with 3D printer. The lab has been actively engaged in activities such as drone workshops, BTech projects, collaborative research, and competitions. Looking ahead, the Drone Lab plans to expand its courses and workshops on advanced drone topics and continue supporting high-quality research that pushes the boundaries of drone technology. In the current academic year, the department has significantly improved the lab by adding a state-of-the-art 3D printer. This addition enhances practical learning, fosters innovation, and supports research projects. The ECE Department is committed to using advanced technologies to prepare students for the evolving tech landscape and promote groundbreaking research.

4.4.9.2 Lab Staff with qualification

S. No	Name	Qualification	Designation
1	Dr Ajay Kumar Singh	PhD	Sr. Lab Engineer
2	Dhirendra Kumar Singh	BTech	Sr. Lab Engineer
3	Jyotsna Bajaj	MTech	Sr. Lab Engineer
4	Kamlesh Kumar Srivastava	B Sc, BTech	Lab Engineer
5	Shambhoo Nath	ITI Diploma in ECE	Lab Technician
6	Ms. Rajni Devi	ITI Diploma in Compters	Jr. Assistant

4.4.10 **Patent Filed and Granted:**

S No	Title of Patent	Members	Application No
1	A Multiplexer based MAC architecture Implementation on FPGA	Rajkumar Sarma, Cherry Bhargava & Shruti Jain	Granted 202011026964
2	Household Waste Heat Harvesting System for Energy Generation	Shruti Jain, Meenakshi Sood, Pramod Kumar	Published 202311047900
3	Real-time automated recognition and classification of Indian Arts and Paintings using AI and Deep Learning	Vansh Anand, Pardeep Garg	Published, 202311061868
4	Integrative Water Quality Monitoring System: IoT Sensors, ML Analysis, and LLM Guidance for Real-Time Potability Assessment and Sustainable Water Management	Tushar Paul, Priyansh Garg, Rohit Raj, Shruti Jain	Published, 202411005596
5	Autonomous Firefighting Robot System with Dynamic Sensor Fusion and Al-Enhanced Navigation	Abhishek Kumar, Utkarsh Sharma, Deepanshu, Sanat Jain, Vikas Baghel, Nishant Jain	Published, 202411045083

4.4.11 <u>Conferences, Seminars and Workshops / Faculty development program</u>

4.4.11.1 Conferences

Conferences Organised

Dates	Subject	Venue	Participation Faculty Name	Remarks
April 27-29, 2024	International Conference in Emerging Convergent Technologies and Biological Systems (ETBS 2024)	Sanjeevi College of Engineering, Kopargaon	Dr. Shruti Jain	Springer
August 25-26, 2023	International Conference in Mobile Radio Communications and 5G Networks MRCN-2023	University Institute of Engineering and	Dr. Shruti Jain	Springer
		Technology, Kurukshetra University, Kurukshetra		

• Conferences Attended-

Dates	Subject	Venue	Participating Faculty Name	Remarks
Nov 22-24, 2023	Session Chair in the 7th International Conference on Image information Processing (ICIIP)-2023	CSE Department, JUIT	Dr. Shruti Jain, Dr. Harsh Sohal, Dr. Emjee Puthooran, Dr. Nishant Jain	
September 21- 23, 2023.	Session Chair, "2nd International Conference on Advances in Data-driven Computing and Intelligent Systems (ADCIS 2023)"	BITS Pilani, K K Birla, Goa Campus, India	Dr. Vikas Baghel	
July 14-15, 2023	Session Chair, 4th International Conference on "Data Science and Applications (ICDSA 2023)"	Malaviya National Institute of Technology Jaipur, India on	Dr. Vikas Baghel	
June 24th - 28th, 2024	Fifteenth International Conference on Computing, Communication and Networking Technologies (ICCCNT)	IIT-Mandi, in association with IEEE Electronics Packaging Society	Dr. Vikas Baghel	

4.4.11.2 **Workshops**

Workshops Organized

Dates	Subject	Venue	Participation	Remarks
Oct. 31, 2023	iQ-R PLC Training	ECE Department, JUIT	Dr. Rajiv Kumar, Dr. Salman Raju Talluri, Dr. Pardeep Garg	
March 04-09, 2024	One-Week Hands on Workshop on VLSI Design,	JUIT CL1 Lab	74 Students.	By JUIT's Departme nt of Electronic s and Communic ation Engineerin g in collaborati on with the Departme nt of Technical Education, Vocational , and Industrial Training, Governme nt of Himachal Pradesh and Institution' s Innovation Council (IIC).

rch 4-9, 2024	One Week Hands-on workshop on VLSI Design	ECE Department, JUIT	Dr. Rajiv Kumar, Dr. Shruti Jain, Dr. Vikas Baghel, Dr. Harsh Sohal, Dr. Shweta Pandit, Dr. Nishant Jain	6
August 24 -30, 2023	One week 'Megadrone' workshop by IEEE JUIT SB in collaboration with IEEE R10 education activities and IEEE Delhi section	ECL5, Jaypee University of Information Technology, Solan, Himachal Pradesh, India	Dr. Shruti Jain	6
August 17–23, 2023	One week 'ROBOTRIX' workshop by IEEE JUIT SB in collaboration with IEEE R10 education activities and IEEE Delhi section	ECL5, Jaypee University of Information Technology, Solan, Himachal Pradesh, India	Dr. Shruti Jain	6
Jan 29-30, 2024	Training Workshop of Robotic Setup	ECE Department, JUIT	Dr. Rajiv Kumar, Dr. Salman Raju Talluri, Dr. Pardeep Garg	2
July 26, 2024 (JUIT)	5-day in-service Training Program for Vocational Trainers in the Telecom Industry with experts from JUIT, July 24-28, 2023	District Institute of Education and Training (DIET), Shimla	Dr. Shruti Jain	1
August 09, 2023 (JUIT)	Academic staff in-service training program for vocational trainers in the telecom industry, August 7-11, 2023	District Institute of Education and Training (DIET), Shimla	Dr. Shruti Jain	1

Workshops Attended

Dates	Subject	Venue	Faculty Name	Remarks
March 4-9, 2024	One Week Hands-on workshop on VLSI Design	ECE Department, JUIT, Waknaghat	Dr. Shweta Pandit	7
April 30 - May 4, 2024	Advances in Geotechnical Engineering	CE Department of JUIT and IGS Shimla Chapter	Dr. Pardeep Garg Dr. Vikas Baghel	5
Feb 22-23, 2024	3rd Mitsubishi Electric FA Authorised Training Cnter Meet	NIRMA University, Ahmedabad	Dr. Pardeep Garg	2

4.4.11.3 Faculty Development Programs Organized

Dates	Name	Organized by	Faculty Name
March 11-15, 2024	Women in Innovation and Entrepreneur Development (WIED)	Intellectual Property Rights Cell (IPR), National IP Awareness Mission (NIPAM) and Institution's Innovation Council (IIC).	Dr. Shruti Jain (Coordinator)

• Faculty Development Programs Attended

Dates	Name	Organized by	No. of participants
Jan 23 – Feb 02, 2024	NEP 2020 Orientation and Sensitization Program under MM-TTP of UGC on Information & Communication Technology	Malviya Mission Teacher Training Centre, Himachal Pradesh University, Shimla	Prof. Shruti Jain, Dr. Harsh Sohal, Dr. Naveen Jaglan
Feb 26 – March 05, 2024	NEP 2020 Orientation and Sensitization Program under MM-TTP of UGC organized on Academic Leadership, Governance and Management	Malviya Mission Teacher Training Centre, Himachal Pradesh University, Shimla	Prof. Shruti Jain, Dr. Harsh Sohal, Dr. Naveen Jaglan, Dr. Vikas Baghel, Pardeep Garg
Feb. 12- Feb. 20, 2024	NEP 2020 Orientation and Sensitization Program under MM-TTP of UGC	Malviya Mission Teacher Training Centre, Himachal Pradesh University, Shimla	Dr. Nishnat Jain
5th April 2024	Got Certified as a Coach of Al for Youth Program by Dell Technologies and Intel- Digital Readiness		Dr. Nishnat Jain
Feb. 12- Feb. 20, 2024	NEP 2020 Orientation and Sensitization Program under MM-TTP of UGC	Malviya Mission Teacher Training Centre, Himachal Pradesh University, Shimla	Dr. Shweta Pandit, Dr. Vikas Baghel, Dr. Alok Kumar, Dr. Pardeep Garg

4.4.12 **Publications**

4.4.12.1 Journal Publications

Name of Faculty	Title of Article	Name of Journal	Reference	Citation
Rajiv Kumar	A nature-inspired meta-heuristic knowledge-based algorithm for solving multiobjective optimization problems.	Journal of Engineering Mathematics	143 (1), pp. 1-10, DOI: 10.1007/s10665- 023-10304-4 [SCOPUS, SCI, UGC Care]	2

Rajiv Kumar	Understanding of Network Resiliency in Communication Networks with its Integration in Internet of Things - A Survey.	Electrica	23 (2), pp. 318-328, DOI: 10.5152/electrica.20 23.22126 [SCOPUS, UGC Care].	3
Rajiv Kumar	Multi-objective Service Composition Optimization in Smart Agriculture Using Fuzzy- Evolutionary Algorithm.	Operations Research Forum	5 (Article number 43), pp. 1-24, DOI: https://doi.org/10.10 07/s43069-024- 00319-7 [SCOPUS]	0
Shruti Jain, Harsh Sohal	Implementation of A Robust Framework for Low Power Approximate Multiplier Using Novel 3:2 And 4:2 Compressor For Image Processing Applications.	Micro and Nanosystems	15 (3), pp. 223-239, DOI: 10.2174/011876402 9270767231025052 434 [SCOPUS, UGC Care]	0
Shruti Jain, Harsh Sohal	Energy Optimization for RC and RLC Interconnect Design in Low Power VLSI.	Micro and Nanosystems,	16 (1), pp. 26-35, DOI: https://doi.org/10.21 74/01187640292779 63231127105304 [SCOPUS, UGC Care	0
Shruti Jain, Harsh Sohal	Design and Analysis of Low Power Approximate Multiplier Using Novel Compressor	SN Computer Science	5 (457), pp. 1-10, DOI: https://doi.org/10.10 07/s42979-024- 02738-z [SCOPUS, UGC Care]	0
Shruti Jain, Harsh Sohal	Power Area Optimized Approximate Multiplier Design for Image Fusion.	Circuits, Systems and Signal Processing	43 (2024), pp. 2288- 2319, DOI: https://doi.org/10.10 07/s00034-023- 02559-0 [SCOPUS, SCI, UGC Care].	0

Shruti Jain	Curvempirical Transform for Multimodal fusion of Brain Images.		16 (7), pp. 775-786, DOI: https://doi.org/10.21 74/23520965166662 30420090225 [SCOPUS, UGC Care].	0
Shruti Jain	EEG Brain Signal Processing for Epilepsy Detection.	Recent Advances in Electrical & Electronic Engineering	16 (7), pp. 709-716, DOI: 10.2174/235209651 6666230419102435 [SCOPUS, UGC Care].	0
Shruti Jain	Detection of Brain Tumor Employing Residual Network-based Optimized Deep Learning.	Current Computer- Aided Drug Design, online (In Press)	pp. 1-10, DOI: 10.2174/157340992 0666230816090626 [SCOPUS, SCI, UGC Care].	1
Shruti Jain	Automated System for Movie Review Classification using BERT.	Recent Advances in Computer Science and Communication	16 (8), pp. 1-9, DOI: 10.2174/266625581 6666230507182018 [SCOPUS, UGC Care].	0
Shruti Jain	Robust Computational Model for Diagnosis of Mitogenic Activated Protein Kinase Leading Neurodegenerativ e Diseases.	Current Signal Transduction Therapy	E-pub Ahead of Print (), pp. 1-10, DOI: 10.2174/157436241 8666230321152206 [SCOPUS, UGC Care].	0
Shruti Jain	Novel predictive model of cell survival/death related effects of Extracellular Signal-Regulated kinase protein.	Artificial Cells, Nanomedicine, and Biotechnology	51 (1), pp. 158-169, DOI: https://doi.org/10.10 80/21691401.2023.2 189460 [SCOPUS, SCI, UGC Care].	1
Shruti Jain	Classification and Pathologic Diagnosis of Gliomas in MR Brain Images.	Procedia Computer Science	218 (2023), pp. 706- 717, DOI: https://doi.org/10.10 16/j.procs.2023.01.0 51 [SCOPUS, UGC Care].	7

Shruti Jain	Design of filters using current amplifiers for removal of noises from ECG signal.	Procedia Computer Science	218 (2023), pp. 1888-1904, DOI: https://doi.org/10.10 16/j.procs.2023.01.1 66 [SCOPUS, UGC Care].	3
Shruti Jain	Detection of Cerebrovascular diseases using Novel Discrete Component Wavelet Cosine Transform.	Current Computer- Aided Drug Design	19 (2), pp. 137-149, DOI: 10.2174/157340991 9666221209151534 [SCOPUS, SCI, UGC Care].	0
Harsh Sohal	Bone fracture detection using electrical impedance tomography based on STEMlab Red Pitaya.	The Indonesian Journal of Electrical Engineering and Computer Science (IJEECS),	pp. 150-159, DOI: http://doi.org/10.115 91/ijeecs.v32.i1.pp1 50-159 [SCOPUS, UGC Care	0
Naveen Jaglan	A T-shaped compact dualband MIMO antenna system for 5G smart phone applications. Wireless Networks	Wireless Networks,	Online (online), pp. 1-13, DOI: https://doi.org/10.10 07/s11276-023- 03597-x [SCOPUS, SCI, UGC Care	0
Naveen Jaglan	Metal-rimmed eight-element tri- band multiple- input multiple- output system with high efficiency for modern 5G smart phones.	International Journal of Microwave and Wireless Technologies	In Press (online), pp. 1-11, DOI: https://doi.org/10.10 17/S1759078723000 661 [SCOPUS, SCI, UGC Care]	0
Salman Raju Talluri & Vikas Baghel	Improvements in sparse array based beamformer via additional constraints	International Journal of Computing and Digital Systems	14 (1), pp. 719-727, DOI: http://dx.doi.org/10.1 2785/ijcds/140155 [SCOPUS, UGC Care]	0

Vikas Baghel	Fuzzy C-Means Clustering based Selective Edge Enhancement Scheme for Improved Road Crack Detection	Engineering Applications of Artificial Intelligence,	136 (PART A), pp, DOI: https://doi.org/10.10 16/j.engappai.2024. 108955 [SCOPUS, SCI, UGC Care, ABDC]	1
Vikas Baghel	Road Crack Detection using Pixel Classification and Intensity based Distinctive Fuzzy- C Means Clustering.	The Visual Computer, online	pp. 1-12, DOI: https://doi.org/10.10 07/s00371-024- 03470-8 [SCOPUS, SCI, UGC Care, ABDC]	0

4.4.12.2 Books/Book Chapters Published

Name of Faculty	Title of Book Chapter	Name of Book	Reference	Remark
Shruti Jain		Emergent Converging Technologies and Biomedical Systems	ISBN: 978- 981-99-2271- 0	Springer Nature
Shruti Jain, Harsh Sohal	Approximate Arithmetic Circuit for Error-Resilient Application.	Mobile Radio Communications and 5G Networks.	ISBN: 978- 981-19-7981- 1	Singapore: Springer.
Shruti Jain	Development of a Coconut De-Husking Machine.	Emergent Converging Technologies and Biomedical Systems	SBN: 978- 981-99-2273- 4	Singapore: Springer
Vikas Baghel	Brain tumor image segmentation using K-means and fuzzy C-means clustering	Digital Image Enhancement and Reconstruction	ISBN: 97803239857 89] [SCOPUS]	Elsevier Science

4.4.12.3 Conference Publications

Name of Faculty	Title of Article presented	Name of conference	Reference	Dates
Rajiv Kumar	Analyzing the Impact of Uncertainties with Fuzzy Logic on Service Composition in Smart Agriculture.	International Conference on Emerging Smart Computing and Informatics (ESCI)	AISSMS Institute of Information Technology , Pune, India.: 5-7 March, 2024, pp.1- 5.	March 5-7, 2024

Shruti Jain	Prediction of Protein Biomarkers for Mycobacterium fortuitum using Machine Learning Technique	Proceedings of the International Conference on Signal Processing and Communication (ICSC) JIIT, Noida	JIIT, Noida: 21- 23 Dec 2023, pp.416- 421. [SCOPUS]	Dec. 21-23, 2023
Shruti Jain	Recognition System for Malarial Parasites Causing Protozoa Infections in Thin Blood Smears	Proceedings of the Annual Flagship India Council International Subsections Conference (INDISCON), Mysore, India	Mysore, India: 5-7 August, 2023, pp.1- 6. [SCOPUS]	August 5-7, 2023
Naveen Jaglan	A Dual Band Circularly Polarized RFID Reader Antenna for Internet of Things Application	Proceedings of the International Conference on Signal Processing and Communication (ICSC) 9th: NOIDA, India	NOIDA, India: 21- 23 December 2023, pp.13-16. [SCOPUS]	December 21- 23, 2023
Naveen Jaglan	Eight-Element Low- Profile MIMO System for Thin 5G Smartphone Applications.	Proceedings of the International Conference on Signal Processing and Communication (ICSC) 9th: NOIDA, India	NOIDA, India: 21- 23 December 2023, pp.557- 561. [SCOPUS]	December 21-23, 2023

4.4.13 Guest Speakers / Lectures / Visits

4.4.13.1 Guest Speakers

Name of Guest Speaker	Designation of speaker	Topic of Lecture	Date
Dr. Satish Chandra Tiwari	DFT Manager (Principal Design engineer), NXP Semiconductors, INDIA	VLSI Current opportunities and Job Trends	March 4, 2024
Mr. Mayank Singh	Verification Engineer, NXP Semiconductor (Consultant)	RTL VERIFICATION	March 4, 2024
Mr. Ankur Sangal	Technical Lead, HCL Technologies	Xilinx Vivado Tool Flow with FPGA based coding techniques	March 5, 2024
Mr. Mayank Singh	Verification Engineer, NXP Semiconductor (Consultant)	Hands on session on Xilinx Vivado Tool	March 5, 2024

Mr. Ankur Sangal	Technical Lead, HCL Technologies	Hand"s on session IP Integrator using Xilinx Vivado Tool	March 5, 2024
Dr. Balwinder Singh	Joint Director & Head, ACS Division, CDAC Mohali	SoC Testing and hardware security concerns	March 6, 2024
Mr. Anish.K.Sharma	Sr. FAE, Entuple Technologies Pvt. Ltd	Basics of Cadence Tool	March 7, 2024
Dr. Balwinder Raj	Associate Professor, NIT Jalandhar	Multi-Gate Semiconductor Devices for VLSI Design	March 8, 2024
Dr. Harpreet Singh Jatana,	Former group head at SCL Mohali and ISRO	Challenges in CMOS design in low geometry technology node	March 9, 2024
Mr. Paras Mehta	Engineer at Mitsubishi Electric India (MEI) Pvt. Ltd. at Gurugram	Robotic Arm Training	Jan. 30, 2024
Dr Ashish Sharma	Assistant Professor at University of Illinois, USA	Interaction with Faculty, Staff, and Students for Career and Department Growth	Dec. 6, 2023

4.4.13.2 Lectures Delivered by Faculty

Name of Faculty	Designation of Faculty	Topic of Lecture	Date	Venue
Dr. Nishant Jain	Assistant Professor	Introduction to Machine Learning algorithms using Python	June 12, 2024	4th national Workshop on Statistical Learning for Biological, Biomedical and Computational Sciences (STBMS)-2024, JUIT
Dr. Nishant Jain	Assistant Professor	Artificial Intelligence of Things (AloT)	Feb. 28, 2024	National Science Day organized by JUIT
Dr. Shruti Jain	Professor	Role of IPR in sustainable development of Himachal Pradesh	April 26, 2024	World Intellectual Property Day organized by IPR cell JUIT in collaboration with IIC
Dr. Shruti Jain	Professor	Volunteer Training- WIE Track	Jan 20, 2024	IEEE Delhi Section Students - Young Professionals - Women in Engineering - LifeMember - Congress 2023 (DSSYWLC'23), at Netaji Subhas University Of Technology, NewDelhi

Dr. Shruti Jain	Professor	Ink to Insights: The art of Writing a research paper	February 06, 2024	WIEmpower 5.0 organized by IEEE IGDTUW Student Branch, Indira Gandhi Delhi Technical University for Women, Delhi
Dr. Shruti Jain	Professor	Empowering Women in Innovation; Breaking Barriers and Driving Process	Mar 15, 2024	Women in Innovation and Entrepreneur Development (WIED) in collaboration with Intellectual Property Rights Cell (IPR), National IP Awareness Mission (NIPAM) and Institution's Innovation Council (IIC)
Dr. Shruti Jain	Professor	Innovations in Industrial Design	March 21, 2024	Intellectual Property Rights organised by IQAC, Rajkiya Kanya Mahavidhyalaya (RKMV) shimla in collaboration with HIMCOSTE
Dr. Shruti Jain	Professor	IPR awareness in India	March 26, 2024	Intellectual Property Rights organised by IQAC, Rajkiya Kanya Mahavidhyalaya (RKMV) shimla in collaboration with HIMCOSTE
Dr. Shweta Pandit	Assistant Professor	Evolution of cellular technologies: from 1G to 6G	August 9, 2023	DIET Shimla
Dr. Vikas Baghel	Assistant Professor	3D Printing Technology	June 20-21, 2024.	2 days Hands on workshop, organised by Institution's Innovation Council (IIC) in collaboration with Technology Incubation and Entrepreneurship Development Cell (TIEDC), and IEEE JUIT SB.
Dr. Vikas Baghel	Assistant Professor	Robotrix	August 17– 23, 2023.	One Week Hands on workshop, organised by IEEE Student Branch, JUIT
Dr. Vikas Baghel	Assistant Professor	MegaDrone	August 25– September 1, 2023	One Week Hands on workshop, organised by IEEE Student Branch, JUIT

4.4.14 <u>Visits</u>

Da	ate	Event	Visit Location			Participants	
April 2024	26,	Industrial Visit	SCL	Mohali	İ		30 students of UG, PG and PG programs of ECE Department of JUIT
April	11,	Industrial Visit	TVS N	1otors	and	Signum	30 students of UG, PG and PG

2024		Electro Pvt. Ltd, Baddi	programs of ECE Department of JUIT and 4 students of BBA program of JUIT
March 13, 2024	Outreach	Visit of Government Polytechnic for Women, Kandaghat's Students and their Faculty to JUIT.	ı , , , , , , , , , , , , , , , , , , ,
Feb. 15- 17, 2024	Outreach and career counseling	Polytechnic Colleges Outreach Activity and Career Counseling at 5 Govt. Polytechnic College, Hamirpur. 6 Govt. Polytechnic College, Talwar 7 Govt. Polytechnic College, Kangra 8 Govt. Polytechnic College for Women, Rehan. By JUIT faculty.	, , , , , , , , , , , , , , , , , , , ,

4.4.15 **Composition of Various Bodies**

Board of Studies (BOS)

S No	Name	Designation	Institution
1	Prof Rajiv Kumar	HOD, Dept of ECE (Chairperson)	JUIT
2	Prof Shruti Jain	Professor & Associate Dean, Dept. of ECE	JUIT
3	Dr. Naveen Jaglan	Associate Professor, Dept. of ECE	JUIT
4	Dr. Harsh Sohal	Associate Professor, Dept. of ECE	JUIT
5	Dr. Emjee Puthooran	Associate Professor, Dept. of ECE	JUIT
6	Dr. Salman Raju Talluri	Asst. Professor (SG), Dept. of ECE	JUIT
7	Dr. R S Raja Durai	Professor, Dept. of Mathematics	JUIT
8	Prof (Dr) Debashish Ghosh	Professor, Dept. of ECE	IIT Roorkee

9	Dr Balwinder Singh	Joint Director & Head, CDAc Mohali	Centre for Development of Advanced Computing- A Scientific Society of the Ministry of Communication & Information Technology, A-34, Indl Area, Phase VIII, Mohali.
10	Mr. Sanjay Kumar Singh	Principal Software Engineer - Domain Architecture, governance, and Strategy	British Telecommunications Ltd, Ipswich, United Kingdom
11	Prof. Vineet Sharma	Professor, Dept. of PMS	JUIT
12	Dr. Vikas Baghel (Co- opted member)	Asst Professor, Dept of ECE	JUIT
13	Dr. Shweta Pandit (Co- opted member)	Asst Professor, Dept of ECE	JUIT

4.5 DEPARTMENT OF HUMANITIES AND SOCIAL SCIENCES

4.5.1 **Department Vision and Mission**

(a) 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.

