MANIPAL UNIVERSITY JAIPUR
INSPIRED BY LIFE

A+
NAAC
NAAC A+ Grade with 3.28 Score

nirf
Ranking 2024
University: 64 | Engineering: 64
Management: 73 | Law: 29 | Architecture: 33

B. Tech.
Electronics Engineering (VLSI Design and Technology)

Admission Booklet 2025-26

Design your own Degree and Career

About the program

- Industry ready curriculum
- Research labs funded by Govt. organization
- Well established labs with leading EDA tools.
- MoU with renowned Universities and Industries
- Student clubs and Technical chapters for overall development
- Dedicated Mentorship
- Exposure to industries through industrial visits
- IAESTE student exchange program provides international internship to the students.
- Guest Faculties from industries and consultancy to industries.
- Flexible scheme based on NEP

Focus Area
- Chip Design & Fabrication
- AI & ML in VLSI
- FPGA Architecture
- VLSI Testing and Testability
- Nano Technology
- EDA Tool Development

Key Highlights of the Program

- The India Semiconductor Mission (ISM) an initiative by Govt of India for growth of VLSI will help to have more placement opportunities in India
- The program is designed in line with the industry feedback and catering the needs of industry. It also includes the feedback of the stakeholders (Industry & Alumni)
- The program includes hands-on experience on industry standard EDA Tools
- Govt. sponsored VLSI lab, Nonlinear optics research lab.
- Various technical student chapters and clubs
- Students can take their Major Project in VLSI Industries
- Association of VLSI Industry/Industries with this program
- Experienced & Skilled Faculty
- Advance Labs equipped with leading EDA tools
- Choice Based Credit System (CBCS)
- Student recognition for academics and research.

Semiconductor Fabrication Lab

Salient Feature of the Department

23 Teaching Staff	130+ Abroad Higher Studies	600+ Research Publications
1150+ Alumni	10 International & National MoU	62 Student Club /Chapter

Internship/Placement opportunities in Industries

- Synopsys
- Mentor Graphics
- Cadence
- Microsoft
- Qualcomm
- Intel Technologies
- HCL Corporation
- einfochips
- d-Matrix
- Texas

- Synapse Design
- Infineon Technologies
- AMD Xilinx
- Samsung
- NXP Semiconductors
- ST Microelectronics
- Marvel Technologies
- SoCTeamup Semiconductors Pvt Ltd
- Truecihp Solutions, Noida
- Micron Semiconductor Technology India

MoUs with Research Organizations and Industries

- eInfochips, Ahmedabad
- Semi-conductor Laboratory, SAS Nagar
- Truechip Solutions, Noida
- Advanced Level Telecommunication Training Centre, Ghaziabad
- Secure Meters Ltd, Udaipur
- Samara National Research University
- University of Quebec
- SoCTeamup Semiconductor Pvt. Limited
- VLSI Society of India
- CEERI, Pilani
- Midwest Regional Chapter of India Electronics and Semiconductor Association (IESA)

Unique Research And Lab Facilities

- Semiconductor Device Fabrication Lab
- C2S Meity sponsored VLSI Lab under (chip to startup) scheme
- Embedded System Lab
- DRDO sponsored lab for Nonlinear Optics [+]
- Communication Lab
- Signal Processing Lab
- Microprocessors & System Design Lab
- Electronic System Design Lab
- Electronics Simulation Lab: CST, Microwave Studio, MATLAB and Ansys HFSS

The MUJ EDGE (Why MUJ)

- NBA, NAAC A+, AICTE, and UGC Accredited Institution
- Academic excellence through world class curriculum, delivery & feedback
- Various scholarships for meritorious students offered by MUJ
- Excellent placements and internships
- Best-in-class academic, hostel and sport facilities
- Best-in-class infrastructure
- Qualified and Experienced faculty
- State-of-the-art Laboratories equipped with latest technology
- Student Travel Grant for International Internships
- Industry and International Collaborations

Eligibility

MET 2025 Rank Holders

The candidate must have passed 10+2 or A Level or IB or American 12th grade or equivalent examination from recognized board with Physics, Mathematics and English as Compulsory subjects, along with any one of Chemistry, Computer Science, Biotechnology, Biology, Statistics or Engineering Drawing as an optional subject for admission to B Tech, with minimum 50% marks in Physics, Mathematics and the optional subject, put together.

Direct admission is possible if seats are available after MET. Candidates need to meet one of the following criteria:

- *Candidates have a JEE rank and qualified for JEE Advanced in that year
- * Based on candidate's SAT score
- * MET 2025 rank holders, who could not come for counseling.
- * All Students with Physics, Mathematics and English as compulsory subjects and who have 50% or equivalent in PMX subjects in their 12th std. where X could be Chemistry, Computers Science, Biotechnology, Biology, Statistics or Engineering Drawing.

