

## JIT NOIDA

### ADMISSION PROCEDURE FOR M. TECH. PROGRAMMES-2022

Objective of the 2-years (4-semesters) M. Tech. programmes is to impart advanced level knowledge in the respective fields of specializations making the students better suited to academia as well as industry by having capabilities required for research, design and innovative development with creative aptitude. The curricula of M. Tech. programmes consist of core and elective subjects, project based learning and intensive dissertation/ industrial/ entrepreneurial project in the respective areas of specialization. Through compulsory core subjects the students acquire state-of-the-art knowledge in the domain of specialization. The elective courses give them opportunity to further specialize in the field depending on his/her interest and the future career plans. For project work, students are required to take-up problems on a particular topic to focus on knowledge application & problem solving skills during their study and work. They are required to submit a dissertation/ project report at the end of the project work by compiling the results of their study, findings and contributions. M. Tech. project and dissertation work usually enables students to publish their results. Project work prepares the students' mind to take up challenging research and development tasks. Seminars are part of the M. Tech. curriculum for training the students in creative presentations, content creation and delivery on a specific current topic.

Salient features of different M. Tech. programmes of study offered in academic session 2022-23 are given below:

#### **1. Biotechnology**

The M. Tech in Biotechnology programme is designed to offer diverse and extensive aspects of biotechnology and life sciences and has strong emphasis on research. The programme encompasses streams such as Medical Biotechnology, Metagenomics, Microbial Technology, Molecular Modeling, Gene and Omics Technologies, Bioprocess and Industrial Biotechnology, etc. Curriculum is enriched from electives especially devised to help individuals choose the stream of interest, compliant to his/her research aspirations and current industrial demands. The courses/electives are taught by faculty having vast doctoral and post doctoral research experience from international and national premier institutes and universities. The department is well equipped with high end instruments and has infra structure to train students in the courses and research projects. Students get good exposure of research work through their projects and working along with PhD students and research fellows involved in intense research enhances the quality of learning experience for graduate students.

The research emphasis is reflected in the active doctoral program (more than 60 scholars are pursuing PhD and approximately 40 Scholars have completed PhD), publications in international/national journals, and sponsored research projects totalling approximately INR-10 Crores 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) and Department of AYUSH. Interaction with leading scientists from academia and industry through invited lectures, workshops and conferences ensures all-round development of the students. Our students continue to secure positions in graduate schools for MS/Ph.D. at universities of international/National repute such as Max Planck Institutes, John Hopkins, Georgia Tech, Keck Graduate Institute, Penn State, IITs etc.

among others. Many students have been selected in core biotechnology firms Panacea Biotech, Cadilla Biotech, Ranbaxy, and Premas Biotech Ltd.

## **2. Computer Science and Engineering**

The programme 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, etc. These advanced level courses and M. Tech dissertation lay the foundation for potential doctoral work in CSE.

## **3. Computer Science and Engineering with specialization in Data Analytics**

It is an interdisciplinary programme offered by department of CSE & IT and is designed to meet the huge manpower shortage in this area that has been well recognized as one of the fastest growing areas. All business and government organization working in commerce, policy, insurance, finance, economics, engineering, infrastructure, energy, health care, education, security, sports, media, culture, etc. are increasingly relying on computational tools and techniques of data analytics for taking informed decisions. This programme 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 is designed to inform & enlighten the students about various aspects of data analytics including research design, data collection, preparation, analysis, integration, visualization, and interpretation. In addition to the CSE & IT department, the departments of mathematics and HSS also contribute courses for this programme. The core courses include statistical data analysis, data warehousing 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.

## **4. Computer Science and Engineering with specialization in Information Technology and Entrepreneurship**

This is a joint programme by department of CSE & IT and Jaypee Business School. It is designed for IT background graduates who are interested 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 programme is devoted to industrial internship and IT entrepreneurship project to develop an investor-ready business plan. Through this programme, the student will also network with successful 'role model' innovators, entrepreneurs, and enterprise development experts.