(b) 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.

4.5.2 Faculty Details

Faculty Name	Qualification	Specialization	
Prof. Anupriya Kaur	PhD	Marketing	
Dr. Amit Srivastava	PhD	Finance and International Business	
Dr. Tanu Sharma	PhD	HRM	
Ms. Triambica Gautam	MBA	Banking and Finance	
Dr. Neena Jindal	PhD	Good Governance, Human rights	
Dr. Deler Singh	PhD	Professional Communication Skills and Literature in English	
Dr Ranjith	PhD	Science and Technology Studies and Environmental Sociology	
Dr Atul	PhD	Professional Communication, Linguistics, Sociology of Language	
Dr Bilal	PhD	Monetary Economics, Macroeconomics	

4.5.3 New Courses introduced during the year

S No	Title of New Course	Course Code
1	Introduction to Science of Language	23B1WHS831
2	Engineering Economics	23B1WHS631
3	History and Philosophy of Science and Technology	23B1WHS632
4	Science Technology and Society	24B1WHS731
5	Knowledge Systems in Ancient India	24B1WHS732
6	Ethics and Corporate social responsibility	23BBWHS132
7	Political Process in India	23BB1HS314
8	Business Accounting	23BB1HS213
9	Critical and Creative thinking	23BBWHS231
10	Life Skills and interpersonal Dynamics	23B11HS311
11	Entrepreneurship Development	23BBWHS331

4.5.4 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.

4.5.5 Lab Facilities

4.5.5.1 Equipments

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

4.5.5.2 Operational Softwares

- (i) Snet 8.0 Client, Business Writing, Tense Buster (Port 1-30)
- (ii) Snet 8.0 Master, Business Writing, Tense Buster (1)
- (iii) IBM SPSS Statistics 24 (Port 2,3,4)

1. Cyber client, office 2007

4.5.6 Lab Staff with Qualification

Name	Designation	Qualification
Mr. Mahender Thakur	Junior lab Assistant	MCA

4.5.7 Conferences / Seminar / Workshops Organized - NIL

4.5.7.1 **Conferences**

<u>Dates</u>	Subject	<u>Venue</u>	Faculty Name	Remarks
November	International Conference on	UPES,	Triambica	
23-24,	Machine Learning and Data	Dehradun	Gautam	
2023	Engineering (ICMLDE 2023)			
November	International Conference on	UPES,	Amit Srivastava	
23-24,	Machine Learning and Data	Dehradun		
2023	Engineering (ICMLDE 2023)			
March 14-	Intl Conf on Innovation and	Chandigarh	Amit Srivastava	
16, 2024	Regenerative Trends in Tourism	University,		
	and Hospitality Industry	Chandigarh		

4.5.7.2 **Seminars**

<u>Dates</u>		Subject	<u>Venue</u>	Faculty Name	<u>Remarks</u>
Mar	6,	International Women Day	JUIT	Anupriya Kaur	
20124					

4.5.7.3 **Seminars**:

<u>Dates</u>	Subject	<u>Venue</u>	Faculty Name	Remarks

4.5.8 Workshops Organized: Nil

<u>Dates</u>	Subject	<u>Venue</u>	<u>Participation</u>	<u>Remarks</u>

4.5.8.1 Workshops Attended

<u>Dates</u>	Subject	<u>Venue</u>	Faculty Name	Remarks
Feb 12, 2024, to Feb, 20, 2024	NEP 2020, Orientation and Sensitisation Program	Malaviya Mission Teacher Training Centre, Himachal Pradesh University	Dr Atul Kumar Singh	Online Workshop
Feb 26, 2024 to March 5, 2024	NEP 2020, Orientation and Sensitisation Program	Malaviya Mission Teacher Training Centre, Himachal Pradesh University	Dr Atul Kumar Singh	Online Workshop
January 23 to February 2, 2024	NEP 2020, Orientation and Sensitisation Program	Malaviya Mission Teacher Training Centre, Himachal Pradesh University, Shimla	Dr. Bilal Khan	Online Workshop
February 26 to March 5, 2024	NEP 2020, Orientation and Sensitisation Program	Malaviya Mission Teacher Training Centre, Himachal Pradesh University, Shimla	Dr. Bilal Khan	Online Workshop
Septembe r 12to16, 2023	Indian Knowledge Systems	University of Kashmir. Srinagar	Dr. Ranjith Kallyani	Offline Workshop
March 21 to 23, 2024	Inculcating Universal Human Values in Technical Education	Panjab University, Chandigarh	Dr. Ranjith Kallyani	Offline Workshop
January 23 to February 2, 2024	NEP 2020, Orientation and Sensitisation Program	Malaviya Mission Teacher Training Centre, Himachal Pradesh University, Shimla	Dr. Ranjith Kallyani	Online Workshop
February 26 to March 5, 2024	NEP 2020, Orientation and Sensitisation Program	Malaviya Mission Teacher Training Centre, Himachal Pradesh University, Shimla	Dr. Ranjith Kallyani	Online Workshop
Feb 12, 2024, to Feb, 20, 2024	NEP 2020, Orientation and Sensitisation Program	Malaviya Mission Teacher Training Centre, Himachal Pradesh University	Dr Deler Singh	Online Workshop
Feb 26, 2024 to March 5, 2024	NEP 2020, Orientation and Sensitisation Program	Malaviya Mission Teacher Training Centre, Himachal Pradesh University	Dr Deler Singh	Online Workshop
May 15, 2024 to May 17, 2024	Inculcating Universal Human Values in Technical Education	NITTTR, Chandigarh.	Dr Deler Singh	<u>FDP</u>
Feb 26, 2024 to	Empowering Academics through Al Tools	Career Development Cell, Gokul Global	Dr Deler Singh	Online FDP

March 3, 2024		University, Gujrat		
May 27, 2024 to June 02, 2024	A New Perspective on Teaching English Glocally	Career Development Cell, Gokul Global University, Gujrat	Dr Deler Singh	Online FDP
Feb 12, 2024, to Feb, 20, 2024	NEP 2020, Orientation and Sensitisation Program	Malaviya Mission Teacher Training Centre, Himachal Pradesh University	Dr Neena Jindal	Online Workshop
March 21 to 23, 2024	Inculcating Universal Human Values in Technical Education (UHV-1)	Panjab University, Chandigarh	Dr. Neena jindal	Offline Workshop
June 18 to 25,2024	Inculcating Universal Human Values in Technical Education (UHV-II)	Panjab University, Chandigarh	Dr. Neena jindal	Offline Workshop
March 11- 15, 2024.	Women in Innovation and Entrepreneur Development (WIED)	IPR Cell and Institution's Innovation Council (IIC), Jaypee University of Information Technology, Waknaghat, Solan Himachal Pradesh	Ms. Triambica Gautam	one week Faculty Development Program
Feb 26, 2024 to March 5, 2024	NEP 2020, Orientation and Sensitisation Program	Malaviya Mission Teacher Training Centre, Himachal Pradesh University	Ms. Triambica Gautam	Online Workshop
March 11- 15, 2024.	Women in Innovation and Entrepreneur Development (WIED)	IPR Cell and Institution's Innovation Council (IIC), Jaypee University of Information Technology, Waknaghat, Solan Himachal Pradesh	Anupriya Kaur	One week Faculty Development Program
Feb 26, 2024 to March 5, 2024	NEP 2020, Orientation and Sensitisation Program	Malaviya Mission Teacher Training Centre, Himachal Pradesh University	Anupriya Kaur	Online Workshop
March 11-	Women in Innovation and	IPR Cell and	Dr Tanu Sharma	One week
15, 2024.	Entrepreneur Development (WIED)	Institution's Innovation Council (IIC), Jaypee University of Information Technology, Waknaghat, Solan Himachal Pradesh		Faculty Development Program

March 5, 2024	Program	Centre, Himachal Pradesh University		
Feb 12, 2024, to Feb, 20, 2024	NEP 2020, Orientation and Sensitisation Program	Malaviya Mission Teacher Training Centre, Himachal Pradesh University	Dr Amit Srivastava	Online Workshop
Feb 26, 2024 to March 5, 2024	NEP 2020, Orientation and Sensitisation Program	Malaviya Mission Teacher Training Centre, Himachal Pradesh University	Dr Amit Srivastava	Online Workshop

$4.5.9 \underline{\textbf{Publications}}$

4.5.9.1 **Journal Publications**

Name of Faculty	Title of Article	Name of Journal	Reference	Citation
Dr. Ranjith Kallyani	The Boundary-Work in Environmental Knowledge and the Occlusion of the Social Domain A Co-Productionist Critique of Western Ghats Conservation Policy Process	ADCPS Working Paper	Kallyani, R. & Narayanan, N. C. (2024). The Boundary-Work in Environmental Knowledge and the Occlusion of the Social Domain: A Co-Productionist Critique of Western Ghats Conservation Policy Process. (ADCPS Working Paper Series № 2024-004). https://www.cps.iitb.ac.in/wps-2024-004	-
Dr. Ranjith Kallyani	People's Science Movement and the Missing People: KSSP and the Scientisation of Environmental Debates in Kerala	Dialogue: Science, Scientists and Society	Kallyani, R. & Narayanan, N. C. (2023). People's Science Movement and the Missing People: KSSP and the Scientisation of Environmental Debates in Kerala.Dialogue: Science, Scientists and Society. DOI: 10.29195/DSSS.06.01.74	-
Triambica Gautam, Amit	Financial Evaluation of Urban Cooperative Banks - A Machine	Procedia Computer Science	Triambica Gautam, Amit Srivastava, Shruti Jain,	-

Srivastava, Shruti Jain	Learning Approach,		Financial Evaluation of Urban Cooperative Banks - A Machine Learning Approach, Procedia Computer Science, Volume 235, 2024, Pages 3428-3437. https://doi.org/10.1 016/j.procs.2024.0 4.323.	
Sandeep Singh, Tanu Sharma, Anil Sehrawat,	Cultural intelligence as mediator of adversity quotient and occupational stress of Indian Managers	Int.J. Business and Globalization	Cultural intelligence as mediator of adversity quotient and occupational stress of Indian Managers, 2023 Vol 34, No 4, pp 423-438	
Balraj Verma and Amit Srivastava	Dimensions of Globalization and Economic Growth of India: Exploring Causal Linkages	International Journal of Economic Policy in Emerging Economies	vol. 15, No. 2-4, pp. 197-231. DOI: 10.1504/IJEPEE.20 21.10035629.	Scopus
Balraj Verma and 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, World Review of Entrepreneurship, Management and Sustainable Development	19 (3-5), pp360- 378, March 2023. (DOI: 10.1504/WREMSD .2022.10045610)	Scopus
Neelam Sharma, Sakshi Khanna and Amit Srivastava	Does Economic Growth Act as A Mediator Between Government Spending and Human Development? An Insight from Northeastern India	International Journal of Development and Conflict	13 (1), pp 1-16, June 2023	Scopus
Harsha Sharma and Amit Srivastava	Technical Efficiency of Indian States – A DEA Application	ABS International Journal of Management	vol XI (2), pp 18-28, 2023	

4.5.9.2 **Books/Book Chapters Published**

Name of Faculty	Title of Book Chapter	Name of Book	Reference	Remark
Anupriya Kaur	Influence of Personality Traits and Emotional Intelligence on Attitude Toward Financial Risk: Evidence From Indian Investors.	AI and Emotional Intelligence for Modern Business Managemen t	Kumar, A., Riar, E., Kaur, A., & Azad, Y. (2023). Influence of Personality Traits and Emotional Intelligence on Attitude Toward Financial Risk: Evidence From Indian Investors. In AI and Emotional Intelligence for Modern Business Management (pp. 14-30). IGI Global.	Scopus
Anupriya Kaur	Exploring Employee Retention in the Era of Industry 5.0: An Empirical Investigation of Indian Automobile Industry.	Convergenc e of Human Resources Technologie s and Industry	Kumar, A., Thakur, T., Azad, Y., Kaur, A., & Sandhu, S. (2024). Exploring Employee Retention in the Era of Industry 5.0: An Empirical Investigation of Indian Automobile Industry. In Convergence of Human Resources Technologies and Industry 5.0 (pp. 111-129). IGI Global.	Scopus
N. Sharma, S. Khanna and A. Srivastava	Assessing the Indirect Effect of Economic Growth among Government Expenditure and Human Development: A Study of Northern Region of India	Global Business and Societal Reset	Weser Books, Germany [ISBN: 978- 3-96492-479-9].	

4.5.9.3 **Conference Publications**

Name of Faculty	Title of /	Article	Name of conference	Reference	Dates
Anupriya	Analysis	and	Seventh	Tuli, M., Mohana,	Nov 2023
Kaur	Visualization	of	International	R., & Kaur, A.	
	Tweets Using	Data	Conference on	(2023, November).	
	Science: A	Case	Image	Analysis and	
	Study of	Qatar	Information	Visualization of	
	Airways		Processing	Tweets Using Data	
	-			Science: A Case	

Study of Qatar Airways. In 2023
Seventh
International
Conference on
Image Information
Processing
(ICIIP) (pp. 18-22).
IEEE.

4.5.10 **Guest Lectures**

Institution visited		Dates	Aim of visit	Participat	ion
				Students	Faculty
SCERT, HP	Solan,	Feb 24, 2024	Resource Person		<u>Dr Deler</u>
SCERT, HP	Solan,	June 14, 2024	Resource Person		<u>Dr Deler</u>
SCERT, HP	Solan,	Feb 24, 2024	Resource Person		Dr Tanu Sharma
HPUBS, Shimla	HPU,	March 18, 2024 to March 23, 2024	Resource Person		Dr Amit Srivatava

4.5.11 Recognition & Awards: Nil

4.5.12 **Composition of Various Bodies**

Board of Studies (BOS)

Sr. No	Name	Designation	Institution
1	Dr Amit Srivastava	Chairman & Head	HSS, JUIT
2	Dr Anupriya Kaur	Professor	HSS, JUIT
3	Dr Tanu Sharma	Associate Professor	HSS, JUIT
4	Dr Deler Singh	Assistant Professor	HSS, JUIT
5	Dr A Vinay Kumar	Professor	IIM Lucknow
6	Dr Kamal Kumar Chaudhary	Head, HSS	IIT Ropar
7	Mr Neelabh Singh	Principal Project Manager	ST Microelectronics
8	Ms Ana Agarwal	Senior Director	Treebo Hotel
9	Dr. Sunil Kumar Khah	Professor	PMS, JUIT
10	Dr. Vikas Baghel	IQAC Representative	ECE, JUIT
11	Dr Rajiv Kumar	Professor & Head	ECE, JUIT

12	Dr Vivek Sehgal	Professor & Head	CSE&IT, JUIT
13	Dr Sudhir Kumar	Professor & Head	BT&BI, JUIT
14	Dr. Ashish Kumar	Professor & Head	CE, JUIT
15	Dr PB Barman	Professor & Head	PMS, JUIT
16	Dr RK Bajaj	Professor & Head	Maths, JUIT

Student Consultative Committee

1.	Prof (Dr) Amti Srivastava	HoD, HSS
2.	Ms. Triambica Gautam	Faculty In charge (B. tech)
3	Dr Tanu Sharma	Faculty In charge (BBA)

4.6 DEPARTMENT OF MATHEMATICS

4.6.1 **Department Vision and Mission**

(a) 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.

(b) 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.

4.6.2 Faculty Details

S. No.	Name	Qualification	Specialization
1.	Prof. Rakesh K. Bajaj	PhD	Fuzzy Information Measures
			& Decision Making
2.	Prof R S Raja Durai	PhD	Algebraic Coding Theory
3.	Dr Neel Kanth	PhD	Mathematical Modeling
4.	Dr Pradeep Kumar Pandey	PhD	Differential Geometry
5.	Dr Saurabh Srivastava	PhD	Nonlinear Programming
			(Operations Research)
6.	Dr Mandeep Singh	PhD	Nonlinear Boundary Value
			Problems
7.	Dr Bhupendra Kumar Pathak	PhD	Evolutionary Computational
			Methods, Soft Computing
			Techniques & Machine
			Learning.

4.6.3 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.

4.6.3.1 B.Sc. (Mathematics & Computing)

The program is offered at JUIT jointly by the Department of Mathematics and Department of Computer Science and Engineering. The students joining the program are required to earn required credits through course work and dissertation distributed over 4 years to complete the program. Mathematics is an essential scientific tool in computing, in transforming abstract quantities and modeling real-world solutions. Computing, on the other hand, is rapidly being used to solve mathematical problems in an efficient and automated manner. Because of the widespread use of computers and computer-assisted technologies, graduates with strong backgrounds in mathematics and computing are in high demand in the corporate sector. Keeping the importance of mathematics and computer science in science and engineering, B.Tech. in Mathematics & Computing is introduced. The program not only aims to provide in-depth theoretical basis in mathematics and practical training in computer science, but it also covers a variety of multidisciplinary topics such as financial engineering, numerical computing, and intelligent machines. Graduates of the program will be well prepared for advanced degrees and careers in a wide range of industrial disciplines. The curriculum is developed in such a way that this degree is ideal for students who want to combine strong mathematical and analytical components with an emphasis on artificial intelligence.

4.6.3.2 Features of the Program:

- The program is made up of 50% mathematics and 50% computer science inclusive of artificial intelligence techniques.
- The students will be able to select elective courses from a wide range of options across the departments of the university.
- Most of the courses are designed to give theoretical and practical knowledge of the subjects through labs and practical sessions.