Core Competencies

- System Verilog Design and Verification
- Semiconductor Device
- System on Chip (SoC)
- Application oriented Design (ASIC/FPGA)
- MOS VLSI Design
- Mixed Signal IC Design
- Physical Design
- IC Layout and Design
- Memory Design
- Computer Architecture and Processor Design
- Optical Sensors
- Microwave and Antenna

Research Areas

- Nanodevices & modelling
- Verification & Testing
- IC design & layout
- Low Power VLSI
- High Speed VLSI Design
- Mixed Signal IC Design
- MEMS devices
- Optical Sensors
- Memory Design

Career Opportunities

- ASIC frontend designer
- FPGA frontend designer
- ASIC physical design engineer
- AMS (Analog Mixed Signal) designer
- Library developer
- IP design engineer Verification Engineers
- Front-end verification engineer
- FPGA Back-end verification engineer
- Physical design verification engineer
- AMS verification engineer
- EDA tool validation engineer
- IP verification engineer
- Board validation engineer
- EDA/CAD Engineers

Key Student Achievements of Department

- GSN Jeevani, Aditya Gupta, Anushka Sharma won cash prize in Project Expo 3.0, 2024.
- Raju Yadav went for a long internship at ISRO, Ahmedabad.
- Shobhit Mitra and Samriddh Kumar Singh won 10k cash prize in AMS circulation 2024.
- Every Year SPIE international travel grant is awarded to students
- Mridul sharma won cash prize of 20k in Google for startup Techstars Startup weekend.
- Manas Triphati, Bhavya verma won cash prize of 9K at project Expo 3.0, 2024.
- Rishav Mitra won a gold medal in national karate Championship, 2023.
- MUJ Startup ALMIGHT founded by Ashish Tummuri and Mohit kumar Mishra.
- Ashish Tummuri, Optics & Photonics Scholarship 2022, USD 3000.

Scholarships

- TMA Pai Engineering Scholarships
- Scholarships for Lateral Entry (B. Tech.)
- TMA Pai Merit Scholarships
- Rajasthan Merit Scholarships
- Financial Assistance for Sibling(s)
- Scholarship for "Differently- abled" Students
- Scholarships for wards of Martyrs of Defence Personnel / Para
- Military Forces
- Scholarships for the wards of Single Mother & Orphan Child

Department Alumni in VLSI Industries
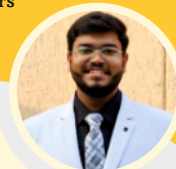
Saumya Shah
Micron Semiconductor
Technology India

"My journey in the ECE department has been nothing short of extraordinary! The faculty members are not just highly qualified, but they create a dynamic and engaging learning atmosphere. The collaborative environment sparks lively discussions and encourages partnerships among students. Also, the curriculum is thoughtfully crafted and constantly updated with the latest ideas and technologies. This experience has been pivotal in shaping both my academic path and professional aspirations."

Utkarsh Raj
SoCTeamup Semiconductors
Pvt. Ltd.

"ECE department in MUJ provided a strong academic foundation and valuable opportunities for learning and growth. With well-equipped labs, good resources, and research facilities, it created a supportive environment for academic and technical development. The guidance from faculty and focus on practical learning greatly contributed to my overall journey."

Vaishnavi Parihar
Cadence

"My journey with ECE at Manipal University Jaipur has been a transformative experience. The faculty's expertise and dedication have guided me towards becoming a more analytical thinker and a confident problem-solver.
The well-rounded curriculum and opportunities to participate in conferences have not only deepened my understanding of electronics but also ignited a passion for continuous learning. Here, I've learned to embrace challenges with resilience, shaping both my academic path and personal growth into a future I'm excited to explore"

Ishan Bhardwaj
INFOSYS

"As an ECE student, learning programming presented challenges, but the unwavering support from the ECE department made it manageable. The rigorous curriculum and hands-on projects built my confidence in programming.
MUJ's collaborative culture and events across branches eased my transition into the programming environment. Participating in hackathons, workshops, and internships provided practical experience, preparing me for the professional world. Despite the ups and downs, I remained committed to my goals, thanks to the robust support system at MUJ. I am deeply grateful for the opportunities and encouragement that have shaped my path to success."

Harsh Vardhan
Cadence

"The strong foundation in VLSI and digital design at Manipal University Jaipur, along with hands-on exposure to advanced VLSI tools, has been invaluable in building my concepts and adapting to industry practices. MUJ's industry-oriented curriculum and practical learning approach have played a crucial role in shaping my career, and I am grateful for the guidance of my professors and the resources provided."

AISHANI
Synopsys

"MUJ was where I got introduced to VLSI, the world of semiconductors. It provides ample of opportunities to grow in your field of interest along with the guidance, constant support and encouragement from professors."

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Admission Process

Application form initiated through our website
admissions.jaipur.manipal.edu

Applicants must submit a completed application
form with relevant documents within the due date.

Hostel Details

🎧 **goodhostspaces.com** 📞 **08069122800**
info.jaipur@goodhostspaces.com

Counsellor Contact Details

Ms Anita
📞 **8306006851**

For curriculum regarding please visit:

https://jaipur.manipal.edu/fosta/b-tech-vlsi-design.php

Our counsellors will guide candidates through the
admission process, which is as per regulatory requirements.

FAQ

Please visit the FAQ section on our website to
know more about the admission process.

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