

111





# ADMISSION BROCHURE 2023

Excellence Through Education & Dedication

## Founder Chairman's Message

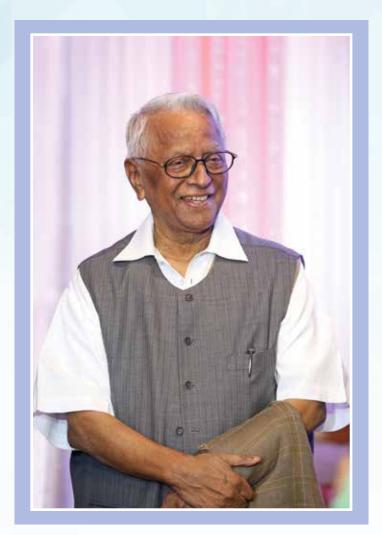
Long before OUR first dam and years before OUR first cement plant, we built a free school and hospital. Today they tell US, what we did, is called Corporate Social Responsibility; CSR Spirit of Jaypee GROUP

The Jaypee Group has always been proud to participate in nation building right from its inception. We feel doubly responsible to make this Group to become a benchmark of contribution to the up-liftment of society. CSR has become an integral part of everything that we do and same is instilled in our vision, strategies and management goals.

JAIPRAKASH SEWA SANSTHAN (JSS), a not-for-profit trust, was established in 1993 to bring many not-for-profit activities of the Group under one common umbrella, in order to give them a unified focus and direction. The Sansthan today spearheads one of the largest altruistic CSR programmes run by any single - entity corporate anywhere in the country.

Firmly believing in the famous saying of Nelson Mandela "Education is the most powerful weapon which can be used to change the world", we at Jaypee fully subscribe to the view that Education is the cornerstone to economic development and that the strength of Indian masses can be channelized by education alone. The real future of India lies in its thousands of faceless little towns and villages, where millions of boys and girls lie awake at night, dreaming of what could be. And we also believe that the key to unlock those dreams and help them soar is good education. Therefore, the Jaypee Group, through its trust, has opened large number of schools, polytechnic colleges and institutes of higher learning, teaching over 30,000 students under its wings. These institutions of learning host the best of faculty and educational infrastructure towards creation, generation, dissemination and application of knowledge through an innovative teaching - learning process to mould the leaders of tomorrow.

All the institutions of higher learning aim at building character sharpen intellect and enable free thinking amongst the students and provide them opportunity to become innovative and enterprising professionals, fully capable of meeting the challenges of modern India.



Jaiprakash Gaur Founder Chancellor of JIIT and Founder Chairman, Jaypee Group

## **LEADERSHIP**

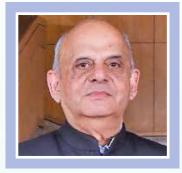


#### Shri Manoj Gaur

Chancellor – Jaypee Institute of Information Technology, Noida and Jaypee University, Anoopshahr

Pro-Chancellor – Jaypee University of Information Technology, Waknaghat, H.P Executive Chairman of the Jaypee Group.

An engineer by qualification, Shri Gaur is widely respected as a visionary industry captain, who has successfully mapped and executed the massive expansion of the Jaypee Group and converted it into a conglomerate of diverse industrial businesses.



#### Professor (Dr.) Bodh Raj Mehta

*Vice Chancellor – JIIT and Director (Research, Innovation and Development), Jaypee University System.* 

Prof Mehta has worked as Dean (R & D) and Schlumberger Chair Professor, Department of Physics at IIT Delhi. He has been Technical Advisor of 2 start ups Ultra Solar Inc. USA and Ornate Solar India. He has supervised 40 PhD scholars, published 250 journal papers, completed 55 research and industry projects and received life-time achievement award 2021 from IIT Delhi.



#### Professor (Dr.) Rajendra Kumar Sharma

Vice-Chancellor – Jaypee University of Information Technology, Waknaghat, H.P

Prof. Sharma, an alumni of IIT-Roorkee, a reputed academician and good researcher. Former Dean of Faculty Affairs and Dean of Academic Affairs, Thapar Institute of Engineering and Technology, Patiala, Punjab.



#### Professor (Dr.) S.C. Saxena

Pro-Chancellor – Jaypee Institute of Information Technology, Noida And Jaypee University, Anoopshahr

Prof. Saxena has an outstanding academic record. Former Director, IIT Roorkee, Mentor Director, IIT Mandi, Director, TIET Patiala, Director, TCIRD Patiala, amongst host of other important assignments

like Chairman, NRC, AICTE New Delhi, and Independent Director (two terms) of THDCIL, a Gol and UP Govt Navaratna Public Sector company. He is Life Fellow of the Institution of Engineers (India) and Life Fellow of the IETE.



Professor (Dr.) J.S.P. Rai

Vice-Chancellor – Jaypee University of Engineering & Technology, Guna, M.P Prof. Rai is a reputed academician and Former Director, HBTI, Kanpur. Fellow ISTE, Indian Thermal Analysis Society, Society of Polymer Sciences, Oil Technologist Association of India, Paint and Coating Technologist Association of India



Prof. Dr. V.P. Kallimani

Vice Chancellor – Jaypee University, Anoopshahr, Bulandshahr, U.P

Professor V.P. Kallimani joined the Jaypee University, Anoopshahr as a Vice Chancellor in January 2023. Before assuming the office as VC, he was working at various levels such as Principal, Director, Professor and Dean, Head of Department in Computer Science in India and Abroad.

# **COUNCIL OF WISE**

The Chancellor of Jaypee Institute of Information Technology, Noida and Executive Chairman of Jaypee Group has constituted an Advisory Council of eminent and distinguished academicians to guide and take Jaypee Education System to next stage of excellence in its operation, in this defining era. The composition of the Council of Wise (COW) is as follows :



Sh. Manoj Gaur, Hon. Chancellor, Jaypee Institute of Information Technology, Noida, Jaypee University, Anoopshahr, Pro-Chancellor, Jaypee University of Information Technology, Waknaghat, H.P and Executive Chairman, Jaypee Group



Prof. Ashok Misra, Former Director, IIT Bombay, Former Chairman, BOG, IIT Roorkee and Former Chairman, Indian Intellectual Ventures



Dr. Satish Kumar, Former Director, NIT Kurukshetra, Former Director General, DRDO, Govt. of India



Prof. K.P. Singh, Former Director, IT-BHU (now IIT), Vice-Chancellor, VBS Purvanchal University



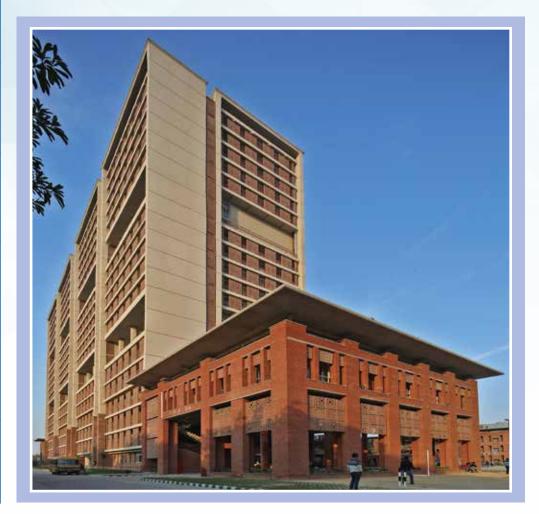
Prof. K. Sudha Rao, Former Vice-Chancellor, Karnataka State Open University, National Fellow-Indian Council of Social Science Research



Prof. S.C. Saxena, Pro-Chancellor, JIIT, Noida, Former Director, IIT Roorkee

#### The Council of wise has the following mandate :

"To guide and monitor the academic and research progress of Jaypee Institute of Information Technology (JIIT), Noida and other Jaypee Universities and to advise/ guide them on existing and new initiatives in the areas of teaching, learning, training, research, IPR, Sponsored Research Projects, upgradation of skills, association with other leading institutions in India and abroad and any other related matters and enable them to make a distinct place of themselves in the galaxy of higher technical education of India/abroad."



# Jaypee Institute of Information Technology (JIIT), Noida, U.P

(Approved by UGC as Deemed-to-be-University under section 3 of UGC Act 1956)



#### Professor D. K. Rai

Director – Jaypee Institute of Information Technology

Professor D. K. Rai is a Professor of Physics and Materials Science and Engineering. An alumnus of BHU, Prof. Rai has about 25 years of teaching and Research experience. He has also served as Dean (Academic & Research) as well as Head of Department at JIIT, Noida.



#### **Professor Vikas Saxena**

Director – Jaypee Institute of Information Technology , Head, Dept. of CSE & IT

Professor Vikas Saxena has a teaching and research experience of 20 years. He has more than 80 publications in refereed journals and conferences. He has served as reviewer of several world class journals & conferences. He is serving as a key organizer of a premier computing conference IC3.

#### Professor Pammi Gauba

Head, Dept. of Biotechnology, Dean (A&R)-I Dean (International Affairs & Sponsored Projects)

Professor Pammi Gauba, has experience of 30 years in teaching and research in India and abroad. Her current research focuses on bioremediation. She is an active researcher with number of publications in journals of international repute and has received extramural funding worth INR 2.5 Crores from various government agencies like MoEF, DST, ICMR, Ministry of Ayush.



#### **Prof. Shweta Srivastava**

Head, Dept of Electronics and Communication Engineering and Dean (A&R)-Ii Professor Shweta Srivastava has a teaching and research experience of 25 years. She is an active researcher in the field of Antennas and SIWs. She has around 100 International and National journal publications in reputed journals. She received SERC fast track project for young Scientist by DST. She has been awarded "Smt. Ranjana Pal Memorial Award 2016" by IETE. AICTE approved, NAAC accredited and NIRF ranked, Jaypee Institute of Information Technology (JIIT), Noida, setup in 2001, was conferred the status of a Deemed to be University in 2004, and since then, has evolved into a centre of excellence in the field of Computer Science & Engineering, Information Technology, Electronics and Communication Engineering, Biotechnology, Management and related emerging areas of education, training and research. Replete with a challenging and intellectually stimulating academic environment, JIIT has a vision of producing professionals who shall be leaders in innovation, entrepreneurship, creativity and management.

JIIT attracts the brightest and the best students regardless of their Social, Educational, Regional or Ethnic background. Students imbibe top rated education and enjoy a campus culture of unparalleled depth and diversity. JIIT ensures that students with the potential flourish and develop into top professionals and contribute in development of the nation.

At JIIT, special emphasis is being placed on developing a student on a solid foundation of knowledge, confidence building, pursuit of excellence, improving self-discipline and enhancement of creativity through motivation and drive into an engineer, well trained for the rigors of professional and social life.

JIIT encourages all students to make the life outside the classroom vibrant and enjoyable by engaging themselves in multiple extracurricular areas, no matter how talented or experienced they are in any of those areas. This is enhanced by best of facilities provided to make life outside the classroom into an exciting and memorable experience.

JIIT is a fully air-conditioned campus. Has an unparalleled state-of-the-art, high- tech and environmentally conditioned infrastructure with a built up area of over 1,41,610 sq.m with Residential Campus, Academic Block comprising Lecture Theaters, Smart Classrooms, Labs, Learning Resource Centres with rich resources of printed books, e-books and e-journals, Faculty Residences, Student Hostels, Annapurna, Auditorium (2,500 capacity), advanced Audio Visual facility and high capacity internet connectivity.



## **Programs of Study**

#### **Undergraduate (4 Years)**

#### B.Tech.

- Biotechnology (BT)
- Computer Science and Engineering (CSE)
- Electronics and Communication Engineering (ECE)
- ECE with specialization in Computer Science
- Information Technology (IT)

#### **Undergraduate (3 Years)**

#### **BBA at Jaypee Business School**

# B.Sc. (3 Years)/B.Sc. Honours or B.Sc. Honours with Research (4 Years)

- Computer Science
- Information Technology & Applications
- Computing and Programming

#### Integrated M.Tech. (5 Years)

- Biotechnology (BT)
- Computer Science and Engineering (CSE)
- Electronics and Communication Engineering (ECE)

#### Post Graduate (2 Years)

#### M.Tech.

- Biotechnology (BT)
- Computer Science & Engineering (CSE)
- CSE with specialization in
  - ✓ Data Analytics
  - ✓ IT & Entrepreneurship
  - ✓ Artificial Intelligence and Machine Learning
  - ✓ Internet of Things
  - ✓ Cyber Security
- ECE with specialization in
  - Machine Learning and Signal Processing
  - ✓ Wireless Communication
  - ✓ Microelectronic Systems and Internet of Things

#### M.Sc

- Physics Mathematics Microbiology
- Environmental Biotechnology Economics

## MBA (2 Years) at Jaypee Business School

The two year full time program at JBS covers various areas of business such as accounting, applied statistics, business communication, IT applications, business ethics, business law, finance, economics, human resource management, marketing, business analytics, supply chain and operations in a manner most relevant for contemporary business practices and strategy. MBA with specialization in

- Human Resource
   Finance
   Marketing
   Operations
- Information Technology
   Business Analytics
   Hospital
   & Healthcare Management
   Education Management.

#### Ph.D

- Biotechnology
- Computer Science & Engineering
- Electronics & Communication Engineering
- Humanities & Social Sciences
- Management
- Mathematics
- Physics and Materials Science



## **Minor Degree**

University offers opportunity to B Tech students to opt for Minor degree in areas other than their main branch. The students, after successfully completing the requirements are awarded a degree in Minor Areas; example, a student of B. Tech in Electronics and Communication Engineering can have Minor degree in Computer Science or Biotechnology etc. The conditions for awarding Minor degree are; securing a minimum CGPA of 4.5 and earning the required credits specified for the program of a particulars batch along with the additional 18-20 credits in the minor area as specified. All students can opt for a minor degree in Universal Human Value (UHV)

MAIN BRANCH	AREA OF MINOR SPECIALIZATION
CSE	ECE/BT
ECE	CSE/BT
ВТ	CSE/ECE
IT	ECE/BT

## **Proficiency Certificate**

A B.Tech student will get a Proficiency Certificate in sub-area of the major degree. To be eligible for award of Certificate the student must pass with minimum of 50% or more of B.Tech elective subjects taken from the chosen stream. The conditions for awarding Certificate are; securing a minimum CGPA of 4.5 and earning the required credit specified for the program of a particular batch as specified. The details are available on website of University.

## **Degree with Honours**

JIIT, Noida provides B.Tech Degree with Honours to its students who secure a CGPA of 8.0, earn the specified credits for their batch of admission and successfully complete all the requirements of the degree within the minimum period of the program.





## **Directorate of Research, Innovation and Development**

With the declaration of 2012-2030 as the INNOVATION DECADE in Jaypee Education System, an independent vertical of Directorate of Research, Innovation and Development (DRID) has been established for enhancing culture of innovation and collaboration in 4 Jaypee Universities. DRID is working towards engaging student and faculty in innovation and incubation activities by providing seed funds for Idea and Innovation projects, student Pre-startups, student and faculty driven start-ups and establishing Inter Jaypee University Centre of Excellence in key R & D areas. Faculty members from different JU are collaborating and carrying out joint research in CoE's in Artificial Intelligence for Education: Environment and Sustainability; UAV and Electronic border Security and Intelligent Evaluation and Rehabilitation of Structures. DRID has undertaken two new initiatives by setting up RIDE innovation Hub and Digital Learning Centre at JIIT in strong partnership with other JU's



## **RIDE innovation Hub**

RIDE (Research, Innovation, Development and Entrepreneurship) Innovation Hub has been set up at JIIT to provide a platform to students and faculty of JIIT and other Jaypee Universities to carry out incubation activities. As a registered legal entity with welldefined incubation goals, it has 15000 sq. ft space with facilities for start-up cubicles, collaboration Space, Innovation Laboratories and other facilities for start-up, pre-start up and innovation projects. RIDE is equipped to provide legal, business and technical mentorship to incubates to assist then achieve the technical and business goals.

## **Digital Learning Centre**

Digital Learning Centre(DLC) is a major initiative of DRID and it has facilities of stateof-the-art class room studio, discussion studio and virtual chroma studio along with animation and editing facilities. The central objective of DLC is prepare rich digital content in science, engineering and management disciplines for blended and on-line education and establish a digital network connecting all the four JU campuses for enhancing the student-teacher interaction and impacting a larger number of students. It will be powered by Advanced Digital Technologies and Artificial Intelligence for providing a unique learner centric experiences to students and trainees.



#### **International Students Cell at JIIT**

This cell has been established to promote following activities between Jaypee Universities and Universities/Organizations abroad:

- Admission of foreign students in Jaypee Universities
- Establish collaboration with foreign universities for Joint Research, Development and Innovation activities.
- Jointly organize International Conferences/Seminars/Workshops/Symposium/ Webinars etc.
- Students/Faculty exchange programs

- Internship of Jaypee students in foreign Universities and foreign students in Jaypee Universities.
- International Students Cell will facilitate admissions, academic issues, boarding and lodgingmatters, visa matters etc. of foreign students.

#### International students may contact:

Prof. Pammi Gauba, Dean, International Affairs E-mail: pammi.gauba@jiit.ac.in Mobile: +919810389717 Prof. Reema Gabrani, Professor, Deptt. of Biotechnology E-mail: reema.gabrani@jiit.ac.inMobile: +919717152115 Website : www.jiit.ac.in, E-mail: registrar@jiit.ac.in



## Significant Achievements/Highlights -JIIT

• NIRF (MOE, GOI) All India Rankings:

2016-Ranked 60th at the national level amongst all the Govt. and Private Engineering institutions.

- 2022 Ranked 94th in Engineering Category. 2021 Ranked 94th in Engineering Category.
   2020 Ranked 96th in Engineering Category. 2019 Ranked 80th in Engineering Category.
   2018 Ranked 70th in Engineering Category. 2017 Ranked 54th in Engineering Category.
- Accredited by NAAC.
- AICTE approved Institution
- Highly experienced faculty members. Majority from IIT's and other Institutions/Universities of repute.
- MoUs with Foreign Universities for student/ faculty exchange and collaborative research.
- 17015 alumni including 284 Doctoral, 12887 B.Tech, 1544 M.Tech (including Dual/ Integrated Degree), 1712MBAs, 27 M.Scs and 51 BBAs.
- Organized 49 International Conferences, over 380 invited talks and 150 workshops and seminars with 7,300 delegates from India and abroad during last 9 years. Organized more than 110 Webinars during last 3 year.
- Contributed 5,313 Research Papers in International and National Journals/ Conference, 40 Books and 346 Book Chapters, 52 Case studies.
- 58 Research Projects worth Rs. 1,293.24 Lacs completed and 17 Research Projects worth Rs. 629.23 Lacs currently running. Projects sanctioned from Government Agencies like DRDO, DST, AICTE, DBT, AYUSH etc.
- Option of VIII Semester Studies at University of Florida at Gainsville for selected UG students.
- Credited with 45 Patents filed, 44 patents published, 2 patent granted and 1 technology transfer.
- 101 Classrooms, 108 Laboratories, 2 Auditoriums, Administrative Offces, Outdoor and Indoor sports facilities, Dispensary, 3 Swimming pools, 11 hostels accommodating 1,633 boys and 914 girls in double occupancy, Vice-Chancellor, Director, Faculty and Staff residences.
- 287 faculty members, 85% with Ph.D and 100% with PG Degrees.
- About 50 National and International awards for research, received by faculty and students
  of Institute.
- 282 Ph.D produced since 2008-09.
- 2022 pass-out B.Tech, M.Tech & Dual students placed in 242 companies with 176% offers and 99% absolute placements. 2022 pass-out MBA students placed in 36 companies with 121% offers.

- The highest salary package offered for 2022 batch, is above INR 1.15 Cr PA to 01 student by Amazon(EMEA). Companies like Google, Morgan Stanley, Deloitte, Nestle, SAP Labs, intuit, BNY Mellon, ZS Associates visited the campus for 2022 batch and recruited students. The average CTC for 2022 batch was INR 11.07 LPA and median CTC was of INR 7.60 LPA.
- Participation in Smart India Hackathon, MOE, GOI. In 2019, 4 teams won first prize and 1 team was 1st Runner-up at All India level.
- Participation in Unnat Bharat Abhiyan( UBA) of MOE, GOI. Five villages adopted under UBA for their development.
- Option for credits completion through MOOC courses available from NPTEL and SWAYAM, MOE,GOI.
- Student documents deposited in NAD DIGI-LOCKER
- Participation in Swachch Bharat Abhiyan of MOE, GOI.
- Has Institution Innovation Council (IIC) to promote Innovation and Entrepreneurship among students and linked to MOE's Innovation Cell, GOI.
- Participates in Study in India Program of MOE, GOI for admission of foreign students, which is available to NIRF ranked Institutions.
- Has National Service Scheme (NSS) of GOI for students.
- Participates in Atal Ranking of Institutions on Innovation Achievements (ARIIA), an initiative by MOE's Innovation Cell, GOI.