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

4.6.4.1 Conferences

Conferences Organized

<u>Dates</u>	Subject	<u>Venue</u>	No. of participants	<u>Remarks</u>
Nil	Nil	Nil	Nil	Nil

Conferences Attended

<u>Dates</u>	Subject	Venue	Faculty Name	Remarks
Nil	Nil	Nil	Nil	Nil

4.6.4.2 **Seminars**

Seminars Organized

<u>Dates</u>	<u>Subject</u>	<u>Venue</u>	Faculty Name	No. of participants
18 June 2024	One Day Master Training Program on MY Bharat Portal	CL-10	Dr. Bhupendra Kumar Pathak	57
22 Dec 2023	National Mathematics Day - 2023	Online	Dr Neel Kanth	50

Seminars Attended

<u>Dates</u>	Subject	<u>Venue</u>	Faculty Name	<u>Remarks</u>
Nil	Nil	Nil	Nil	Nil

4.6.4.3 Workshops Attended

<u>Dates</u>	Subject	<u>Venue</u>	Faculty Name	Remarks
Jan 23-Feb 02, 2024	NEP-2020 Orientation & Sensitization Programs under Malaviya Mission Teacher Training Program.	Malaviya Mission Teacher Training Centre, HPU, Shimla, H.P.	Dr. Saurabh Srivastava	Nil
June 10-15, 2024	National Workshop on Statistical Techniques in Biological, Computational and Medical Sciences (STBMS) - 2024	Jaypee University of Information Technology, Waknaghat	Dr. Saurabh Srivastava	Nil
June 10-15, 2024	National Workshop on Statistical Techniques in Biological, Computational and Medical Sciences (STBMS) - 2024	Jaypee University of Information Technology, Waknaghat	Dr. Bhupendra Kumar Pathak	Nil

12.02.2024 to 20.02.2024	NEP-2020 Orientation & Sensitization Programs under Malaviya Mission Teacher Training Program.	Malaviya Mission Teacher Training Centre, HPU, Shimla, H.P.	Dr. Bhupendra Kumar Pathak	Nil
12.02.2024 to 20.02.2024	NEP-2020 Orientation & Sensitization Programs under Malaviya Mission Teacher Training Program.	Malaviya Mission Teacher Training Centre, HPU, Shimla, H.P.	Dr. Neel Kanth	Nil
12.02.2024 to 20.02.2024	NEP-2020 Orientation & Sensitization Programs under Malaviya Mission Teacher Training Program.	Malaviya Mission Teacher Training Centre, HPU, Shimla, H.P.	Dr. Mandeep Singh	Nil
23.01.2024 to 02.02.2024	NEP-2020 Orientation & Sensitization Programs under MMTTC Program "Information and Communication Technology"	Malaviya Mission Teacher Training Centre, HPU, Shimla, H.P.	Dr. Rakesh K Bajaj	Nil
12.02.2024 to 20.02.2024	NEP-2020 Orientation & Sensitization Programs under MMTTC Program on "Holistic & Multidisciplinary Education"	Malaviya Mission Teacher Training Centre, HPU, Shimla, H.P.	Dr. Rakesh K Bajaj	Nil
26.02.2024 to 05.03.2024	NEP-2020 Orientation & Sensitization Programs under MMTTC Program on "Holistic & Multidisciplinary Education"	Malaviya Mission Teacher Training Centre, HPU, Shimla, H.P.	Dr. Rakesh K Bajaj	Nil
13.05.2024 to 21.05.2024	NEP-2020 Orientation & Sensitization Programs under MMTTC Program on "Indian Knowledge Systems & Multilingualism"	Malaviya Mission Teacher Training Centre, HPU, Shimla, H.P.	Dr. Rakesh K Bajaj	Nil
23.01.2024 to 02.02.2024	NEP-2020 Orientation & Sensitization Programs under MMTTC Program "Information and Communication Technology"	Malaviya Mission Teacher Training Centre, HPU, Shimla, H.P.	Dr. Pradeep Kumar Pandey	Nil
26.02.2024 to 05.03.2024	NEP-2020 Orientation & Sensitization Programs under MMTTC Program on "Holistic & Multidisciplinary Education"	Malaviya Mission Teacher Training Centre, HPU, Shimla, H.P.	Dr. Pradeep Kumar Pandey	Nil

Workshops Organized

<u>Dates</u>	Subject	<u>Venue</u>	Faculty Name	No of Participants
10-15 June, 2024	One week workshop on Statistical Techniques in Biological, Computational and Medical Sciences	JUIT Waknaghat	Dr. Neel Kanth (Coordinator)	28

4.6.5 **Publications**

4.6.5.1 **Journal Publications**

Name of Faculty	Title of Article	Name of Journal	Reference	Citation
Rakesh K Bajaj	On Similarity Measures of Complex Picture Fuzzy Sets with Applications in the Field of Pattern Recognition	IEEE Access [SCIE(Q1)-IF- 3.9]	Vol. 12, pp. 83104-83117, 2024, doi: 10.1109/ACCES S.2024.3412755.	Nil
Rakesh K Bajaj	On identifying suitable hydrogen power plant location under T-spherical fuzzy hypersoft matrix structures	International Journal of Hydrogen Energy (Elsevier) [SCIE(Q1)-IF-8.1]	Volume 68, 28 May 2024, Pages 1057-1071	Nil
Rakesh K Bajaj	On potential strategic framework for green supply chain management in the energy sector using q-rung picture fuzzy AHP & WASPAS decision-making model	Expert Systems with Applications (Elsevier) [SCIE(Q1)-IF-7.5]	Volume 237, Part B, 1 March 2024, 121550	7
Rakesh K Bajaj	Industry 5.0 Enablers in Consumer Electronics Market Assessment Under T-Spherical Fuzzy Integrated Decision- Making Approach	IEEE Transactions on Consumer Electronics [SCIE(Q1)-IF-4.3]	70 (1), 1443- 1451	Nil
Rakesh K Bajaj	On Federated Learning-Oriented q-Rung Picture Fuzzy TOPSIS/VIKOR Decision-Making Approach in Electronic Marketing Strategic Plans	IEEE Transactions on Consumer Electronics [SCIE(Q1)-IF-4.3]	70 (1), 2557- 2565 February 2024	Nil

Rakesh K Bajaj	On prioritization of hydrogen fuel cell technology utilizing biparametric picture fuzzy information measures in VIKOR & TOPSIS decision-making approaches	International Journal of Hydrogen Energy (Elsevier) [SCIE(Q1)-IF-8.1]	Volume 48, Issue 96, 12 December 2023, Pages 37981-37998	19
Saurabh Srivastava	An inventory model for perishables with fixed storage life and diminishing ability to buy in their life expectancy	International Journal of Operational Research (IJOR)	Vol. 49, No. 2, 2024	Nil
Bhupendra Kumar Pathak	A nature-inspired meta-heuristic knowledge-based algorithm for solving multi-objective optimization problems	Journal of Engineering Mathematics	143 (1), pp. 1-10, 2023	3
Bhupendra Kumar Pathak	Understanding of Network Resiliency in Communication Networks with its Integration in Internet of Things - A Survey	Electrica	23 (2), pp. 318- 328, 2023	2
Bhupendra Kumar Pathak	Multi-objective Service Composition Optimization in Smart Agriculture Using Fuzzy- Evolutionary Algorithm	Operations Research Forum	5 (Article number 43), pp. 1-24, 2024	Nil
Mandeep Singh	A Green's function-based computationally efficient approach for solving a kind of nonlocal BVPs	Computational Methods for Differential Equations	(2024), DOI:10.22034/cm de.2024.58138.2 452	Nil
Pradeep Kumar Pandey	Differential equations for Indicatrices, Spacelike and Timelike curves	Australian Journal of Mathematical Analysis and Applications	Vol. 20 (2023), No. 2, Art. 7, pp 1-9 (2023). ISSN: 1449-5910	Nil

4.6.5.2 Books/Book Chapters Published

Name of Faculty	Title of Article	Name of Book	Reference	Citation
Rakesh K Bajaj	On Assessment of Risk Factors for Cardiovascular Disease Complexities Utilizing q-Rung Picture Fuzzy Multi-Criteria Decision-Making Approach	Lecture Notes in Networks and Systems, vol 918. Springer, Singapore.	Springer - LNNS - Book Chapter ICCNSML-2023 918 (1), 243-252. https://doi.org/10.1007/978 -981-97-0641-9_16	Nil
Rakesh K Bajaj	On Complex Picture Hesitant Fuzzy Set and Its Application in Classification Problem	Cryptology and Network Security with Machine Learning.	ICCNSML 2023. Lecture Notes in Networks and Systems, vol 918. Springer, Singapore. https://doi.org/10.1007/978 -981-97-0641-9_25	Nil

4.6.5.3 Conference Publications

Name of Faculty	Title of Article	Name of Conference	Reference	Citation
Rakesh K Bajaj	Quantum Computing: Threats & Possible Remedies	SCEECS 2024	10.1109/SCEECS6140 2.2024.10482099 (April 2024)	Nil
Rakesh K Bajaj	A Secure Signature Verification Mechanism for Smooth Authentication Process	SCEECS 2024	doi:10.1109/SCEECS6 1402.2024.10482147 (April 2024)	Nil
Bhupendra Kumar Pathak	Analyzing the Impact of Uncertainties with Fuzzy Logic on Service Composition in Smart Agriculture. :	Proceedings of the 2024 International Conference on Emerging Smart Computing and Informatics (ESCI) [AISSMS Institute of Information Technology, Pune, India.	5-7 March, 2024], pp.1- 5, 2024	Nil

Mandeep Singh	An Efficient Computational Iterative Technique for a Class of Reaction-diffusion Equation	2023 Seventh International Conference on Image Information Processing (ICIIP) Solan, India	480-484, doi:10.1109/ICIIP61524 .2023.10537683	Nil
R.S. Raja Durai	Applications of Machine Learning and Deep Learning in Agriculture for Enhanced Crop Management	7 th International Conference on Image Information Processing (ICIIP- 2023), JUIT, Solan, India	pp. 535-540 DOI:10.1109/ICIIP6152 4.2023.10537719	Nil

4.6.6 **Guest Lectures**

Name of Faculty	Designatio n of Faculty	Topic of Lecture	Date	Venue
Rakesh K Bajaj	Professor & HoD	Vector Algebra	19 th Sept, 2023	SCERT, Solan, HP
Saurabh Srivastava	Assistant Professor (SG)	R Lab an Introduction and a session on probability and distribution	14 th June, 2024	Department of Biotechnology and Bioinformatics, Jaypee University of Information Technology, Waknaghat, Solan, H.P., INDIA
Neel Kanth	Associate Professor	Algebra	23 rd Sept, 2023	SCERT, Solan, HP
Neel Kanth	Associate Professor	Use of Advanced Technology in Mathematics	23 rd Sept, 2023	SCERT, Solan, HP
Bhupendra Kumar Pathak	Assistant Professor (SG)	Five-Day International workshop on Fairness and Trust in Mathematical Modelling and Machine Learning, VIT, Bhopal	9 th Oct – 13 th Oct, 2023	Virtual Mode, VIT, Bhopal

4.6.6.1 **Lectures Delivered by Faculty**

Name of Faculty	Designation of Faculty	Topic of Lecture	Date	Venue
Rakesh K Bajaj	Professor & HoD	Role of NEP2020 in VIKSIT BHARAT	10 th March 2024	CR-11, JUIT, Waknaghat
Rakesh K Bajaj	Professor & HoD	Reforms in Secondary and Higher Education Post New Education Policy (NEP)	13 th April 2024	Auditorium, JUIT, Waknaghat

4.6.7 Composition of Various Bodies

Board of Studies (BoS)

S.No.	Name	Designation	Institution
1.	Prof. Rakesh Kumar Professor & HoD (Maths)		JUIT
	Bajaj		
2.	Prof. R. S. Raja Durai	Professor (Maths)	JUIT
3.	Dr. Neel Kanth	Associate Professor (Maths)	JUIT
4.	Dr Bhupendra K Pathak	Assistant Prof. (Maths)	JUIT
5.	Dr Surajit Kumar Hazra	Associate Prof. (PMS)	JUIT
6.	Prof. P. B. Barman	Prof. & HoD (PMS)	JUIT
7.	Prof. Sudhir Syal	Prof. & HoD (BT/BI)	JUIT
8.	Prof. Ashish Kumar	Ashish Kumar Prof. & HoD (CE)	
9.	Prof. Vivek Sehgal	Prof. & HoD (CSE & IT)	JUIT
10.	Prof. Rajiv Kumar	Prof & HoD (ECE)	JUIT
11.	Prof. Amit Srivastava	Prof. & HoD (HSS)	JUIT
12.	Prof. Sunil Kr Khah	IQAC Chairman	JUIT
13.	Prof. M. K. Sharma	Prof. & HoD (Maths)	TIET Patiala
14.	Dr. Gaurav Mittal	Scientist	DRDO Delhi
15.	Mr. Abhinav Anand	SRQ Researcher	NatWest Markets London, UK

4.7 DEPARTMENT OF PHYSICS & MATERIALS SCIENCE

4.7.1 Department Vision and Mission

(a) Vision

To train students by imparting quality education in Physics & Materials Science in order to cultivate their professional skills for independent outlook towards higher education, research and technological development

(b) Mission

M1: To impart outcome-based education for preparing students to face challenges In industry and academia

M2: To strive for excellence in performance-based teaching and research in order to maintain high levels of professionalism and integrity

M3: To be recognized in scientific community in the fields of microstrip devices, nanomaterials, energy materials and sensors

4.7.2 Faculty Details

S.No.	Name	Qualification	<u>Specialization</u>
1.	Prof (Dr) P B	PhD	III-V compound semiconductors,
	Barman		Nanotechnology, Ferrites
2.	Prof (Dr) Sunil K.	PhD	Microstrip Antennas
	Khah		·
3.	Prof (Dr) Vineet	PhD	Amorphous Semiconductors
	Sharma		
4.	Dr S K Hazra	PhD	Gas Sensors
5.	Dr R R Singh	PhD	Quantum-Dots, Magnetic nanoparticles
6.	Dr S K Tiwari	PhD	Optical & Magnetic studies/ZnO
7.	Dr Santu Baidya	PhD	Computational/Theoretical Condensed
			Matter Physics
8.	Dr Haresh Raval	PhD	High Energy Physics

4.7.3 **Programs**

4.7.3.1 **Undergraduate Program**

Department of Physics and Materials Science offers the following courses to various undergraduate Programs:

Core Courses

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	Science & Technology of Materials	18B1WPH531
9	Applied Materials Science	18B1WPH532

Elective Courses

S No	Title of Course	Course Code
1	Nanotechnology	18B1WPH731
2	Optical Fiber Network Design	18B1WPH732
3	Optoelectronic Devices	18B1WPH831
4	Biosensors	21B1WPH831
5	Computational Nanotechnology	22B1WPH731

4.7.3.2 **Postgraduate Program**

The Department of Physics and Materials Science offers the MSc program in Physics.

Semester I

S. No.	Course Code	Course Name	L-T-P	Credit
I	23MS1PH101	Mathematical Physics	3-0-0	3
II	23MS1PH102	Classical Physics	3-0-0	3
Ш	23MS1PH103	Quantum Mechanics	3-0-0	3
IV	23MS1PH104	Electrodynamics	3-0-0	3
V	23MS1PH105	Experimental Techniques	2-0-0	2
VI	23MS1PH171	Laboratory-I	0-0-4	2

Semester II

S. No.	Course Code	Course Name	L-T-P	Credit
VII	23MS2PH201	Computational Physics	3-0-0	3
VIII	23MS2PH202	Statistical Physics	3-0-0	3
IX	23MS2PH203	Condensed Matter Physics-I	3-0-0	3
X	23MS2PH204	Atomic and Molecular Physics	3-0-0	3
XI	23MS2PH205	Electronics-I	3-0-0	3

4.7.3.3 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 thrust areas listed: Materials Science, Microstrip Antenna, Computational Physics, and High Energy Physics.

4.7.4 Laboratory Facilities

4.7.4.1 Laboratory Staff with Qualification

1.	Kamlesh Kr Mishra	Sr. Lab Engineer	M.Tech.
2.	Ravendra Kr Tiwari	Lab Technician	BSc (PCM)
3.	Priya	Lab Assistant	BSc

4.7.4.2 <u>Laboratories with major equipments</u>

(a) 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.

(b) 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.

(c) Nanotechnology Laboratory

The nanotechnology laboratory is well equipped with

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

(d) 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.

(e) 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

(f) 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.

4.7.5 Research Projects Sanctioned during the Academic Year/In Progress: 01

S. No.	Name of Faculty	Project title	Funding Agency	Amount sanctioned	Duration	Current Status
1	Sanjiv K. Tiwari (P.I) & Sunil Kumar Khah (Co-PI)	Development of ZnO-based nanogenerator for small electrical devices	HP Council for Science, Technology and Environmen t	6,55,000.00	Two years	Ongoing
2	Santu Baidya	Study of the effect of topological phases on thermoelectric materials with low thermal conductivity	Science and Engineering Research Board (SERB)	895544.00	Two years	Ongoing

4.7.6 <u>Conferences, Seminars and Workshops / Faculty development program</u>

4.7.6.1 **Conferences**

Conferences Organized:

<u>Dates</u>		Subject	<u>Venue</u>	<u>Faculty</u>	Remarks
				<u>Name</u>	
May	15-17	Emergent Converging	JUIT	Prof. Sunil Kr	General Chair
2023		Technology and Biomedical		Khah	
		Systems ETBS			
February	28,	Third National Science Day	JUIT	Dr R R Singh	Convener
2024		Symposium (NSDS) 2024			

Conferences Attended:

<u>Dates</u>		Subject		<u>Venue</u>	Faculty Name	<u>Remarks</u>
May 2023	15-17	Emergent Technology and Systems ETBS	Converging Biomedical	JUIT	PMS faculty	Attended

4.7.6.2 **Session Chaired:**

<u>Dates</u>		Subject		<u>Venue</u>	<u>Faculty</u>	<u>Remarks</u>
					<u>Name</u>	
May	15-17	Emergent	Converging	JUIT	Dr. Sanjiv	Session
2023		Technology and	Biomedical		Kumar Tiwari	Chaired
		Systems ETBS				
May	15-17	Emergent	Converging	JUIT	Dr. Vineet	Session
2023		Technology and	Biomedical		Sharma	Chaired
		Systems ETBS				

4.7.6.3 **Seminars**

Seminars Organized: Nil Seminars Attended:

<u>Dates</u>	<u>Subject</u>	<u>Venu</u> <u>e</u>	Faculty Name	Remarks
30 April - 4 May 2024	Advances in Geotechnical Engineering	JUIT	Prof. P.B. Barman	Webinar Series organized by Organized by Department of Civil Engineering, JUIT, Solan, H.P., India & Indian Geotechnical Society (IGS), Shimla Chapter

4.7.6.4 Workshops

Workshops Organized:

<u>Dates</u>	<u>Subject</u>	<u>Venue</u>	Faculty Name	Remarks
February	One Day Workshop	JUIT	Dr R R Singh	Purpose: Sensitize science
28, 2024	for School Teachers		(as Convener)	teachers to various
				engineering domains and their
				applications in real-life
				situations

Workshops Attended:

<u>Dates</u>	<u>Subject</u>	<u>Venue</u>	Faculty Name	Remarks
Feb-Mar	NEP 2020	Online	ALL PMS	This course was completed
2024	ORIENTATION &		faculty	under the Malaviya Mission
	SENSITIZATION			Teacher Training Centre, HPU,
	PROGRAM			Shimla.

4.7.7 **Publications**

4.7.7.1 Journal Publications

Name of Faculty	Title of Article	Name of Journal	Reference	Citation
Haresh Raval	Deconfinement to confinement by generalizing BRST symmetry on the sphere	International Journal of Modern Physics A (IJMPA) Vol. 39, No. 04, 2450021 (2024)	7751X245002	
Sanjiv Kumar Tiwari	Polaron and bipolaron mediated photocatalytic activity of polypyrrole nanoparticles under visible light,	Colloids and Surfaces A: Physicochemical and Engineering Aspects, 667 131380-131932 (2023)	10.1016/j.cols urfa.2023.131 380	3

Sanjiv Kumar Tiwari	Evidence of charge transfer across the organic-inorganic hetero-junction based visible light driven photocatalyst	Colloids and Surfaces A: Physicochemical and Engineering Aspects,677 132332- 132350, (2023).	10.1016/j.cols urfa.2023.132 332	2
Vineet Sharma	Improvement in spectral range of Sb2Se3 absorption layer on Bi addition	Physica Scripta 99 (2024) 015945	10.1088/1402- 4896/ad155e	
R R Singh	Green synthesis of chitosan- encapsulated CuO nanocomposites for efficient degradation of cephalosporin antibiotics in contaminated water.	Environ Sci Pollut Res 31 , 33638– 33650 (2024).	https://doi.org/ 10.1007/s113 56-024-33476- 7	0
P.B. Barman, R R Singh,	Deterioration of structural integrity and ferromagnetic transformation due to the emergence of traces of Alpha-hematite (α-Fe2O3) secondary phase in magnesia-enriched nickel ferrite spinel nanoparticles.	Journal of Alloys and Compounds, Volume 976, (2024) 172867		1
R R Singh	Comprehensive elucidation of experimental results of polytype ZnS-10H quantum dots produced in single stride	Communications,	https://doi.org/ 10.1016/j.mtco mm.2023.107 566	

4.7.7.2 Books/Book Chapters Published:

Name of	Title of Chapter	Name of Book	Reference	Citation
Faculty	-			
R R Singh	State-of-the-Art of Dye- Sensitized Solar Cells.	In: Swain, B.P. (eds)	Springer, Singapore.	2
	Sensitized Solal Cells.	,	https://doi.org/1	
		Energy Materials. Materials Horizons:	0.1007/978-	

	From	Nature	to	981-99-3866-	
	Nanom	aterials.		7_4	
				(0000)	
				(2023).	

4.7.7.3 Conference Publications

Name	of	Title of Article presented	Name of	Reference	Dates
Faculty			conference		
Sanjiv		Structural endorsement of iron	d International	10.1016/j.	
Kumar Tiwari		oxide residue incorporated in polypyrrole and TiO₂/Polypyrrole composite		matpr.202 3.05.556	

4.7.8 **Guest Speakers/Lectures/ Visits**

4.7.8.1 Guest Speakers: Nil

4.7.8.2 Lectures Delivered by Faculty:

<u>Dates</u>	<u>Subject</u>			<u>Venue</u>	Faculty N	<u>ame</u>	<u>Remarks</u>	
February	Indigenous	Technologies	for	JUIT	Prof.	P.B.	Expert	talk
28, 2024	Bharat				Barman		delivered.	

