

## **M.Tech In Electronics Design And Technology( Full Time Course)**

This is a four semesters (2 years) AICTE approved Postgraduate course ,started in the year 1991 with the Degree awarded by Dr. Babasaheb Ambedkar Marathwada University, Aurangabad (MS).

This course concentrates on Electronic design and applications involving modelling, simulation and analysis of circuits, devices as well as complete systems. World class facilities at NIELIT in leading edge electronic design, PCB fabrication and testing facilities providing full cycle exposure from concept to product realization, expert guidance, and a curriculum envisioned for international standards – facilitate this program a unique educational experience. The program covers topics like physical design of electronic equipment, advanced digital and analog electronic design covering VLSI, Mixed signal design, embedded systems, Industrial Automation, Power Electronics & Optoelectronics etc.

### **Objective of the Course:**

To enhance students knowledge and skills in various aspects of Electronic Systems enabling them to work with emerging multi gigahertz digital and mixed signal ICs and applications targeted for IoT, smart cities, 5G, industrial automation, mobile communication, automotive, space, aviation, railways, agriculture and consumer electronics.

The passout engineers can take up demanding electronic design jobs in industry, premier R&D institutions dealing with cutting edge technologies like – VLSI/ Embedded, Optoelectronic/electronic integration, Mixed-signal Integrated Systems, Nanoelectronics, latest communications standards, signal processing, embedded software, electromagnetics, electro-optics, CAD/CAM and PCB fabrication.

### **Course Structure**

The M.Tech. course is a four semester program. The first two semesters constitute academic course work. During the third and fourth semester, a student can either take up an industry internship, or pursue academic research in the institute leading to a M. Tech. thesis.

Every student has to register for the core subjects and any three electives, at the start of the semester.

### **Training And Placements**

Industrial training and internship being an integral part of curriculum at NIELIT Aurangabad gives students an opportunity experience the industrial environment before they graduate to enhance their technical, interpersonal, managerial and leadership skills.

The Model Career Centre housed in NIELIT Aurangabad under Ministry of Labour & Employment (MoLE), Govt. of India facilitates internships and placements for students in industries, corporate, academia, NGO and other organizations of National and International repute.

**Course Outcome:**

Highly skilled post graduate engineers ready to meet the requirements of designing appropriate electronic products for industrial applications. Students exposed to latest electronic design tools of VLSI, Mixed signal, embedded systems and full cycle of electronic product design for emerging applications. Through the highly practical oriented curriculum and pedagogy the students build expertise in cutting edge technologies of electronic. Course grooms Engineers for societal needs through the project oriented teaching approach.