# Jaypee University of Information Technology (JUIT), Waknaghat, H.P

(Approved by UGC under Section 2(f) of UGC Act 1956)



#### **Professor Ashok Kumar Gupta**

Dean (Academics & Research), – Jaypee University of Information Technology

Prof. Ashok Kumar Gupta obtained his BE (Hons) and ME both from the University of Roorkee (now IIT Roorkee) and Ph.D. from IIT Delhi. Thereafter, he joined NIT Hamirpur

where he served for 23 years. Thereafter, Prof. Gupta joined JUIT, Solan and served as Prof. and Head of Department of Civil Engineering before moving to current designation Dean (Academics & Research).

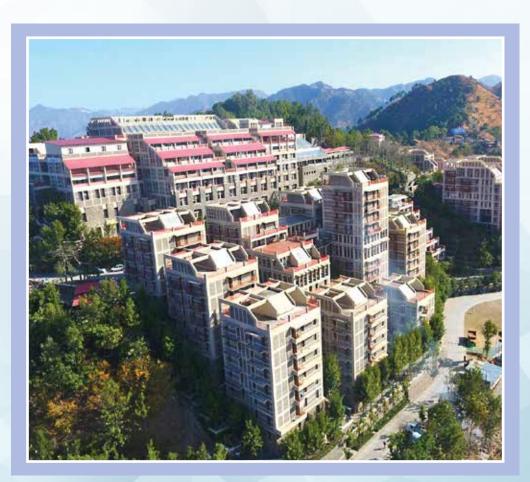
Twice NAAC accredited, Biotechnology course NBA accredited, NIRF ranked, Jaypee University of Information Technology, Waknaghat, H.P, was setup in 2002, and conferred the status of State Private University of H.P. Spread over 25 acres of lush green picturesque slopes of Waknaghat, in District Solan of Himachal Pradesh, it covers a total built-up areaa of over 73,864.81 m2. It has modern hostels for both boys and girls, faculty residences, students mess, auditorium, sports facilities, laundry, dispensary and other associated services.

At present, around 82% students (boys and girls) along with 60% faculty members reside in campus. Internet connectivity is available to all faculty & students.

The University encourages students to make life outside the classroom vibrant and enjoyable by engaging in multifarious extracurricular activities. For this a very active Jaypee Youth Club with various Clubs exists. This is enhanced by best of facilities and equipment.

It is fully Wi-Fi campus supplemented with fiber-optic network connecting its labs, classrooms, library, and hostels. The computing infrastructure consists of state-of- theart multi-processor servers accessed by an array of multimedia desktops.

All the lecture theatres/classrooms have multimedia projection systems for facilitating computer-based and web-based learning. The University has 60 well equipped labs in various disciplines. There is a language lab to assist students to enhance their communication skills. The JUIT has recently equipped its classrooms with Digital Infrastructure and has procured Google G-Suite for online teaching. Faculty members make use of the LMS Moodle for interacting with students.



## **Programs of Study**

#### **Undergraduate (4 Years)**

#### B.Tech.

- Bioinformatics (BI)
- Biotechnology (BT)
- Civil Engineering (CE)
- Civil Engineering with Computer Application (CEC)
- Computer Science and Engineering (CSE)
- Electronics and Communication Engineering (ECE)
- Electronics & Computers Engineering (ECM)
- Information Technology (IT)
- Computer Science and Engineering (AI & ML)
- Computer Science and Engineering (AI & DS)
- Computer Science and Engineering (CPS)

#### **B.Sc & BBA Programs**

- B.Sc. (Hons) in Mathematics & Computing
- Bachelor of Business Administration

#### Post Graduate (2 Years)

#### M.Tech.

- Biotechnology (BT)
- Civil Engineering (CE)
- Computer Science and Engineering (CSE)
- Computer Science and Engineering (CSE)
- Electronics and Communication Engineering(ECE)
- Electronics and Communication Engineering (ECE)

#### M.Sc

- Microbiology(MB)
- Biotechnology (BT)
- Physics

#### Note :

- 1. In M.Sc.(Biotechnology)10 seats out of total 30 are DBT, Gol supported.
- 2. For Course Structures of above programs please refer our website www.juit.ac.in

#### Ph.D

Bioinformatics, Biotechnology, Civil Engineering, Computer Science and Engineering, Electronics and Communication Engineering, Humanities & Social Sciences, Mathematics, Physics and Materials Science.

## **Minor Degree**

University offers opportunity to B Tech students to opt for Minor degree in areas other than their main branch. The students, after successfully completing the requirements are awarded a degree in Minor Areas example a student of B. Tech in electronics and Communication Engineering can have Minor degree in Computer Science and Engineering or Biotechnology etc. The conditions for awarding Minor degree are; securing a minimum CGPA of 4.5 and earning the required credit specified for the program of a particulars batch along with the additional 20 credit in the minor area as specified.

MAIN BRANCH	AREA OF MINOR SPECIALIZATION	
CSE	IT/ECE/BT/CE/BI	
IT	CSE/ECE/BT/CE/BI	
ECE	BT/BI/CE/CSE/IT	
BT	CSE/IT/ECE/CE/BI	
BI	CSE/IT/ECE/CE/BT	
CE	CSE/IT/ECE/BT/BI	
ECM	BT/CE/BI/ECE/CSE/IT	

## **Proficiency Certificate**

A B.Tech student will get a Proficiency Certificate in sub-area of the major degree. To be eligible for award of Certificate the student must pass with minimum of 50% or more of B.Tech elective subjects taken from the chosen stream. The conditions for awarding Certificate are; securing a minimum CGPA of 4.5 and earning the required credit specified for the program of a particular batch as specified. The details are available on website of University.

## **Degree with Honours**

JUIT, Waknaghat provides B.Tech Degree with Honours to its students who secure a CGPA of 8.00 and above after earning the specified credits for their batch of admission and successfully completing all the requirements of the degree within the minimum period of the program with discipline grade A+ throughout the course of study and completing all courses in first attempt.

## Significant Achievements/Highlights -JUIT

- Accredited by NAAC twice (2011 & 2017), UG program of study in Biotechnology accredited by NBA.
- Ranked amongst Top Engineering Institutes under National Institutional Ranking Framework(NIRF) by MHRD, Gol for last six consecutive years.
- Ranked 24th at National Level in all Technical Institutions and Universities by India Today for 2022.
- Ranked No. 1 by India Today under the category 'Technical University with Best Faculty Student Ratio' in 2022.
- Ranked 4th in Private Technical Universities, North Zone by The WEEK, 2022.
- Ranked 7th in Private Technical Universities, All India by The WEEK, 2022.
- Ranked 14th in all Technical Universities including IITs, NITs and government institutions, North Zone by The WEEK, 2022.
- Excellent placement record in all programs.
- 8th Semester Studies at University of Florida, USA, TAMK Finland, South Dakota School of Mines & Technology, USA & University of Nebraska at Omaha, USA for selected UG students.
- NCC Senior Wing for Boys and Girls.

- 84 percent faculty with Ph.D. from IITs / Universities of repute in India & Abroad.
- Categorized as 'Band B' institution (rank between 26-50) in category of 'University & Deemed to be University (Private Self-Financed)' in Atal Ranking of Institutions on Innovation Achievement (ARIIA) 2020.
- Green and Smart Campus infrastructure architecturally designed by M/s Arcorp, Canada.
- Wi-Fi enabled campus with 24x7 Water and Electric Supply.
- Contributed more than 3,760 Research Publications, 121 Books and 330 Book Chapters.
- Organized 29 International Conferences, 216 invited talks, 81 national workshops with around 8,000 plus delegates from India and abroad.
- Received 88 research grants from various Government Agencies & 13 Patents granted.
- 30% Tuition Fees concession to Wards of serving and retired Armed Forces and Paramilitary Forces personnel for Undergraduate programs. Additional 5 percent (35%) for Wards of War Widows. 10 percent seats reserved for such categories.
- 10% seats reserved for students who have passed 12th from State of Himachal Pradesh.
- 20% seats over and above the intake for direct admission to B. Tech. 2nd year under Lateral Entry Scheme.



# Jaypee University of Engineering and Technology (JUET), Guna, M.P.

(Grade'A+' Accredited by NAAC and approved by UGC under Section 2(f)of UGC Act 1956)



#### **Professor Vipin Tyagi**

Dean (Academics & Research), – Jaypee University of Engineering and Technology

Prof. Vipin Tyagi is a reputed academician and researcher. He is Fellow IETE and member Board of Governors of Engineering Council of India. He is Past President of

Engineering Science Section of Indian Science Congress Association and Past Hon. Secretary, Regional Vice President of Computer Science of India. He is Regional Coordinator of AICTE National Coordination Committee-Induction Program (Central Region). He was nominated by INSA, New Delhi to visit Czech Republic for 2 weeks under scientist exchange program.

Jaypee University of Engineering & Technology, Guna has been established vide Government of Madhya Pradesh Gazette extraordinary No.3 of 2010 dated 29th April 2010 as a private university in the state of MP under the provisions of MP Niji Vishwavidyalaya Adhiniyam 2007. The university has been notifed by the UGC under section 2(f) of the UGC Act, 1956 and Accredited by NAAC with Grade "A" in very first cycle of Accreditation in 2016.

University's location at Raghogarh, in Guna District, is a well thought out vision to serve the central districts of MP such as Shivpuri, Gwalior, Sheopur, Ashok Nagar, Sagar, Rajgarh, Vidisha etc. This region, currently in a rural setting with strong agricultural activities is growing as a major eco-industrial hub specially due to recently constructed four-lane highway on old Agra Mumbai Road. JUET is being developed as a major center to provide competent, well trained technical man power to the region.

The University campus sprawls over 122.5 acres as a modern institution of higher learning in the field of engineering and technical education.

The academic activities started in the year 2003. Presently, the university offers programs of three faculties named as Faculty of Engineering, Faculty of Mathematical Sciences and Faculty of Sciences. Its young alumni have made a mark all over the world in diverse spheres.

The University has a modern well laid out and green campus with fully equipped state-of-the-art laboratories and library, which provides a pleasant and intellectually stimulating ambience for students in eco-friendly environment. Special emphasis has been laid on developing an atmosphere highly conducive for

- Building a strong foundation of knowledge
- Confidence building
- Pursuit of excellence and self discipline
- Personality development
- Inculcation of creativity through motivation and drive, which helps to produce innovative professionals well equipped for the rigors of emerging challenges of professional and social life.

The University offers the complete educational spectrum of programs in emerging technologies at the degree levels. Research in emerging areas of technology is a major thrust and is leveraged for all academic pursuits.



## **Programs of Study**

#### **Undergraduate (4 Years)**

#### B.Tech.

- Chemical Engineering
- Civil Engineering
- Computer Science & Engineering
- Electronics & Communication Engineering
- Mechanical Engineering

Specializations are being offered in B.Tech. Programs. For details visit https://www.juet.ac.in/Course/Specialization.php

#### **Undergraduate (3 Years)**

#### B.Sc. (Hons)

Mathematics
 Physics
 Chemistry

#### Post Graduate (2 Years)

#### M.Tech.

- Chemical Engineering
- Computer Science & Engineering
- Electronics & Communication Engineering
- Civil Engineering
  - ✓ Structural Engineering
  - ✓ Environmental Engineering
  - ✓ Construction Management
- Mechanical Engineering
  - ✓ Manufacturing Technology

#### M.Sc (2 Years)

Mathematics
 Physics
 Chemistry

#### Ph.D

Chemical Engineering, Civil Engineering, Computer Science & Engineering, Electronics & Communication Engineering, Mechanical Engineering, Mathematics, Physics and Humanities & Social Sciences.

## **Minor Degree**

University offers opportunity to B Tech students to opt for Minor degree in areas other than their main branch. The students, after successfully completing the requirements are awarded a degree in Minor Areas example a student of B. Tech in electronics and Communication Engineering can have Minor degree in Computer Science and Engineering or Biotechnology etc. The conditions for awarding Minor degree are; securing a minimum CGPA of 4.5 and earning the required credit specified for the program of a particulars batch along with the additional 20 credit in the minor area as specified.

## **Degree with Honours**

JUET, Guna provides B.Tech Degree with Honours as per University rules.

## Wind Engineering Application Centre (JP-Wincentre)

A state-of-the-art Boundary Layer Wind Tunnel facility (BLWT) viz. Wind Engineering Application Centre (JP-WINCENTRE) has been established at the University to train students in wind engineering and give innovative solution to industrial wind engineering problems. JP-WINCENTRE focuses on simulating the wind flow effect on structures under which their aerodynamic behavior is analyzed. Construction of tall buildings and structures, such as residential, commercial and power plant structures which are highly susceptible to dynamic wind forces requires wind tunnel testing. To cater to the need of academia and industry the JP-WINCENTE is functioning as a Centre of Excellence in the University.



## Significant Achievements/Highlights -JUET

- Received "Green Champion Award" from "MGNCRE" -Ministry of Education-Govt. of India in 2021.
- Participating in Institution Innovation Council since 2020.
- Hosted "Toycathon -21" as Nodal Center in 2021.
- Grade 'A+' accredited by NAAC and special appreciation for carbon positive campus.
- Recognized Social Entrepreneurship, Swachhta & Rural Engagement Cell (SES REC) Institution.
- "Best Accredited Student Branch Award" by Computer Society of India (CSI) in 2017.
- Ranked 20 based on Code chef coding platform performance by (https://codechef. prakhar. info/code chef/institute) as on December 2020.
- Experienced faculty with more than 13 years academic experience.
- Last semester studies at University of Florida for selected students.
- 6,376 alumni including 114 Doctoral.
- 11 National/International Conferences, 31 National/International workshops, 23 Short Term Courses, around 2500 delegates attended, 185 invited talks delivered by experts from around the world and number of FDPs organized.
- More than 1400 Research Publications, 60 Books and Book Chapter.

- 40 Patents published.
- Research Grants from various government agencies.
- MOU with CSIR through CBRI, Roorkee
- MOU with MNNIT Allahabad.
- Prof. Carsten Mueller of Germany is a visiting Professor at the university and conducts one elective course in CSE every year.
- Completely networked campus with NKN (National Knowledge Network), BSNL, Airtel and Reliance JIO.
- State of the art students Annapurna Mess graded with 5 Star rating by Govt. of India Food Safety and Standards Authority of India .
- Successful placement of graduating students (offer wise more than 100%) every year in reputed organizations such as Amazon, Google, Grab, Zeta, Flipkart, Goldman Sachs, InterviewBit, One Direct, ZS Associates, Inframarket, Nference, OYO, Convegenius, Make My Trip, Infosys, Cognizant, Wipro, SAP Labs, Oracle, IBM, Dell, NEC, Ericsson, Ernst & Young, Kuliza Technologies, Naukri.com., HCL Technologies, Tech Mahindra, Trident, Adani Wilmer, Liugong, Sanghi Cement, Shree Cement, UltraTech, Continental Automotives, Browser Stack, Minzar, NIRMA Group, JK Cement, Ambuja Cement, Wonder Cement, Mangalam Cement Ltd, JMC, Bosch, L&T, Bridgecon Infra, Supertech, DBL, Kalpataru, Various companies of Jaypee Group and others. Highest Package Offered: - Rs. 44 Lac per annum in 2021 by Zeta.





# Jaypee University Anoopshahr, Bulandshahr, U.P

(Established by Government of Uttar Pradesh under Private Universities Act No. 8 of 2014)

Jaypee University Anoopshahr is a multidisciplinary University established in 2014, by the Govt. of U.P. Act No. 8 of 2014. The University is set up in about 95 acres of lush green environment on the banks of Ganges in Anoopshahr, district Bulandshahr, U.P., India (About 120km from Indira Gandhi International Airport, Delhi). The natural environment of the University campus soothes the mind and rejuvenates soul. The University offers programs in Engineering, Science, Management, Arts and Commerce with an aim of providing best intellectual output to the society. Other facilities for the students in the campus available are: R&D, advanced laboratories, skill development center, library, excellent infrastructural facilities, hostels (girls & boys), sports, extra-curricular activities, transport, medical services, scholarships and internships, training and placement cell, etc.

## **Programs of Study**

#### Faculty of Engineering & Technology

• B.Tech (CSE) • B.Tech. (IT) • B.Tech. (ECE)

Students with B.Tech CSE or IT, can opt for specializations in Artificial Intelligence (AI), Machine Learning (ML), Data Science and Data Analytics, Internet of Things (IOT) and Cloud computing.

Students with B.Tech ECE can opt for specializations in Internet of Things (IOT), Networking and Cyber security, VLSI, Wireless Communication and Signal Processing.

#### **Faculty of Management**

• B.B.A

#### **Faculty of Science**

- **B.Sc.;** (i) Physics, Chemistry, Mathematics; (ii) Physics, Computer Science, Mathematics (iii) Zoology, Botany, Chemistry.
- **B.Sc. (Honours);** (i) Physics; (ii) Mathematics (iii) Computer Science;

#### **Faculty of Commerce**

• B.Com • B.Com (Honours)

#### **Faculty of Arts**

B.A. B.A. (Honours)



## **Significant Achievements/Highlights -JUA**

- A new generation Interdisciplinary University aiming to produce quality professionals capable of meeting global challenges.
- Shares academic synergy, experience, cooperation and support of the existing Jaypee Universities: JIIT-Noida, JUIT-Waknaghat and JUET-Guna.
- Fully equipped, updated and operational infrastructure.
- Key infrastructure and resources include well qualified and experienced faculty, fully equipped labs, well stocked library, separate hostel for boys and girls, fully networked campus, facilities for games and associated utilities for students comfort and providing excellent environment for teaching and learning processes.
- Existing Training and Placement (T&P) unit of Jaypee Universities facilitates placements.
- Well connected by road from Aligarh, Moradabad, Sambhal, Badaun, Meerut, Ghaziabad, Noida/Delhi.
- Various training available such as English, softskills, Interdisciplinary programmes
- Transport facility will be available. (T&C apply)
- Various hubs such as Sports, Cultural and professional development
- Hostel facilities available

# UG Programs 2023-24

Program/Total No.	JIIT-Noida (Sec. 62 & 128)	JUIT-Waknaghat, H.P.	JUET-Guna, M.P.	JU-ANOOPSHAHR, U.P.
of Seats	1230	690	600	795
B.Tech Disciplines offered (Seats)	CSE (660) ECE(360) IT(60) BT (60)	BT(30), CE(30) CEC(30), CSE (450) ECE (30), IT(60) BI(30), ECM (30)	CSE (390) ECE (60) CE (60) CHE (30) ME (60)	CSE (60) ECE (60) IT (60) CE (with specialization in Infrastructure Engg.) 90
Integrated M.Tech B.B.A	CSE(30), ECE(30), BT (30) 240	- 30	-	45
Other Programs	B.Sc. in Computer Science Information Technology & Applications Computing and Programming (60)	B.Sc. (Hons.) in Mathematics & Computing (30)	B.Sc. (H) Mathematics (10) B.Sc (H) Physics(10) B.Sc (H) Chemistry (10)	B.Com (H) (45) B.Sc (H) Mathematics (45) B.Sc. (H) Physics (45) B.Sc. (H) Computer Science (45) B.Sc. Math Group (90) B.Sc. Bio Group (90) B.A. (120)

#### **Minor Degree:**

University offers opportunity to B Tech students to opt for Minor degree in areas other than their main branch. The students, after successfully completing the requirements are awarded a degree in Minor Areas example a student of B. Tech in electronics and Communication Engineering can have Minor degree in Computer Science and Engineering or Biotechnology etc. The conditions for awarding Minor degree are; securing a minimum CGPA of 4.5 and earning the required credit specified for the program of a particulars batch along with the additional 20 credit in the minor area as specified.

#### **Specializations**

A B.Tech student will get Certificate of Specialization in a sub-area of specialization of the major degree. To be eligible for award of Certificate of Specialization, the student must pass with minimum of 50% or more of B.Tech elective subjects taken from the chosen stream. The conditions for awarding Certificate of Specialization are; securing a minimum CGPA of 4.5 and earning the required credit specified for the program of a particular batch as specified. The details are available on website of University.



## **UG Programs**

## Computer Science and Engineering (JIIT, JUIT & JUET) & Information Technology (JIIT & JUIT)

Departments of Computer Science and Engineering & Information Technology offer two UG programs, namely B.Tech. in Computer Science & Engineering and B.Tech. in Information Technology.