4.7.8.3 Visits Organized: Nil

4.7.9 Recognition & Awards

By Faculty:

<u>Dates</u>	Patent	Faculty Name	<u>Remarks</u>
March	MICROSTRIP ANTENNA"S PLANER ARRAY	Prof. Sunil Kumar	Granted
2024	FOR ULTRALOW SIDE LOBE LEVEL FOR X-	Khah	
	BAND		

<u>Dates</u>	Online certification and FDP	Faculty Name	<u>Remarks</u>
01-04- 2024	Effective Engineering Teaching In Practice	Prof. Sunil Kumar Khah	Awarded by NPTEL & IIT
			Madras
01-04- 2024	Teaching And Learning in Engineering (TALE)	Prof. Sunil Kumar Khah	Awarded by NPTEL & IIT
04.40	A 196.03	D (0 1114	Madras
04-12- 2023	Accreditation of Undergraduate Engineering Program	Prof. Sunil Kumar Khah	Awarded by Swyam NPTEL & NITTER

Students: Nil

4.7.10 Composition of Various Bodies

Board of Studies (BOS)

- (a) Chairman: Prof (Dr.) P. B. Barman (Head of the Department)
- (b) Professors / Associate Professors & one Assistant Professor of the Dept. by rotation:
 - 1. Dr. Ragini Raj Singh (Associate Professor) Member Secretary
 - 2. Prof. (Dr.) Sunil Kumar Khah
 - 3. Prof. (Dr.) Vineet Sharma
 - 4. Dr. Surajit Kumar Hazra (Associate Professor)
 - 5. Dr. Sanjiv Kumar Tiwari (Assistant Professor)
- (c) Members co-opted by the BoS from other Departments of JUIT nominated by the Dean (A&R) in consultation with Head of Department:

Prof. Rakesh K. Bajaj
 Prof. Sudhir Kumar
 Prof. Ashish Kumar
 Prof. Vivek Kumar Sehgal
 Prof. Rajiv Kumar
 HOD, Civil
 HOD, CSE & IT
 HOD, ECE

- (d) Member from IQAC
 - 1. Dr. Vikas Baghel (Senior Grade)
- (e) Subject expert (ACADEMIC) nominated by the Dean (A&R) on the recommendation of the Head of concerned Department:

Members from Academic Institutions

Dr. Pushpendra P. Singh Associate Professor - Experimental Nuclear Physics

Department of Physics Associate Dean (R & D)

Project Director, DST Technology Innovation Hub - AWaDH

Indian Institute of Technology Ropar Rupnagar - 140 001, Punjab, India

Members from R&D and Industry

Dr. Shovit Bhattacharya Scientific Officer (G)

Thin Film Devices Division, Technical Physics Division Bhabha Atomic Research Centre (BARC), MUMBAI

(Subject expert from R&D)

5. LEARNING RESOURCE CENTRE (LIBRARY)

Learning Resource Centre (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 260 students at a time in order to carry any activity related to study and research. The LRC has 43320 volumes of books and 1401 back (bound) volumes of journals covering the disciplines of Computer Science Engineering, Electronics & Communication Engineering, Information Technology, Civil & Environmental Engineering, Biotechnology, Bioinformatics, Mathematics, Physics, Material Science, Management, Competitive Exams 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 73 periodicals (journals and magazines) in print format 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, ASCE, IEEE, Science Direct (Elsevier), Springer Nature, SIAM E-Books, ProQuest, and Plagiarism tools. These eresources accommodate full-text of e-books, and other electronic resources such as Journals, Conference Proceedings, Transactions, Magazines and Reports. These e-Resources are accessible within the university's IP range and from outside the campus most can be accessed through remote access facilty of the Library. LRC has also acquired NPTEL (National Program 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 60 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. The library is fully computerized and bar-coded with latest version of Library Management Software known as Koha ~ an open-source integrated library management system. The collection of the library can be browsed, searched and explored with the help of OPAC (Online Public Access Catalogue) over Internet using Koha OPAC. Library has been providing dedicated terminals to access OPAC throughout the library premises. Furthermore, it has a separate dynamic website.

LRC remains open from 8.45 AM to 12:00 midnight. Recently, LRC has implemented RFID (Radio Frequency Identification) technology in the library. 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 research support, maintaining JUIT publications database, providing anti~plagiarism detection by using Turnitin & Drillbit 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-resources subscription consortium of INFLIBNET. LRC has also become an active member of National Digital Library of India (NDL) which offers free access to educational contents.

5.2 Resource Collections

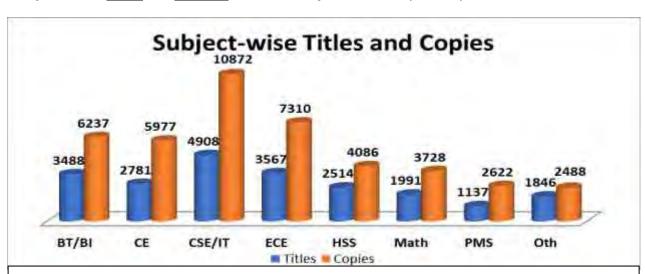
Unique Titles: 22232

❖ Total Volume: 43320

5.3 **Department-wise collection (Books):**

Department	Titles	Copies
Biotechnology and Bioinformatics	3488	6237
Civil Engineering	2781	5977
Computer Science & Engineering and Information	4908	10872
Technology		
Electronics & Communication Engineering	3567	7310
Humanities & Social Sciences	2514	4086
Mathematics	1991	3728
Physics and Materials Science	1137	2622
Other General Collections	1846	2488
Total Collection	22232	43320

Subject-wise <u>titles</u> and <u>copies</u> in the library collection (Books):



BT/BI - Biotechnology and Bioinformatics

CE - Civil Engineering

CSE/IT - Computer Science & Engineering and Information Technology

ECE - Electronics & Communication Engineering

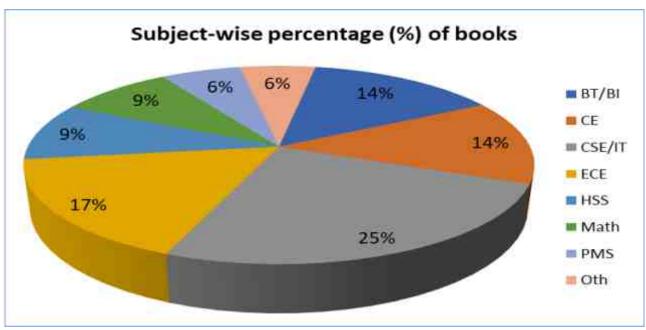
HSS - Humanities and Social Sciences

Math - Mathematics

PMS - Physics and Materials Science

Oth - Other General collections

Subject-wise percentage of books in library collection:



5.4 Online Databases Accessible at JUIT:

S.	Database	E-Books	No. of	Conference	Total
No			Journals	proceeding and other	
				Collections	
1	ASCE	-	38	-	38
2	IEEE	-	238	-	238
3	Springer Link	-	1713	-	1713
4	Nature Journal	-	1	-	1
5	Science Direct	-	530	-	530
6	ProQuest	29	4541	3813	8383
7	SIAM E-Books	372	_	-	372

5.5 Other Collections (in Print):

Type of Resources	Number
Print Journals (National)	33
Print Magazines	40
Back Volumes (bound/Loose)	1401
BIS/IRC Code	527
Ph.D. Theses	283
Dissertations (M.Tech./M.Sc.)	843
Project Reports (B.Tech.)	3708
Newspapers (14 titles in print)	32

6. Server Room

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.

6.1 **General Computing Facilities**

The Server Room is equipped with IBM X series and HP and Dell 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 91 printers with 16 heavy duty Network Printers.

6.2 Hardware configuration

Server configuration and Quantity						
S. No	Server	Configuration	Quantity			
1	IBM System X 3400	Intel® XEON 2.0 GHz 4 GB RAM 956.32 GB SCIC HDD with RAID Support.	4			
2	Lenovo workstation	Lenovo workstation E5-1603	1			
3	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	3			
4	IBM Server X3100	IBM Server intel XEON X3100 with 8 GB DDR3 ,500 GB HDD and TFT screen	1			
5	IBM x-3400 M3	Server IBM Model x-3400 M3 with intel xeon quad core processor,8 GB RAM,300 GB X 4 HDD,18.5-inch TFT	1			

6	HP	HP ML 110G6 Server Intel Xeon Quad Core X3430 Processor with 4 gb RAM ,250 GB Sata HDD and 18.5 TFT Screen	2
7	IBM X3300	IBM server x3300 m4 server 16 gb ram,1200 gb hdd with raid 5 card	1
8	Dell workstation	Dell Precision Tower 3420 with Intel Xeon E3- 1225 3.3 ghz,8gb ddr4,19-inch tft and mouse	10
9	HP	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	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	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	Lenove	Lenovo data center solution think system sr530 with win server 2016. Intel xeon silver 4114 with 2.2 ghz processor (2 Nos) 64 gb ddr 4 ram,6 tb HDD *4,3 year onsite warranty	3
13	sophos	XG450 rev.2 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+ Power cable	2
14	Dell	Dell r550 with intel Xeon silver 4314,16 core,32X2 GB ram,480 X 4 ssd HDD LMS Server	1
15	HP	HPE dl 380 Gen 10 server, intel Xeon silvwe 4208, 8 core processor,4 X 32 GB RAM,5 x 480 GB SATA SSD, 2 X 800-Watt Power Suply and window server 22 with 5-year warranty	2
		Total Number of Servers	35

Desktop configuration and quantity

S.No	Brand	CONFIGURATIONS	QTY
1	IBM	INTEL CORE 2 DUO,160 GB HDD,2	77
'	וטוטו	GB RAM & 17-inch Monitor/ TFT	11
		core i3-530 (2.92 GHz) with 2 GB RAM	
2	IBM	,250 GB Sata HDD,18.5-inch TFT	90
		Monitor	

3	IBM	Core I3- 2100 3.10 GHz with 2 GB RAM ,320 GB Sata HDD,18.5-inch TFT Monitor	80
4	IBM	Core I3- 2100 3.10 GHz with 4 GB RAM ,500 GB Sata HDD, dvd rom,18.5-inch TFT Monitor	120
5	HP	Intel core i5-6500 3.2 G 6M 2133 4C CPU with 18.5-inch TFT, KB and Mouse	190
6	Dell	Desktop Dell i5 7th gen,8 gb ram,1 tb HDD with 18.5-inch tft	300
7	HP	HP 280 G3 MT desktop	10
8	HP	Desktop Model HP 280 G4 MT	10
9	Dell	dell Desktop intel core i7-8700,8 gb dd4 ram,19 inch led, win10 pro 64 bits. 1tb hdd	10
10	Dell	Dell optiplex 3060 Minitower intel core i7 8700 with 8 gb ddr4 ram ,1 tb hdd, TFT and win 10 pro preloded	5
11	Dell	dell optiplex 5080 intel core i7 with 16 gb ddr4 ram ,1 tb hdd, TFT and win 10 pro preloded with 5-year warranty	70
12	Dell & Lenovo	Laptop lenovo i7 + Dell i5 (1 each)	2
13	Dell	Dell optiplex 5000 12 gen core i7,16 gb dd4 ram,512 gb ssd hdd, KB Mouse ,1925-inch tft with win 11 pro preloded.	50
14	HP	HP Pro 400 G9 260-watt desktop with Intel core i7-12700 12 core ,16 GB DDR 4,512 SSD HDD, KB, Mouse and inbuilt wifi card,19.5 Inch Monitor, DOS	30
15	HP	HP Pro 400 G9 260-watt desktop with Intel core i7-12700 12 core ,16 GB DDR 4,512 SSD HDD, KB, Mouse and inbuilt wifi card,19.5 Inch Monitor & window 11 pre loded	40
16	HP	Laptop hp i5 ,16 gb RAM 1 TB ssd	2
17	Dell	Dell Precision workstation 3460, itel core i7-12700 ,16 GB Ram ,512 SSd Hard disk,20-inch TFT and win 11 pros	30

Total Number of Computers	1116

232

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
2	Communications Blockset	5
	Communications Toolbox	5
	Signal Processing Toolbox	5
	Wavelet Toolbox	5
3	MS Office Professional Plus 2007	100
4	Windows Server Enterprises 2003	3
5	Adobe Premier Pro Ver 7.0	20
6	Cold Fusion MVLP Ver 6.1	10
7	Flash MX 2004 MVLP	20
8	Micro Media Director Shockwave Studio for windows English AE	10
9	SQL Server 2000 Standard Edtn	1
10	Windows Server CAL 2003 English OLP NL AE Device CAI	4
11	VStudio .Net Pro 2003 Win32 English OLP NL AE	15
12	Office XP Pro Win 32 English	20
13	VStudio .Net Pro 2002 Win32 English	9
14	ISA Server 2000 English	1
4.5	Windows Advanced Svr 2000 English.	1
15	Windows CAL 2000 English OLP NL AE	23
16	DB2 UBD Enterprise Server Edition.	1
17	IBM Tivoli Storage Managed Processor	1
18	Schrodinger For Biotech	1 user 25 Token
19	Lotus Domain	100
20	AutoCad 2005 Education	5
21	A'Desk 3 ds Max 6 (Edu)	20
22	Rational suit Enterprise Software	20
23	Mathematica Ver 5.0	10
24	Autocad 2004 Network User	10
25	Maple 9.5	1
26	Sun Solrix Ver 8	35
27	Window XP Proffesional	20
28	Oracle 9i	10
29	Visual Prolog ver 6.1	15
30	Soft image xsi Ver 4.0	20
31	Staad Pro	5

32	SPSS Base 16.0	15
33	Oracle 11g	1
	Clarity Digital Multimedia Language Lab	31
	Clarity English Teaching Software from U.K.	
34	1. Sky Pronunciation Suite	5
	2. Connected Speech	5
	3. Tense Buster Compilation	5
35	NI Lab View Academic Site License 2010	50
36	Pasw Amos 18.0	3
37	Windows Server Enterprise 2008 with media	10
38	Bentley Civil of perpetual network-based software a. Mx Road V8 b. Power Civil c. Power Map	5
39	Ansys release 12.1	1
40	HyperLynx 3d EM Super Structure Designer V 15.2	3
41	Auto CAD 2013	30
	Matlab ver 10	50
	Simulink	10
	Filter Design Toolbox	10
42	Communications Blockset	10
	Communications Toolbox	10
	Signal Processing Toolbox	10
	Video and Image processing Blockser	10
43	Window server standard 2012	4
44	Geo 5 suit of Software with various modules	50
	Xilinx UEF-VIVADO SYSTEM	25
45	Base2 100	7
	Atlys Spartan-6 FPGA Development Board	1
	8.1 V Clarity Snet Language Lab software 1 teacher + 30 User	30 users
46	Tense Buster V9 for 20 users	20 users
	Business writing for 30 users	30 users
	SPSS Base 24.0	1
	SPSS Advance Statistics	1
	SPSS regression	1
47	SPSS Neural Network	1
	SPSS conjoint	1
	SPSS Amos 24.0	1
	SPSS Categories	1
48	Acrobat Pro 2017	10
49	Windows server 2016 pro	4
50	SIMULIA Academic Teaching Suite Q9T for 20 user civil department	1
	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
51	Full guard Subscriptions for XG450 (3 years) Full guard subscription includes Network Protection, web protection, Email protection, Web server protection and Enhanced Support	2
52	windows 10 enterprise E3	5
53	Norton Antivirus	5
54	Campus Lynx	
55	MS Office Professional 2021	100
56	Sophos Antivirus 500 user for desktop and 25 users for server	525

6.3 Switches and Access point Model and quantity

S.NO	NAME OF EQUIPMENT	Quantity	MAKE
1	M220 Access Point	10	HP
2	V1910-24G POE switch	2	HP
3	Cisco air ap 1041 n a k9 wifi	8	cisco
4	Cisco air ap 1131 ag a k9	2	Cisco
5	5 port Dlink switch	2	Dlink
6	Catalyst 2960 48 port switch	15	cisco
7	AIR AP 1131AG-A-K9	2	cisco
8	Cisco Catalyst 9400 Series 7 slot core switch	1	Cisco
9	Catalyst 2960 24 10/100	4	Cisco
10	wifi router d link	20	dlink
11	16 Port Switch D link	1	D Link
12	Cisco 2921 w/3 GE,4 512 MB DRAM Router	1	Cisco
13	Catalyst 2960 48 10/100	5	Cisco
14	Cisco 2811 Router	1	Cisco
15	Switch 4210 26 Port 3 COM	5	3 COM
16	Router Cisco 2600 series	1	cisco
17	3 COM 4400 series 48 Port	22	3 COM

18	48 port Ruckus 7150	4	Ruckus
19	HP switch 24 G	5	HP
20	Cisco S business Switch 8 Port	3	cisco
21	cisco catalyst 2960 24 port 10/100	2	cisco
22	cisco catalyst 2960 48 port 10/100	7	cisco
23	Aruba switch 2530 48 G	11	Aruba
24	Fiber switch 48 port core	2	Ruckus
25	WAN Controller	1	
26	Fiber switch 48 port with 12 port POE	2	Ruckus
27	POE switch 8 Port	1	
28	ruckus Access Points r510	359	Ruckus
29	cisco switch cbs350-24t-4g-in	5	cisco
30	Cisco switch 48 port 1 G	2	cisco
31	Ruckus Smart zone 100	2	Ruckus
32	Cisco 9200 L 48 T - 4x - E	2	cisco

Total Number of switches and Access point	506	
Total Number of Router	3	
Cisco Core switch 9400 series	1	

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 2003/2008.

6.4 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 118 switches, 3 Cisco Routers, and 359 access point. Entire college campus including academic block, Faculty residence, SOR and all hostels is wifi and internet is provided in every room of student's hostel, faculty & staff residence, JUIT hospital, mess, laboratories and SOR.

We have 1 Gbps (1: 1) internet lease line circuit from BSNL and 500 Mbps (1:1) 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 consisting 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.

7. INTERNATIONAL LINKAGES OF THE UNIVERSITY:

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

- (i) Professor Entian's Group at the Institute of Microbiology, Johann Wolfgang Goethe, University of Frankfurt, Germany
- (ii) The Finnish Universities of Applied Science, Finland
- (iii) University of Nebraska, USA
- (iv) South Dakota School of Mines and Technology, USA
- (v) SAP AG, Germany
- (vi) National School of Applied Sciences (ENSATg), Morocco
- (vii) Southern Federal University, Russia
- (viii) G.K. Skryabin Institute of Biochemistry and physiology of microorganisms of Russian Academy of Sciences, Russia
- (ix) Tel Aviv university, Israel
- (x) Pokhara University, Kaski, Nepal.
- (xi) University of Missouri, USA
- (xii) The University of Florida Board of Trustees and Jaypee Education System
- (xiii) Pushchino Scientific Centre for Biological Research of the Russian Academy of Science (PSCBR-RAS)

8. ACADEMIC ADMINISTRATION

8.1 Admission Process

8.1.1 UG Program

During the academic session 2023-24 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.

8.1.2 PG Program

Admission to PG programs (MTech) were offered to the eligible candidates having valid GATE score and through PGET-2022 conducted by University for Non-GATE qualified candidates followed by an interview by the PG Program Selection Board.

8.1.3 **Doctoral Program**

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.

8.2 Students Enrollment

The status of student strength as on 31 October 2023 is given below.

Year of Study	UG Prog.	PG Prog.	
6 th Year	01		
5 th Year	06		
4 th Year	440		
3 rd Year	388		
2 nd Year	439	39	
1 st Year	423	24	
PhD Scholars Registered during the Academic Session 2023-24 were 128			

8.3 Faculty

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

8.4 **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**.

8.5 **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 student 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. <u>Students from Bhutan under Scholarship Scheme</u> Students from Bhutan are exempted from paying the Tuition fee. However, they have to pay Hostel charges as applicable to other students.

4. Teaching Assistantship for MTech Students

GATE qualified students admitted to 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 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.

9. SUSTAINABLE DEVELOPMENT GOALS (SDGs)

Sustainable development is a guiding principle for meeting human development goals while simultaneously ensuring the sustainability of natural systems and the environment. Its primary aim is to balance the needs of present and future generations by integrating economic growth, social inclusion, and environmental protection. This concept became globally recognized, and defined sustainable development as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs."

Key Dimensions of Sustainable Development

Sustainable development focuses on three main interconnected dimensions:

Economic Sustainability

This involves promoting economic growth and prosperity while ensuring that it doesn't lead to inequality or degrade the natural resources. It emphasizes innovation, efficient use of resources, and sustainable business practices.

Social Sustainability

This dimension focuses on promoting social equity, improving health and education, reducing poverty, and fostering inclusive, resilient communities. It encourages policies that address the well-being and quality of life for all individuals.

Environmental Sustainability

This involves protecting natural ecosystems, reducing pollution and greenhouse gas emissions, conserving biodiversity, and promoting renewable energy sources. The goal is to ensure that natural resources are not depleted and that ecosystems remain intact.

The chaos rendered by COVID 19 pandemic in recent past has forced Jaypee University of Information Technology (JUIT) to concentrate on Sustainable Development Goals (SDGs) in order to be prepared for unforeseen challenges and to make substantial progress with respect to its targets. The current vision of JUIT is to focus on its coexistence with its surrounding nature and suburb village population by exploiting minimum natural resources, imparting a decent education or awareness, and to motivate its students to generate new technologies for lifelong progress. Accordingly, JUIT has chosen FOUR SDGs out of 17, where it has immense potential to set desired targets or estimates that can be easily achieved over a period of time. This time period is aligned with the global trend and it is expected that JUIT will maximise its efficiency by the end of 2030.

