

B. Tech (6 Year) Mechanical Program

Specialization- Design and Manufacturing - By Prof. Venkatesh Deshmukh

NMIMS' Mukesh Patel School Of Technology Management & Engineering conceptualized the Integrated B.Tech program in 2014 with industry and academia inputs as an alternative path to Engineering directly after 10th grade.

That mean, this 6-year program escapes the gruelling entrance exam route. The program offered through the department of Mechanical Engineering introduces two concentrated areas of specialization: Design and Manufacturing; and Automation and Artificial Intelligence. These are aimed at turning out graduates that understand the role of digital computers and cutting-edge technology in conceptualization, design, fabrication, testing and validation of systems falling under the purview of core mechanical engineering.

The concentrated specializations are designed keeping in mind the skills and training needs of young engineers starting out their careers in the 21st Century.

Design and Manufacturing

This specialization offers an exciting opportunity to receive training in design- and analysis-oriented courses. There is a special focus on areas such as mechanics, thermos-fluids, manufacturing and dynamics. The curriculum is designed with a healthy mix of theoretical and computational modules for the students to master the modern art of the mechanical engineering.

Automation and Artificial Intelligence

This specialization offers students exciting opportunities learn the application of Machine Learning and Artificial Intelligence in Mechanical Engineering, through mechanics, thermos-fluids, manufacturing and dynamics. However, these systems must also adapt, smartly. The smart systems are rendered a certain degree of autonomy in decision-making and task-scheduling. The curriculum is designed with a healthy mix of theoretical and computational modules for the students to master the modern art of automation within the mechanical engineering practice.

Students select their specializations in the fourth year of the program, after fully absorbing the core essentials of mechanical engineering. There is an ample opportunity for the students to put their knowledge to test via two semesters of industrial internships during the syllabus. In addition to this, there is one semester entirely dedicated for students to practice their theoretical knowledge through open-ended projects. These assignments are conceived, designed fabricated and tested by students working in groups. It's also an opportunity for them to learn collaboration and teamwork. An enhanced emphasis is also placed on the use of relevant computational platforms critical for the functioning of a mechanical engineer in the modern world.