

## M.Tech Electronic Product Design

M.TECH. in Electronics Product Design and Technology Specialization provides a unique opportunity to learn about product development and design through practice within an incubator. This program has specializations designed to master the contemporary topics in Electronics that pose significant design opportunities. The course helps the learner to master all stages of product design and development from opportunity identification through launch, growth, financing and profitable commercialisation. With guidance from professors, supported by industry mentors, the learner would be able to develop an engineering design mindset and hone the skills needed to develop as a high-quality entrepreneur.

Course Name	Credits	Course level	Core/Elective
Digital Access for Community Empowerment (DACE)	3L	300	University Core
Digital Experience Laboratory (DEL)	4L	300	University Core
Design Thinking and Innovation (DTI)	3L	300	University Core
Electronics for Edge AI	3L, 2P	300	Program Core
Sensors for Drones and Robotics	3L, 2P	300	Program Core
Programming with DSP	5L	300	Program Core
Product Development, Innovation and Entrepreneurship	3L, 2P	300	Program Core
Industry Experience Competency	5P	300	Program Elective
Mini-Project and Internship	6P	300	Program Core
Marketing Management	5L	300	Program Core
Industry Experience Competency	5P	300	Program Elective
AI System Analysis and Design	3L	300	Program Elective
AI System Analysis and Design (Lab)	4P	300	Program Elective
Digital Manufacturing and Virtual Reality	3L	300	Program Elective
Digital Manufacturing and Virtual Reality (Project)	4P	300	Program Elective

NEMS/MEMS and Systems	3L	300	Program Elective
NEMS/MEMS and Systems (Lab)	4P	300	Program Elective
Signal Decomposition & Recovery	3L	300	Program Elective
Signal Decomposition & Recovery	4P	300	Program Elective
Robotics and Industrial Automation 4.0	3L	300	Program Elective
Robotics and Industrial Automation 4.0 (Project)	4P	300	Program Elective
Quantum Computers and Applications	3L	300	Program Elective
Quantum Computers and Applications (Project)	4P	300	Program Elective
Case Studies in Product Innovations	3L	300	Program Core
Case Studies in Product Innovations (Project)	4P	300	Program Core
Product Design and Business Plan Proposal	20P	400	Program Core
Commercialisation Project	30P	400	Program Core

The program is suitable for any B.Tech or MSc degree holder. The classes will be held on weekends at Maker Village, Kochi.

First one year, the focus is on developing core competencies with courses, case studies and projects. The second year, is experiential in nature, with the focus on building a product and commercialising the same through start-up. The program is ideal for working professionals and those who aspire to be entrepreneurs.