The chosen SDGs for JUIT are:

Quality education (SDG 4)

The annual targets set for the SDG in the beginning of 2023-2024 was to improve the engineering proficiency of its students, provide education to low-income communities and to eliminate loopholes such as scarce education infrastructure, student-teacher ratio and insufficient training with respect to NEP 2020 guidelines.

Clean water and Sanitation (SDG 6)

The set targets were to honor the WHO per capita water consumption limit, regular monitoring of its water sources, recycling of used water for the purpose of irrigation and recharging ground water levels, rainwater harvesting, increasing the green population of species that require less water and provide support to its surrounding village population.

Industry Innovation and Infrastructure (SDG 9)

The goal was to help startups succeed by providing them with access to resources, mentorship and education. In the period 2023-2024, JUIT was able to generate 3 spin off companies to commercialize research and knowledge.

Partnership for Goals (SDG 17)

JUIT has honored its past MOUs and generated new MOUs for the benefit of its students and staff members. The e-resources are always available free to one and all and is accessible from anywhere. Adequate literacy programs, and other social activities were regularly conducted in 2023-2024 under the banner of Unnat Bharat Abhiyan.

In summary it can be stated that in the year 2023-2024, JUIT was able to achieve 90% of its self-set goals and provided substantial support for the development of rural population in Himachal Pradesh (H.P). The objectives such as impart awareness about the recent sustainable technologies and Government aided scheme available for their convenient livelihood in H.P will always be highlighted by JUIT students and staff in years to come. JUIT will also focus on transfer of innovations to the rural people and spread environmental awareness.

10. JUIT YOUTH CLUB (JYC)

10.1 About JYC

JUIT Youth Club (JYC) is the name of enthusiasm, development, consistency and effort. It is the body which widens student's view from academics to various fields such as sports, literary, cultural and technical and provides opportunities to explore them. It encourages in student's expression, celebration, recognition and integration. It helps students acquire qualities like team work, sportsmanship and leadership. Not only this, it retreats students from academics by organising events, fests and other extracurricular activities. Focusing on technical, literary, sports, and cultural scopes, these competitive activities, apart from serving as a relief from intense academic load, present an opportunity to instil confidence, encourage teamwork and give students a strong sense of achievement and belonging.

10.2 **Events**

10.2.1 **Orientation - 26th August, 2023**

The Jaypee Youth Club Orientation organised at Jaypee University Of Information Technology, on August 26, 2023, was a highly successful event that began with an inspiring opening address delivered by Shivansh Mehrotra (President), Shubh Saxena (Treasurer), Alisha Siddiqui (Secretary) and JYC faculty coordinator Dr. Naveen Jaglan, offering a comprehensive insight into the club's mission and objectives. Attendees had the opportunity to hear from various student coordinators of clubs and committees within the Youth Club, gaining valuable insights into the diversity of activities and leadership opportunities available. The event encouraged interaction and networking among attendees, fostering connections and friendships and leaving them enthusiastic about actively participating in club activities and contributing to the college community's betterment as they embark on a dynamic year ahead.





10.2.2 Semester Sports Tournament - 25th to 30th August, 2023

The Semester Sports Tournament, organised at JUIT, started from 25th of August, commenced with great enthusiasm, promoting physical fitness, camaraderie, and healthy competition among students. Featuring diverse sports categories such as indoor games like Chess, Table tennis, Badminton and outdoor games like Cricket, Basketball, Football and Volleyball. The event is showcasing intense matches that are highlighting both exceptional skills and sportsmanship. With Team 'Dholakpur' securing

the cricket championship, Team 'JUIT Admin' emerging as the victors in volleyball from boys and Team 'Birds of pray' from girls, Team 'Weekday Players' claiming the football title, Team 'Tapu Sena' was winning team from boys and Team 'Her-Icanes' was winning team from girls in basketball and Team 'Ishita' from girls and Team 'Avi' from

boys won the badminton title.





10.2.3 Swachhta Pakhwada - 1st to 15th September, 2023

The Environment, Ecology and Health Club, a branch of the JUIT Youth Club (JYC) at Jaypee University of Information Technology in Waknaghat, Solan, H.P., is currently marking Swacchata Pakhwada from September 1st to September 15th. On the inaugural day, a dedicated team of 25 students and faculty members initiated a plastic waste removal campaign near the university market. This campaign aimed to raise awareness among shopkeepers and the public about the detrimental impact of plastic on the environment, as well as strategies for segregation and recycling. The campaign was expertly coordinated by Dr. Poonam Sharma and Dr. Ashok Kumar Nadda, both faculty members from the Department of Biotechnology and Bioinformatics at JUIT, alongside student coordinators Ms. Shruti Shree and Mr. Divyansh Goel.





10.2.4 Hindi Diwas - 14th September, 2023

The Literary Club of JYC compelled all the students to brim with excitement as they celebrated the long-awaited Hindi Diwas in the institution with great zeal. The essence of Hindi Diwas was brought to life through various activities. Students exhibited their proficiency in Hindi through various methods including poetry, debates and essays. Debate competition being the highlight of the event left the audience spellbound and

wanting to get more indulged in such a fantastic event. The interactive session aimed to enhance students' understanding of Hindi grammar and vocabulary. The Hindi Diwas celebration at JUIT underscored the importance of linguistic diversity and cultural heritage. The topic for the debate was "Kya Hindi ko Sanyukt Rashtra mein Adhikrik Bhasha ke roop mein Manyata deni Chahiye?", which was won by Bhumika Gupta in Paksh (for the motion) and Archit Kaushal in Vipaksh (against the motion).





10.2.5 Diksha - 16th September, 2023

Jaypee University of Information Technology came alive with the vibrancy and glamour on the evening of September 16th as it hosted the eagerly anticipated "DIKSHA" freshers' party. This year the theme of the event was Bollywood and it lived up to the hype in grand style. The highlight of the evening was undoubtedly the spectacular performances that graced the stage, students showcased their incredible talents in dance and music. Speaking about the success of Diksha, **the President of the JYC**, **Shivansh Mehrotra** said, "We wanted to make sure that our freshers had a memorable start to their university journey, and Diksha exceeded our expectations. It was a testament to the talent and creativity of our students, and we're thrilled that everyone had such a fantastic time", while the event was an overall success of the collective efforts of all clubs and committees of JYC. One of the most eagerly awaited moments of the evening was the announcement of Mr. Fresher and Miss Fresher, **Aaditya Singh Duhoon** was awarded with the title of Mr. Fresher while Miss Fresher's title was won by **Sanvi Sharma** and the "**DNR**" dance group emerged as the winners of the "Best Dance Group" award.





10.2.6 Mahatma Gandhi and Lal Bahadur Shastri Jayanti - 2nd October, 2023

Jaypee University of Information Technology orchestrated a vibrant and inspiring event to commemorate Gandhi Jayanti and Shastri Jayanti, honouring the enduring legacies of two remarkable leaders, Mahatma Gandhi and Lal Bahadur Shastri. This day of remembrance was crafted with the intent of not only paying homage but also promoting the importance of sports, fitness, and unity among the university's diverse community. The highlight of the event was the tug of war competition organised by Sports Club of JYC, a symbolic representation of strength through collective effort, showcasing the value of unity and coordination. The event emphasised that physical activity is not only essential for maintaining a healthy lifestyle but also fosters discipline, teamwork, and mental well-being. Additionally, as part of the university's commitment to environmental sustainability and community engagement, a tree plantation drive was organised by the environment and health club of JYC in nearby villages. This initiative aimed to contribute to environmental conservation and create a greener, healthier future for the local communities. The tree plantation drive exemplified the university's dedication to holistic development and social responsibility.





10.2.7 Bootcamp on C Programming - 3rd to 4th October, 2023

The C Language Bootcamp aimed to provide students with an intensive learning experience in the fundamentals of the C programming language. It was a two-day event held on the JUIT campus and was attended by students from mainly first year. It was a 2-day camp (9 to 5) where students were briefed about C language. The camp focused on revisions of previous concepts as well as competitive programming. Contests were organised on Hackerrank for each batch, where each student was assigned 40+ programming questions, meant to be solved within a minimum time frame.

The bootcamp featured experienced faculty members from the CSE and IT departments at JUIT, HOD of CS and IT Prof. Dr. Vivek Kumar Sehgal, Dr. Diksha Hooda, Dr. Nishant Jain, Dr. Ravindara Bhatt, Dr. Amol Vasudeva, Mr. Faisal Firdous and various other esteemed faculty members who served as resource persons. They delivered lectures, provided real-world examples, and guided participants through practical exercises. Participants gained a solid understanding of C programming, including both basic and advanced concepts. The bootcamp provided an excellent foundation for those who were new to C programming and further enhanced the skills of

those with prior knowledge. Many students expressed their interest in exploring C programming for academic projects and personal coding endeavours.

10.2.8 Parakram - 6th to 8th October, 2023

Jaypee University of Information Technology (JUIT) played host to Parakram 2023 from 6th to 8th October, a sporting extravaganza that left an indelible mark on participants and spectators alike. This three-day event celebrated exceptional talent, unwavering sportsmanship, and the spirit of camaraderie. Esteemed universities, including Chitkara University (Baddi), Chitkara University (Rajpura), IIT Ropar, Bahra University, Doon Business University, IGMC and UIET Punjab enthusiastically participated, with approximately 450 students representing their institutions. Notably, JUIT emerged victorious in Table tennis in both boys and girls, JUIT also dominated the chess blitz round, securing titles in boys Badminton and boys Basketball as well. Meanwhile, Chitkara University (Rajpura) celebrated success in girls Basketball and boys Volleyball, demonstrating their mettle. IIT Ropar emerged triumphant in girls Volleyball, while Bahra University won the finals in football, and Chitkara University (Baddi) showcased their mastery in chess's rapid round and girls badminton. UIET claimed the cricket trophy, proving their cricketing prowess. The event's success was a collective effort and dedication of the various faculty and student coordinators of Sports Club, the invaluable guidance of mentors and coaches, and the tireless commitment of the JYC team and its members.

10.2.9 Battle of Bands - 14th October, 2023

We had the incredible opportunity to represent our university in a thrilling Battle of the Bands competition at the Shimla Flying Festival, held in the picturesque location of Jungha, near Chail. The event took place in a breathtaking paragliding haven, creating an unforgettable atmosphere. A total of eight bands including ours, showcased their musical talents in this competition. While we didn't clinch the top spot, we were proud to secure the 2nd runner-up position. The competition was fierce and the judges, consisting of eminent personalities from the state, provided invaluable feedback. This gave us a great opportunity to learn and improve. It was a valuable chapter in our musical journey, leaving us with new skills, unforgettable memories, and a profound appreciation for the diverse talents.





10.2.10 Garba Night - 23rd October, 2023

Jaypee University of Information Technology came alive with a spectacular Navratri Garba Night along with collaborative efforts of the Jaypee Youth Club (JYC), Omega Leo Club and Rotaract Club of Waknaghat. This event was nothing short of a magnificent cultural extravaganza that brought together students and faculty. The live music played by the DJ was the heartbeat of the event, filling the air with a contagious sense of celebration. Students enjoyed by forming joyful circles, swirling to the beat and demonstrating the power of unity through dance. Traditional Dandiya sticks were available for those eager to engage in the age-old tradition of Dandiya. In addition to the lively dance and music, a small set of games was also organised to keep the students engaged in these things as well. Attendees left the event with cherished memories of a night filled with vibrant colours, captivating music and cultural togetherness.



10.2.11 Vigilance Awareness Week - 2nd to 3rd November, 2023

The Koshish Club of JYC at Jaypee University of Information technology organised a two-day event aimed at promoting awareness about the importance of vigilance and integrity in society.

On the first day, a spirited walkathon was conducted, commencing from the Vivekananda statue and concluding at the university's basketball court. This event gathered people, including faculty coordinator of Koshish Club Dr. Raj Kumar, student club coordinators of JYC, enthusiastic volunteers, and even children from the local neighbourhood, fostering a sense of community involvement.

The second day of the event saw an impactful street play, strategically designed to highlight the pressing issues related to vigilance and anti-corruption measures. The play was skillfully performed by the children themselves, infusing the event with a sense of youth-driven purpose and creativity. The motive behind these events was to instil awareness about the significance of vigilance, transparency, and ethical conduct in our daily lives, emphasising the role of individuals in combating corruption.





10.2.12 MasterChef - 4th November, 2023

Jaypee University of Information Technology hosted the highly anticipated Master Chef Competition, a culinary spectacle that captivated the campus. The event kicked off with the ceremonial lamp-lighting conducted by the distinguished Faculty Coordinator Dr. Naveen Jaglan, and the President of the Jaypee Youth Club Shivansh Mehrotra. The competition featured ten vibrant teams, each given three hours to showcase their culinary talents and creativity to prepare the dishes of their will to please the Judges. The culmination of this thrilling event saw team 'Masala Masters' emerging as the first position holders, team 'The Og's' in second position and team 'Sweet Cuisine' in third position, winning hearts with their culinary prowess and innovative dishes. The Master Chef Competition celebrated the culinary talents of our students, fostering a sense of unity and camaraderie within our university community and was a success of the efforts of faculty coordinators Dr. Ashok Nadda and Dr. Poonam Sharma and student coordinators of Environment and health Club and various other JYC members.





10.2.13 National Education Day - 21st November, 2023

Jaypee University of Information Technology (JUIT) observed National Education Day with a series of inspiring events dedicated to empowering the children of Koshish Club. The celebrations aimed to emphasise the importance of education and create a platform for the children to express themselves creatively. The day commenced with an engaging Art Competition, where students drew projected images on the board, showcasing their artistic abilities and understanding of the theme. The competition provided a fun and educational experience, encouraging them to reflect on the role of education in achieving their dreams. Furthermore, a Speech Competition was

conducted, inviting the children to express their thoughts about the significance of education in their lives. This platform enabled them to develop public speaking skills and confidently share their perspectives with others. The events were deliberately designed to be small-scale and focused on the children themselves, fostering a sense of ownership and pride in their education. By active participation of around 30 children in these activities, they experienced a valuable and empowering National Education Day celebration.





10.2.14 International Conference on Image Information Processing - 22nd to 24th November, 23

The International Conference on Image Information Processing (ICIIP) is a biennial event hosted by Jaypee University of Information Technology since 2011, with the sponsorship of Jaypee Group and IEEE. The conference serves as a crucial platform for researchers in the field of Computer Science, bringing together participants from India and around the world to exchange insights, research findings, and ideas pertaining to the foundations and applications of Image Processing and related areas.

The ceremonial opening was followed by insightful keynote addresses from distinguished speakers, Prof. S K Barai, Prof. (Dr.) Xin-She Yang, Dr. S.N. Omkar, Dr. Narendra Londhe, Prof. (Dr.) Ankit Agarwal, Prof. Angarai Ganesan Ramakrishnam and Prof.

Gaurav

Sharma.

The conference continued with a series of sessions featuring presentations of selected research papers, attendees had the opportunity to explore diverse topics and groundbreaking ideas from experts in the field. There were around 182 sessions on various selected research papers throughout the conference, these sessions provided a platform for researchers to present their innovative ideas, share findings and engage in constructive discussions. The seven technical tracks — Medical Image Data Analytics, Image Processing for Urban Planning, Computational Photography & Applications, Multimedia Systems & Applications, Digital Image Forensics & Security, Computer Vision and Pattern Recognition, served as pillars for engaging discussions and presentations.

The overarching objective of the conference—to bring together researchers from academic institutions and R&D research labs—was resoundingly met. As attendees

immersed themselves in the various tracks, exchanging views and ideas, the conference achieved its goal of facilitating meaningful discussions in the current research landscape.



10.2.15 Alfaaz - 25th to 26th November, 2023

The Literary and Debating Club of JYC organised a spectacular literary extravaganza ALFAAZ '23, spanning two days filled with unique events and engaging sessions. The event kicked off with the inaugural session of JUIT Youth Parliament '23 (JYP '23) on 25th November 2023, which was attended by Registrar and dean of students Maj. Gen. Rakesh Bassi, JYC faculty Coordinator Dr. Naveen Jaglan, faculty coordinators of Literary Club and other respected faculty members. The topic of debate in YP was insightful discussion on the socio-economic landscape of Jammu Kashmir and Ladakh, presented by prominent personalities such as Jammu Kashmir and Ladakh Representatives at the J&K Reorganisation Act 2019. This session provided a thought-provoking start to the event, setting the tone for the following activities. In the evening, the Cinefest event took place, participants had the opportunity to express their Bollywood spirit through various activities, the DJ night added an extra element of fun with dance, face painting and more surprises.

The festivities continued with a Movie Night, offering a cinematic experience for all participants. On the second day, the event concluded with another engaging session of JYP, followed by the grand finale of ALFAAZ - LAFZ '23 (a poetry competition) at the Auditorium from 5:30 PM. The Parliamentarian awards were a testament to the outstanding contributions of individuals who showcased exceptional skills and

dedication during ALFAAZ '23. Arya Singh, representing the portfolio of Navneet Kaur, earned the prestigious title of Best Parliamentarian for her exemplary performance, Ayushi Tripathi received a High Commendation for her articulate representation of the portfolio of Narendra Modi. Special Mention was accorded to Anuja Purohit, embodying the spirit of Mahua Moitra; Yash Srivastava, eloquently representing Dr. Farooq Abdullah and Geetansh Singh, who brought forth the essence of Amit Shah's portfolio. In the realm of Individual Recognitions Keerti stood out as the Best Reporter, skillfully capturing the essence of the events. Astha Pipania shone as the Best Debutant, making a remarkable entrance into the ALFAAZ '23 stage. These individuals not only added vibrancy to the event but also demonstrated a commitment to excellence, leaving an indelible mark on the literary and debating landscape of JYC.

The ALFAAZ '23 event was an absolute success, bringing together literary enthusiasts, debaters, and creative minds from across the campus. The diverse range of activities, insightful discussions, and entertaining performances created a vibrant atmosphere, leaving a lasting impression on everyone who attended.





10.2.16 Alumni Meet - 9th December, 2023

The Alumni Meet convened at Jaypee University of Information Technology on December 9th, organised by the JUIT Alumni Cell, was met with enthusiasm as approximately 50 alumni accompanied by their families attended the event. Among the distinguished guests were Ankit Aggarwal Founder & CEO of Unstop and Suhail Sharma an IPS officer. The initial phase of the event featured insightful speeches from the Vice-Chancellor and Registrar of the University, setting the tone for an engaging interaction between the alumni and the university's faculty and staff. The alumni received tokens of appreciation in the form of mementos and JUIT T-shirts, and the entire session was skillfully hosted by Dr. Tanu Sharma, following this a lavish lunch was served, fostering a relaxed atmosphere conducive to networking and recalling shared experiences. As the day progressed, an entertaining cultural and DJ night, masterminded by the JYC team unfolded in the evening, creating an ambiance of joy and reflection.

The alumni also revisited their hostels and cherished locations on campus, evoking a sense of nostalgia. This reunion not only facilitated connections between past and present members of the JUIT family but also allowed alumni to witness the growth and evolution of their alma mater.



ALUMNI MEET 2023 09 DEC 2023
JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY WAKNAGHAT

10.2.17 Viksit Bharat Sashakt Bharat - 14th December, 2023

In a bid to engage and mobilise the youth towards shaping the future of India, Jaypee University Of Information Technology organised the declamation contest, themed "VIKSIT BHARAT, SASHAKT BHARAT." The event aimed at fostering a vision for a transformed India as it approaches its 100th year of independence.

An enthusiastic turnout marked the event, with students showcasing their oratory skills and presenting compelling ideas for the development of the nation. Among the participants, Kislay held the 1st position in the declamation contest while Aditi and Anushree emerged as the winner of second and third position respectively, impressing the judges with his insightful and impactful presentation on the theme "Viksit Bharat@2047".

Attendees were encouraged to share their ideas with the concerned authorities through the MyGov Portal. The process involved navigating to the Viksit Bharat Consultation section, answering relevant questions using dropdown options, and providing a concise 3-5 line idea for Viksit Bharat@2047, highlighting their envisioned role or contribution. It served as a testament to the university's commitment to nurturing active citizenship and fostering a sense of responsibility among its students.





10.2.18 Semester Sports Tournament - 12th to 18th February, 2024

The semester tournaments hosted by Jaypee University of Information Technology from February 12th to 18th emerged as a proud celebration of athleticism and sportsmanship, drawing enthusiastic participation from students across diverse disciplines. Organised meticulously by the Sports Club of JYC in close supervision of dedicated sports coaches Mr. Paras Gautam and Nisha Hooda. This multi-day sports extravaganza embraced an extensive array of sporting disciplines, ranging from the intense matches of basketball, cricket, volleyball, football and badminton to the cerebral challenges posed by chess and table tennis and even extending to the cutting-edge realm of E-sports. The debut of athletics not only broadened the tournament's scope but also underscored its commitment to embracing new sporting horizons. Among the notable winners were the Team 'Weekend Players' in Football, team 'Block Party' in Volleyball, team 'Khedi Ballers' in Basketball, team 'Naam me kya rakha hai' got first place in Table Tennis and team 'XChrome' emerged as runner ups, team 'Shuttlers' securing the first place and team 'Dropshot Demons' securing the second place in Badminton, Jatin Patiyal clinched gold in Sprints, Lakshay in the Boys' Long Distance Run, Ibadat in the Girls' Long Distance Run, and in Chess Abhinav Manda clinched the first place and **Paras Sharma** secured the second place.