The UG curriculum of CSE & IT, standing on elements of research and design, is updated on regular basis to include areas of current relevance in the field of Computer Science & IT. Currently, compelling areas like Data Analytics, Cloud, Fog and Edge Computing, Big Data Technologies, Cyber Security, Internet of Things, Artificial Intelligence and Machine Learning, Block chain and latest development in software processes like DevOps and Kubernetes, are part of one or more subjects in the curriculum.

Large number of electives offers to a student to choose subjects according to their interests and future plans. Core and choice based interdisciplinary electives in almost every semester provide avenues to understand the way computer science can benefit from other disciplines and vice-versa. Besides regular credit based subjects, students can earn a certificate of proficiency through value added courses and workshops for reinforced learning in the areas of importance.

Teaching pedagogy lays heavy emphasis on programming skills nurtured through contemporarily designed laboratory courses and major/minor projects. Learning in practical subjects is facilitated by well-equipped laboratories while being continuously supported by faculty members, Ph.D. and M.Tech.(teaching associates) as well as fourth year B.Tech students as mentors.

Most of the faculty members of the department are doctorate in the emerging areas of Computer Science and IT. Department has strong programming culture, and thus students are performing at not only national level, but at international level also at various world class programming platforms like Code Chef, GSoC internships and many more.

Department regularly organizes co-curricular technical activities like online programming competitions, Hackathons, Robotics hub, Google Developer Group workshops and graphic designing workshops etc. This gives JIIT-CSE & IT students

an edge over other undergraduates and postgraduates students. IT giants like Amazon, Adobe, Google, D.E. Shaw, Morgan Stanley, Deloitte, SAP & many others are regular recruiters. It's worth mentioning here that the number of companies offering package more than INR 10 Lac per annum (LPA) is increasing every year.

On an average, approximately 130 companies visit JIIT to recruit IT professionals every year.

Apart from strong industry driven curricula, department has strong research environment.

CSE &IT UG students can earn a Minor degree in other discipline if they take 20 credits in addition to their regular CSE & IT credits. There is also a provision of earning a Proficiency Certificate. It helps students to become more employable in the industry. There are a number of departmental electives in the UG curriculum. If a student takes more than 5 electives of certain area, along with major and minor projects in that area, and earns a good grade, he/ she will be awarded an additional certificate of proficiency in that area.

Students are provided ample opportunities to develop and demonstrate their innovation and design skills through co-curricular technical activities like online programming competitions, hackathons, Robotics hub, Google Developer Group workshops and graphic designing interest group among others.



As a result of all these exposures, student projects quite often lead to research publications in leading journals and conferences.

Some of the core subjects of the programs include Object Oriented Programming, Computer Organization and Architecture, Smart Systems, Micro Processors & Controllers, Algorithms, Operating Systems, Software Engineering, Computation Theory, Computer Networks and Compiler Design. Students have to undergo a thorough six-week mandatory industrial training at the end of their third year of study to get a feel of the work culture in relevant industries.

It's the result of all these concerted efforts that the placement statistics are very enthusiastic and eligible students get job offers through campus placement.

#### Electronics and Communication Engineering (JIIT, JUIT & JUET)

"The latest technology today is an obsolete technology tomorrow." The quote is apt and relevant as the world of technology in Electronics and Communication industry is changing very fast and has undergone tremendous transformation. The technology landscape in 21st century necessitates innovation and excellence. This, precisely, is what Departments of Electronics and Communication Engineering (ECE) is about. Electronics and Communication Engineering discipline spans a diverse set of intellectual sub-fields and applications. The sub-fields can be grouped in to overlapping and interrelated areas like Signal and Image Processing, Semiconductor





Device Design, Communication Systems, Data Communication Networks, Microwave and Antenna Design, Internet of Things, Wireless Communication, Microelectronics, Embedded Systems, VLSI Design, Machine Learning and many more. The students undertake courses in Basic Sciences, Mathematics and Humanities as well. Also, major and minor projects during the semesters help the students in transforming their theoretical knowledge to practical applications.

Flexibility of opting for several elective subjects provide a wonderful opportunity to the students to broaden their knowledge and to obtain proficiency certificate in various specialized areas of Electronics and Communication Engineering. Students can also opt for Minor Specialization in other branches of Engineering like Computer Science and Engineering, Information Technology, Biotechnology etc. by opting for some extra credits.

The program is fully supported by excellent laboratories for all the core courses like Electrical Science, Communication Systems, Digital Electronics, VLSI,

Electromagnetics, Signal Processing etc. and some advanced laboratories such as Machine Learning, IoT, Embedded systems and Robotics under e-Yantra sponsored by MHRD. These labs are equipped with state-of-the-art instruments and software tools to enable students to perform, simulation, fabrication and testing of their experiments and projects. Students can also participate in various technical activities through IEEE student chapter and can involve in Creativity and Innovation Cell (CICE) activities.

## **Biotechnology (JIIT, JUIT)**

The advent of 21st century witnessed the scope of biotechnology broaden with every passing year, with the realization of its potential to advance life and health for the best. The Indian Biotech industry, currently valued at \$64 bn, is expected to reach a massive \$150 bn target by 2024. To address the demands of the continuously evolving technology and industry, our curriculum is designed to prepare our students as prominent contributors to the field of Biotechnology (BT) and Bioinformatics (BI), imparting them with skill-sets that enable their adaptation to academia, research, and industry.

Realizing the interwoven nature of the field of Biotechnology, our curriculum is aimed to enhance the expertise of our students by rigorously indulging them in project based learning, aided by our available specialized labs and faculty mentoring in areas such as Proteomics & amp; Genomics Technologies, Nanobiotechnology, Antimicrobial Resistance, Animal & amp; Plant Cell Culture, Fermentation & amp; Downstream Processing, Molecular Diagnostics, Disease & amp; Healthcare, Pharmacogenomics, Biosensors, Bioeconomics and Waste Management. We further aim to develop and recognize student's proficiencies in the fields of Industrial Biotechnology, Medical Biotechnology, Plant and Microbial Biotechnology, Bioinformatics, Environmental Biotechnology and Food Biotechnology. Interaction with leading scientists from academia and industry through invited lectures, workshops and conferences ensures overall progress and enhancement of the student's technical skills.

The research emphasis is reflected by our active doctoral program, peer reviewed publications in international/national journals, and sponsored research projects from premier national funding agencies, namely, the Department of Biotechnology (DBT), the Department of Science and Technology (DST), All India Council for Technical Education (AICTE), Indian Council for Medical Research (ICMR), Council of Science and Technology, Uttar Pradesh (UPCST), Ministry of Environment GOI, Department of AYUSH etc.





## **Civil Engineering (JUIT, JUET)**

Undergraduate program in Civil Engineering (offered at JUIT-Waknaghat and JUET- Guna) has been developed to meet the latest requirements of the infrastructural development of our country in areas like Construction, Transportation, Hydropower and Environmental Engineering. The curriculum has been developed to keep it more practical and industry oriented without compromising on its academic rigor. Students are provided with comprehensive theoretical knowledge through lectures, tutorials and assignments covering the basic as well as advanced topics in various subjects of Civil Engineering. They are trained for practical understanding in departmental laboratories namely Concrete and Structural Engineering, Geotechnical Engineering, Environmental Engineering, Highway Engineering and Surveying, in addition to the traditional Engineering Graphics and Workshop Practices. All laboratories are equipped with modern equipments and facilities with highly trained manpower. Students are exposed to construction industry during the practical training in reputed construction companies. Training on software like STAAD Pro, MATLAB, Auto-CAD and PRIMAVIRA enhances employability of students in the various fields of Civil Engineering. Opportunities are provided to students for post graduation and research in the areas of Geotechnical, Structural, Environmental and Transportation Engineering.

#### **Civil Engineering with Computer Application (JUIT)**

The field of Civil Engineering is presently experiencing a phenomenal change. A present day Civil Engineer needs to have all the appropriate skills and ready knowledge to work in a corporate or site environment. Rapid advances in the field of computer science (both hardware and software) have provided all engineers with powerful medium of data processing, storing and display engineering outputs. Present day practice of Civil Engineering applications in real life include 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, bearing capacity and slope stability determinations, use of machine learning in identifying hydrological responses in a catchment after precipitation and many more such applications. The Department of Civil Engineering offers cutting-edge interdisciplinary 4 year B.Tech. degree programme in Civil Engineering with Computer Application, which is a new emerging trend. The purpose of this programme is to produce undergraduates who are fully prepared to work in an engineering position requiring expertise in the field of Computer application so as to apply the same in Infrastructure Industry.

#### **Bioinformatics (JUIT)**

Bioinformatics has emerged as a separate discipline due to an upsurge in genomics data through sequencing of whole genomes of microbes, plants, animals and human. Anticipating a high demand of technocrats with knowledge base of a combination of biotechnology and CS & IT, a specialized degree program B.Tech. Bioinformatics(BI) is offered. The multi disciplinary nature of Bioinformatics involves in-depth knowledge in Biotechnology, Computer Science and Engineering & IT, Mathematics, Biostatistics, Physics, in addition to core subjects such as Pharmacogenomics, System Biology and Neural Networks, Comparative and Functional Genomics, Clinical Trials, and Machine Learning Tools in Bioinformatics.

#### **Chemical Engineering (JUET)**

The objective of this program is to provide the students a broad-based education with emphasis on theory and practice of chemical engineering keeping in view, the current and future requirements of the country. The courses offered, aim at preparing trained manpower to meet the demand in the process industries including cement, food processing, petroleum processing, pharmaceuticals, mineral processing and polymers besides design, development & trouble shooting . Graduates have been placed successfully in reputed organizations like NOCIL, Hindustan Lever, Jaypee Group, IOCL, Reliance, DMCC, KJS Cement, APAC Consulting etc.

Nine fully equipped state-of-the-art laboratories with air/water/steam lines are available to

students. The course syllabus is flexible and includes all components of modern engineering education with wide choice of electives from areas like design, analysis, modelling, energy and environment.

#### **Electronics and Computers Engineering (JUIT)**

Department of Electronics and Communication is introduced with an increasing demand for engineers with good programming skills, new developments in the industry and increased use of new technologies such as Artificial Intelligence, Machine Learning, Internet of Things, Embedded Systems and Robotics. This nomenclature is proposed by keeping in mind the recent trends in the industry. As the demand for knowledge of computer- based courses is increasing, the subjects from Electronics& Communication Engineering as well as Computer Science Engineering are included. Also, the topics included in various competitive examinations of ECE and CSE are incorporated.

#### **Mechanical Engineering (JUET)**

Mechanical Engineering is offered by the Department of Mechanical Engineering JUET-Guna. The department has established laboratories like Thermodynamics, Computer Aided Design, Strength of Materials, Fluid Mechanics & Machinery, Measurement & Control, Theory of Machine, I.C.Engines, Heat & Mass Transfer, Advanced Machining, Refrigeration & Air Conditioning, Dynamics of Machines, Additive Manufacturing (AM) and CIMS, 660MW Super Critical Thermal Power Plant Training Simulator (at JUET) for hands on experience in practice and design. It lays emphasis on subjects like Flexible Manufacturing Systems, Computer Integrated Manufacturing, Additive Manufacturing, Robotics, Tribology, Composites and Laser Materials, Finite Element Methods to provide the graduates to take up the challenging tasks for leading sectors of manufacturing, design and energy generation & conservation and R & D and provides adequate exposure for hands on experience

#### B.Sc. (3/4 Years) (JIIT)

#### B.Sc. (Honours/ Honours with Research/Academic Projects/Entrepreneurship) Computer Science:

This undergraduate programme based on the new education policy (NEP 2020) and is well designed to enrich the knowledge of mathematics, computer science and emerging software tools through highly qualified faculty and state of the art computer laboratories. The programme lays emphasis on building a strong mathematical foundation and includes modules on electronics and humanities as well. Projects, summer training and internship will develop the communication, problem solving, team work and leadership skills to meet the requirement of the industries/organizations. After successful completion of the programme, students will be specialized enough to start a career as an entrepreneur or may join the software industry as

software engineer, data scientist, system analyst, network administrator etc. The programme also provides excellent opportunities for higher studies.

# B.Sc. (Honours/ Honours with Research/Academic Projects/ Entrepreneurship) Information Technology and Applications:

This undergraduate programme based on the new education policy (NEP 2020) is well designed to enrich the knowledge of mathematics, information technology (IT) applications and tools through highly qualified faculty and state of the art IT laboratories. The programme includes modules on electronics to meet the need of Information Technology in telecommunications industries. Projects, summer training and internship will develop the communication, problem solving, team work and leadership skills to meet the requirement of the industries/ organizations. After successful completion of the programme, students will be eligible to join various employment sectors including IT industries, T\telecommunications and banking sectors as IT professionals, data analyst, web developer etc. The programme also provides excellent opportunities for higher studies.

# B.Sc. (Honours/ Honours with Research/Academic Projects/ Entrepreneurship) Computing and Programming:

This undergraduate programme based on the new education policy (NEP 2020) is well designed to enrich the knowledge of mathematics, computing and computer programming through highly qualified faculty and state of the art laboratories equipped with modern computing tools and computer programming facilities. Projects, summer training and internship will develop the communication, problem solving, team work and leadership skills to meet the requirement of the industries/organizations. After successful completion of the programme, students will be eligible for computer programmer, data scientist, business analyst etc. profile in the various information technology/ software industries. Apart from providing excellent opportunities for higher studies, this programme develops skills for starting IT related start-ups/entrepreneurship also.

### B.Sc. (Hons.) in Mathematics & Computing (3 Years) (JUIT)

This three years program aims to provide in depth theoretical basis in mathematics and practical training in computer science. It also covers a variety of multidisciplinary topics such as Financial Engineering, Numerical Computing, and Intelligent Machine. Graduate of the program are prepared for advanced degrees and career in a wide range of industrial discipline.

## B.B.A (3 Years) (JIIT in JBS/JUIT)

The 3 year full time BBA curriculum is imaginative and flexible and is comprised of creative combinations of disciplines of study. Innovative and stimulating pedagogical practices stimulate

the students' learning experience. The BBA program aims at developing in the students a set of broad based competencies, an understanding of the social and human context and instill in them strong ethical values. The broad goal of the BBA program is to provide the students multi- disciplinary education that provides learning in multiple disciplines along with in depth knowledge of the management discipline. In this way the students are prepared to deal with complexity, diversity and change. Value added courses on communication, analytical and problem solving skills and theatre equip the students with the ability to apply knowledge and skills in the real world settings.

Successful graduates of this course can opt for a range of jobs from sectors like finance, marketing, sales, management, government, HR, data analytics, health and education.

The curriculum of this 3 year undergraduate BBA program is designed with the options of specialization in Finance, Marketing, HR, IT Applications in Management and Data Analytics. The curriculum spread over six semesters with each semester having sixteen weeks that includes teaching and evaluation.

Last two semesters of the programs makes provision for choice of discipline specific electives for specialization.

Two important stages of learning apart from acquiring knowledge is practicing and performing and it is these two aspects that JBS/JUIT focuses on. Learning by doing is the norm wherein the students apply theoretical knowledge in real world to generate tangible outcomes.



# **5 Years Integrated M.Tech Programs (JIIT)**

#### **Computer Science & Engineering**

The five year integrated M.Tech. program is designed for those students who are deeply fascinated by Computer Science & Engineering and are keen on specializing in this discipline. Through six months full time dissertation, students are groomed to start an R&D oriented career in IT industry or pursue their doctoral studies in Computer Science & Engineering. The curriculum offers foundation as well as advanced courses on a wide spectrum of computing areas-Programming, Algorithms, Databases, Computer Organization and Architecture, Operating Systems, Computer Networks, Web and Mobile Computing, Embedded Systems, Distributed Systems, Artificial Intelligence, Machine Learning, Software Engineering, Information and Networks Security, Multimedia Computing, Performance Modelling etc. The job opportunities and placement statistics of Integrated CSE program is equivalent to B.Tech. CSE & IT students. Moreover since these students have been exposed to the research based PG Curriculum, Integrated students are doing much better in the industry as well as in research.

#### **Biotechnology**

The department offers a five years Integrated M.Tech program with additional specialized core and elective courses with Biomolecules and Cell Communication, Nanobiotechnology, Phyto-therapeutics and Pharmacology, Regulatory Affairs, Drug Delivery, Genomics & Society Biostatistics, Product Development in Biotechnology, Experimental models in Research and Molecular Diagnostics.

The curriculum is designed to generate trained manpower in biotechnology, equipping our students with knowledge and hands-on skills in constantly advancing biotechnological areas. Firm with our belief in comprehensive growth of our students, we work to enhance their proficiencies by our strategically designed laboratory experiments and mandatory components of Project Based Learning, Seminar & Term Papers along with year-long research project(s) and industrial trainings, providing the students with necessary scientific and professional exposure to firm their grounds before stepping in to their respective career directions, be It fields of R&D, Academics, Consulting, etc.



#### **Electronics and Communication Engineering**

The integrated M.Tech program in Electronics and Communication Engineering is a specially designed program which includes courses of both B.Tech and M.Tech degrees in the discipline of Electronics and Communication Engineering and emphasizes on an in-depth understanding of several advanced and state-of-the-art courses in the area of Signal & Speech Processing and Coding, Wireless Communication, VLSI, System on Chip, Satellite Communication, Machine Learning, Microwave Engineering etc.

The integrated program provides the students with the opportunity to acquire comprehensive understanding in an area of their selected field through electives and individual projects. The laboratory courses offer practical exposure to them. The program prepares the students for research and development activities, industrial work as well as for higher studies.

# P G Programs 2023-24

Program	JIIT – Noida, U.P.	JUIT – Waknaghat, H.P	JUET – Guna, M.P.
M.Tech.	<ul> <li>Biotechnology</li> <li>Computer Science &amp;Engineering</li> <li>CSE with specialization in: <ul> <li>✓ Data Analytics</li> <li>✓ IT &amp;Entrepreneurship</li> <li>✓ Artificial Intelligence and Machine Learning</li> <li>✓ Internet of Things</li> <li>✓ Cyber Security</li> </ul> </li> <li>Electronics &amp; Communication Engineering (ECE)</li> <li>ECE with specialization in: <ul> <li>✓ Machine Learning and Signal Processing</li> <li>✓ Wireless Communication</li> <li>✓ Micro Electronic Systems &amp; Internet of Things</li> </ul> </li> </ul>	<ul> <li>Biotechnology</li> <li>Computer Science &amp; Engineering (CSE)</li> <li>CSE with specialization in <ul> <li>✓ Information Security</li> <li>✓ Data Science</li> </ul> </li> <li>Electronics and Communication Engineering (ECE)</li> <li>ECE with specialization in <ul> <li>✓ Internet of Things(IoT)</li> </ul> </li> <li>Civil Engineering with specialization in <ul> <li>✓ Construction Management</li> <li>✓ Environment Engineering</li> <li>✓ Structural Engineering</li> </ul> </li> </ul>	<ul> <li>Chemical Engineering</li> <li>Computer Science &amp; Engineering</li> <li>Electronics &amp; Communication Engineering</li> <li>Civil Engineering         <ul> <li>Structural Engineering</li> <li>Environmental Engineering</li> <li>Construction Management</li> </ul> </li> <li>Mechanical Engineering –         <ul> <li>Manufacturing Technology</li> </ul> </li> </ul>
Integrated M.Tech	<ul> <li>Computer Science &amp; Engineering</li> <li>Electronics and Communication Engineering</li> <li>Biotechnology</li> </ul>	Х	Х
M.Sc.	<ul> <li>Mathematics</li> <li>Physics</li> <li>Microbiology</li> <li>Environmental Biotechnology</li> <li>Economics</li> </ul>	<ul> <li>Microbiology</li> <li>Biotechnology</li> <li>Physics</li> </ul>	<ul> <li>Chemistry</li> <li>Mathematics</li> <li>Physics</li> </ul>
M.B.A	<ul> <li>Marketing</li> <li>Finance</li> <li>H.R</li> <li>Operations</li> <li>IT &amp; Business Analytics</li> </ul>	x	Х

## **P G Programs**

#### M.Tech (2 Years)

The objective of the program is to impart advanced level knowledge in specialized field making the students fit for academia as well as industry and assume responsibilities requiring further research, design and development aptitude. Through compulsory core and open elective subjects, the students acquire a state-of-the-art advanced knowledge in a chosen field of specialization. These selective courses give the opportunity to further specialize in the field depending on his/her interest and the future career plan. For project work and dissertation students are required to take-up problems on a particular topic in the field culminating in submission of a dissertation/report.

#### M.Tech in Computer Science and Engineering (JIIT, JUIT, JUET)

The program provides advanced level education and research exposure in various areas of computing-Algorithms, Distributed Systems, Software Engineering, Machine Learning, Databases, Computer Networks, Computer Architecture, Information and Networks Security, Bigdata, Cloud Computing, Data analytics and IOT etc. These advanced level courses and M. Tech dissertation lay the foundation for potential doctoral work inCSE.

