

NITEC IN MECHATRONICS AND ROBOTICS

MODULE OBJECTIVES

Core Modules

Pneumatics

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

Robotics

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

Electrical & Electronics Practices

On completion of this module, students should be able to install electrical trunking, and 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 drawing using Computer-Aided Drafting (CAD) software; and fabricate metal parts according to specifications in working drawing and work samples and carry out maintenance to service, adjust and align mechanical elements.

Drives and Motor Control

On completion of this 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 this 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.

On-The-Job Training I

On completion of the module, trainees should be able to apply and integrate Year 1 skills and knowledge acquired at ITE College, and further develop competencies at the workplace.

On-The-Job Training II

On completion of the module, trainees should be able to apply and integrate Year 2 skills and knowledge acquired at ITE College, and further develop competencies at the workplace.