The resounding success of this tournament serves as a testament to the enduring value of such sporting spectacles, spurring the JYC to redouble its efforts in organising future tournaments.





10.2.19 Murious 18.0 - 8th to 10th March, 2024

The triumphant culmination of the annual three-day tech fest, "MURIOUS 18.0" at Jaypee University of Information Technology from 8 to 10th March, stands as a testament to the collaborative efforts of both faculty coordinator **Dr. Naveen Jaglan** and student coordinators of Jaypee Youth Club. The vibrant tapestry of "MURIOUS" comprised a broad mix of solo and collaborative competitions organised by the collaboration of ACM JUIT, IEEE, CEC JUIT, TIEDC, SYNAPSE and Tech Club of JYC, with Expanse 3.0, A Bio-Hackathon being a flagship event, held under the supervision of esteemed faculty coordinators, **Prof. Shruti Jain**, **Dr. Hemant Sood and Prof. Tiratha Raj Singh**.

In the solo arena, **Priyanshu Sood** won Picture Perfect, **Anant Singh** topped Code Caos, **Dhriti Sharma** emerged victorious in Interface Invent, **Arindam** took first place in Frame By Frame, **Nityam** won the title of 3 Days 3 Designs, **Pranjal Thakur** stood as champion of Make It Print, **Astik Tyagi** secured the top spot in WEB-O-FIESTA and **Yash Khatri** won Code Cleanse.

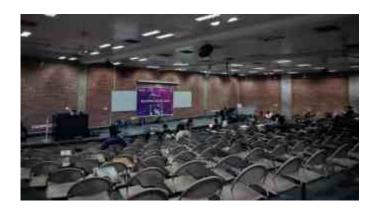
In Esports, **Omansh** dominated TEKKEN, **Anmol** and **Gagan Rana** won the BGMI in Deathmatch category, while **Nishant Beniwal**, **Ritik Baliyan**, **Aryan Thakur** and **Ayush Sharma** emerged victorious in Battle Royale. **Nandaya** clinched the top spot in FIFA and **Team Aayush Gupta** conquered Valorant.

The events organised with other clubs witnessed winners like, **Aman** and **Harsh Kumar** for Code Rumble with IEEE, **Abhishek Anand** and **Priyank Gupta** for BRIDGE MAKING with CEC, and **Gaurav Thakur**, **Abhishek Singh** and **Abhay Pratap Singh** for Storage Wars with TIEDC.

The flagship bio hackathon 'MURIOUS Expanse' witnessed participation of 18 teams having 78 participants, with Team Pokemon Go (Aayush Sharma, Divyansh Sehgal, Arpan Chauhan, Ruchir Dhiman) winning the top prize, Team Bio-mancer (Nidhi, Anushka, Kartikey, Ibdat, Nandini) finished second and Team BOB The Builder (Pranshul Nikshit, Sidhant, Shivansh, Anvesha) secured the 3rd position.

The festivities commenced on the evening of third day with the esteemed presence of the Vice-Chancellor **Prof.** (**Dr.**) **Rajendra Kumar Sharma** and HOD of CSE Department **Dr. Vivek Kumar Sehgal**, who presided over the prize distribution ceremony, honouring the exceptional talents and achievements of the students. Faculty members from other departments **Dr. Amit Shrivastava**, **Dr. Vikas Bhagel**, **Dr. Neena Jindal** also joined the event to encourage the students' motivation. Following this prestigious recognition, the culturally enriching extravaganza, "**SYNCHROTRON**" took centre stage, captivating the audience with captivating performances by Theatre, F-society, Apocalypse, Nati and Bhangra, adding an extra layer of vibrancy to the event.

In essence, "MURIOUS 18.0" not only served as a platform for showcasing academic excellence, tech skills and talent but also fostered a sense of community and camaraderie among students, faculty and staff alike. The event's success was a collective effort and dedication of the various faculty and student coordinators of JYC and various other clubs involved and served as a shining example of what can be achieved through collective effort and unwavering determination.





10.2.20 Outstation Sport (IIT Ropar's AAROHAN) - 15th to 17th March, 2024

Students of Jaypee University of Information technology participated enthusiastically in the **AAROHAN** sports fest hosted by IIT Ropar, showcasing their exceptional athletic abilities across a diverse array of sports disciplines. Accompanied by their dedicated sports coach **Mr. Paras Gautam** and supported by faculty sports coordinator **Mr. Munish Sood**, along with faculty member **Dr. Neena Jindal**, about 90 students from the university embarked on this exhilarating journey. The athletes competed in a wide range of sports including basketball, volleyball, football, cricket, chess, table tennis, athletics, powerlifting and badminton. They worked tirelessly and put in their best efforts to win in each event.

Among the standout performers were Pradyumn Vashisht, whose commanding presence earned him a gold medal in shot put and silver medals in the 400 meters and Yuvraj Khanna, whose remarkable speed and endurance secured him silver medals in both the 1500 meters and 800 meters events. Ayush Rawat clinched a bronze medal in the gruelling 5000 metres race, while Aatesh Yadav's impressive performance earned him a well-deserved bronze medal in discus throw.

In the weightlifting arena, Arnav Sharma claimed the gold medal in the under 74 kg category, while Aryan Dhiman showcased his powerlifting prowess with a bronze medal in the 83-93 kg division. The relay team, comprising Pradyumn Vashisht, Yuvraj Khanna, Kuldeep and Himanshu, demonstrated exceptional coordination and speed to secure a silver medal in the fiercely competitive 4 × 100 meters relay.

Furthermore, in table tennis, the girls' team comprising Akansha Chauhan, Anamya Verma and Pranjal Bansal earned the silver medal. Beyond the individual accolades and triumphs, the collective effort of the students not only brought glory to the university but also underscored the spirit of sportsmanship, teamwork and camaraderie. As they return with their heads held high and medals adorning their chests, they carry with them the pride and admiration of their peers, mentors and the entire JUIT family.



10.2.21 National Conclave on Sustainability, Productivity and Green Growth-19th March, 2024

The National Productivity Council, DPIIT, Ministry of Commerce and Industry, GOI, and Jaypee University of Information Technology with Indian Potash Limited as an Industry Partner organised a National Conclave on Sustainability, Productivity, and Green Growth. The event was held at the Jaypee University of Information Technology on 19th March 2024.

The event commenced with a warm welcome extended to dignitaries and attendees by the Vice-Chancellor JUIT Prof. (Dr.) Rajendra Kumar Sharma. The audience, comprising university officials, faculty members, and students actively participated in the engaging sessions that covered a spectrum of topics critical to sustainable development.

An Ideathon and Case Study competition were also organised in parallel to the sessions of the Conclave. Prizes worth Rs. 20,000 and Rs. 10,000 were awarded to the winners at the end of the conclave by Dr. Rajeev Ranjan and the Vice-Chancellor. A voters awareness campaign was also conducted by the District Election Office, Solan in collaboration with Jaypee University of Information Technology.

The success of the National Conclave on Sustainability, Productivity, and Green Growth would not have been possible without the dedicated efforts of student volunteers and the unwavering support of the university management. In the end, the event concluded with a vote of thanks extended by the Vice Chancellor of JUIT, expressing gratitude to all participants and organisers for their contributions towards making the conclave a resounding success.





10.2.22 Colours of Giving - 19th to 20th March, 2024

Koshish Club, a dedicated initiative aimed at providing underprivileged children with access to quality education, organised their first donation drive "Colours of Giving", with the noble intention of bringing joy to the lives of those less fortunate. This heartfelt event provided the university community with an opportunity to extend a helping hand and make a positive impact on the lives of underprivileged children either from localities, families of workers or anyone in need.

The donation drive, held under the banner of "Colors of Giving" symbolised the spirit of Holi - spreading joy, love and compassion. Koshish humbly requested generous

contributions from students and staff in any form, including stationery, clothes or monetary support. These donations were made for fostering social activities and providing essential resources to those in need.

The funds collected during the drive were earmarked for purchasing gifts for the underprivileged children, aimed at adding colour and cheer to their celebrations. Post-collection, meticulous arrangements were made to personally deliver these gifts to the children and individuals in need, ensuring that the donations reached the intended beneficiaries.

The success of the "Colors of Giving" donation drive was made possible by the collective efforts and selfless service of various individuals, including faculty coordinators, Dr. Shikha Mittal and Dr. Raj Kumar, whose guidance and support were instrumental in orchestrating the event seamlessly, the student coordinators of the Koshish club along with dedicated volunteers.





10.2.23 Dhun - 20th March, 2024

The auditorium of Jaypee University of Information Technology buzzed with excitement on the evening of 20th March as students eagerly awaited the commencement of DHUN'24, a highly anticipated musical evening and DJ night. This event promised a delightful blend of musical performances and vibrant celebrations, offering a platform for students to showcase their talents and unwind amidst the rhythms of music.

The evening unfolded with a captivating array of musical performances, ranging from soulful melodies to energetic rhythms, as students took centre stage to enthral the audience with their talent and passion for music. Following the musical extravaganza, the atmosphere transformed into a lively DJ night, where students danced and celebrated in the company of their peers and mentors.

DHUN'24 was not merely a musical event but a celebration of talent, camaraderie and also a showcase of the commendable efforts of performers, student and faculty coordinators of Theatre and Music Club of JYC.





10.2.24 Educational Workshop at GSSS, Domehar (Koshish Club) - 12th April, 2024

The Koshish Club of Jaypee Youth Club at Jaypee University of Information Technology, a dedicated initiative within the JYC aimed at providing underprivileged children with access to quality education, organised an Educational Workshop at Government Senior Secondary School, Domehar. Led by faculty coordinator Dr. Raj Kumar, a delegation of student volunteers including Vidushi, Niharika, Palak Sharma, Nikhilesh, Nitish Gupta, Anjali Panwar, Dhriti Sharma, Vanshaj Sharma, Vardaan and Aastha Jain, conducted the workshop with the objective of teaching fundamental mathematics concepts to students in classes 1st to 5th and introducing Vedic mathematics techniques to those in classes 6th to 8th, by tailoring the workshop to meet the specific needs of different age groups, the club aimed not only to enhance the educational experience of the attending children but also to empower them with essential skills and knowledge that can positively shape their futures.

Choosing Government Senior Secondary School, Domehar, as the venue served to publicise the club's noble cause of providing quality education to the underprivileged, inspiring others to join the mission. As the echoes of laughter and learning reverberated through the school corridors, it became evident that the workshop was not merely an event but a catalyst for sustainable progress and empowerment. Furthermore, involving student volunteers in organising and facilitating such events not only benefits the attending children but also aids in scaling the club's impact while providing invaluable experience to the volunteers, refining the club's educational initiatives further.





10.2.25 Le Fiestus - 10th to 12th May, 2024

The grand spectacle of 'Le Fiestus'24' continued to dazzle and enthral as it unfolded its magic over three days from 10-12th May 2024 within the spirited confines of the Jaypee University of Information Technology. Day 1 of the fest commenced with a spiritual invocation as Saraswati Puja, a homage to the goddess of knowledge, this solemn ceremony not only set a reverent tone for the fest but also underscored the university's commitment to academic excellence and spiritual values.

Titles for the three days are as, Day - 1 'Folklore Freeway', Day - 2 'Rhythm Route', Day - 3 'Echo Expressway'. Event was very well organised and managed collaboratively by 'The TribeVibe', 'United Production', 'Bharat Bass Festival' and the student body of the JYC, along with them are the media partners for this festival, Divya Himachal, Live Times and Himachal Tonite.

Despite the unforeseen challenge posed by inclement weather, which temporarily disrupted the planned cultural evening, the indomitable spirit of the university community prevailed, embodying resilience in the face of adversity. Undeterred by the initial setback, organisers swiftly mobilised, rearranging schedules and venues to ensure the festivity continued unabated.

With all this Day 2 emerged as a testament to the community's perseverance, a vibrant showcase of creativity and passion, themed **Rhythm Route**, the auditorium pulsated with renewed energy and excitement as performers graced the stage, igniting the night with their boundless talent and unwavering passion. The evening unfolded like a symphony, each act a melody weaving seamlessly into the next, captivating the audience with its sheer brilliance.

The festivities commenced with a captivating performance by the music band, 'The Lost Fireflies,' their melodies resonating through the auditorium, setting the stage for an evening of mesmerising musical enchantment. As the crowd swayed to the rhythm, DJ Mr. Singh took over, infusing the atmosphere with his infectious beats, each note a call to celebration and revelry. The auditorium transformed into a pulsating dance floor, alive with the collective energy of students immersed in the euphoria of the moment.

Day 2 of Le Fiestus not only showcased the rich tapestry of cultural diversity but also embodied the unwavering spirit and resilience of the university community, uniting hearts and souls in celebration. As the festivity continues to unfold, we eagerly anticipate the excitement and wonder that the remaining day holds in store.

Day 3 of the fest, dubbed **Echo Expressway**, commenced with an air of anticipation and excitement as the campus adorned itself in resplendent decorations, setting the stage for a memorable finale. The festivities began with a performance by the renowned comedian, **Parvinder Singh**, whose comedic genius elicited peals of laughter from the audience, setting a jovial tone for the day ahead. As the evening descended, the campus came alive once again with the beats of **DJ Elina Chauhan**, whose infectious tunes transformed the atmosphere into a pulsating dance floor, where students danced the night away in jubilant celebration.

However, the true highlight of the evening was the star performance by the acclaimed singer, 'Akhil Sachdeva'. Taking the stage amidst a sea of eager faces, Sachdeva held the audience spellbound with his soulful melodies, weaving a tapestry of emotions that resonated deeply with all present. His performance, which extended well into the midnight hours, served as the crowning moment of Le Fiestus'24, leaving an indelible imprint on the hearts and minds of all who bore witness to his artistry.

The event was a testament to collaborative efforts between 'The TribeVibe', 'United Production', 'Bharat Bass Festival' and the JYC student body, along with the unwavering support of media partners Divya Himachal, Live Times and Himachal Tonite, ensured that Le Fiestus' 24 was an unparalleled success.













11. TRAINING & PLACEMENT

Training and Placement (T&P) 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**

12. FINANCIAL STATUS

The Audited Balance Sheet of the FY 2023-24 is attached as **Appendix I**

Appendix A

GOVERNING COUNCIL

1. <u>Pro-Chancellor</u>

Shri Manoj Gaur Executive Chairman Jaiprakash Associates Ltd. Chairman

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

a) Shri Sunil SharmaVice ChairmanJaiprakash Associates Ltd.

Member

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

3. Two Representatives of the Collaborating Universities

a) Prof Sanjay GoelVice ChancellorJaypee University, Anoopshahr, U.P.

Member

b) Shri Kanishk Sharma Suresh Gyan Vihar University Jaipur, Rajasthan Member

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

a) Prof. S.C. Saxena Pro- Chancellor JIIT, Noida Member

b) Padma Shri (Dr) Satish Kumar Ex-Director NIT, Kurukshetra Member

c) Prof. Gautam Barua Ex Director, IIT Guwahati & Director IIIT Guwahati Member

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

a) Sh. Harish K Vaid Advisor, JAL Member

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

6. Vice Chancellor of the University

Prof. (Dr.) Rajendra Kumar Sharma

Member

7. One Head of Another Institute/Laboratory of the Trust

Prof. B.R. Mehta Vice Chancellor JIIT, Noida Member

8. Two Deans of the University by Rotation

a) Prof. Ashok Kumar GuptaDean (Academics & Research)JUIT, Waknaghat

Member

b) Vacant

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 GaurJt. Managing Director.KFCL, Kanpur

Member

b) Sh. D.S. Ahuja Director, KFCL Kanpur Member

11. Non-Member Secretary

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

Appendix B

EXECUTIVE COUNCIL

1. The Vice Chancellor of the University

Chairman

Prof. (Dr.) Rajendra Kumar Sharma

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

a) Sh. Sunil SharmaVice ChairmanJaiprakash Associates Ltd.

Member

b) Sh. Harish K. Vaid Advisor, JAL Member

3. One Dean of the University

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

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

Prof. S.C. Saxena Pro-Chancellor Jaypee Institute of Information Technology (JIIT) Noida Member

5. Non- Member Secretary

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

Appendix C

FINANCE COMMITTEE

1. The Vice Chancellor of the University Chairman

Prof. (Dr.) Rajendra Kumar Sharma

2. One Nominee of the Pro-Chancellor

Sh. Sunil Sharma Vice Chairman Jaiprakash Associates Ltd

Maj Gen Rakesh Bassi, SM (Retd)

One Nominee of the Governing Council

JUIT Waknaghat

3.

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

Prof. Ashok Kumar Gupta Dean (Academics& Research)

Registrar & Dean of Students

5. Non Member Secretary

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

Member

Member

Member

Appendix D

ACADEMIC COUNCIL OF THE UNIVERSITY

1. The Vice Chancellor of the University - Chairman

Prof. (Dr.) Rajendra Kumar Sharma

- 2. Two Professors other than Heads of Departments by Rotation and by Seniority
 - a) Prof. (Dr.) Sunil Kumar Khah Physics & Material Science
 - b) Prof. (Dr.) Vineet Sharma Physics & Materials Science
- 3. Two Distinguished Academicians to be nominated by Pro- Chancellor
 - a) Dr. Satish Kumar Member Ex-Director
 NIT Kurukshetra
 - b) Prof. Lalit Kumar Awasthi Member,
 Director,
 NIT, Srinagar, Uttarakhand
- 4. Two Industry Professionals to be nominated by the Pro-Chancellor
 - a) Sh. Sunil Sharma Member 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 Member Vice Chancellor Jaypee Institute of Information Technology (JIIT), Noida

- 6. The Deans of all Faculty of the University
 - a) Prof. Ashok Kumar Gupta Member Dean (Academics & Research)
 - b) Vacant

7. Heads of the Departments/Centres of the University

- a) Prof. (Dr.) P.B. Barman, HOD, Department of Physics & Materials Science
- b) Prof. (Dr.) Sudhir Kumar, HOD, Department of BT&BI
- c) Prof. (Dr.) Ashish Kumar, HOD, Department of Civil Engineering
- d) Prof. (Dr.) Vivek Sehgal, HOD, Department of CSE/IT
- e) Prof. (Dr.) Rajiv Kumar, HOD, Department of ECE
- f) Prof. (Dr.) Rakesh Kumar Bajaj, HOD, Department of Mathematics
- g) Dr. Amit Srivastava, HOD, Department of HSS

8. Non-Member Secretary

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

Appendix E

DETAILS OF LAND

	JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY						
	Waknaghat Solan (H.P.)						
Summary (Plinth Area) 17.04.2021							
SI. No.	Particulars Area (In sqm)		Ground Coverage Area (in sqm)	Total No. of Floor			
1	Institution and administrative area						
	Academic Block -3 Level	442.63		1 Floor			
	Academic Block -2 Level	798.98		1 Floor			
	Academic Block -1 Level	1298.53		1 Floor			
	Academic Block 0 Level	2510.19		1 Floor			
	Academic Block +1 Level	3093.40	Ī	1 Floor			
	Academic Block +2 Level	2868.87	4846.80	1 Floor			
	Academic Block +3 Level	2307.04		1 Floor			
	Academic Block +4 Level	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	240.20				

	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)	07.50		10 Floor
	Ground Floor First Floor	67.56 80.83		1 Floor 1 Floor
	Typical Floor	900.8		8 + Mumty
	D Type Faculty (B Block)	300.0		O · Widility
	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

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

TOTAL PLOT AREA = 114.10 BIGHA

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

APPENDIX F

DETAILS OF TEACHING STAFF

		.	0 1:5 (:			
S.No.	Name	Designation	Qualifications			
1	Rajendra Kumar Sharma	Vice Chancellor	PhD			
	ELECTRONICS & COMMUNICATION ENGINEERING					
2	Rajiv Kumar	Professor & HOD	PhD			
3	Shruti Jain	Professor & Dean Associate	PhD			
4	Harsh Sohal	Associate Professor	PhD			
5	Emjee Puthooran	Associate Professor	PhD			
6	Naveen Jaglan	Associate Professor	PhD			
7	Sunil Datt Sharma	Associate Professor	PhD			
8	Shweta Pandit	Assistant Professor (SG)	PhD			
9	Vikas Baghel	Assistant Professor (SG)	PhD			
10	Salman Raju Talluri	Assistant Professor (SG)	PhD			
11	Nishant Jain	Assistant Professor (SG)	PhD			
12	Alok Kumar	Assistant Professor (SG)	PhD			
13	Pardeep Garg	Assistant Professor (SG)	PhD			
14	Pragya Gupta	Assistant Professor (GR-II)	M.Tech			
15	Munish Sood	Assistant Professor (GR-II)	M. Tech			
	COMPUTER SCIENCE &	ENGINEERING/INFORMATION TE	CHNOLOGY			
16	Vivek Sehgal	Professor & HOD	PhD			
17	Pradeep Kumar Gupta	Professor	PhD			
18	Pardeep Kumar	Associate Professor	PhD			
19	Ravindara Bhatt	Associate Professor	PhD			
20	Yugal Kumar	Associate Professor	PhD			
21	Ekta Gandotra	Associate Professor	PhD			
22	Hari Singh	Assistant Professor (SG)	PhD			
23	Ruchi Verma	Assistant Professor (SG)	PhD			
24	Amit Kumar	Assistant Professor (SG)	PhD			
25	Amol Vasudeva	Assistant Professor (SG)	PhD			
26	Aman Sharma	Assistant Professor (SG)	PhD			
27	Rakesh Kanji	Assistant Professor (SG)	PhD			
28	Deepak Gupta	Assistant Professor (SG)	PhD			
29	Nancy Singla	Assistant Professor (SG)	PhD			
30	Kushal Kanwar	Assistant Professor (SG)	PhD			
31	Shubham Goel	Assistant Professor (SG)	PhD			
32	Vipal Sharma	Assistant Professor (SG)	PhD			