#### M.Tech in CSE with specialization in Data Analytics (JIIT)

M.Tech (Data Analytics) is an inter-disciplinary program offered by Department of CSE & IT and is designed to meet the huge manpower shortage in this field. All business and government organizations working in commerce, policy, insurance, finance, economics, engineering, infrastructure, energy, healthcare, education, security, sports, media, culture, etc. are increasing relying on computational tools and techniques of data analytics for taking informed decisions.

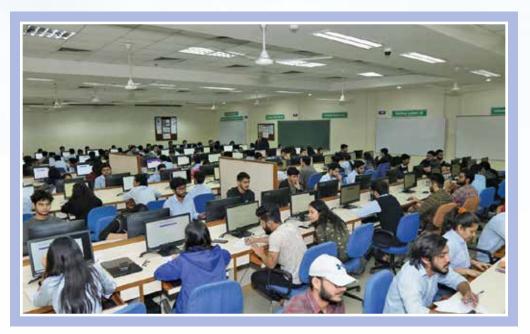
This program has been designed to develop the ability to apply and develop computational techniques and systems to draw insights from big data in a variety of application domains. The curriculum exposes students with all aspects of data analytics including research design, data collection, preparation analysis, integration, visualization, and interpretation. In addition to CSE & IT Department, Departments of Mathematics, HSS as well as Business School will also contribute to this program.

The core courses include statistical data analysis, financial econometrics, data Ware-housing and data mining, pattern recognition and machine learning, large scale graph analytics, empirical research and laboratories. Students will also be offered several electives on theoretical, systemic,

algorithmic and applied aspects of data analytics. This two year full. Time program is open for candidates with B.Tech. (in any discipline) or Masters (in Computer Applications/ Computer Science/IT/ Maths/ Statistics/ Operations Research/ Physics/ Electronics/ Instrumentation) or equivalent.

# M.Tech in CSE with specialization in Artificial Intelligence and Machine learning (JIIT)

M.Tech in CSE with specialization in Artificial Intelligence and Machine learning aims to focus on Machine Learning techniques to intelligently handle large and complex amounts of information build upon foundations in many disciplines, including statistics, knowledge representation, planning and control, databases, causal inference, computer systems, business and finance, machine vision and natural language processing etc. This program will provide students an opportunity to learn both foundational and experimental components of Machine Learning and Artificial Intelligence. The objective of this post graduate program is to develop the ability and skills to undertake careers involving development, innovation and problem solving using Artificial Intelligence and Machine Learning technologies. This two year full time program is open for candidates with B.Tech. (in any discipline) or Masters in Computer Applications/ Computer Science/ IT/ Mathematics/Statistics/ Operations Research) or equivalent.



#### M.Tech in CSE with specialization in Internet of Things (IoT) (JIIT)

A new era of engineering, Internet of Things (IoT), has gained interest in last few years. IoT is a network of connected devices and people, which collects and communicates data from environment around them. Applications of Internet of Things (IoT) are in smart agriculture, transportation, environment monitoring, healthcare, and smart wearable. M.Tech. program with specialization in IoT is especially designed for young innovators to provide them a breadth as well as depth for designing systems for the current era of IoT The objective of this post graduate program is to produce skilled graduates with deeper understanding of IoT systems and ability to follow multidisciplinary approach for design, development, simulation, and implementation of IoT systems. This two year full time program is open for candidates with B.Tech. (in any discipline) or Masters (in Computer Applications/ Computer Science/ IT/ Maths/ Statistics/ Operations Research) or equivalent.

# M.Tech in CSE with specialization in Information Technology & Entrepreneurship (JIIT)

This is a joint PG program offered by Department of CSE & IT and Jaypee Business School, Noida. It is designed for graduates with IT background who are keen in pursuing information technology centric entrepreneurship or taking leadership positions in innovative technology- based start-ups and other organizations. The curriculum includes courses on information technology and entrepreneurship management. Second year of the program is devoted to industrial internship and IT entrepreneurship project to develop an investor – ready business plan. Through this program, the student will also network with successful 'role model' innovators, entrepreneurs, and enterprise development experts. This two year full time program is open for candidates with B.Tech .(in any discipline) or Masters (in Computer Applications /Computer Science /IT/ Maths/ Statistics/ Operations Research / Physics/ Electronics/Instrumentation/ management) or equivalent.

# M.Tech in Electronics & Communication Engineering with specialization in Micro Electronic Systems & Internet of Things (JIIT)

M.Tech. in Microelectronics & Internet of Things (MIoT) is designed to provide electronics engineers with highly specialized knowledge and experience that they need to design, fabricate and test devices, circuits and systems at micro scale.

The program offers a set of courses that allow students to gain expertise in areas that include back-end and front-end microelectronic designs such as processor and SoC design, chip design, etc. In addition, it introduces the basic IoT architectural overview, its design principles and needed capabilities and also concepts on real- world designs. The program curriculum is divided into theory, laboratory practice and projects. Along with the core courses, there are several elective courses, audit courses, project based learning courses and open electives. The dissertation in the final year enables students to apply concepts and techniques learnt during the program. Keeping in view the market trends and demands, the core laboratories for VLSI design and simulation, Internet of Things, etc. have been established. The aim of the program is to provide students a broad base of education and understanding about the semiconductor industry linked with IoT, enabling them lucrative opportunities in their future endeavors.

# M.Tech in Electronics & Communication Engineering with specialization in Wireless Communication (JIIT)

M.Tech in Electronics and Communication Engineering(ECE) with specialization in Wireless Communication (WC) encourages students to develop an in-depth theoretical and practical knowledge of advanced communication systems (4G, 5G and beyond).

The contents of the course are designed meticulously keeping in mind the demands of wireless and mobile industry. The stream also includes advanced concepts of optical wireless communication, microwave and millimeter wave communication, 4G and 5G antenna technology etc. along with basic telecommunication courses. The course is well supported by laboratories like Advance Communication Laboratory, Research Laboratory. with many software and hardware tools.

As per the university regulations, a student enrolled in the M.Tech in ECE (WC) is required to enroll in various core subjects, electives, labs, project based learning, seminars, and dissertation/Industrial Project. Duration of dissertation/ industrial project is of 2 semesters wherein the student applies the theoretical concepts learned to practical applications.

# M.Tech in Electronics & Communication Engineering with Specialization in Machine Learning and Signal Processing (JIIT)

The M.Tech program in Machine Learning and Signal Processing is aimed at providing a deeper understanding of the mathematical, theoretical, practical, and application aspects of machine learning and signal processing and create professionals who are industry ready.

Machine Learning usually plays an important role in the transition from data storage to decision systems based on large database signals such as those obtained from sensor networks, internet services or communication systems. The program will focus upon machine learning methods and their applications to signal processing. The curriculum comprises of subjects like introduction to machine learning, advance signal processing, optimization techniques, statistical signal processing, image and video processing, advanced topics in machine learning,

computer vision, biomedical signal processing, speech and audio processing, fuzzy logic, python, data analysis, and algorithms.

In first year, students are introduced with various theory and laboratory courses followed by a research based dissertationiIndustrial projects spread across third and fourth semesters. Thus, the students are having deeper knowledge of signal processing area and its implementation with machine learning are fully equipped to undertake research and development, work in academia or in industrial environment.

### M.Tech. in CSE with Specialization in Cyber Security (JIIT)

This programme is developed with an objective to provide an in-depth study of the various methods and applications of Cyber Security in real-world situations. It familiarizes students with gain advanced technical skills to secure digital systems against cyber attacks. The program emphasizes developing proficient Cyber Security professionals who can adeptly tackle the challenges posed by real-life Cyber Security scenarios.

#### **M.Tech in Electronics & Communication Engineering (JUIT/JUET)**

Master of Technology in Electronics and Communication Engineering covers wide range of advanced communication subjects such as Wireless and mobile communication, VLSI Circuits and System Design, Digital Signal Processing, Network Security, Information Theory and Coding, Soft Computing, Signal and Image Processing, Antenna Theory and Design, Digital and Analog IC Design, Advanced Satellite and Fiber Communication System, etc.

#### M. Tech. in Biotechnology (JIIT & JUIT)

M.Tech Biotechnology is a 76 credits full-time 2 years program of four semesters run by the Department of Biotechnology and Bioinformatics. The M.Tech program in Biotechnology is designed to generate trained manpower in Biotechnology, equipping our students with the knowledge and hands-on skills, making them proficient in constantly advancing biotechnological areas. Students get hands-on laboratory skills by providing research work in the second year that includes thrust areas of Industrial and Medical Biotechnology.

### M.Tech in Civil Engineering (Construction Management) (JUIT)

The 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 at educating the students with regulatory, insurance, management, safety, planning tools, estimation and environmental aspects of management necessary for 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 programme assures relevant and global standards of education.

## M.Tech in CSE (Information Security) (JUIT)

Information Security aims to train students to become information security professionals for the high-end jobs in the security industry. The objective of this programme is to create security professionals who will be handling the real-life problems and challenges the industry is facing today in connection to cyber security. The unique design of the programme focuses on providing a high degree of industry exposure, academic and functional experts from the industry in this domain. This programme offers a brilliant career pathway to those who are passionate about knowing more about security challenges and solutions as well as practicing security analytics, cyber security, and related tools and technologies. Job Openings for cybersecurity are also increasing by 200% each year in India. M.Tech in CSE with specialization in Information Security (JUIT) Information security is a fast growing area and has been recognized as a national priority. This program aims to enhance the knowledge and core competencies in contemporary computer science and also provide a deep understanding of security related aspects. The curriculum includes a comprehensive set of core and elective courses to achieve both these purposes

#### M.Tech in CSE (Data Science) (JUIT)

Data Science is one of the most happening fields in business today, creating a higher number of career opportunities. Data Scientists are in high demand around the globe almost in all existing verticals i.e. Education, Manufacturing, Healthcare, Agriculture, etc. The course has inclusive realms, namely Statistics, Machine Learning/ Programming/ Data Skills, Business Domain knowledge; covering all the mains of the Data Science that helps the students to achieve a solid grip over it. One of the major objectives of this course is to provide an indepth understanding of data structure and data manipulation, and understanding of various supervised and unsupervised learning models such as linear regression, logistic regression, clustering, dimensionality reduction, K-NN, and pipe line.

#### M.Tech in ECE (Internet of Things) (JUIT)

M.Tech in ECE with specialization in the Internet of Things (IoT) is an interdisciplinary program. This course is mainly related to the network of physical objects -"things"- that are embedded with sensors, software, and other technologies for the purpose of connecting and exchanging data with other devices and systems over the Internet. The aim and objectives of this course is to: Generate IoT concepts and design IoT solutions within your area of expertise, Map out the process for an IoT solution, and identify the sensors and other devices required, evaluate different infrastructure components and network systems, and design the basic network for your IoT ideas, apply software solutions for different systems and Big Data to your concept designs, and appreciate how data is managed in the network, identify and analyze IoT security and privacy risks, and concept design secure hardware and software. The main contents of the course will be: Introduction to the Internet of Things (IoT), IoT Sensors and Devices, Embedded Deep learning at IoT device layer, IoT Networks and Protocols, IoT Programming and Big Data, Cyber security and Privacy in the IoT, Programming & Interface on Raspberry Pi and Jetson nano development boards, and design of IoT prototype project addressing diversified applications.

## M.Tech in Civil Engineering (Structural Engineering) (JUIT&JUET)

This course is designed for students who wish to pursue their career as Structural Engineer. Study is focused on scientific principles to design and build various structures such as multistorey buildings, bridges, tunnels, dams, etc. The course introduces numerically demanding research and design exercises relating to a wide-range of structures using simulation, modelling 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.

#### M.Tech in Civil Engineering (Environmental Engineering) (JUIT & JUET)

M.Tech 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 waste water treatment, Environmental law and Policy, Risk Management, Optimisation 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.

## M.Tech in Civil Engineering (Construction Management) (JUET)

Construction Management is a specialization which is required at construction sites. Civil Engineering post-graduate who aspires to make their career in construction industry should opt for this specialization. As the construction industry is modernizing day by day, new technologies and automation are need of the hour.

## **M.Tech in Chemical Engineering (JUET)**

The program provides advanced courses in areas such as Process Modeling and Optimization, Advanced Separation Processes, Advanced Process Control, Advanced Transport Phenomenon and Fluidization Engineering. The course offers a wide range of electives. The students have to take a research activity as a component as major part of the program. The aim of the program is to train students to assume in dependent responsibilities laying emphasis on the country's current and future requirements in industry, R&D organizations, design firms and academic institutions.

### M.Tech in Mechanical Engineering (Manufacturing Technology) (JUET)

M. Tech in Mechanical Engineering (with specialization in Manufacturing Technology) has been developed keeping the industrial requirement in view. Applications of Manufacturing Technology are to manage manufacturing resources efficiently and effectively and thus improve the productivity of an industrial organization. The curricula of this program is open to Mechanical and Production Engineering graduates only.



## **M.Sc. Programs**

M.Sc. (2 years) programs in Sciences and Mathematics are designed to cater to the need of academics, research and industry. M.Sc. courses explore advanced theory and analysis together with their applications in a range of practical contexts. These courses offer an exciting opportunity to those interested in higher studies in Sciences and Mathematics.

#### M.Sc. in Physics (JIIT, JUIT & JUET)

A two year M.Sc program in Physics is offered by the department of Physics and Materials Science and Engineering (PMSE). The course curriculum of this program is designed with an objective to provide understanding and skills in Physics suitable for a professional career in academics, R&D and doctoral studies in sub-domains of experimental and theoretical Physics/ Applied Physics.

The curriculum of this four-semester program follows choice based credit system (CBCS) with the option of advanced study and training in two specializations: A. Condense Matter Physics and B. Applied Optics. The first three semesters cover the fundamentals of the subject. During the fourth semester, students undertake project/dissertation work. The department has well equipped curricular and research laboratories with modern and state of the art equipment. In addition, regularly organized seminars, expert talks, and opportunity to interact with a large number of Ph.D students and Post-Doctoral fellows bestow a dynamic ambience and an excellent learning environment.

#### M.Sc. in Mathematics (JIIT & JUET)

The M.Sc. program in Mathematics is carefully designed to convey essential knowledge in Mathematics and to provide substantial opportunities for pursuing excellence in all major areas of pure and applied mathematics. The objective of this program is to develop mathematical aptitude in students, nurture their interests towards mathematics and motivate them for research in mathematical sciences. It consists of a broad-based curriculum which reflects an extensive understanding of different aspects of mathematics and its applications. The M.Sc. program comprises of four semesters in which first two semesters are enriched with core courses in mathematics whereas the final two semesters offer a wide range of elective courses in both pure and applied mathematics. Students will get exposure of programming languages through Lab courses so that latest trend/demand could be offered to them. The final semester includes dissertation work which enhances their logical ability, report writing and computational skills. The wide range of application-oriented course is so designed that after the completion of the course, the students would be well equipped to go to industries or to join academics and research.



### M.Sc. in Microbiology (JIIT & JUIT)

An increasing global awareness on environmental issues towards deteriorating environmental quality has encouraged research in the domain of environmental biotechnology. Environmental biotechnology specifically focuses on the application of biotechnology-based processes for providing sustainable solutions to combat environmental damage. Globally emerging environmental issues require immediate concern to address the issues arising from pollution, climate change, exploitation of natural resources, ecosystems, biodiversity and food security. As an example, waste production is expected to go up to 2.2 billion tones by 2025 and it is estimated that 3 million people are hospitalized due to chemical poisoning every year (FAO data), arising from contaminated soil and water.

The sustainable and eco-friendly nature of Biotechnology-based solutions is a promising alternative. for finding cost-effective measures. Microorganisms and plants are being used for bioremediation of environmental pollutants and commercially available technologies have proven to be safe and effective. Keeping environmental laws and regulations in mind, biotechnology- based strategies for the environment are the promising approach as compared to available conventional technologies.

#### M.Sc. in Environmental Biotechnology (JIIT)

With an increasing awareness on environmental issues amongst general public, who's genuine concern towards deteriorating environmental quality is pushing research in the domain of environmental biotechnology. Biotechnology involves the use of living systems for developing products for the benefit of mankind. It is a broad area encompassing applications in various fields such as medicine, food, and environment. Environmental biotechnology specifically focuses on the application of biotechnology-based processes for providing solutions to minimize, and ultimately combat environmental damage. Emerging concerns regarding global environmental changes require an urgent necessity to address the issues arising from pollution, change of climate, damage to natural ecosystems and biodiversity and food security. As an example waste production is expected to go up to 2.2 billion tones by 2025 and it is estimated that 3 million people are hospitalized due to chemical poisoning every year (FAO data), arising from contaminated soil and water.

The sustainable and eco-friendly nature of Biotechnology-based solutions is a promising alternative for finding cost-effective measures. Micro organisms and plants are being used for bioremediation of environmental pollutants and commercially available technologies have proven to be safe and effective. Phyto-remediation is also emerging as a promising approach. In contrast to available conventional technologies, biotechnology- based strategies for the environment can be very successfully implemented, keeping environmental laws and regulations in mind.

The rigorous two-year M.Sc. program in Environmental Biotechnology prepares our students from basics-to-application of existing and emerging biotechnological tools for the process development and reducing or mitigating the impact of environmental pollutants. The program makes available, the avenues for a career in industry, academia, and entrepreneurship, both in public and private sectors

#### **M.Sc in Economics (JIIT)**

This programme provides the students the necessary analytical and quantitative skills and knowledge for demanding careers in the field of economics. The programme is interdisciplinary in nature. It gives students strong foundations in contemporary economic theories, methods of econometric analysis, mathematics and computer programming that will help them to analyze and forecast various processes associated with economics.

This is an advanced course in Economics and its applications with special emphasis on quantitative methods. On completion of the programme, the students would be able to pursue

an academic career in Economics or take up responsible positions in various private and public sector organizations. The programe provides an edge for students who are aiming to make a career in Analytics and Credit Scoring Sector most notably in Banking, Insurance, Scientific Research and Auditing & Consulting firms.

#### M.Sc. in Biotechnology (JUIT)

M.Sc. Biotechnology is a full-time credit-based 2-years program of four semesters run by the Department of Biotechnology and Bioinformatics. The curriculum has been designed to impart basic and advance knowledge of concepts and applications of Biotechnology in various domains e.g. Industry and Bio-processing, Medical, Healthcare, Agriculture and Environment. Students are provided rigorous hands-on skills in the practical courses to develop their research acumen during their research projects. This enables them to design; conduct experiments to analyze and interpret data for investigating problems in Biotechnology and Allied fields. Students are trained to acquire competitive edge to get Biotechnology oriented jobs in industry to pursue entrepreneurship ventures. Since 2020 the DBT, Govt of India has sanctioned 10 seats supported by DBT (selected through GAT-B) out of the total 30 seats in the program.



## **MBA Programme at Jaypee Business School (JIIT)**

The MBA Curriculum at JBS is designed to pave the way for a successful career in the business/corporate world and sow the seeds of entrepreneurship. The MBA curriculum at JBS offers both rigor and flexibility. The core curriculum is cross functional wherein fundamental business courses on Marketing, Business Analytics, Economics, Finance and Accounting, Statistics, Human Resource Management, Business Communications, Information Technology and Operations are offered.

In the second year, the students can choose from a wide range of electives to suit their interest and aptitude. The students opt for one area of major specialization and one area of minor specialization. The curriculum is constantly evolving with inputs from faculty members, industry professionals, alumni, students and academic professionals from reputed organizations.

The MBA program at JBS equips students to think logically and work in diverse teams and enables them to integrate knowledge across functional areas. The program aims

to build socially sensitive managers through its four week mandatory social internship in an NGO.

The eight week corporate internship at the end of the first year enables the students to gain first hand experience of working in the real world.

To ensure that our management graduates are not only adept at using technology for making decisions but are also able to understand how to advance their knowledge across multiple technologies, JBS has introduced Technology in Management Courses in the core areas. Courses on Internet of Things, Artificial Intelligence in Business, Integration of Information Systems in Business are part of the core curriculum. In addition, through courses such as Data Visualisation, Analytical and Technical Skills (Lab) and Data Analytics for Business Decisions, JBS ensures that students learn to design and implement database management systems.



# **Doctoral Programs (Ph.D)**

The Ph.D. programs are available in various specializations such as Bioinformatics, Biotechnology, Civil Engineering, Chemical Engineering, Mechanical Engineering, Computer Science and Engineering, Information Technology, Electronics and Communication Engineering, Management, Humanities & Social Sciences, Mathematics, Physics, Chemistry, Materials Science and Engineering at various campuses. 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. The research work is expected to result in new findings, contributing to the knowledge In the chosen field. The doctoral research program gives an opportunity to students to demonstrate their analytical, innovative and independent thinking, leading to creativity and application of knowledge. 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 awarding of the Ph.D. degree. They are also required to take-up some advanced level course work.