## **5. Computer Science and Engineering with specialization in Artificial Intelligence and Machine learning**

Artificial Intelligence (AI) has become the most demanding technology in today's fast emerging day to day work in our daily lives, offices, social media, healthcare, medicine, etc. There is a significant pressing need of researchers who can understand AI and build solutions for sustainable development. M.Tech. in CSE with specialization in AI and ML, a PG programme offered at JIIT, is developed with an objective to prepare the professionals to analyze, design and build AI and Machine Learning based solutions to solve challenging real-world problems. It will provide students in-depth core and electives courses that enrich them with traditional computer science courses as well as Artificial Intelligence and

Machine Learning. After graduating, one will be able to undertake industry careers in different roles as Data Scientist, Machine Learning Engineer, AI Product Manager, Data Engineer, and Applied ML Scientist to further advance the research in AI and ML areas.

#### **6. Computer Science and Engineering with specialization in Internet of Things**

Today is an era of connected devices (mobile phones, computers etc.), connected things (home appliances, vehicles, lamp-posts, personal accessories, your pets, industrial equipment's etc.). Internet of Things (IoT) is one such recent technological advancement which is changing the way things work. M.Tech in CSE with specialization in IoT, a PG programme offered at JIIT, is a blend of core and elective courses which is especially designed for graduates to provide expertise in ideation, design, fabrication, calibration, characterization, interfacing, development, and deployment of IoT applications and systems. After graduating one will become competent in various areas including smart agriculture, transportation, environment monitoring, healthcare, smart wearable and industrial IoT systems etc.

#### **7. Electronics and Communication Engineering with specialization in Wireless Communication**

The programme will offer in-depth theoretical and practical knowledge of advanced communication systems (4G, 5G and beyond). Curricula and the courses of the programme are designed meticulously keeping in mind the demands of wireless and mobile industry. The specialization also covers 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 supported by well equipped laboratories.

#### **8. Electronics and Communication Engineering with specialization in Micro Electronic Systems and Internet of Things**

The programme 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 programme offers a set of courses that allow students to gain expertise in the 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. Keeping in view the market trends and demands, the core laboratories for VLSI design and simulation, Internet of Things, etc. are covered in the course.

#### **9. Electronics and Communication Engineering with specialization in Machine learning and signal processing**

The programme 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. 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 etc. The program curriculum is divided into theory, laboratory practice and projects. Keeping in view the industry requirement, the process of transition from data

storage to decision systems based on large database signals such as those obtained from sensor networks, internet services or communication systems is covered in the course.

#### Minimum eligibility criteria and seats

PROGRAM OF STUDY	NO. OF SEATS*	ELIGIBILITY CRITERIA <i>(Qualifying examination must be cleared with at least 60% marks or 6.0 CGPA on 10 point scale)</i>
Biotechnology	30	B Tech in Biotechnology/B. Tech in Bioinformatics / Masters in life sciences, 4 years Bachelors degree in Life sciences/Agriculture, MBBS, B. VSc. and B. Pharma
Computer Science & Engineering (CSE)	30	BE/B.Tech in CSE/IT/ECE/, MCA (with Physics and Mathematics at B. Sc. level)
CSE with specialization in Artificial Intelligence and Machine Learning	30	BE/B.Tech. (In any discipline) or Masters in Computer Science / IT / Mathematics / Operation Research / Statistics / MCA (with Physics and Mathematics at B. Sc. level).
CSE with specialization in Data Analytics	30	B. Tech (in any discipline) or Masters in Computer Science/ IT/ Mathematics/ Statistics/ Operations Research/ Physics/ Electronics/ Instrumentation/ Economics) / MCA (with Physics and Mathematics at B. Sc. level) or equivalent
CSE with specialization in Internet of Things	30	B. Tech CSE/ IT /B. Tech ECE (with at least six IT courses during graduation) or Masters in Computer Science or MCA (with Physics and Mathematics at B. Sc. level)
ECE with specialization in Wireless Communication	18	BE/ B. Tech. in EE/ EEE/ ECE/ Electronics & Instrumentation Engineering/ Information and Communication Technology
ECE with specialization in Microelectronic Systems and Internet of Things	18	BE/B. Tech in EE/ EEE/ ECE/ CSE / IT/ Instrumentation or M. Sc Physics with Electronics
ECE with specialization in Machine Learning and Signal Processing	18	BE/ B. Tech. in EE/ EEE/ ECE/ CSE/ IT/ Electronics & Instrumentation Engineering/ Instrumentation & Control Engineering