34 Diksha Hooda Assistant Professor (SG) PhD 35 Anita Assistant Professor (SG) PhD 36 Nishant Sharma Assistant Professor (SG) PhD 37 Prateek Assistant Professor (SG-III) M.Tech 38 Arvind Kumar Assistant Professor (GR-III) M.Tech 39 Praveen Modi Assistant Professor (GR-III) M.Tech 40 Faisal Firdos Assistant Professor (GR-III) M.Tech 41 Aayush Sharma Assistant Professor M.Tech 42 Ramesh Assistant Professor M.Tech 43 Seema Rani Assistant Professor M.Tech 44 Maneet Singh Assistant Professor M.Tech 45 Sudhir Syal Professor (GR-II) M.Tech 46 Jata Shankar Professor M.Tech 47 Tiratha Raj Singh Professor & HOD PhD 48 Anil Kant Associate Professor PhD 49 Rahul Shrivastava Associate Professor PhD 50 Hemant Sood Associate Professor PhD 51 Gopal Singh Bisht Associate Professor PhD 52 Poonam Sharma Associate Professor PhD 53 Jitendraa Vashistit Associate Professor PhD 54 Garlapati Vijay Kumar Associate Professor PhD 55 Udaybanu M Associate Professor PhD 56 Saurabh Bansal Associate Professor PhD 57 Ashok Kumar Nadda Assistant Professor (GR-II) PhD 58 Abhishek Chaudhary Assistant Professor (GR-II) PhD 69 Sugandha Singh Associate Professor PhD 60 Assistant Professor PhD 61 Tyson Assistant Professor PhD 61 Tyson Assistant Professor PhD 61 Tyson Assistant Professor (GR-II) PhD 61 Tyson Assistant Professor (GR-II) PhD 61 Tyson Assistant Professor (GR-II) PhD 63 Ashish Kumar Professor (GR-II) PhD 64 Saurabh Rawat Associate Professor PhD 65 Rishi Rana Assistant Professor (GR-II) PhD 66 Assistant Professor (GR-II) PhD 67 Ashok Kumar Professor & Dean (Academics & PhD 68 Tanmay Gupta Assistant Professor (GG) PhD	33	Pankaj Dhiman	Assistant Professor (SG)	PhD
Assistant Professor (SG) PhD Assistant Professor (SG) PhD Assistant Professor (SG) PhD Assistant Professor (SG) PhD Assistant Professor (SG-II) M.Tech Assistant Professor (GR-II) M.Tech Assistant Professor (GR-II) M.Tech Praveen Modi Assistant Professor (GR-II) M.Tech Assistant Professor PhD Associate Professor	-		` '	
Nishant Sharma	35	Anita	, ,	PhD
37 Prateek Assistant Professor (GR-II) M.Tech 38 Arvind Kumar Assistant Professor (GR-II) M.Tech 39 Praveen Modi Assistant Professor (GR-II) M.Tech 40 Faisal Firdos Assistant Professor M.Tech 41 Aayush Sharma Assistant Professor M.Tech 42 Ramesh Assistant Professor M.Tech 42 Ramesh Assistant Professor M.Tech 43 Seema Rani Assistant Professor M.Tech 44 Maneet Singh Assistant Professor (GR-II) M.Tech 44 Maneet Singh Assistant Professor (GR-II) M.Tech 44 Maneet Singh Assistant Professor (GR-II) M.Tech 45 Sudhir Syal Professor PhD 46 Jata Shankar Professor PhD 47 Tiratha Raj Singh Professor PhD 47 Tiratha Raj Singh Professor PhD 49 Rahul Shrivastava Associate Professor	36	Nishant Sharma	, ,	PhD
39 Praveen Modi	37	Prateek	Assistant Professor (GR-II)	M.Tech
40 Faisal Firdos Assistant Professor M.Tech 41 Aayush Sharma Assistant Professor M.Tech 42 Ramesh Assistant Professor M.Tech 43 Seema Rani Assistant Professor M.Tech 44 Maneet Singh Assistant Professor (GR-II) M.Tech DEPARTMENT OF BIOTECHNOLOGY / BIOINFORMATICS 45 Sudhir Syal Professor & HOD PhD 46 Jata Shankar Professor PhD 47 Tiratha Raj Singh Professor PhD 48 Anil Kant Associate Professor PhD 49 Rahul Shrivastava Associate Professor PhD 50 Hemant Sood Associate Professor PhD 51 Gopal Singh Bisht Associate Professor PhD 52 Poonam Sharma Associate Professor PhD 53 Jitendraa Vashistt Associate Professor PhD 54 Garlapati Vijay Kumar Associate Professor PhD 55 Udaybanu M Associate Professor PhD 56 Saurabh Bansal Associate Professor PhD 57 Ashok Kumar Nadda Assistant Professor (SG) PhD 58 Abhishek Chaudhary Assistant Professor (GR-II) PhD 60 Shikha Mittal Assistant Professor (GR-II) PhD 61 Tyson Assistant Professor (GR-II) PhD 62 Ashok Kumar Gupta Professor & Den MVSC DEPRTMENT OF CIVIL ENGINEERING 63 Ashish Kumar Professor & Den MC 64 Saurabh Rawat Associate Professor PhD 65 Rishi Rana Assistant Professor (SG) PhD 66 Amardeep Assistant Professor (SG) PhD 67 Saurav Assistant Professor (SG) PhD 68 Tanmay Gupta Assistant Professor (SG) PhD	38	Arvind Kumar	Assistant Professor (GR-II)	M.Tech
41 Aayush Sharma Assistant Professor M.Tech 42 Ramesh Assistant Professor M.Tech 43 Seema Rani Assistant Professor M.Tech 44 Maneet Singh Assistant Professor (GR-II) M.Tech DEPARTMENT OF BIOTECHNOLOGY / BIOINFORMATICS 45 Sudhir Syal Professor & HOD PhD 46 Jata Shankar Professor PhD 47 Tiratha Raj Singh Professor PhD 47 Tiratha Raj Singh Professor PhD 48 Anil Kant Associate Professor PhD 49 Rahul Shrivastava Associate Professor PhD 49 Rahul Shrivastava Associate Professor PhD 50 Hemant Sood Associate Professor PhD 51 Gopal Singh Bisht Associate Professor PhD 52 Poonam Sharma Associate Professor PhD 53 Jitendraa Vashistt Associate Professor PhD 54 Garlapati Vijay Kumar Associate Professor PhD 55 <td>39</td> <td>Praveen Modi</td> <td>Assistant Professor (GR-II)</td> <td>M.Tech</td>	39	Praveen Modi	Assistant Professor (GR-II)	M.Tech
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66 Amardeep Assistant Professor (SG) PhD 67 Saurav Assistant Professor (SG) PhD 68 Tanmay Gupta Assistant Professor (SG) PhD	64	Saurabh Rawat	Associate Professor	PhD
67 Saurav Assistant Professor (SG) PhD 68 Tanmay Gupta Assistant Professor (SG) PhD	65	Rishi Rana	Assistant Professor (SG)	PhD
68 Tanmay Gupta Assistant Professor (SG) PhD	66	Amardeep	Assistant Professor (SG)	PhD
	67	Saurav	Assistant Professor (SG)	PhD
69 Sugandha Singh Assistant Professor (SG) PhD	68	Tanmay Gupta	Assistant Professor (SG)	PhD
	69	Sugandha Singh	Assistant Professor (SG)	PhD

70	Niraj Singh Parihar	Assistant Professor (GR-II)	PhD			
71	Chandrapal Gautam	Assistant Professor (GR-II)	M. Tech			
72	Kaushal Kumar	Assistant Professor (GR-II)	M.Tech			
73	Akash Bhardwaj	Assistant Professor (GR-II)	M.Tech			
	DEPARTMENT	OF PHYSICS & MATERIALS SCIEN	CES			
74	Partha Bir Barman	Professor & HOD	PhD			
75	Sunil Kumar Khah	Professor & CoE	PhD			
76	Vineet Sharma	Professor	PhD			
77	Ragini Raj Singh	Associate Professor	PhD			
78	Surajit Kumar Hazra	Associate Professor	PhD			
79	Sanjiv Kumar Tiwari	Assistant Professor (SG)	PhD			
80	Santu Baidya	Assistant Professor (GR-I)	PhD			
81	Haresh A. Raval	Assistant Professor (GR-II)	PhD			
	DEPARTMENT OF MATHEMATICS					
82	Rakesh Kumar Bajaj	Professor & HOD	PhD			
83	Karanjeet Singh	Professor	PhD			
84	R S Raja Durai	Professor	PhD			
85	Neel Kanth	Associate Professor	PhD			
86	Pradeep Kumar Pandey	Assistant Professor (SG)	PhD			
87	Saurabh Srivastava	Assistant Professor (SG)	PhD			
88	Bhupendra Kumar Pathak	Assistant Professor (SG)	PhD			
89	Mandeep Singh	Assistant Professor (SG)	PhD			
	DEPARTMENT	OF HUMANITIES & SOCIAL SCIEN	CES			
90	Amit Srivastava	Associate Professor & HOD	PhD			
91	Anupriya Kaur	Professor	PhD			
92	Tanu Shrma	Associate Professor	PhD			
93	Triambica Gautam	Assistant Professor (GR-II)	MBA, UGC Net			
94	Neena Jindal	Assistant Professor (GR-II)	PhD			
95	Deler Singh	Assistant Professor (GR-II)	PhD			
96	Ranjith Kallyani	Assistant Professor (GR-II)	PhD			
97	Bilal Khan	Assistant Professor (GR-II)	PhD			
98	Atul Kumar Singh	Assistant Professor (GR-II)	PhD			

RESULTS OF PAST FOUR YEARS

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

RESUSLTS BTEC	<u>H 2017-21 – BTECH</u>		
CSE IT ECE CE BT BI	166 28 66 76 33 18	161 28 63 66 33 18	96.99% 100% 95.45 86.84% 100%
RESUSLTS BTEC	<u>H 2018-22 – BTECH</u>		
CSE IT ECE CE BT BI	222 25 21 53 40 6	219 24 20 49 39 6	98.64% 96% 95.23% 92.45% 97.5% 100%
RESUSLTS BTEC	H 2019-23 – BTECH		
CSE IT ECE CE BT BI	237 50 43 34 28 07	228 47 41 30 27 07	96.2% 94.0% 95.3% 88.2% 96.4% 100%
RESUSLTS BTEC	<u>H 2020-24 – BTECH</u>		
CSE IT ECE CE BT BI	324 54 17 29 14 04	317 49 17 28 12 03	97.8% 90.7% 100% 96.5% 85.7% 75%

RESULTS	OF F	RATCH	2021-2023 -	MTECH
IVEOULIO	OI L	, A I O I I	ZUZ 1-ZUZJ —	

Internet of Things	05	05	100%
Structural Engineering	04	04	100%
Biotechnology	07	07	100%
RESULTS OF BAT	<u>CH 2022-2024 – MTECH</u>		
Internet of Things	02	02	100%
Data Science	03	03	100%
Biotechnology Structural	02	02	100%
Engineering	07	06	85.7%
RESULTS OF BAT	CH 2021-2023 – MSc		
Biotechnology	26	26	100%
Microbiology	08	08	100%
RESULTS OF BAT	CH 2022-2024 – MSc		
Biotechnology	20	20	100%
Microbiology	04	04	100%

Appendix H

TRAINING & PLACEMENT DATA

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 28/June/2022						
Branch	Total Eligible Participating Students	No. of Absolute Offers	% of Absolute Offers	No. of Total Offers	% of Total Offers	
CSE	124	124	100%	214	173%	
ECE	45	45	100%	59	131%	
IT	26	24	92%	41	158%	
BT/BI	19	15	79%	17	89%	
CIVIL	15	8	53%	9	60%	
Total	229	216	94%	340	148%	

For 2022 Batch

On Campus	Off Campus
Highest Salary –32 Lacs by Amazon	Highest Salary –50 Lacs by Microsoft
2nd Highest Salary – 31.5 Lacs by Amazon	2nd Highest Salary – 45 Lacs by Adobe

	PLACEMENT STATUS : JUIT Solan 2018-22 as on 28/Jun/2022							
Branch	Total Eligible participating Students	No. of Absolute Offers	% of Absolute Offers	No. of Total Offers	% of Total Offers			
CSE	201	193	96%	381	190%			
ECE	16	13	81%	22	138%			
IT	23	23	100%	43	187%			
BT/BI	33	26	79%	31	94%			
CIVIL	28	17	61%	18	64%			
Total	301	272	90%	495	164%			

For 2023 Batch

Highest Salary – 44.14 Lacs by Amazon

• 2nd Highest Salary - 20 Lacs by Fantaclaus

	PLACEMENT ST	ATUS : JUIT S	olan 2019-23 as	on 05/June/202	3
Branch	Total Eligible participating Students	No. of Absolute Offers	% of Absolute Offers	No. of Total Offers	% of Total Offers
CSE	217	201	92%	361	166%
ECE	37	28	75%	49	132%
IT	40	34	85%	45	112%
BT/BI	24	17	70%	25	104%
CIVIL	18	7	39%	8	44%
Total	336	287	85%	488	145%

For 2024 Batch

• Highest Salary – 21.15 Lacs by ZS Assoiates

• 2nd Highest Salary – 20 Lacs by Amazon

	PLACEMENT ST	ATUS : JUIT Solan	2016-20 as on	28/July/2022	
Branch	Total Eligible Participating Students	No. of Absolute Offers	% of Absolute Offers	No. of Total Offers	% of Total Offers
CSE	200	173	87%	184	92%
ECE	12	12	100%	12	100%
IT	24	19	79%	21	88%
BT/BI	10	10	100%	11	110%
CIVIL	07	04	57%	04	57%
Total	253	218	86%	232	92%

BALANCE SHEET FOR THE FINANCIAL YEAR 2023-24

Chartered Accountants

B-4, NDG Center, Gulmohar Park, New Delhi - 110049 Phones: 46111000 (30 lines) FAX: 011-4611 1099 E-mail: admin @ dassgupta.com

INDEPENDENT AUDITORS' REPORT

C

THE MEMBERS OF THE GOVERNING BODY

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY

P.O. WAKNAGHAT, THE KANDAGHAT

DISTT. SOLAN-173234, HIMACHAL PRADESH

REPORT ON THE FINANCIAL STATEMENTS

WE HAVE AUDITED THE ATTACHED BALANCE SHEET OF JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY (HERE IN AFTER REFERRED AS UNIVERSITY), AS AT 31st MARCH 2024 AND THE ANNEXED INCOME & EXPENDITURE ACCOUNT FOR THE YEAR THEN ENDED, AND A SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES AND OTHER EXPLANATORY INFORMATION.

MANAGEMENT'S RESPONSIBILITY FOR THE FINANCIAL STATEMENTS

PREVENTING AND DETECTING FRAUDS AND OTHER IRREGULARITIES; SELECTION AND APPLICATION OF APPROPRIATE MANAGEMENT IS RESPONSIBLE FOR THE PREPARATION OF THESE FINANCIAL STATEMENTS THAT GIVE A TRUE AND FAIR VIEW OF THE FINANCIAL POSITION AND FINANCIAL PERFORMANCE OF THE UNIVERSITY IN ACCORDANCE WITH THE INCOME TAX ACT 1961 ("THE ACT"). THIS RESPONSIBILITY ALSO INCLUDES MAINTENANCE OF ADEQUATE ACCOUNTING RECORDS IN ACCORDANCE WITH THE PROVISIONS OF THE ACT FOR SAFEGUARDING THE ASSETS OF THE UNIVERSITY AND FOR TOBENT, AND DESIGN, ACCOUNTING POLICIES; MAKING JUDGMENTS IN THE ESTIMATES THAT ARE REASONABLE ANKER

Chartered Accountants

B-4, NDG Center, Gulmohar Park, New Delhi - 110049 Phones: 46111000 (30 lines) FAX: 011-4611 1099 E-mail: admin @ dassgupta.com IMPLEMENTATION AND MAINTENANCE OF ADEQUATE INTERNAL FINANCIAL CONTROLS, THAT WERE OPERATING EFFECTIVELY AND PRESENTATION OF THE FINANCIAL STATEMENTS THAT GIVE A TRUE AND FAIR VIEW AND ARE FREE FROM MATERIAL RELEVANT TO THE PREPARATION FOR ENSURING THE ACCURACY AND COMPLETENESS OF THE ACCOUNTING RECORDS, MISSTATEMENT, WHETHER DUE TO FRAUD OR ERROR.

AUDITOR'S RESPONSIBILITY

OUR RESPONSIBILITY IS TO EXPRESS AN OPINION ON THESE FINANCIAL STATEMENTS BASED ON OUR AUDIT. WE ACCOUNTANTS OF INDIA. THOSE STANDARDS REQUIRE THAT WE COMPLY WITH ETHICAL REQUIREMENTS AND PLAN AND PERFORM THE AUDIT TO OBTAIN REASONABLE ASSURANCE ABOUT WHETHER THE FINANCIAL STATEMENTS ARE FREE FROM CONDUCTED OUR AUDIT IN ACCORDANCE WITH THE STANDARDS ON AUDITING ISSUED BY THE INSTITUTE OF CHARTERED MATERIAL MISSTATEMENT. AN AUDIT INVOLVES PERFORMING PROCEDURES TO OBTAIN AUDIT EVIDENCE ABOUT THE AMOUNTS AND DISCLOSURES IN THE FINANCIAL STATEMENTS. THE PROCEDURES SELECTED DEPEND ON THE AUDITOR'S JUDGMENT, INCLUDING THE ASSESSMENT OF THE RISKS OF MATERIAL MISSTATEMENT OF THE FINANCIAL STATEMENTS, WHETHER DUE TO FRAUD OR RELEVANT TO THE UNIVERSITY PREPARATION AND FAIR PRESENTATION OF THE FINANCIAL STATEMENTS IN ORDER TO DESIGN AUDIT PROCEDURES THAT ARE APPROPRIATE IN THE CIRCUMSTANCES, BUT NOT FOR THE PURPOSE OF EXPRESSING AN OPINION EFFECTIVENESS OF THE ENTITY'S INTERNAL CONTROL. AN AUDIT ALSO INCLUMES ERROR. IN MAKING THOSE RISK ASSESSMENTS, THE AUDITOR CONSIDERS INTERNAL CONTROL ON THE

Chartered Accountants

B-4, NDG Center, Gulmohar Park, New Delhi - 110049 Phones: 46111000 (30 lines) FAX: 011-4611 1099 E-mail: admin @ dassgupta.com APPROPRIATENESS OF ACCOUNTING POLICIES USED AND THE REASONABLENESS OF THE ACCOUNTING ESTIMATES MADE BY MANAGEMENT, AS WELL AS EVALUATING THE OVERALL PRESENTATION OF THE FINANCIAL STATEMENTS.

WE BELIEVE THAT THE AUDIT EVIDENCE WE HAVE OBTAINED IS SUFFICIENT AND APPROPRIATE TO PROVIDE A BASIS FOR OUR AUDIT OPINION.

OPINION

- A. IN OUR OPINION AND TO THE BEST OF OUR INFORMATION AND ACCORDING TO THE EXPLANATIONS GIVEN TO US, THE SAID ACCOUNTS WITH SIGNIFICANT ACCOUNTING POLICIES AND OTHER NOTES THEREON GIVE A TRUE AND FAIR VIEW.
- IN THE CASE OF BALANCE SHEET, OF THE STATE OF AFFAIRS OF THE UNIVERSITY AS AT 31°T MARCH 2024 \equiv
- IN THE CASE OF INCOME & EXPENDITURE ACCOUNT, OF THE SURPLUS FOR THE YEAR ENDED ON THAT DATE. \equiv

REPORT ON OTHER LEGAL AND REGULATORY REQUIREMENTS

- B. WE HAVE OBTAINED ALL THE INFORMATION AND EXPLANATIONS, WHICH TO THE BEST OF OUR KNOWLEDGE AND BELIEF WERE NECESSARY FOR THE PURPOSE OF OUR AUDIT.
- C. IN OUR OPINION PROPER BOOKS OF ACCOUNT AS REQUIRED BY LAW HAVE BEEN KEPT BY THE UNIVERSITY SO FAR AS APPEARS FROM OUR EXAMINATION OF THOSE BOOKS;



Chartered Accountants

B-4, NDG Center, Gulmohar Park, New Delhi - 110049
Phones: 46111000 (30 lines) FAX: 011-4611 1099 E-mail: admin @ dassgupta.com

- D. THE BALANCE SHEET AND STATEMENT OF INCOME & EXPENDITURE ACCOUNT DEALT WITH BY THIS REPORT ARE IN AGREEMENT WITH THE BOOKS OF ACCOUNT;
- E. IN OUR OPINION THE BALANCE SHEET AND INCOME & EXPENDITURE ACCOUNT DEALT WITH BY THIS REPORT COMPLY WITH THE APPLICABLE ACCOUNTING STANDARDS SUBJECT TO OUR COMMENTS IN SIGNIFICANT ACCOUNTING POLICIES AND NOTES ANNEXED TO AND FORMING PART OF THE ACCOUNTS.