Financial Support is provided to eligible full time Ph.D students in the form of Research Fellowship/Teaching Assistantship.

Program	JIIT-Noida	JUIT- Waknaghat	JUET-Guna
Electronics & Communication Engineering	Speech Processing, Signal Processing, Machine Learning, Image and Video Processing, Filters, Optical and Wireless Communications, Wireless Sensor Networks, CMOS Design, Micro-electronics, Internet of Things, VLSI Design, Embedded Systems, RF and Microwaves.	Internet of Things (IoT), Arial Robotics, UAV,UGV, VLSI Design Technology, Computer Vision & Robo Vision, VLSI & Embedded System Design, 5G Communication, Software Defined Radio, Networked Control Systems, Applications of Internet of Things, Cognitive Radio, Cyber-Physical Systems, Smart Antenna and 5G Antenna Design, Applications AI Based Techniques, Genomic Signal Processing, Fusion of Medical Images.	Digital Signal Processing, Image Processing, Stochastic Computing, VLSI, Resource Constrained Design, Wireless Communication, Digital Commutation, Soft Computing, RF and Microwave, and Bio-Metrics.
Computer Science & Engineering	Artificial Intelligence and Machine Learning, Information Retrieval, Data and Web Mining, Distributed Systems & Cloud computing, Computer Networks, Wireless Networks, Web & Mobile Technologies, Security, Software Engineering (Agile, DevOps etc), Data Analytics, Big Data, Social Network Analytics, Multimedia Technology and Applications, IOT & IOT Security.	Mobile Computing, Cloud Computing, Computer Networks, Wireless Sensor Networks, Forensics, Social Networks, Software Engineering, Image Processing, Computer Vision, Data Mining & Warehousing, Information Retrieval, Performance of Algorithms, Graph Neural Networks, Pattern Recognition and Machine Learning, Natural Language Processing, Internet of Things (IoT), Cyber Physical Systems -Industry 5.0, Neuromorphic system-on-chip, Information Security, Vehicular Networking.	Grid Computing, Cloud Computing, Image Processing, Pattern Recognition, Image Security, Network Communication, Information System Security, Software Engineering, Data Mining & Warehousing, Big Data and Data Analytics. Wireless Sensor Networks, Internet of Things.
Biotechnology & Bioinformatics	Medical Biotechnology, Bioinformatics, Genomics & Proteomics, Plant & Microbial Biotechnology, Environmental Biotechnology, Novel Drug Delivery Systems, Nano- Biotechnology, Infectious Diseases, Life Style Diseases and Food Technology.	Genomics and Proteomics, Microbial Biotechnology, Micropropagation Technologies, Industrial Enzymes, Biofuels and Bioremediation, Structural Bioinformatics, Computational Systems Biology, Computational Drug Discovery, Medicinal Chemistry and Microbial Peptides, Stem Cells, Infectious Diseases, Cancer Biomarkers, Biosensors and Nanobiotechnology.	

Program	JIIT-Noida	JUIT- Waknaghat	JUET-Guna
Physics & Materials Science	Advanced Materials, Nanoscience and Nanomaterials, Quantum Optics & Computing, Atomic & Molecular Physics, Energy Materials and Devices, Photonics and Plasma Physics, Semiconductors, Nuclear and Particle Physics.	Microstrip Antenna & Devices, Magnetic Thin Films, Gas Sensors, TiO2 and ZnO2 Thin Films, Chalcogenide Semiconducting Thin Films, II-VI & IV-VI Quantum Dots	Spectroscopic Studies of Polymers and Finite Crystals, Nanomaterials, Energy Storage Devices, Nonlinear Dynamics and Quantum Optics.
Mathematics	Fractals & Chaos, Mathematical Analysis, Numerical Analysis, Computational Continuum Mechanics, Applications of Differential Equation, Fuzzy Set Theory, Information Theory, Soft Computing, Image Processing, Optimization Techniques, General Relativity and Cosmology.	Lie Symmetries, Group Theoretic Techniques for Differential Equations, Contact Mechanics, Fuzzy Information Theory and Decision Making, Differential Geometry, Algebraic Coding Theory, Soft Computing, Applied Optimization, Numerical Optimization Techniques.	Fluid Mechanics, Information Theory and its Applications, Fuzzy Sets and logic & Fuzzy Information Measures.
Humanities and Social Science	Political Sociology, Anthropology; Psychology, Public Finance, Development & Health Economics; Financial Accounting and Evaluation, Corporate Finance, Banking; Indian literature, Organizational Behaviour, HR Information System, Emotional Intelligence, Social Media & EMarketing.	Online Marketing, Service Marketing, Consumer Behavior; Corporate Finance, Public Finance, Economic Development, International Trade and Globalization; American, British and Canadian Drama/ Theatre, Gender Studies; Good Governance and Human rights; Emotional intelligence and Employee Relations.	Human Resource Management & Behavioral Studies, Economics and Human Behavior at work place, E-Commerce, Marketing Management, Communication at workplace.
Civil Engineering		Ground Improvement and Slope Stability, Municipal Solid Waste Management and Air Quality Monitoring, Fluvial Hydraulics, Construction Materials and Structural Dynamics, Sustainable Highway Construction Materials and Maintenance, Construction Management.	Concrete Technology, Geotechnical Engineering, Hydraulics & Water Resources Engineering, Transportation Engineering, Environmental Engineering. Advanced Building Material, Soil & Rock Mechanics and Structural Engineering.
Chemical Engineering			Recovery of Metals from Industrial Wastes, Foam fractionation & Control of Volatile Organic Compounds.
Mechanical Engineering			Dynamics of Machine Tools, Machine Design and Vibration Analysis, Condition Monitoring and Fault Diagnosis of Machine Tool Structures, Analysis of Machine Tools, CAD/ CAM, Advanced Manufacturing Processes, Computational Fluid dynamics, Heat and Mass Transfer, Refrigeration and Air Conditioning, Solar thermal Applications, Renewable Energy and Solar Water Desalination.
Chemistry			Novel Surfactants, Oleo Chemicals, Polymer Chemistry, Environmental Science, Natural Products
Management	Marketing, Finance, Operations and Supply Chain Management, Economics and International Business, Human Resource Management and Organizational Behavior, Hospital & Healthcare Management and Education Management.		

# **Libraries**

## Learning Resource Centre (JIIT)

(LRC at JIIT Noida is an excellent repository of learning resources. It is fully integrated with the latest barcode technology and international standard open source library management software "KOHA". Users can access bibliographic details of the LRC resources through OPAC anywhere, thus providing 24 hours access. The LRC consists of latest collection of textbooks as well as reference books, national as well as international peer reviewed journals, magazines and electronic resources on subject areas covered by the academic curricula of the Institute and other universal knowledge. LRC has provisions to subscribe full text science and technology online journals and other national and international journals in printed form. It is also an active member of Developing Library Network (DELNET) and provides inter-library loan services to its users. LRC has Anti- Plagiarism Software "Turnitin" and URKUND provided by INFLIBNET for its users. The open access system has been adopted at all service points where users may select material of their choice. LRC has implemented an anti-theft electromagnetic system at its main gate. LRC keeps itself updated by organizing book exhibitions/ conferences/workshops from time to time

JIIT Noida has Two Libraries -One Central Library at Sector-62, One Library at Sector-128, Noida. All students have access to all the two libraries. LRC has approximately:

BookTitles	27,290
Book Volumes:	80,500
Print Journals:	82
• e-Journal:	7,800+
• e-books	13,000+
Other online resources:	3,55,000+
National Digital Library Contents:	5,97,000+





33

#### Learning Resource Centre (JUIT)

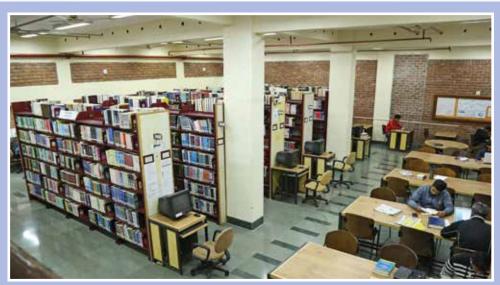
The Learning Resource Centre (LRC) at JUIT Waknaghat is the backbone of academic and research activities that supports teaching, learning and research aspects of the University. The LRC is established as three-storied entity embedded in the academic block of the University and entirely devoted to the scholastic needs of students and faculty. It possesses a wide range of information resources in the areas of Computer Science & Engg., IT, Civil Engg., Biotechnology, Bioinformatics, Mathematics, Physics & Materials Science, Electronics & Communication Engineering along with collections from Humanities and Social Sciences. A good collection of quality and latest books on competitive examinations and general readings also exist. LRC adopts an open shelf system that offers the freedom to students to visit, browse, read and explore any document available on the shelves and in digital mode.

The subscription of various scholarly databases such as ACM, IEEE, Springer, Nature Journal, ASCE, Pro Quest with access to NPTEL and NDL resources is one of the key features of the LRC. Apart from the e-databases, LRC also subscribes to 70 print journals of repute. Subscription to various local, regional and national newspapers in Hindi and English is an important service of the LRC. The LRC activities are fully computerized with the help of Library Management Software, known as 'LIBERTY' and 'KOHA' has also been taking place. The OPAC feature of the software would provide seamless access to bibliographic details of library holdings to the users from anywhere over the Internet / Intranet.

The Library has been an active member of the National Digital Library (NDL) which is a project under the Ministry of Human Resource Development, India. It actively contributes to Shodhganga and Shodhgangotri repositories of UGC. Being an active member of the Developing Library Network (DELNET), users can avail inter-library loan facility of the library. LRC has been developed as a core student centric library with the help of its specialized services. It has an Institutional repository (Digital Library) which is hosting project reports, Thesis, Newsletters, Annual Report & previous year questions papers etc. All library services focus on users to keep them abreast of latest happenings in their respective areas of learning along with the procuring quality information resources, organizing book exhibitions and conducting user awareness programmes on a regular basis

•	Book Titles:	22,094
•	Book Volumes:	42,663
•	Print Periodicals:	70
•	E-Journals:	6,415
•	Other online resources: Conference Proceedings News Letters / Reports etc	379 3,706
•	E-Books and NDL Contents:	401E-books + NDL Access





## Learning Resource Centre (JUET)

LRC at JUET Guna is an excellent repository of learning resources. It is situated in AB-III, which can accommodate about 250 users at a time. It has more than 30 computer nodes with high speed Internet & Intra net connectivity. Systems of LRC are fully integrated with the latest barcode technology and International standard library management software Liberty. Users can access bibliographic details of the LRC through OPAC from any node of the campus, thus providing 24X7 access. The open access system has been adopted at all service points where users may browse and select material of their choice. The LRC consists of latest collection of textbooks, reference books, national and international peer reviewed journals, magazines and electronic resources on subject areas covered by the academic curricula of the University. LRC has made provisions to subscribe full text engineering journals in printed form. It is also member of Developing Library Network (DELMNET) and provides inter-library loan services to its users. LRC has implemented an anti-theft electromagnetic system at its main gate. Subscription of Anti-Plagiarism Software "URKUND" is available under Shodh Shuddhi program of Ministry of HRD, Govt. of India. Subscriptions of 5000+ e-magazines and periodicals are available through Magzter. LRC collections are being updated periodically.

Book Titles:	8,825
Book Volumes:	36,280
Printed Journals:	35
• e-Journals:	19,456
Other online resources:	3,67,000
National Digital Library Contents:	8,17,93,016



## **Centres for Excellence**

## JIIT, Noida

## Prayag - A Centre for Knowledge Informatics for Sustainable Development

This centre contributes towards enhanced understanding of diverse human activities with an emphasis on sustainable development through an informatics inclusive cross-disciplinary approach. Main objectives of this centre are to incubate informatics inclusive cross-disciplinary R&D in newer, relatively unexplored and divergent application domains with a special focus on stainability; to inspire and encourage academia (both faculty and students) for Sustainable Technology Research in the area of Energy Activities, Clean Water and Air, Green Chemistry, Healthy Living etc. and to promote Cross-disciplinary practices and approaches for Sustainable Development.

Centre for Performance Modelling of Computing Systems (CPMCS) Centre for Performance Modelling of Computing Systems (CPMCS) has been initiated to provide a platform to researchers to share their experiences, insights, and challenges regarding modeling, simulation and performance evaluation in all areas of computer science engineering and information technology. Specifically, the academic activities of this centre are focused on modelling and simulation of computer networks (wired & wireless), wireless sensor networks, distributed systems, multimedia systems and techniques, databases & data mining techniques, computer architectures and processors, algorithms, social networks, software & information systems etc. A number of post graduate students and research scholars contribute towards this endeavor resulting in good number of publications. CPMCS is equipped with latest machines and multi core processors for high end computing.

## **Centre for Micro Electro Mechanical Systems (MEMS)**

The Centre for MEMS Design was set-up at JIIT in the year 2009 as a part of Institute's response to launch MEMS activity NPMASS program. The National Program on Micro and smart Systems (NPMASS), under Government of India was wholly supported by Defense Research & Development Organization (DRDO) through Aeronautical Development Agency (ADA) and was endorsed by the five departments of DRDO, DOS, DST, CSIR and DIT. The co-coordinating institute is IISc Bangalore.

The program centers on collaborative research efforts, related to MEMS and smart sensors,



of the Department of Electronics and Communication Engineering and Department of Physics and Materials Science. Under this project JIIT has been provided with three industry standard MEMS software packages namely Coventor Ware (01 license) and MEMS Plus (01 license), Intellisuite 8.7 (01 license) and COMSOL Multi physics (32 licenses), all software's licenses are perpetual in nature. The hardware support for the project has been provided by JIIT, which includes a dedicated Server, Vector Network Analyzer and eleven workstations in MEMS Lab - I. For designing and simulation of interfacing integrated circuits, five licenses of Mentor Graphics IC design tool and Synopsys IC design tools are installed and regularly used by students and faculty. The departments promote the area of sensors and smart systems through independent departmental courses at UG/PG levels to involve students and faculties in developing MEMS related projects and research activities. Elective and Core courses are run by the ECE department for promoting research activities in this emerging area.

The research areas in MEMS in JIIT are Sensor/ MEMS Interface CMOS Analog Chip Design, On-Chip RF Spiral Inductor Development, SAW based Temperature/ Gas Sensor design and Advanced and Smart Materials

## **Centre of Excellence in for Emerging Diseases**

Despite noticeable improvements in combating the global burden of newly emerged, reemerged infectious and life-style diseases, millions of patients still targeted to the unbridged gap in mechanistic understanding. Research at the Centre of Emerging Diseases focuses to delve into underlying molecular events behind pathogenesis of emerging viral and bacterial pathogens (host pathogen interactions, essential metabolic pathways of pathogens), along with life-style diseases such as cancer, cardiovascular diseases, etc. The faculty uses integrative structural biology approach to design novel diagnostics and therapeutics. The research activities at the Centre has generated ~ 10 crore extramural research funding from various agencies of Govt. of India including Department of Biotechnology (DBT), Department of Science & Technology (DST), Indian Council of Medical Research (ICMR) and All India Council for Technical Education(AICTE).

### **Centre of Excellence in Plant and Microbial Biotechnology**

The advances in research around the working of nature using biotechnology presents interesting opportunities to apply these principles to different fields of science. Our utmost priority is to find sustainable solutions to address the concerns on improving crop productivity, depleting natural resources, environmental pollution, safety of food and agricultural products. The increasing demand for naturally derived bioactive components of therapeutic and industrial importance (in the areas of healthcare, environmental remediation, agriculture biotechnology) corroborates the pursuit of natural and sustainable progression. The research activities at the Center for Plant and Microbial Biotechnology comprehensively focus on inter disciplinary fields of Bioresources, Biorefining, Bioremediation of Organic and Inorganic Pollutants, Enzymes for Environment, Food, Industrial Applications, Biofertilizer, Biocontrol Agents for Agriculture Improvement, and Natural Products for Healthcare Applications. The Center has Garnered extra mural funding from Department of Biotechnology (DBT), Department of Science & Technology (DST), Department of Ayurveda, Yoga & Naturopathy, Unani, Siddha and Homoeopathy (AYUSH), Ministry of Environment, Gol and Council of Science and Technology, U.P

## Centre for Technology Solutions for Soil & Water Remediation

Rapid industrialization, increased productivity demands and environmentally inappropriate human activities continuously challenge natural resources including Soil, Air, & Water. Multiple pollutants generated as refuse/effluent present serious environmental threats. Biotechnology offers economical and safe solutions to restore Soil, & Water quality through application of a choice of plants & microbes. At Centre, we aim to address issues of soil & water pollution broadly subdivided into three subdivisions namely: MAR - Microbe Assisted Remediation, PAR - Plant Assisted Remediation, EAR – Enzyme Assisted Remediation. In MAR, Bacteria & Fungi with proven bioremediation capabilities would be employed for clean-up processes in soil / water environments. Under PAR, chosen phytoremediator plants will be applied to decontaminate soil/water of organic and inorganic pollutants. EAR focuses on Metabolites & Enzymes derived from Plants or microbes, developing them as formulations (nano/micro) for bioremediation.

## **Jaypee Incubation and Innovation Centre**

"It's not about ideas. It's about making ideas happen." - Scott Belsky Jaypee Innovation and Incubation Center (JIIC) primary aim is to dispense development of innovation ecosystem and to engross faculty, research scholars, students, alumni and non-teaching staff in IPR, innovation and entrepreneurship related activities at JIIT by employing collaborative multidisciplinary efforts and skills. JIIC goal is manifold wherein we motivate student's innovative engineering and entrepreneurial thinking, set up institutional innovative research goals, generate significant IPR rights, promote participative innovative leadership, encourage national and international research and act as a catalyst for a step change in the JIIT's innovation capacity and compact. JIIC is also committed to foster student's innovation and entrepreneurial skills, develop mentorship ecosystem, offer a dynamic platform for cutting edge and path-defining learning's and support innovations focusing on real-life problems. JIIC is also determined to engage JIIT faculty, students and staff in various "out of the box" innovation and entrepreneurship related activities such as ideation, feasibility, planning, design thinking, problem solving, evaluation and coordination from Pre- incubation to incubation phase.

## **Online Education Cell**

In tune with the changing times of technology-driven education, and making the teachinglearning progression accessible and inclusive, the Online Education Cell strives to set global standards in offering online and blended learning routes available for the student community. The cell also ensures that the quality of online/ blended courses matches the standards set by national and international regulators/ universities and evolves keeping pace with those standards. The guidelines developed by the cell, emphasizes on continuous improvement of the teaching-learning process. A focus on seamlessly merging in-classroom teaching with online/blended modes ensures flexibility, beneficial to the learners in ensuring continuity of education beyond physical classroom hours, and contributing to possibilities of learners being able to merge work-skills with continuing education, with neither being a barrier due to time- space constraints and being location- independent.

## **Technology Solutions for Soil & Water Remediation (TSSR)**

Rapid industrialization, increased productivity demands and environmentally inappropriate human activities continuously challenge natural resources including Soil, Air, & Water. Multiple pollutants generated as refuse/effluent present serious environmental threats. Biotechnology offers economical and safe solutions to restore Soil, & Water quality through application of a choice of plants & microbes. At TSSR, we propose to address issues of soil & water pollution broadly subdivided into three subdivisions namely: MAR - Microbe Assisted Remediation, PAR - Plant Assisted Remediation, EAR – Enzyme Assisted Remediation. In MAR, Bacteria & Fungi with proven bioremediation capabilities would be employed for clean-up processes in soil / water environments. Under PAR, chosen phytoremediator plants will be applied to decontaminate soil/water of organic and inorganic pollutants. EAR focuses on Metabolites & Enzymes derived from Plants or microbes, developing them as formulations (nano/micro) for bioremediation.

#### Sub-divisions in TSSR:

MAR - Microbe Assisted Remediation: Prof. Krishna Sundari, Prof. Indira P. Sarethy

- PAR Plant Assisted Remediation: Prof. Pammi Gauba, Dr. Ekta Bhatt
- EAR Enzyme Assisted Remediation: Prof. Neeraj Wadhwa, Dr. Garima Mathur

#### **Objectives:**

- 1. Microbe-mediated remediation of polluted water and pesticide residues in soil
- 2. Phytoremediation of PPCPs and heavy metals
- 3. Enzyme-mediated remediation of polluted water bodies

### **AI for Education**

Department of CSE&IT hosts a centre of excellence on Artificial Intelligence for Education (CoE-AIE). The aim of CoE-AIE is to advance cutting-edge research and development in the fields of artificial intelligence to develop impactful solutions for empowering education and improving educational equity and quality. Currently, there are 5 ongoing projects, where the faculty experts from the department are working on different aspects of AI empowered education such as facilitating hearing impaired learners, providing personalized learning experience, and 24/7 assistance in learning.

