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

This is a six semesters (3 years) AICTE approved course for working professionals with the Degree awarded by Dr. Babasaheb Ambedkar Marathwada University, Aurangabad (MS).

This course provides an opportunity for companies to upgrade the knowledge and skill of their employees to stay relevant. The 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 and Industrial design of Electronic Equipment, Advanced Digital and Analog Electronic Design, Embedded Systems, etc.

## **Objective of the Course:**

To upgrade skill of the working engineers and induction of new technologies available and developed through years of academic research and development resulting in improved quality and profitability of the company. To enhance knowledge of working engineers in various aspects of Electronic Systems enabling them to work efficiently 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.

Course upgrades the working engineers skills in cutting edge technologies like –Embedded, Optoelectronic/Electronic Integration, Mixed-Signal Integrated Systems, Embedded Software, Electromagnetics, Electro-Optics, CAD/CAM and PCB fabrication.

## **Course Structure**

The M.Tech. course is of six semesters. The first four semesters constitute academic course work. During the fifth & sixth 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 electives, at the start of the semester.

## **Course Outcome:**

Working engineers will get exposed to the latest electronic design tools of Industrial & Physical design of Electronic Equipment, Embedded Systems, Power Electronics & Optoelectronics and full cycle of electronic product design for emerging applications. Student can think of incorporating the knowledge acquired in the growth of their parent company, thus enhancing their productivity. Companies can think of taking up projects through the sponsored student for solving real technical issues faced by the company and can think of setting up joint industrial level test and developmental platforms at our premises