#### ADMISSION PROCEDURE

Candidates fulfilling minimum eligibility criteria as per the above table will be admitted to M. Tech programmes on the basis of merit based on the score of GATE-2022/ PGET-2022. Applicants should have a valid GATE score in the concerned discipline of M. Tech programme **OR** should have qualified PGET-2022 in the concerned discipline of M. Tech programme.

Candidates appearing in the final year examination of the qualifying degree may also apply. They will be required to submit marksheet of the qualifying degree on or before the date of registration.

**PGET** – The test will be conducted in Offline (Pen-Paper) mode at IIIT Sector-62 Campus as per the schedule. The MCQ (50 questions) based test will be of 100 marks of two hours duration.

**Note:** Minimum student strength condition will apply to run a programme. Candidates not scoring the minimum cut off marks, as may be decided by the admission committee, shall not be admitted irrespective of availability of vacancy.

### **IMPORTANT DATES:**

Last date for Application	-	15 Sep 2022
PG Entrance Test (PGET)		
Round-1	-	10 July 2022
Round-2	-	20 Aug 2022
Round-3	-	04 Sep 2022
Round-4	-	17 Sep 2022

Admission offer to selected candidates within seven days of conduct of PGET.

**Syllabus & Format for PGET** – Please see website

### **HOW TO APPLY**

(i) Application for admission may be submitted online by visiting the link: [www.getadmissions.com](http://www.getadmissions.com)

**OR**

(ii) Application may be downloaded from the website [www.jiit.ac.in](http://www.jiit.ac.in) and duly filled application along with application fee of Rs. 1000/- in the form of a demand draft in favor of Jaypee Institute of Information Technology, payable at Noida/ Delhi may be submitted personally or by post.

**OR**

(iii) Application form may be obtained from the **Admission Cell**, JIIT, A-10, Sector-62, Noida-201 309, by paying Rs. 1000/- in cash or through a Demand Draft of Rs. 1,000/- (Rs. One thousand only) made in favor of Jaypee Institute of Information Technology, payable at Noida/Delhi and duly filled application form may be submitted personally or by post.

(iv) Duly completed off-line application forms/ print out of online application must reach on or before the due date at:

The Registrar

**M.Tech Admissions**

Jaypee Institute of Information Technology

A-10, Sector-62, Noida 201 309

### **FEE STRUCTURE:**

**Tuition Fee:** Rs 66,000/- per semester in first year and Rs. 69,300/- per semester in second year

**Hostel Fee:** Rs. 100000/- per semester including mess charges. Seats are limited in the hostels and will be allotted on first come first serve basis.

### **TEACHING ASSISTANTSHIP**

A limited number of Teaching Assistantships of Rs 12000/- per month are provided to the students with a high GATE score; and those who perform extremely well in 1<sup>st</sup> year of studies subject to meeting the minimum CGPA requirement as laid down in the M. Tech regulations.

Students admitted through PGET and performing extremely well in 1<sup>st</sup> year of studies shall be entitled to Teaching Assistantship in the second year. Teaching Assistantship is admissible for 5 months in a semester, subject to meeting the minimum CGPA criteria as laid down in the M. Tech regulations.

**For queries, write to:** [admission@jiit.ac.in](mailto:admission@jiit.ac.in) or [registrar@jiit.ac.in](mailto:registrar@jiit.ac.in)

**OR Contact us on: Mob - 7428630400/ 500/ 600/ 800, Tel: 0120 - 2594179/ 303/ 400**