## **Centre for MEMS (Micro Electro Mechanical System) Design**

A National MEMS Design Center (NMDC) at JIIT has been established under the National Program on Micro and Smart Systems (NPMASS) in the year 2009 as a part of the institute's response to launch MEMS activity. The program focuses on collaborative research efforts related to MEMS and smart sensors by the Department of Electronics and Communication Engineering and the Department of Physics and Materials Science, JIIT Noida. The departmental courses at the UG and PG levels to involve students and faculty in developing MEMS-related projects and research activities. In the absence of comprehensive in-house facilities for complete fabrication of MEMS-based sensors and actuators, the approach is to focus on MEMS device design, modeling, and characterization, with outside foundries chosen as an option for fabrication and packaging.

### Centre for Innovation in VLSI and Smart Systems (CIVSS)

The Centre aims to work on the emerging technologies of VLSI, Internet of Things (IOT), AI and Embedded Systems through democratization of innovation, standardization, realization of prototype and products which leads to better job prospect, Incubation and overall development. Established in 2019, the Centre offer complete chip design expertise from RTL to GDSII implementations upto 22nm technology node including pre silicon testing & FPGA/Simulation-based prototyping. The vision of the Centre is to become a worldwide coveted landmark of scientific knowledge, expertise, and cutting-edge technology in VLSI, Smart Systems and other related fields, while also serving as a boon to global growth and society.

## **Centre of Excellence on UAV and Electronic Border Security**

The Center of Excellence on UAV and Electronic Border Security was established for the year 2022 with the goal of providing solutions for border security and improving drone security and privacy. The three broad areas of research are (a) low-flying drone detection (using an acoustic and electromagnetic wave approach), (b) compact smart antenna system design for border security, and (c) addressing security and privacy issues in unmanned aerial vehicles (UAVs). The COE also focuses on improving the student's activities at the UG and PG level in terms of projects and entrepreneurship in the area of radar and drone technology.

## JUIT, Waknaghat

## Centre of Excellence in Healthcare Technologies and Informatics (CEHTI)

Centre for Healthcare Technologies and Informatics (CEHTI) was established by JUIT in 2017. CEHTI aims to improve the scientific and practical research in the field of health informatics on a global level and to use it in building a knowledge society. This centre focuses on recent developments in the health care sectors along with its coordination with rapidly developing informatics techniques. Various activities such as workshops, training programs and invited talks are regular feature of CEHTI. Workshop on Bioinformatics and Biomedical Image and Signal Processing is a biannual event of this Centre. Through this workshop, training is imparted on recent developments in genomics, proteomics, structural bioinformatics, NGS data analysis, systems biology, biomedical image & signal processing, machine learning, artificial intelligence, deep learning modules and their applications in health and medical sciences.

The centre conducted workshop on Bioinformatics and Biomedical Image Analysis (NBBIA) and International Webinar Series (IWS) is a well-accepted continuous activity of CEHTI since its inception and as on date 1500 people registered from all over the world for this series. IWS season-I was organized during July 2020 to January 2021 and IWS season - II was organized during August 2021 to December 2021. Renowned speakers delivered their talks to provide insights to faculty and students on Biomedical, Bioinformatics and Healthcare related recent developments. The center also conducted DST & DBT sponsored workshop on Statistical Techniques on Biological and Medical Sciences on June 17-23, 2022

### **Centre for Sustainable Technologies for Rural Development**

The vision of CESTRD, established at Jaypee University of Information Technology (JUIT) is to focus on the development of rural personnel and to benefit the people of all age groups irrespective of gender, race and financial category in Himachal Pradesh(H.P).The aim of the centre is to impart awareness about sustainable technologies for convenient livelihood in H.P. The sustainable technologies include renewable energy biofuels, pine briquettes, biofertilizers, rain harvesting, and water recycling. CESTRD is also determined to train the rural people about use of upcoming technologies for skill development and to upgrade their acquaintance about self employment and entrepreneurship. The centre targets the rural youth, women groups and rural development committees through continuous interaction programs, training and workshop sessions. The highlights of the Centre are:-

 The Centre has established biogas reactors in JUIT campus, various Government Schools, Universities (Solan, Sirmaur, Bilaspur Districts) of Himachal Pradesh and elsewhere (Air Force Station, Chandigarh – in 2020). These biogas reactors running on food waste and biogas fulfills the partial need for cooking the meals. The centre has also established biogas reactor for worker's families at JUIT. The Govt. of Himachal Pradesh and Jharkhand have empanelled JUIT as technical agency in biogas.

- The Centre organized international conference on 23rd to 24th November, 2021 in the field of Renewable Energy in collaboration with TIEDC, JUIT. Experts from USA, Brazil, Malaysia, IITs, Thailand delivered their invited lectures.
- The center transferred the Biogas Technology to Chitkara University Baddi, Solan, on 18th Feb, 2022.
- The CESTRD has developed vermicompost for the use of horticulture activities.
- The CESTRD imparted training on organic farming to students and faculty of various educational institutes.
- The centre organizes outreach programs for students and faculty of various schools, colleges and universities. On 09 October, 2021, the students from a Govt. College Punjab visited the centre.

## Centre of Excellence in Structural Engineering and Disaster Management (CESEDM) JUIT

The Centre of Excellence for Structural Engineering and Disaster Management was setup in the year 2018 in Department of Civil Engineering with the vision of creating and disseminating intellectual resources aimed at improving the overall quality of built environment, primarily focused at disaster risk assessment, reduction and management ensuring life safety within economic, physical, social, cultural, and environmental constraints. It has seven faculty members and two technical assistants. The major activities conducted under the aegis of the centre are: research, teaching, continuing education, consultancies, conferences and workshops. These activities are for the fundamental understanding and reasoning in the field of structural engineering, disaster resilience and building dynamics.

The primary areas of focus in the centre are: structural behavior subjected to various types of loading, design of specialty structures, research and development of advanced materials for structural and non structural applications, single and multi hazard assessment studies, structural health monitoring and continuous assessment of risk and vulnerability, design and development of green construction technologies, disaster preparedness and mitigation.

The centre encourages higher education in the field of structural engineering and disaster management. The centre has conducted numerous workshops/ symposia on basic understanding on concrete mix design methodology and high-performance concrete, application of civil engineering software for research scholars, academicians, industry personnel's and government officials.

## **Centre of Excellence**

"INTELLIGENT EVALUATION AND REHABILITATION OF STRUCTURES" Department of Civil Engineering in collaboration with Department of Computer Science and Information Technology, Jaypee University of Information technology, Waknaghat set up a Centre of Excellence (CoE) named "Intelligent Evaluation and Rehabilitation of Structures" on 1st April 2022 under the Directorate of Innovation, Research and Development. Vision of this CoE is to become a leading model for endorsing resiliency and sustainability of infrastructure systems via integration of embedded sensing, intelligent control and advanced materials technologies and to promote disaster preparedness and rehabilitation capacity.

To achieve this vision as primary aim faculty members are working to develop a suitable technology to detect and mitigate the risk of landslide in hilly terrain, via utilization of advanced earth sensing and retaining techniques and AI based warning systems.

CoE is dedicated to the intelligent design and optimization of civil infrastructures with the help of artificial intelligence, machine learning, internet of things, smart materials and sustainable design, besides fostering preparedness about built environment vulnerability under natural calamities and developing resilient structural techniques to minimize the losses. Currently the board of the CoE consists of 7 faculty members from JUIT, Waknaghat, 1 faculty member from JIIT, Noida and 2 external industry experts.

## **Mitsubishi Factory Automation Centre**

In its efforts to produce highly qualified, industry ready graduated in the current Industry 4.0 arena, Jaypee University of Information Technology has entered in to a Memorandum of Understanding with Mitsubishi Electric India Private Limited, a Company incorporated under companies act, 1956, Gurgaon, Haryana in May 2022. The main objective of this MoU is to spread awareness about automation amongst young Indian engineers and contribute to the Indian market through its products and technologies.

Under this MoU, MEI has given MEI will give Mitsubishi FA Training Equipment along with necessary programming software for simulation/programming to JUIT for demonstration, learning and training purposes. JUIT will come up with a comprehensive programme to train its students in Industrial Automation by workshops and summer trainings in near future to improve the prospects of students in their placements.

This lab offers a complete coverage on these topics to make students experts in automation domain. This lab offers: A course of Programmable Logic Controller to develop programmes to meet the needs of a specific application and a course on HMI, Inverter, Servo Motor and XY Plotter Significance and there applications.

## JUET, Guna

## **Centre for Cement Research and Development (CRDC)**

Cement Research Development Centre at JUET, Guna was established with the aim of carrying out research in the areas of utilization of waste materials as cement additives and as raw materials. CRDC provides consultancy to cement industries and conducts short term training programs for the working personnel.

## Jaypee Wind Engineering Application Centre (JP-WINCENTRE)

A state-of-the-art Boundary Layer Wind Tunnel (BLWT) facility is in an advanced stage of establishment at the JUET Campus, for providing innovative solutions to problems of industry and for undertaking quality research in wind engineering.

The Centre has been set-up with the vision of becoming a Centre of Excellence of international repute in the field of Wind Engineering.

## **Operator Trainee Simulator**

660 MW Super Critical Power Plant Simulator facility to train students and also to extend short term training to power sector industry personnel has been established. It is a generic simulator and a trainee gains in-depth knowledge of different components of super critical power plant operations.

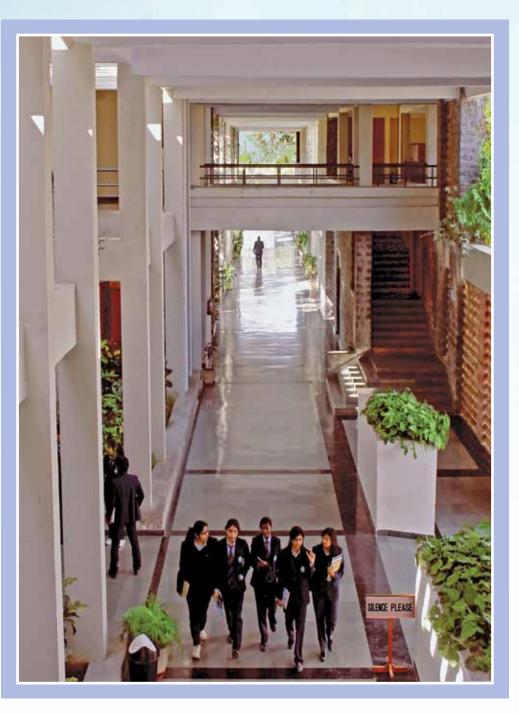
## **Renewable Energy Centre**

Renewable energy, a sustainable source of energy, can replenish itself. This energy will play a pivotal role in damping climate change and fulfilling all the needs with low to nil greenhouse gas emissions. It is the energy obtained from Sun, Wind, Rain, etc. Out of all the sources, the potential of solar energy is very high. Hence, JUET has established a centre of excellence for Renewable Energy to meet the unmeet gap between RE Industries and academia by doing the applied research in this field of renewable energies and providing technical support to companies and energy institutions in different areas: solar thermal applications, wind energy, photovoltaic solar energy and grid integration of energy., hydrogen energy, solar architectures and districts.

## **AR/VR AI/ML Robotics Development and Innovation Centre**

AR/VR/MR section of the centre offers hardware and software support for the development and innovation in AR/VR/MR. AR/VR/MR section of the centre provides opportunity to students to pursue the information and content visually using the digital visual elements & sensory stimuli delivered via technology. Here students can pursue project and innovation ideas.

AI/ML and Robotics section offers computing and software facility for Artificial Intelligence and Machine Learning related aspects. Here students can pursue their specialization or project related activities in the area. This lab is also having a Robo Design Centre where student can create miniature models for various industrial robots.



## **Entrepreneurship Development Centre**

## JIIT, Noida

## Jaypee Entrepreneurship Development Centre

The centre has been set up at JIIT to provide a platform to foster innovation activities and motivate, guide and support JIIT students to become technology entrepreneurs. The centre creates and provides a network of experts to mentor students to elaborate, validate and refine innovative ideas for developing socially useful and commercially viable products and services.

## JUIT, Waknaghat

## Technology Incubation & Entrepreneurship Development Cell (TIEDC), (JUIT)

The Jaypee University of Information Technology has a Technology Incubation and Entrepreneurship Development Cell (TIEDC). The TIED cell focus on harnessing the talents and research strengths available in the area of different engineering disciples and apply the same to socially relevant projects in the form of start-up ventures. The main objectives of the incubation centre is to help budding Entrepreneurs to acquire necessary managerial skills to run their business venture through the process on mentoring support and by the same time to conduct Entrepreneurship Program and Workshops in order to develop Entrepreneurship, Innovation skills among the youths. TIEDC is supported by the Department of Industries, Himachal Pradesh under Chief Minister's Startup /Innovation Projects/ New Industries Scheme.

## JUET, Guna

## Entrepreneurship Development Cell (EDC) , (JUET)

The Jaypee University of Engineering and Technology has Entrepreneurship Development Cell (EDC). The objective of the EDC is to motivate students to start their own and promoting specialized knowledge in the field of entrepreneurship development. EDC is led by students and mentored by faculty members. The EDC cell facilitates the students to explore entrepreneurship options, building up networks, participate in various summits and competitions. The EDC cell is actively participating in various activities related to entrepreneurship to name a few participations in National Entrepreneurship Challenge, IIT Mumbai (reached semifinal), Business Model Competition – Eureka IIT Mumbai (got appreciation), poster making competition.

## **Foreign Collaborations/MOUs**

The Jaypee Universities (JIIT, JUIT & JUET) have collaborations/ understandings with foreign universities, aimed at academic development and exchange, in mutual areas of interest.

These are listed below

- 1. University of Florida, International Center, Gainesville, Florida, USA. The selected students have options to do their 8th semester at a nominal fee at University of Florida & Nebraska, USA. Most of such students have also got admissions in respective MS program and placement in US.
- 2. College of Information Science & Technology, The Peter Kiewit Institute of Information Science, Engineering & Technology, University of Nebraska, Omaha.
- 3. South Dakota School of Mines & Technology, USA
- 4. Youth Development Fund, Bhutan
- 5. University of Malta



## **Vision and Mission and Program Education Objectives**

## JIIT

#### VISION

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

#### MISSION

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

## CSE & IT

#### VISION

To be a centre of excellence for providing quality education and carrying out cutting edge research to develop future leaders in all aspects of computing, IT and entrepreneurship.

#### MISSION

- **MISSION 1:** To offer academic programme with state-of-art curriculum having flexibility for accommodating the latest developments in the areas of Computer Science and IT
- **MISSION 2:** To conduct research and development activities in contemporary and emerging areas of Computer Science & Engineering and IT.
- **MISSION 3:** To inculcate IT & entrepreneurial skills to produce professionals capable of providing socially relevant and sustainable solutions

#### **PROGRAM EDUCATION OBJECTIVES (PEO)**

#### **B.TECH IN CSE**

- PEO 1: To provide core theoretical and practical knowledge in the domain of Computer Science & Engineering for leading successful career in industries, pursuing higher studies or entrepreneurial endeavors.
- PEO 2: To develop the ability to critically think, analyze and make decisions for offering techno-commercially feasible and socially acceptable solutions to real life problems in the areas of computing.

PEO 3: To imbibe lifelong learning, professional and ethical attitude for embracing global challenges and make positive impact on environment and society.

#### **B.TECH IN IT**

- PEO 1: To impart core theoretical and practical knowledge of Computer Science & Engineering and emerging Information Technologies for leading successful career in industries, pursuing higher studies or entrepreneurial endeavours.
- PEO 2: To develop the ability to critically think, analyze, design and develop IT based solutions.
- PEO 3: To imbibe the life-long learning and understanding of ethical values, their duties toward environmental issues and sensitize them toward their social responsibility as IT professional.

#### **M.TECH IN CSE**

- PEO 1: To prepare professionals who will have successful career in industries, academia, research and entrepreneurial endeavours.
- PEO 2: To prepare graduates who will demonstrate analytical, research, design and implementation skills offering techno-commercially feasible and socially acceptable solutions to real life problems.
- PEO 3: To prepare graduates who will thrive to pursue life-long learning and contribute to society as an ethical and responsible citizen.

### ECE

#### VISION

To be a centre of excellence in education, training and research in Electronics and Communication Engineering to cultivate technically competent professionals for Industry, Academia and Society.

#### MISSION

- MISSION 1: To impart education through contemporary, futuristic and flexible curricula with innovative teaching learning methods and hands on training with well equipped Labs.
- **MISSION 2:** To carry out cutting edge research in different areas of Electronics and Communication Engineering.

MISSION 3: To inculcate technical and entrepreneurial skills in professionals to provide socially relevant and sustainable solutions.

#### PEO

#### **B.TECH IN ECE**

- PEO 1: To provide strong foundation in Electronics and Communication Engineering to pursue professional career, entrepreneurship and higher studies. PEO 2: To evolve capability to analyze, design and develop feasible solutions to real world problems.
- PEO 2: To inculcate professional ethics, managerial and communication skills to Develop ingenious solutions for the benefit of society and environment.

#### M.TECH. IN ECE

- PEO 1: To provide strong foundation in Electronics and Communication Engineering to pursue professional career, entrepreneurship and higher studies.
- PEO 2: To evolve capability to analyze, design and develop feasible solutions to real world problems.
- PEO 3: To inculcate professional ethics, managerial and communication skills to develop ingenious solutions for benefit of society and environment.

## BIOTECHNOLOGY

#### VISION

To be a centre of excellence in Biotechnology for providing quality education and carrying out cutting edge research to produce professionals, innovators, researchers and entrepreneurs.

#### MISSION

- **MISSION 1:** To offer contemporary, futuristic and flexible curricula of Biotechnology for teaching and training.
- **MISSION 2:** To carry out globally acceptable cutting edge research through sponsored projects and to provide state of art laboratories for experimental work.
- **MISSION 3:** To develop bio safe, socially ethically and environmentally acceptable solutions to address health, environmental, industrial, entrepreneurial and societal concerns

#### PEO

#### **B.TECH IN BT**

PEO 1: To provide fundamental and practical knowledge in the field of Biotechnology for pursuing research career in industry and academia.

- PEO 2: To impart analytical and research skills and nurture entrepreneurial endeavours.
- PEO 3: To develop biotechnologists with professional ethics to address global and societal issues for sustainable development

#### **M.TECH IN BT**

- PEO 1: To impart advanced theoretical and practical knowledge in Biotechnology and allied fields.
- PEO 2: To provide domain knowledge and expertise for successful career in academics, research and industry.
- PEO 3: To develop ethically and socially responsible professionals with leadership and entrepreneurship skills

#### M.SC IN MICROBIOLOGY

- PEO 1: To impart advanced theoretical and practical knowledge in Microbiology and allied fields of Biotechnology.
- PEO 2: To enhance knowledge and expertise for a successful career in academics, research and industry.
- PEO 3: To develop professionals with social, environmental and ethical awareness.

#### M.Sc. IN ENVIRONMENTAL BIOTECHNOLOGY

- PEO 1: To impart advanced theoretical and practical knowledge in Environmental Biotechnology and allied fields.
- PEO 2: To enhance knowledge and expertise for a successful career in academics, research and industry.
- PEO 3: To develop professionals with social, environmental and ethical awareness.

## **PMSE**

#### VISION

To be a centre of excellence in teaching and research in Physics and Materials Science and Engineering

#### MISSION

- **MISSION 1:** To offer academic programs and courses in the areas of Physics and Materials Science for nurturing manpower with analytical and independent thinking and scientific temperament.
- **MISSION 2:** To conduct fundamental and applied research in emerging areas of Physics and Materials Science.

PEO 2: To provide training and expertise to achieve career goals in academics, research and related Industry.

mathematics

and Materials Science.

related industry.

skills.

**M.SC IN MATHEMATICS** 

PEO

PEO

PEO

VISION

MISSION

PEO

PEO

M.SC IN PHYSICS

MATHEMATICS

### B.SC. IN COMPUTER SCIENCE/INFORMATION TECHNOLOGY & APPLICATIONS/ COMPUTING AND PROGRAMMING

MISSION 3: To foster interaction and collaboration with national and international bodies

1: To impart advanced theoretical and practical knowledge in the areas of Physics

To be a centre of excellence in teaching and research in basic and applied areas of Mathematics.

MISSION 1: To offer academic programs and courses in contemporary and emerging areas

MISSION 2: To carryout quality research in emerging areas of Pure and Applied Mathematics.

