

NITEC IN MECHANICAL TECHNOLOGY

Core Modules

CAD and 3D Printing

On completion of the module, students should be able to interpret engineering blueprint drawings, draw engineering components, update engineering drawings and convert 3D models to 2D drawings by using CAD system. Students should also be able to print 3D models from 3D printer and perform free hand sketching of engineering drawings.

Industrial Piping and Valve System

On completion of the module, students should be able to carry out minor repair and replacement of fluid supply pipes and fittings; maintain, troubleshoot and repair industrial fluid valves.

Machinery Maintenance

On completion of the module, students should be able to maintain and service bearings and basic engineering mechanisms, lubrication systems and mechanical transmission systems; lift and move heavy loads safely. Students should also be able to maintain, troubleshoot and repair machinery and equipment.

Electro Pneumatics and Hydraulics

On completion of the module, students should be able to install, maintain and troubleshoot electro-pneumatic and electro-hydraulic systems in plant machinery and auxiliary equipment.

IoT and Electrical Applications

On completion of the module, students should be able to program microcontroller using High Level Programming Language, transmit data collected from sensors to Cloud Server to be presented as graphical information. Students should also be able understand types of electrical accessories, connect up simple electrical circuits and replace faulty electrical components.

Plant Equipment Maintenance

On completion of the module, students should be able to install, maintain, troubleshoot and repair air compressor system, mechanical conveyor system and industrial fluid pumps.

Industry Attachment

On completion of the module, students should be able to acquire and apply a cluster of key technical, social and methodological competencies in the occupation.