FOR AND ON BEHALF OF DASS GUPTA & ASSOCIATES

CHARTERED ACCOUNTANTS
REGISTRATION NO: 000112N
SO CHARTERED ACCOUNTANTS
SO CHARTER SO

CA ASTOCK YUMAR JAIN

(PARTNER) MEMBERSHIP NO. 090563 UDIN: 24090563 BKEN TO 79 55

DATE: 26.08.2029 PLACE: NEW DELHI

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

Balance Sheet as on 31.03.2024

Amount (₹) 31.03.2023	LIABILITIES	Schedule	Amount (₹) 31.03.2024	Amount (₹) 31.03.2023	ASSETS	TS	Schedule	Amount (*) 31.05.2024
3,00 00,000	CORPUS FUND For University		5,00,00,000	72,13,16,424	Property Plent & Equipements and intengible Assets Opening Balance	and Intangible Assets		74 88,88 108
1,01,55,000 8,04,55,000	For Research Promotion (UBSK)		1,01,55,000	1,71,71,684	Addition curing the year Disposed off during the current perion	ment period		C. 37,000
6,29,38,302	GENERAL FUND		27,51,76,779	74,68,88,108 58,30,42,321	Cross	niun & amonization	<u> </u>	79,79,75,325
1,28.40,777	11,28,40,777 Acd - Surplus (Deficit) brought from thomic & Properdating Att.		14,21,60,738	15,38,45,787	Not Block			17,34,13,553
27,51,75,779			41,73,97,517	54,29,937	CAPITAL WORK IN PROGRESS		ţa,	26,38,072
67,93,344	RESEA		54,21,151		CURRENT ASSETS, LOANS & ADVANCES	DVANCES		
80,45,406 (86,69,974)	And : Received during the year Less : Received during the year Less : Roll and number the year		(37,25,659)	31,82,09,187	31,82,09,187 Cash & Sank Balance		b	43,38,44,512
64,21,161			44,62,590	10,59,61,062	10,59,81,062 Advances and Receivables in Cash or in Kind	sh or in Kind	i.p	10,95,65,579
	CURRE	;		59,84,547	59,84,547 Prepaid Expenses		ů	82,89,290
1.97,48,425 28.07,11,638	Sundry Creations Other Liabilities	c -	21,75,85,255	24,18,452	24,18,452 Security Deposits		į.	24,18,452
46,20,000 (57,48,500)			1.88,04.950 1.08,25,500 (57,82,831)	79,68,852	Stack in Hand		įb	88.45.622
1,88,04,960	(Due for payment during next one year Rs.64,61,888/1)		2,35,41,519					
59 98 17.844	Total Liabilities		73,90,15,180	59.98.17.844	Total Assets	2000		73,90,15,180

throughous and notice on accounts as per Schedule 'O' terming part or Salance Shees. Nice Chancellor

REGISTRAR, Jayjae University of Information Technology Wekhaghat, Distr. Solan (H.P.) WALGEN RAKESH BASSISM (RETD) REGISTRAR

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

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Amount (₹) 31.03.2023	EXPENDITURE	Schedule	Amount (₹) 31.03.2024	Amount (₹) 31.03.2023	INCOME	Schedule	Amount (₹) 31.03.2024
23.60,55,482	23.60,55.482 Education Expenses	ŗ.	27,14,14,823	60,57,08,612	60,57,06,812 Collection from Students	÷	69,72,21,803
24,17,87,678	24,17,87,678 Salary & Allowances	.Υ	27,16,70,099	93,85,298	Interest Income	.W.	1,79,85,078
2,59,04,141	Depreciation & Amortization	d	3,15,24,052	14,96,169	14,95,169 Receipt Incidental to Education	.N	15,62,830
10.37,47,301	50.37,47,301 Total Expenditure's		57,46,08,974	61,65,88,079	61,65,88,079 Total Income's		71,67,69,711
11,28,40,777	Surplus Transferred to General Fund A/C.		14,21,60,738				
61.65.88.079	TOTAL		71,67,69,711	61,65,88,079	TOTAL		711.67.69,711

Surfram Accounting policies and notes on accounts as per Schedule "O" forming part of Income & Expenditure Account, As per our report of even date attached.









OWNOTE NO.

REGISTRAR. Jaypee University of Information Technology Weknaghat, Diett, Scian (H.R.)

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY FINANCIAL YEAR 2023-24 Details of Property, Plant & Equipements and Intangible Assets as on 31.03.2024

SCHEDULE: "A"								The state of the state of		300	AMOUNT IS,
				GROSS BLOCK			As British a to to	OEFFECT SAME		2	-
Shock of Assets	San of Dep.	Op. 24,3022 01,24,3022	Addition for the this year.	TO UNIVERSITY	Department of the region of the Solution on the Solution of th	ASS 171.03 2324	Ot (4.3053	For the Year	00/00/21/23/20040	Au pri 21.00.2623	As on 01.01.0004
Charleson away			163 Days or 2020	Days							
Appropriate Spanish	200	14 May 200		25 SC264		1000000	528,71,842	930003	80,170,8	528.03.407	56423.012
Sec Book	200	100,000	139,888	33,255		6,98,43,101	525 28 467	15,40,00	6,10,10,000	12000	B\$25.50
Activity of Posterior	1980	2303030				200,000,000	125 20,253	1,0,038	1,75,11,577	127423	20,71,90
in Provided to Colorado	50	2.6278,483	24730	\$31,512		2,97,01,300	1,42 54,629	2,72,563	82000	28,14,95	653338
State of Carameter	š	13736,055				20 127.0	50 38 946	225.203	106,1128	18/3177	25.00.51
THE DESCRIPTION OF THE PARTY OF	2/2	18.41.57,089	1,23,35,541	1,33,553		10.00 (4.10)	14,35,46,714	123.86.75	75/8/15/478	227 (30)	158 86 66
Worker Call & Calabrida	8	\$50,000				2.0031.000	2,02,30,30,5	1,30,007	278,51177	10.00401	15,30,409
Weared Report Life Day arvino	188	20,58313				22270	32,44,567	10,00	X21520	3.50	130,00
1 000 CONTRACTO 315725	200	232381				123 131	727.55		727 (8)		
Particular Course to	100	87,903				S2.20	5000	505	155.23	3.87	SMI
South Section 6	1000	12277362				1,32,71,550	17055071	44025	1,0723,286	19.42.95	833,014
do bores	e	T12.12.15.15	1422320	19,28,00		2.82,05,052	1,7422,306	14,02513	22 22 22 27	1425504	50 N. W.
Broches (and)	5.	52.22.374	66.200	2613		220,50,022	15,63,54	5.025	472423	12.53188	F2/100
Contract Calenda	100	20,53,00	51836	128.936		72,07841	21,33811	4 64 178	4000	33.12.84	25,33,665
COUNTY SAME	322	THE ACCESS!	5.480	427.88		130,41334	45000 206	14 85459	4,000,000	1,256.50	1242420
	187	23624530	1106380		427.00	2,030,000,000	1,00,00,000	17.4.84	2,05,06,532	263/201	50,25,361
Section Contract	139	20130					251355	5665	223.542	21012	25.55
GO TO COLONES	150	087.73%		12.74		22,00,000	6135.28	3.85,93	71,08.445	35.55.50	884188
Sorry Oxforas	159	7307162	5,002.5	2,0122,870		140,00,007	3,50,52,221	20,00,000	428,01.104	1251758	31537.93
Deposit Schools	100	1,14,17,255	91,386	250.68		134,865%	0000000	199/20	(B),14242	35.03.60	92,036
Vetera Léboughers	6	20.50 25				55,0,55	25,000	83,03	27564	0000000	23242
Receipt Coupting	8	32423214				2.45,00,014	2524139	10,100	10,824	2024230	31,44,670
Testion		75,59,13,877	1/6,01,730	23571.90	437.85	17.80,00,000	52,77,74,570	2,08,28,767	189/12/2819	15:0.00,530	17,15,07,853
May 26 A282	169	99 1550		30400		53,55,59	45,653.00	16154	6.3.20	1,628.93	1,000,000
VIEW VIE	4776	35439				3,34,283	24.85	36	28/2/8	2525	2,125
10 months	63	ZZMARE		2,95 330		838/03	2000	1492	12 45,411	228	25.530
School and solid	425	1127.338				10/2011	(0.1422	12.614	10.201	3030	05/31
Salary Seminary	475	19,44,830				13,4,388	1901001	8842	1918,949	21950	2772
Salvano Podrator, 20	425	3021735				60,000,000	62,76,673	377.480	4870,563	275,727	30,5223
Salary 1924	425	2,73,030				2,71,810	2000	188	9.NOM	17 (2) 4	200
States Presculat	45	2000				4,55,123	4,25,000	30%	4200	90014	(34)
Salara - Politin	200	0,6540				455.250	1,8763	1583	453,464	17418	10445
20010		12500331	,	88,190		1,0224-021	153,31,650	123.00%	180,98,00	Ш	19.05,702
Con-11 (918, 552)	A XX	ACCOUNTS OF THE PERSONS	1,50,00,220	1,65,01,660	4.27.200	20,72,23,55	16,33,02.201	250,04,141	50 50 50 50 50 50 50 50 50 50 50 50 50 5	16 39 46,767	1234,5262

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY FINANCIAL YEAR 2023-24 Capital Work in Progress

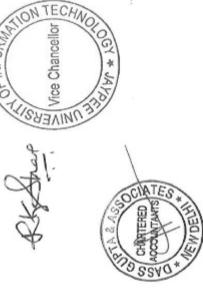
SCHEDULE - "B"				Amount (₹)
Particulars	Opening Balance as on 01.04.2023	Addition during the Year	Addition during the Capitalized during the Year	Closing Balance as on 31.03.2024
Software Campus Lynx		25,00,000		25,00,000
Water Tank	10,43,148	31,10,305	41,53,453	3.
Computer Lab Wiff	42,48,717	19,28,875	61,77,592	r
Guest House	1,38,072			1,38,072
STP Tank		24,34,911	24,34,911	1
Gross Total	54,29,937	99,74,091	1,27,65,956	26,38,072
Previous Year	22,50,185	53,04,556	21,24,804	54,29,937
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Jaypee University of Information Technology Waknaghat, Distt. Solan (H.P.) REGISTRAR,

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JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY FINANCIAL YEAR 2023-24 Cash and Bank Balance

SCHEDIII E. "C"

こうの	SCHEDULE - C		
S.No	Particulars	Amount (₹) 31.03.2024	Amount (₹) 31.03.2023
_	Cash in Hand	85,895	1,30,231
===	Balance with Schedule Banks		
			,
in terms	- State Bank of India, Waknaghat	1,57,729	3,11,153
e terrenda	- Punjab National Bank, Shimla	11,78,237	11,59,963
	- Punjab National Bank, Solan	14,701	19,868
u rethere	- Punjab National Bank, Waknaghat	76,90,566	97,43,778
	- Yes Bank Ltd., Noida	59,782	59,782
ON 11000	- Cheque / DD in hand	1,44,612	17,05,008
ncareae.	Balance with Schedule Banks		
	In Saving Account:		
nacoso		4,070	3,962
	- Punjab National Bank, Waknaghat A/c No. 14461	39,16,093	35,35,848
Briefs North Room	Fixed Deposits with Banks (Maturity Over 3 Months)		
	- Punjab National Bank, Shimla	3,72,500	3,72,500
		38,10,00,000	26,90,00,000
	(Includes Fixed Deposit for Corpus Fund Rs.5		
	Crore, (Previous year Rs.5 Crore))		0
	- Interest Accrued but not due	1,02,93,447	48,30,612
2	Earmarked Deposits with Banks		0
******	- Canara Bank UBSK, Noida (C/A)	83,238	83,238
e discriptions	· /	2,77,13,745	2,51,61,480
designal dis	- Interest Accrued on FDR	11,29,996	20,91,763
	1	43,38,44,612	31,82,09,187
	SOCIAL VICE Chancellor Z	m	TIGOR
	CHINO	TRAR,	
	(010)	Jaypee University of Information Technology	

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

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY FINANCIAL YEAR 2023-24 ADVANCES AND RECEIVABLES IN CASH OR IN KIND

Particulars		Amount (₹)	Amount (₹)
Advances To:			
# P. C.		2,47,017	3,74,333
- Suppliers/Agencies/Capital Goods/Property		8,97,61,936	8,87,22,992
Receivables From:-			
Students		26,27,000	6,14,581
- Interest Accured on HPSEB Deposit		2,46,759	1,12,623
- Income Tax Department as on 31.03.24		40,64,712	21,91,207
- Assessment Year 2010-11	Rs. 6,61,804		
- Assessment Year 2011-12	Rs. 97,434		
- Assessment Year 2013-14	Rs. 1,09,376		
- Assessment Year 2015-16	Rs. 3,71,907		
- Assessment Year 2023-24	Rs. 9,50,686		
- Assessment Year 2024-25	Rs. 18,73,505		
 Excise & Taxation Department (VAT) 		38,17,348	38,17,348
Income Tax Department Appeal		86,37,753	99,89,173
Receivable of TCS		1,63,054	1,38,825
TOTAL		10.95.65.579	10,59,61,082









JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY FINANCIAL YEAR 2023-24 PREPAID EXPENSES

SCHEDULE - "E"		
	Amount (₹)	Amount (₹)
	31.03.2024	31.03.2023
AMC for Equipments	50,62,723	42,11,960
Insurance	2,98,967	3,67,554
Subscription for Journals & Digital	29,27,600	14,05,033
TOTAL PREPAID EXPENSES	82,89,290	59,84,547
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JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY FINANCIAL YEAR 2023-24 SECURITY DEPOSITS

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D	AMOUNT (A)	(V) HINDER
raniculars	31.03.2024	31.03.2023
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
For Deep Fridge	2,000	2,000
For SUPDT of Post Office	30,000	30,000
TOTAL SECURITY DEPOSITS	24,18,452	24,18,452





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





JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY FINANCIAL YEAR 2023-24 STOCK-IN-HAND

Particulars	Amount (₹) 31.03.2024	Amount (₹) 31.03.2023
Annount of Patables	35.14.738	30,24,434
Housekeening Items	1	52,020
Medicines	57,748	1,34,930
Diesel	9,14,415	9,18,754
General Hardware Items	18,29,128	18,39,864
Electrical Items	22,42,283	19,44,816
Spares for Vehicles	1,81,552	54,034
Inventory in Transit	1,05,758	ı
TOTAL STOCK IN HAND	88,45,622	79,68,852









JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY FINANCIAL YEAR 2023-24 SUNDRY CREDITORS

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6	Amount (₹)	Amount (₹)
Fariculars	31.03.2024	31.03.2023
- For Goods Supplied	58,27,290	56,21,597
- For Services Rendered	93,05,312	1,34,67,781
- For Retention	7,00,587	6,59,047
TOTAL SUNDRY CREDITORS	1,58,33,189	1,97,48,425











JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY FINANCIAL YEAR 2023-24 OTHER LIABILITIES

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11,74,945 20,13,348
12,77,65,351
18,25,726 20,39,979
35,46,456 37,99,899
1,55,61,497
49,46,298
21,75,85,265 22,07,11,538
,46,456 ,61,497 ,46,298 5,85,265



JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY FINANCIAL YEAR 2023-24 EDUCATION EXPENSES

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Particulars	Amount (₹) 31.03.2024	Amount (₹) 31.03.2023	
Admission Exps. including Advertisement	1,36,51,122	98,74,104	
Audit Fee	3,54,000	3,54,000	
Conference & Seminar Expenses	33,41,231	2,88,569	
	75,033	ı	
Dispensary Expenses	54,04,554	56,90,682	
E-Journals & Periodicals	30,43,830	22,49,344	
Electricity Expenses	2,05,59,883	2,01,52,827	
Grocery & Eatables Consumed	5,88,69,052	5,67,40,112	0
Honorarium to Faculty & Remuneration of Visiting Faculty	6,87,765	7,74,609	をよります
seuses	27,43,722	10.94,851	151 SPINFORY
Insurance Expenses	3,70,050	1,26,101	
Internet Charges	16,14,621	10,02,620 //	T MC
Laboratory, Software & Research Innovation Expenses	46,47,663	36,24,071	VICE Chancellor E
Laundry Expenses	34,94,128	34,23,600	100 AS
Lease Rent	23,796	23,796	100× 100
Legal & Professional Charges	6,55,305	7,80,497	1
Messing Staff Expenses	2,13,82,008	1,91,38,122	se University of Information
Misc. Expenses	4,82,274	ž	haghet, Digit, Solan (H.P.)
Payment to Technical Personnel	1,32,51,343	1,32,66,354	
Placement Expenses	46,219	1,50,391	
Postade & Telegram	1,24,797	87,121	
Prior Period Exps.	,	3,597	Sof Inform
erv	20,75,201	9,79,268	(00 mg/s)
Recruitment Expenses	1,71,260	2,69,689	Technolis
			Tal Office / 27

SCHEDULE - "J" (Continued)		
Particulars	Amount (₹) 31.03.2024	Amount (₹) 31.03.2023
Scholarship to Students	67,58,701	15,08,049
Spourity Expenses	2,53,11,819	2,38,92,812
Staff Welfare	8	18,42,717
Students Welfare Expenses	15,52,603	17,33,035
Telephone Expenses	5,30,605	5,49,047
Travelling & Conveyance	-	6,33,525
Water Expenses	96,78,024	1,05,11,933
Repair & Maintenance Expenses		
ce	57,03,030	40,30,366
- Hostel Maintenance	1,72,15,841	84,74,352
For inment & N	61,68,987	66,19,152
ire	16,05,611	6,57,415
	39,64,448	36,86,565
- House Keeping	2,56,49,456	2,29,91,790
- Others	26,03,898	46,42,077
Validay	37,12,589	37,71,356
- Water Scheme	3,96,171	2,95,343
TOTAL EDUCATION EXPENSES	27,14,14,823	23,60,55,482
Vice Chancellor Note Chancello	MEGISTRAR, Jaynes University of Information Technology Waknaghat, Distt. Solan (H.P.)	Vego Vin

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY FINANCIAL YEAR 2023-24 SALARY & ALLOWANCES

SCHEDULE - "K"

	REGISTRAR, Aspec University of Informati	
24,17,87,678	27,16,70,099	& ALLOWA
6,36,85,316	7,28,11,602	Sub - Total (iI)
73,46,875	1,16,28,501	Other Allowances
18,34,986	26,83,348	Provision for Gratuity
47,23,744	48,52,479	Contribution to Provident Fund & ESI
14,11,105	14,96,567	Leave Travel Assistance
14,65,180	15,07,918	Medical Reimbursement
32,15,809	32,69,924	H.R.A.
20,34,738	21,44,509	Conveyance Allowance
4,16,52,879	4,52,28,356	Salary
		Non-Teaching Staff:
17,81,02,362	19,88,58,497	Sub - Total (i)
3,66,91,548	5,03,26,863	Other Allowances
42,81,635	62,48,067	Provision for Gratuity
1,29,94,662	1,32,82,913	Contribution to Provident Fund
39,66,889	43,29,965	Leave Travel Assistance
43,02,043	43,99,424	Medical Allowance
54,85,178	58,39,695	H.R.A.
71,32,405	71,28,392	Conveyance Allowance
10,32,48,002	10,73,03,178	Teaching Staff: Salary
Amount (₹) 31.03.2023	Amount (₹) 31.03.2024	Particulars

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY FINANCIAL YEAR 2023-24 COLLECTIONS FROM STUDENTS

SCHEDULE - "L"

SCHEDOLE - L		Control Contro
	Amount (₹)	Amount (₹)
Tollars Sellollars	31.03.2024	31.03.2023
Fee From Students:		
Tuition Fee	41,77,78,143	35,58,31,750
Hostel Fee	23,92,68,050	22,65,19,259
Sub Total :(i)	65,70,46,193	58,23,51,009
Other Collection:-		
Sundry Charges	47,44,740	22,31,720
Admission Form /Admission Charges	1,80,46,688	48,04,150
Mess & Other Charges	1,73,84,182	1,63,19,733
Sub Total :(ii)	4,01,75,610	2,33,55,603
TOTAL COLLECTIONS FROM STUDENTS(i+ii)	69,72,21,803	60,57,06,612
CONTOR.	8	







JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY FINANCIAL YEAR 2023-24 INTEREST INCOME

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	THE RESERVE AND ADDRESS OF THE PARTY AND ADDRE	The second secon
	Amount (₹)	Amount (₹)
Particulars	31.03.2024	31.03.2023
Interest from Fixed Deposits	L	7
- Punjab National Bank - Shimla	15,805	13,1//
- Punjab National Bank - Waknaghat	1,59,51,759	78,57,762
- Canara Bank-UBSK	17,67,221	14,28,038
Interest from Saving Bank		
 Punjab National Bank Saving -Waknaghat 	1,01,253	,
Others		
 Interest received on Income Tax refund 		86,321
- Interest received on HPSEB Security	1.49,040	1
TOTAL INTEREST RECEIVED	1,79,85,078	93,85,298
0 2140/		





JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY FINANCIAL YEAR 2023-24 RECEIPT INCIDENTAL TO EDUCATION

	Amount (₹)	Amount (존)
Pariculars	31.03.2024	31.03.2023
Receipt of Research & Development	3,00,000	5,66,440
Notice Pay Recovery from Employee's	9,82,604	7,51,260
Overhead Charges for Research Projects	1,40,376	1,78,469
Award Income	1,39,850	ı
TOTAL OTHER INCOME	15,62,830	14,96,169
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REGISTRAR, Jayyee University of Information Technology Wakneghat, Distt. Solan (H.P.)





JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY

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