MISSION 3: To foster interaction with national and international institutions for enrichment,

1: To impart advanced theoretical and computational knowledge in the areas of

application and dissemination of knowledge in Mathematics.

of Mathematics and its applications to develop analytical and problem solving

2: To provide training and expertise to achieve career goals in academics, research and

and institutions for enrichment, application and transfer of knowledge in Physics

- PEO 1: To provide theoretical and practical knowledge in the domains of Computer Science, Information Technology and Scientific Computing for leading successful career in industries, entrepreneurial endeavours or pursuing higher studies.
- PEO 2: To develop the ability to critically think, analyse and make decisions for offering commercially feasible and socially acceptable solutions to real life problems in the areas of Computer Science, Information Technology and Scientific Computing.

## **HUMANITIES AND SOCIAL SCIENCES**

#### VISION

To be a centre of excellence in preparing professionals by imbibing human values and to carryout contemporary and futuristic research in humanities and social sciences.

#### MISSION

- MISSION 1: To provide socially relevant and high quality professional education in a Wide range of inter-disciplinary areas of humanities and social sciences.
- MISSION 2: To conduct quality research in different areas of humanities and social sciences.
- MISSION 3: To imbibe pluralistic values, democratic and equalitarian doctrines of the society at large.

## JUIT

#### VISION

To become a centre of excellence in the field of IT and related emerging areas in education, training and research comparable to the best in the world for producing professionals who shall be leaders in innovation, entrepreneur- ship, creativity and management.

#### MISSION

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

## CSE & IT

#### VISION

• To become a Center of Excellence in the Computer Science & Engineering and Information Technology (CSE&IT) discipline with state of art research and teaching environment.

#### MISSION

- MISSION 1: To provide a teaching and learning leading to careers in Computer Science & Engineering and Information Technology.
- MISSION 2: To create an environment towards cutting-edge research activities.
- MISSION 3 : To harness human capital for the sustainable technologies

#### PEO

#### **B.TECH IN CSE**

PEO 1: To enhance professional skills for developing analytical & computational models and technical tools.

- PEO 2: To promote self-learning abilities and team management skills.
- PEO 3: To sensitize students towards issues of social relevance, openness to other international cultures and to introduce them to professional ethics & practice.

#### **B.TECH IN IT**

- PEO 1: To provide a solid technical foundation required for comprehending, analyzing and designing novel products and technologies.
- PEO 2: To inculcate the ability to gain multidisciplinary knowledge and to innovate & contribute through the leadership and entrepreneurship skills
- PEO 3: To promote awareness towards issues of social relevance and introduce them to professional ethics and practice.

#### **M.TECH IN CSE (INFORMATION SECURITY)**

- PEO 1: To create professionals who will be handling the real-life problems and challenges in connection to cyber security.
- PEO 2: To communicate knowledge pertinent to the current state arts in the field of Information Security.
- PEO 3: To apply modern programming techniques, advanced languages, lab equipments, and management tools to resolve the various issues related to Industry standards.

#### M.TECH IN CSE (DATA SCIENCE)

- PEO 1: To utilize mathematical models and statistical data analysis with necessary engineering to solve real-world problems.
- PEO 2: To design storage structures and other appropriate algorithms using data visualization, and machine learning techniques.
- PEO 3: To apply artificial statistics and computational analysis for data to predict and represent knowledge.

#### BT & BI

#### VISION

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

#### MISSION

- MISSION 1: The outcome based teaching/learning practices to harness human capital for sustainable competitive edge and social relevance.
- MISSION 2: To develop a research-based education model in Biotechnology and Bioinformatics.



#### PEO

#### **B.TECH IN BIOTECHNOLOGY**

- PEO 1: To provide basic and advance knowledge in biotechnology and related disciplines for achieving advancements in academia and industry
- PEO 2: To inculcate analytical, research skills and entrepreneurial endeavours to develop innovative products/processes for the societal benefits
- PEO 3: To develop team spirit and ethical behavior for working successfully in industry, academia, and government organizations.

#### **B.TECH IN BIOINFORMATICS**

- PEO 1: Enrich knowledge in Bioinformatics domain to integrate techniques across disciplinary boundaries.
- PEO 2: Enable to identify, analyze and solve real world problems with skills and Novelty in computational biology.
- PEO 3: Inculcate spirit of team work, constructive thinking, ethical behaviour And professionalism.

#### **M.TECH IN BIOTECHNOLOGY**

- PEO 1: To impart basic and advance knowledge in various domains of Biotechnology.
- PEO 2: To impart the laboratory skills to cater the needs of industries and high End research.
- PEO 3: To inculcate team work with ethics to solve scientific problems using multidisciplinary approaches.

#### **M.SC IN BIOTECHNOLOGY**

- PEO 1: To impart fundamental and applied knowledge across domains of Biotechnology.
- PEO 2: To inculcate skills for problem identification and sustainable solutions involving biotechnological interventions.
- PEO 3: To educate students in biotechnology for entrepreneurship and industrial applications.

#### **M.SC IN MICROBIOLOGY**

- PEO 1: To impart advanced theoretical and practical knowledge across domains of Microbiology
- PEO 2: To enhance knowledge and skills for a successful career in industry and academics
- PEO 3. To develop trained professionals with ethics and entrepreneurship skills for providing sustainable solutions

#### **CIVIL ENGINEERING**

#### VISION

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

#### **MISSION**

- **MISSION 1:** To provide a vibrant educational environment in the competitive field of Civil Engineering keeping in view the emerging infrastructural needs of the country.
- **MISSION 2:** To keep pace with the advances in Civil Engineering techniques and technologies to provide training and skills for creative, innovative and ethical attitude.
- **MISSION 3:** To provide state-of-the-art skills and knowledge to the students to become leaders in the world of Civil Engineering.

#### PEO

#### **B.TECH IN CE**

- PEO 1: To utilize appropriate theoretical, modelling concepts and communication skills in dealing with real life engineering problems
- PEO 2: To advocate the principle of self-learning and utilization of integrated knowledge through industrial and research training for benefitting the society effectively.
- PEO 3: To conceptualize, develop and complete large scale projects within the time frame along with adaptability to other international cultures within professional ethos and ethics.

#### **B.TECH IN CEC**

- PEO 1: To solve the real-life engineering problems demanding technical temperament and providing efficient and sustainable solution through modern computation techniques in civil engineering.
- PEO 2: To encourage students towards analytical approach to fulfil the needs of the industry & academia at national and international level.
- PEO 3: To inculcate research aptitude in graduating students, and equip them with latest technological advancements in various domains of civil engineering with professional ethics.

#### M.TECH IN CE (STRUCTURAL ENGINEERING)

- PEO 1: To utilize appropriate theoretical, practical and modeling concepts in dealing with real-life structural engineering problems, finding their effective solutions.
- PEO 2: To enable the students to apply latest design codes to solve complex problems and to motivate them in interdisciplinary research related to Structural Engineering.
- PEO 3: To familiarize the graduate students to high value research related to Structural Engineering and to motivate them in interdisciplinary involvement.

#### M.TECH IN CE (ENVIRONMENTAL ENGINEERING)

- PEO 1: To enable the students to undertake safe, economical and updated design principles for solving complex environment related problems.
- PEO 2: To acquire the analytical ability to analyze, formulate, and solve problems in the field of Environmental Engineering.
- PEO 3: To provide theoretical and practical knowledge of Environment Engineering, managerial and entrepreneurial skills to enable students to contribute to the wellbeing of society with a global outlook.

#### **M.TECH IN CM (CONSTRUCTION MANAGEMENT)**

- PEO 1: Graduates of the programme will become effectively as construction engineers and managers in government, industry, or other organizations; designing, improving, and implementing efficient engineering practices.
- PEO 2: To provide solutions to construction engineering and management problems that account for economical, societal, ethical by applying acquired engineering knowledge.
- PEO 3: To impart training to the students to gain capabilities to work effectively with multidomain professional teams in collaboration and exhibit strong Leadership quality, communication and interpersonal skills in the profession

### ECE

#### VISION

To be a creative driving force, within the university and worldwide, of the highest scholarly and entrepreneurial quality.

#### **MISSION**

- **MISSION 1:** To provide globally comparable teaching and learning environment through theoretical and practical knowledge.
- **MISSION 2:** To promote through establishment of research centres of excellence in niche technological areas to nurture the spirit of innovation and creativity.
- **MISSION 3:** To produce professionals capable to work in a team or individual to tackle the rapidly changing requirement of the society.

#### PEO

#### **B.TECH IN ECE**

- PEO 1: To identify, formulate, and solve complex engineering problems by applying principles of engineering, science and mathematics.
- PEO 2: To recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental and societal contexts.
- PEO 3: To make students able to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks and meet objectives.

#### **B.TECH IN ECM**

PEO 1: To be reputable and recognized as a respected professional and efficient communicator in industries linked to computer and electronic technology.

- PEO 2: To exercise their career in a combined, team-oriented manner that embraces the multidisciplinary and multicultural atmosphere of today's corporate world.
- PEO 3: To be capable enough to function as a liable member of the world with enthusiasm to mentor fellow employees and an understanding of the moral, societal and financial impact of their effort in a global perspective.

#### M.TECH IN ECE

- PEO 1: To expand student's understanding and investigative skills in electronics and computer engineering so that they may utilise the best knowledge and skills to the test and design advanced systems.
- PEO 2: To provide the motivation that allows graduates to continue research in the fields of electronics and/or computer engineering
- PEO 3: To prepare students to accomplish something novel during research program in electronics and computer engineering or a related field.

#### **M.TECH IN ECE (INTERNET OF THINGS)**

- PEO 1: To explain in a crisp mode how the common Internet as well as Internet of Things work.
- PEO 2: To recognize restriction and prospect of wireless and mobile networks for Internet of Things.
- PEO 3: To be able to use basic measuring tools to resolve the real-time performance of packet based networks.

### **HUMANITIES AND SOCIAL SCIENCES**

#### VISION

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

#### MISSION

- **MISSION 1:** To facilitate students and professionals to become Innovative, Competitive and Enterprising in their chosen fields.
- MISSION 2: 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.
- **MISSION 3:** To bridge the gap between academia and industry by incorporating contemporary concepts and practices in our courses.

## MATHEMATICS

#### VISION

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

#### MISSION

- **MISSION 1:** To provide an environment to learn and be competent users of advanced Mathematical tools.
- **MISSION 2:** To provide solid foundation in mathematics for building up their reasoning and analytical skills.
- **MISSION 3:** To produce ethical, motivated and skilled Mathematicians to pursue higher studies.

## PMS

#### VISION

Student centered learning and student-faculty research by using a mixture of traditional, current and integrative pedagogical techniques dictated by state of the art education & research in order to create a nationally and internationally recognized unique model for physics and materials science education in both public and professional spheres.

#### MISSION

- **MISSION 1:** To promote outcome based education to prepare students for variegated challenges in industry and academia.
- **MISSION 2:** To provide a panorama of courses imparting teaching, research and mentoring opportunities for graduate students.
- **MISSION 3:** The department is dedicated to provide teaching and encourage collaborative learning in Physics & Materials Science in a performance based active academic environment.

## JUET

#### VISION

Playing a pivotal role to enable the country and state of Madhya Pradesh, in particular, in developing high caliber trained manpower in the frontier areas of Technologies

#### MISSION

To make the university a 'Center of Excellence' in the field of Engineering and Technology with highly developed infrastructure, excellent faculty with an international outlook and active interaction with the industry.

## **CIVIL ENGINEERING**

#### VISION

To disseminate state-of-art knowledge by empowering graduates to design, develop and effectively lead in the area of Civil Engineering through an advanced understanding of globalization and sustainability to serve the society.

#### MISSION

- MISSION 1: To impart quality education that brings out Civil Engineers with high technical competencies and promotes high-end research to meet challenges in Civil Engineering.
- MISSION 2: To develop students with sound knowledge of contemporary philosophies of design and innovation, including IT based solutions and entrepreneurship skills.
- MISSION 3: To empower graduates with multidisciplinary approach and sound technical knowledge to fulfil societal needs.

#### **M.TECH IN STRUCTURAL ENGINEERING**

- PEO 1: To enunciate, analyze, design, and solve real-world problems in Structural Engineering; and identify and develop the suitable modern engineering tools for the same.
- PEO 2: To equip the students with sound technical, managerial and professional skills i n core and allied areas for on-the-spot employability in the industry.
- PEO 3: To develop multidisciplinary approach and harmonize engineering research concepts to social and humanitarian cause through the development of strong ethical values and practices.

#### **M.TECH IN CONSTRUCTION MANAGEMENT**

- PEO 1: Identify and apply sustainable, alternative and cost effective construction materials and practices.
- PEO 2: Apply systems, methods, procedures, modern tools and techniques in construction projects.

Admission Brochure 2023

PEO 3: Work in team environment and apply tools to optimize resources for achieving project objectives.

#### M.TECH IN ENVIRONMENTAL ENGINEERING

- PEO 1: Graduates of the programme will become effectively as Environmental Engineers in government, industry, or other organizations; designing, improving, and implementing efficient Environmental Engineering practices that is sustainable.
- PEO 2: Graduates of the programme will provide solutions to environmental engineering problems that account for economical, societal, ethical, as well as with standards both as individuals and in team environments, by applying acquired engineering knowledge.
- PEO 3: The programme will continue their lifelong learning to remain effective professionals to maintain and enhance technical and professional growth.

## CSE

#### VISION

Transforming students to become the New-age, Innovating, Competitive and Enterprising leaders in their chosen professions of service and technology.



#### MISSION

- **MISSION 1:** To serve as a 'Centre of learning' dedicated to disseminate knowledge pertaining to Technical skills in the field of Computer Science and Information Technology among students.
- **MISSION 2:** To conduct innovation, research and development activities in contemporary and emerging areas of Computer Science & Engineering and IT.
- **MISSION 3:** To inculcate Information Technology & entrepreneurial skills to produce professionals capable of providing socially relevant and sustainable solutions.

## PEO

#### **B.TECH IN CSE**

- PEO 1: To provide core theoretical knowledge and practical exposure in the area of Computer Science & Engineering to help students excel in their professional career, pursuit of higher studies, or their entrepreneurial endeavours.
- PEO 2: To enable the students to use existing knowledge and create the new Knowledge using multiple disciplines in solving real-life problems.
- PEO 3: To develop the professional attitude and ethical competencies, so that the students would be able to face the work-life and personal challenges with utmost grace, and make positive impact on the environment and society.

#### **M.TECH IN CSE**

- PEO 1: Practice with an expertise in academics, entrepreneurship, design and development in computing technology, or research in a specialized area of computer science and Engineering to pursue higher studies.
- PEO 2: Exhibit analytical, decision making and problem solving skills by applying research principles for handling real life problems with realistic constraints.
- PEO 3: Ability to communicate the findings or express innovative ideas in an effective manner with an awareness of professional, social and ethical responsibilities

## ECE

#### VISION

To develop technically skilled man power to take up challenges of industries in field of communication, information technology, electronic system design and undertake research on front areas to address societal needs which support the economic growth of the country.

#### MISSION

- **MISSION 1:** Develop teaching methodologies to inculcate innovation and skills among the students.
- **MISSION 2:** Encourage faculty to take part in research and collaboration with other University and Industry professionals, and create knowledge for the future technologies.

#### PEO

#### **B.TECH IN ECE**

- PEO 1: Provide graduates with a strong foundation in mathematics, science and engineering fundamentals to enable them to devise and deliver efficient solutions to challenging problems in Electronics, Communications and allied disciplines.
- PEO 2: Provide sound theoretical and practical knowledge of E&C Engineering, managerial and entrepreneurial skills to enable students to contribute to the well being of society with a global outlook.
- PEO 3: Inculcate qualities of team work as well as social, interpersonal and leadership skills and an ability to adapt to evolving professional environments in the domains of engineering and technology.

#### **M.TECH IN ECE**

- PEO 1: To provide profound knowledge of modern design tools to solve real-life problems in the field of Electronics and Communication Engineering.
- PEO 2: To inculcate research skills with ethical attributes for academia and industry.
- PEO 3: To develop entrepreneurial skills as per industry requirements for providing sustainable solutions to the society.

### **MECHANICAL ENGINEERING**

#### VISION

To cultivate, nurture and empower the young minds with the knowledge, skill set, values and attitude to solve problems at the grassroots level of the society, thus to be recognized internationally as one of the finest centers of excellence in various aspects of Mechanical Engineering.

#### MISSION

- **MISSION 1:** Prepare students for careers in industry, academia and government organization in mechanical and allied engineering.
- **MISSION 2:** Perform mechanical engineering based research and other scholarly activities.

**MISSION 3:** Interact with industry and government establishments and provide them technical knowledge and support.

PEO

#### B.TECH IN ME

- PEO 1: Create awareness about the multitude of applications of Mechanical Engineering in improving the quality of life.
- PEO 2: Develop fundamental understanding and skill-set to use basic concepts derived through the laws of nature.
- PEO 3: Provide conventional as well as IT enabled environment to foster learning, research, innovation and entrepreneurship.

#### M.TECH IN ME (MANUFACTURING TECHNOLOGY)

- PEO 1: Create a congenial milieu for the scholars that impart ability to work with multidisciplinary groups in professional, industry and research organizations.
- PEO 2: Provide guidance to the students for the selection of their research problems and professional career out look.
- PEO 3: Ability to promote the design of manufacturable products, apply the new competent manufacturing processes and improve the performance of existing processes.

## **CHEMICAL ENGINEERING**

#### VISION

To produce graduate engineers capable of contributing to the requirements of the industry and conducting research & consultancy to meet global standards as well as the aspirations of the scientific community.

#### MISSION

- **MISSION 1:** Impart quality education in Chemical Engineering and allied areas.
- **MISSION 2:** Foster research and development activities among faculty and students in order to serve the needs of society.

#### PEO

#### **B.TECH IN CHEMICAL ENGINEERING**

PEO 1: To produce graduate Chemical Engineers capable of meeting current and future challenges of chemical industries by providing them excellent infrastructure and facilities.

- PEO 2: To equip graduates with the sound knowledge of Chemical Engineering fundamentals to formulate, analyze chemical engineering and related problems so that these graduates are capable of handling multifaceted problems.
- PEO 3: To inculcate ethical practices in the graduates and basic concepts of intellectual skills, courage, integrity, awareness and sensitivity to the needs and aspirations of the society.

#### **M.TECH IN CHEMICAL ENGINEERING**

- PEO 1: To enable students conduct applied scientific research in various fields of Chemical Engineering.
- PEO 2: Exhibit necessary skills, knowledge and deep understanding to deal industrial problems with a scientific outlook.
- PEO 3: Ability to communicate clearly and concisely the research findings with the scientific community by adhering to the social and professional ethics.

## **CHEMISTRY**

#### VISION

To nurture the young minds with strong understanding of Chemistry to fulfill the dreams of Society and Nation.

#### MISSION

To inculcate fundamental skills by excellent teaching with a view to provide quality work force to Industry

## **HUMANITIES AND SOCIAL SCIENCES**

#### VISION

To be a center of excellence for overall development of students by grooming, nurturing and inculcating universal human values and to carry out quality research.

#### MISSION

- **MISSION 1:** To provide socially relevant and high-quality professional education in a wide range of inter-disciplinary areas of Humanities and Social Sciences to all the students
- **MISSION 2:** To conduct quality research in different areas of Humanities and Social Sciences.
- **MISSION 3:** To imbibe universal human values and ethical doctrines of the society at large in the students.

## MATHEMATICS

#### VISION

To produce leaders with excellent analytical skills through mathematics education and training the students in acquiring conceptual understanding of Mathematics, its logical, cognitive and operational processes and applications.

#### MISSION

- **MISSION 1:** To strive by introducing the students to main ideas and methods of Mathematics for building up their reasoning and analytical skills.
- **MISSION 2:** To provide quality Mathematics course work which supports and enhances the capability and competence in assimilating, dissecting and distilling information for various applications.



## **Training and Placement**

## JIIT-Noida, JUIT-Waknaghat & JUET-Guna

Over the years, Jaypee Universities have built a strong network with leading companies for recruiting their engineering graduates.

The Training and Placement Cell at JIIT, Noida centrally handles campus placement of the graduating students of all our campuses, namely JIIT Noida, JUIT Waknaghat, JUET Guna and Jaypee University Anoopshahr. The cell provides complete support to the visiting companies at every stage of placement process. Arrangements for pre-placement talks, online/ written tests, group discussions and interviews are made as per the requirement of the visiting companies.





