

NITEC IN TECHNOLOGY – MECHATRONICS & ROBOTICS

Course Code: NTMCR / Plan Code: NTMCR

COURSE OBJECTIVE

This course provides students with multi-disciplinary skills and knowledge in installing, setting up, operating, maintaining and servicing industrial automated production equipment and systems.

COURSE STRUCTURE

S/N	Module Details	Module Code	Module Objectives
M1	Pneumatics 48 hrs (T) 60 hrs (P) Credits: 6 Prerequisite: Nil	MC2011FP	On completion of this module, students should be able to install, maintain and troubleshoot pneumatics and electro-pneumatic systems.
		Equivalent Codes MC2001FP MC2001FPR	
M2	Robotics 30 hrs (T) 78 hrs (P) Credits: 6 Prerequisite: Nil	MC2012FP	On completion of this module, students should be able to install, program, troubleshoot and maintain a robotics system.
		Equivalent Codes MC3002FP MC3002FPR	
M3	Electrical and Electronics Practices 48 hrs (T) 60 hrs (P) Credits: 6 Prerequisite: Nil	MC2013FP	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.
		Equivalent Codes MC2003FP MC2003FPR MC2002FP* MC2002FPR*	
M4	CAD and Mechanical Systems 30 hrs (T) 78 hrs (P) Credits : 6 Prerequisite: Nil	MC2014FP	On completion of this 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.
		Equivalent Code Nil	
M5	Drives and Motor Control 48 hrs (T) 60 hrs (P) Credits: 6 Prerequisite: Nil	MC3011FP	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.
		Equivalent Codes MC3001FP MC3001FPR	
M6	PLC and Automation 30 hrs (T) 78 hrs (P) Credits: 6 Prerequisite: Nil	MC3012FP	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.
		Equivalent Codes MC3003FP MC3003FPR	

Abbreviations: T – Theory, P – Practical

*Manual exemption after completion of Electrical Installation (MC2002FP, MC2002FPR) module.

CREDITS FOR CERTIFICATION

Total of 36 credits from successful completion of 6 modules.

OTHER ENTRY REQUIREMENTS

- Passed *ISC* in Autonomous Maintenance; or
- Passed *ISC* in Electrical Servicing.

VENUE

ITE College Central, ITE College West

Note:

- 1) The training schedule of lessons is subject to change.
- 2) Depending on demand, not all the modules in the CET *Nitec* in Technology courses will be offered in each intake. