

NITEC IN MECHATRONICS & ROBOTICS

Core Modules

Pneumatics

On completion of the module, students should be able to install, maintain and troubleshoot pneumatic and electro-pneumatic systems.

Robotics

On completion of the module, students should be able to install, program, troubleshoot and maintain a robotics system.

Electrical and Electronics Practices

On completion of the module, students should be able to install electrical trunking, carry out system wiring for machine control, check and test industrial electronics components and simple electronics circuits using common test instruments to identify and rectify faults.

CAD and Mechanical Systems

On completion of the module, students should be able to read, interpret and produce geometrical and mechanical drawings using Computer-Aided Drafting (CAD) software; fabricate parts according to specifications in work drawing and work samples; carry out maintenance to service, adjust and align mechanical elements.

Drives and Motor Control

On completion of the module, students should be able to install, maintain, troubleshoot and modify common AC and DC motor and control circuits used in automated and manufacturing systems.

PLC and Automation

On completion of the module, students should be able to carry out installations, operations and troubleshooting of programmable logic controller & sensors systems used in automated system and manufacturing systems.

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.