PLACEMENT STATUS : JIIT, NOIDA 2023					
Branch	Eligible Participating Students	Total No. of Offers	% of Total Offers	Absolute Offers	% of Absolute Offers
CSE	450	591	131%	421	94%
ECE	220	323	147%	206	94%
IT	47	58	123%	47	100%
Bio Tech	32	40	125%	27	84%
Total	749	1012	135%	701	94%

### PLACEMENT STATUS : JUIT, SOLAN 2023

Branch	Eligible Participating Students	Total No. of Offers	% of Total Offers	Absolute Offers	% of Absolute Offers
CSE	217	351	162%	193	89%
ECE	37	47	127%	26	70%
ІТ	40	43	108%	32	80%
Bio Tech / Bl	24	21	88%	14	58%
Civil	18	5	28%	5	28%
Total	336	467	139%	270	80%

## PLACEMENT STATUS : JUET, GUNA 2023

Branch	Eligible Participating Students	Total No. of Offers	% of Total Offers	Absolute Offers	% of Absolute Offers
CSE	273	437	160%	247	90%
ECE	18	11	61%	9	50%
MECH	12	8	67%	6	50%
CIVIL	5	2	40%	1	20%
CHE	3	3	100%	2	67%
Total	311	461	148%	265	85%

## **Recruiting Companies in 2023**

S.No.	Company	Sector
1	AXAXL	BFSI
2	BNYMellon	BFSI
3	EsteeAdvisors	BFSI
4	FutureFirst	BFSI
5	SBICard	BFSI
6	ShivalikBank	BFSI
7	Tresvista	BFSI
8	Cubastion	Consulting
9	Deloitte	Consulting
10	EYIndia	Consulting
11	FractalAnalytics	Consulting
12	GoldmanSachs	Consulting
13	KPMG	Consulting
14	TourLandish	Consulting
15	ZSAssociates	Consulting
16	Zycus	Consulting
17	1mg.com	Ecommerce
18	CityMall	Ecommerce
19	Flipkart	Ecommerce
20	Magicpin	Ecommerce
21	NPCI	Ecommerce
22	Paytm	Ecommerce
23	Byjus	EducationT echnology
24	Gradeup	EducationT echnology
25	InterviewBit	EducationT echnology
26	JaroEducation	Education Technology
27	MagicEdTech	Education Technology
28	SunstoneEducation	Education Technology
29	AutometersAllianceLtd	Electronics& Telecommunication
30	DeutscheTelekomDigitalLabs	Electronics & Telecommunication

S.No.	Company	Sector
31	Ericsson Global	Electronics & Telecommunication
32	Landisgyr	Energy Management
33	SAPLabs	ERP
34	Chaayos	FMCG
35	DSGroup	FMCG
36	Nestle	FMCG
37	Cisco	Hardware
38	Legato	Healthcare Technology
39	Lybrate	Healthcare Technology
40	ΟΥΟ	Hospitality
41	Accenture-AdvanceASE	IT
42	Accenture-ASE	IT
43	Accuknox	IT
44	Adobe	IT
45	Amazon-BIE	IT
46	Amazon-DE	IT
47	Amazon-PA	IT
48	Amazon-PPO	IT
49	Amazon-SDE	IT
50	Amazon-SDE	IT
51	Amazon-SE	IT
52	Amazon-WOW	IT
53	ApplicateAl	IT
54	Atlassian	IT
55	Avalara	IT
56	Avizva	IT

S.No.	Company	Sector
57	BlogVault	IT
58	Bukukas	ІТ
59	CognizantGenC	IT
60	CognizantGenCElevate	IT
61	CognizantGenCNext	IT
62	Commvault	IT
63	Convegenius	IT
64	Ciena	IT
65	Dagoso	IT
66	DEShaw	IT
67	DEShaw-PPO	IT
68	DecimalTechnologies	IT
69	Delhivery	IT
70	DigitalJalebi	IT
71	DXC	IT
72	EasyDiner	IT
73	Elucidata	IT
74	FarziEngineer	IT
75	FICO	IT
76	FioraOnline-Starquik	IT
77	FireRainbow	IT
78	FreeSpiritGreenLabsPvt.Ltd	IT
79	Genpact	IT
80	GoogleIndia	IT
81	HackwithInfy-DSE	IT
82	HackwithInfy-PP	IT
83	HackwithInfy-SE	IT

S.No.	Company	Sector
84	HashedinbyDeloitte	IT
85	Hevodata	IT
86	Hike	IT
87	Hyperdart	IT
88	Hyperverge	IT
89	IBM	IT
90	Icertis	IT
91	Infoedge	IT
92	InfosysDSE	IT
93	InfosysDX	IT
94	InfosysPP	IT
95	InfosysSE(SPCampus)	IT
96	Inframarket	IT
97	Innovaccer	IT
98	Innovaccer-PPO	IT
99	IntuitInc	IT
100	IntuitInc-PPO	IT
101	JTG	IT
102	Kuliza	IT
103	L&TTechnologyServicesLtd.	IT
104	LeapClub	IT
105	Lumiq	IT
106	MTree	IT
107	Mindtree	IT
108	MorganStanley	IT
109	MyParkPlus	IT
110	Nagarro	IT
111	NeoSoftTech	ІТ

S.No.	Company	Sector
112	Octro	IT
113	Optum	IT
114	OracleFinancial Software ServicesLtd	IT
115	Pentair	IT
116	Planful	IT
117	PlaysimpleGames	IT
118	Procol	IT
119	PublicisSapient	IT
120	Rategain	IT
121	RelianceJio	IT
122	RTDS	IT
123	RxLogix	IT
124	SAASLabs	IT
125	SalesForce	IT
126	SOTI	IT
127	Squadstack	IT
128	SterliteTech	IT
129	SuntechGlobal	IT
130	TargetTech	IT
131	TavsicaSolutionsPvtLtd	IT
132	TCSNinja	IT
133	Testbook	IT
134	Thales	IT
135	TimesInternet	IT
136	Tokopedia	IT
137	TowerResearchCapital	IT
138	Ula	IT
139	Ula-SDET	IT

S

S.No.	Company	Sector
140	VectoscalarTech	IT
141	VehantTech	IT
142	WatchGuardTech	IT
143	Whatfix	IT
144	WIPRO	IT
145	ZopSmartTechnologies	IT
146	ZopSmartTechnologies-SDET	IT
147	WheelsEyETechnology	Logistics
148	Ixigo	Online Travel
149	MakeMyTrip	Online Travel
150	DelveInsight	Research
151	Evalueserve	Research
152	GreyBResearch	Research
153	InfinityBusinessInsights	Research
154	Nfrence	Research
155	PWC	Research
156	SagaciousResearch	Research
157	Unimrkt	Research
158	App Secure	Security
159	Paxcom	IT
160	Zscaler	IT
161	TT Consultant	Research
162.	Infoobjective	IT
163	Roots Analaysis	Research
164	Latent View Analytic	IT
165	Winzo	Software
166	Paperplain	IT
176	Jaypee Construction	Construction
		1



## **Students Club**

JYC is a vibrant student body which provides avenues for co-curricular activities in the university through a variety of its constituent clubs. These Clubs include Literary, Cultural, Environment and Health, Technical, Photo & Videography, Dramatics and Sports. This student body is elected from within the students and provided support and mentorship through faculty members. Events such as Sports, Technical and Cultural Fests are organized in a competitive manner inviting other universities. Students of all years are encouraged to become members of various clubs. It provides a very strong forum for students to develop their organizing skills in event management, developing soft skills confidence and team spirit. Cultural and musical bonanzas, Annual Cultural Fest, Sports Fest, Technical Fests, Nukkad Nataks, Model United Nations and Youth Parliament are some of the activities conducted by the JYC.

### **Clubs at JIIT**





**Creativity and Innovation Cell in Electronics** It's Our Earth Adwitya – Services to specially-abled persons Radiance – The Fashion Club Jhankaar – The Dance Club **KNUTH** – Programming Club Arkasm Society – Theatre Club Graficas – Graphics and Animation Club **Ecoquence** – The Environment Club **Expressions** – The painting Club Parola – The Literary Club **Page Turner Society Microcontroller Based Systems and Robotics Club** Kalakriti – The Rangoli Club Cresendo – The Music Club Fortissmo – The Music Hub Abivyakti – Street Play **Ebullience** – Fresher's Welcome Event Converge – Annual Technical-Cultural-Sports Optical Society of America (OSA), JIIT Chapter

## **Clubs at JUIT**

Cultural and Dance Club Sports Club Literary and Debating Club Theatre and Music Club Environment, Ecology and Health Club Technical Sciences, Movies and Photography Club Koshish Club

Clubs at JUET Google Developer Club Geeks for Geeks BotNet Club AR/VR/MR Club RoSliNoT UI/UX Club Mozilla Phoenix Club Bitwise Development Club Bitwise Development Club Multimedia Club Publication Club Mechanical Engineering Society Civil Engineering Forum

Admission Brochure 2023

## **Service to the Society**

### National Service Scheme (NSS) (JIIT)

JIIT believes in developing students' consciousness and well-being by giving back to society through social outreach and community service along with scholarly education. For this cause, it has set up National Service Scheme, popularly known as NSS, which is a permanent youth programme under the Ministry of Youth Affairs and Sports, Government of India and funded by Government of Tamil Nadu and Government of India in the ratio 5:7. Five NSS units of 100 students each have been sanctioned. Currently, there are approximately 500 NSS student volunteers actively engaged in social service.

NSS-JIIT takes pride in three key initiatives. These three initiatives are:

a) Education and Awareness Drives b) Say no to Plastic and c) Waste and Disaster Management. All activities, tasks, drives, and campaigns revolve around it. NSS JIIT organizes education camps, blood donation camps, food distribution camps, disaster donation drives, to name a few through NSS. JIIT conduct awareness campaigns, offer sustainable solutions for holistic development, conduct activities for environment, hygiene and cleanliness and educate individuals at every level. NSS JIIT promotes national missions such as Sarv Shikhsha Abhiyan, Swachh Bharat, Fit India Movement, Digital India etc. It has associations with major NGOs of Delhi NCR such as Udayan Care, Sewa India Group, Robin Hood Army, Vegan Outreach, Rotary Club, Grace Care Home, Saikripa Foundation etc.Volunteers visit these NGOs and render their services.

### Unnat Bharat Abhiyan (UBA) (JIIT)

Jaypee Institute of Information Technology, Noida is an active member of Unnat Bharat Abhiyan, a flagship programme of Ministry of Human Resource Development (MHRD), Govt. ofIndia. Institute has adopted five villages from Gautam Budh Nagar, Uttar Pradesh under this program.

Motivation by the vision of Gandhi ji of self-sufficient ' village republics', Govt. of India has set its vision of holistic development of villages. Under this vision, rural areas need to be developed with local resources (both material and manpower), eco-friendly technologies so that the basic need of food, clothing, shelter, sanitation, health care, energy, livelihood, education etc. are locally met. The main aim of Unnat Bharat Abhiyan is to enable faculty and students of the institution to work with the people of rural India in identifying development challenges and evolving appropriate solutions for accelerating sustainable growth of adopted villages.

The primarily objective of JIIT is to develop linkage with selected rural clusters, to get involved in the planning process and to promote the requisite science and technology interventions to improvise and expedite the developmental efforts in these clusters.

In this regard, JIIT understood the needs of selected villages and exploring the possibilities of customizing existing technologies as per the local needs

## Unnat Bharat Abhiyan (UBA) (JUIT)

Unnat Bharat Abhiyan is a flagship program of MHRD (Govt. of India) and its main mission is to enable higher educational institutions to work with the people of rural India in identifying development challenges and evolving appropriate solutions for accelerating sustainable growth. Jaypee University of Information Technology (JUIT), Waknaghat is an active participating institute for UBA. Five villages in vicinity of University campus of district Solan have been adopted for enhancement of their standards of living, better environment for education and living. A team of students and teachers organize various activities at villages for rural development. The main focus of these programs is to identify the issues related with day today activities in hilly villages and try to solve these problems with sustainable solutions. The UBA team promotes various government schemes in adopted villages. As a part of UBA team, students learn team skills, discipline, collaboration and social and cultural etiquettes. UBA team of JUIT organized various events in these villages including computer literacy programme, awareness rally against drug abuse, analysis of drinking water, participation in gram sabha, biogas plant awareness and plastic free campaign.

### Unnat Bharat Abhiyan (UBA) (JUET)

JUET, Guna is also actively involved in various activities like education, health, crafts, agriculture, medicine (traditional), handicrafts, rural cultural resources (ancient and traditional knowledge resources) and environment. JUET faculty and students are also involved in counseling and providing the necessary technical input to the villagers, especially youngsters, for the preservation and promotion of rural crafts, vermicomposting, counseling for sanitation and hygiene, rain water harvesting and to identify the needs of villagers and take their inputs on the social issues. Regular visits are being organized in these 5 villages (Achakalpur, Raghunathpura, Shripura, Bhadari, Sarsahel) adopted by university.





## National Cadet Corps (NCC) (JUIT)

The JUIT Waknaghat has introduced NCC Senior Wing for both girls and boys. For girls this was started w.e.f academic session 2018 with a capacity of 80 cadets. For boys it commenced w.e.f 2019 with a capacity of 80 cadets. Volunteer students can apply for NCC during their first year. The selection is carried out by H.P battalion NCC, Solan based on practical test and interviews at university campus. Participation by students in NCC enhances their personality and gives them an edge during placements and job interviews also.

## Fit India Campaign (JUIT)

Incidences of various life style diseases (e.g. diabetes, hypertension etc.) are increasing in India, even in the children. Small life style changes by including fitness in the daily routine could help in the prevention of these diseases and help people of India to live a healthy and prosper life. Keeping this in mind, The Prime Minister of India launched the Fit India Movement on 29th August 2019. He insisted that the people of India should adopt fitness in their lifestyle. The vision of Fit India Movement is that "All students and staff of higher education Institutions to have physical fitness, mental fitness, along with social, emotional and intellectual well being".

Jaypee University of Information Technology (JUIT), Solan, Himachal Pradesh is an active member of Fit India Movement. The JUIT has constituted a Fit India Campaign club and prepared a schematic plan for various activities to be conducted as a part of this movement, as per instructions of the Ministry of Human Resource Development. The objectives/ mission of the movement are being achieved by organizing various activities that include the constitution of a fitness club, fitness campaign activities, devoting a daily/ regular fitness activity hours and various seminars/webinars on the related theme for the students and staff.

## Swachh Bharat Abhiyan (SBA) (JIIT)

Swachh Bharat Abhiyan has been launched by Ministry of Human Resource Development to meet the objectives of the movement 'Swachh Bharat Mission' which was launched on October 2nd , 2014. JIIT is also a part of this movement. The institute participates in various activities suggested by MHRD i.e Swachh Bharat Summer Internship Program, Swachhata Hi Sewa Campaign etc. The students of JIIT Noida are involved in Information- educationcommunication activities, solid waste management related activities under Swachh Bharat Abhiyan.

Admission Brochure 2023

## **Students Support System**

**Sports Facilities** – The sports facility comprise of modern gymnasiums, swimming pools (separate for boys and girls), squash courts, table tennis, pool tables, basket ball courts, volley ball courts badminton court and billiards tables.

**Medical Facilities** – A First Aid Centre at the campus provides medical care to the students round the clock. OPD consultation and treatment are provided during working hours. Facility of students' counselor is also available.

**Other Facilities** – On campus ATM, laundry services, Wifi enabled hostels, Annapurna, CCTVs at strategic locations for security, photocopier outlet, laundry, swimming pool, temple, guest house etc







## Jaiprakash Sewa Sansthan

JSS has translated its social responsibility in to reality by building schools and training institutes that cater to the needs of providing quality education to the rural masses. The Trust also helps in times of natural catastrophe to the affected communities in distress

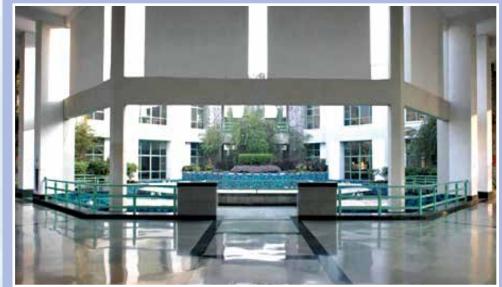
The Group has always believed in "growth with a humane face" and to fulfill its obligations it has set up Jaiprakash Sewa Sansthan (JSS), a 'not-for-profit' trust which primarily serves the objectives of socio-economic development, reducing the pain and distress in society.

For over five decades now, Jaypee Group has supported the socio-economic development of the local environment in which it operates and has ensured that the economically and educationally challenged strata around the work surroundings are also benefited from the Group's growth by providing education, medical and other facilities for local development.

The Group also undertakes Comprehensive Rural Development Programme (CRDP) which covers a wide range of projects such as free medical camps, health check-ups for village school children, literacy campaigns like Balwadis for young boys and girls, safe drinking water supply, creating huge water reservoirs in villages, self employment which includes tailoring classes for women and animal husbandry. Some other important activities undertaken include the renovation of old temples, schools and hospital buildings in the adjoining adopted villages.







## **The Jaypee Group**

## Engineering & Construction, Cement, Power, Real Estate, Expressways, Fertilizer, Hospitality, Healthcare, Education (not-for-profit)

The Jaypee Group is an infrastructure conglomerate with a strong belief in the country's huge potential. Transforming challenges in to opportunities has been the hall mark of the Jaypee Group, ever since its inception five decades ago. The Group is a diversified conglomerate with business interests in Engineering & Construction, Cement, Power, Real Estate, Expressways, Fertilizer, Hospitality, Healthcare, Sports and Education.

#### **Engineering & Construction**

The Engineering & Construction wing of the Group is an acknowledged leader in construction of multi-purpose river valley and hydropower projects.

#### Cement

Jaypee Group is one of the largest cement producer in the country. The cement division of the Group has a comprehensive and rich experience of over 3 decades in producing quality cement through its state-of-the-art cement plants.





### Power

The Group has a diversified portfolio of power generation in hydro & thermal power sectors.

### Hospitality

The Group owns and operates five properties spread across New Delhi, Uttar Pradesh and Uttarakhand.

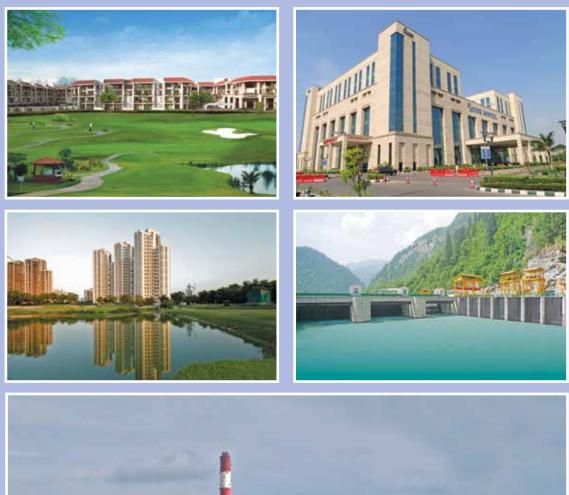
### Healthcare

The Jaypee Hospital has been set up with a vision of promoting worldclass healthcare amongst masses by providing quality and affordable medical care.

### **Real Estate & Expressways**

The Group is a pioneer in the development of golf centric premium township in the country.

The Group has constructed 165 km, Noida to Agra, 6/8 lane Yamuna Expressway, Zirakpur Parwanoo section of NH-5 and package-III of Eastern Peripheral Expressway.









# 2023 Admission Shall be based on : (a) JEE-2023 All India Ranking (b) 10+2 marks based merit



## JAYPEE INSTITUTE OF INFORMATION TECHNOLOGY, NOIDA, U.P.

(Declared Deemed to be University under section 3 of the UGC Act, 1956) A-10, Sector 62, Noida-201309 (U.P.) **Tel.:** +91-120-2400972-76 **Website:** www.jijt.ac.in



#### JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT, H.P. (Approved by UGC under section 2(f) of the UGC Act ,1956) P.O. Waknaghat, Teh. Kandaghat, Distt. Solan-173234 (H.P.) Tel.: 01792-257999, 245371 Mob.: 7807846047/48/49/50 Website: www.iuit.ac.in



### JAYPEE UNIVERSITY OF ENGINEERING & TECHNOLOGY, GUNA, M.P. (Approved by UGC under section 2(f) of the UGC Act, 1956)

A.B. Road, Raghogarh, Distt Guna-473226 (M.P.) **Tel.:** 07544-267051, 267310-14 **Website:** www.juet.ac.in



#### JAYPEE UNIVERSITY, ANOOPSHAHR (Established under Govt. of Uttar Pradesh Act No. 8 of 2014) Aligarh Road, Anoopshahr, Distt. Bulandshahr -203390 (U.P.) Website: www.jaypeeu.ac.in

**Tel.:** 7055922777, 7055922888

## For admission enquiries write to admission@jiit.ac.in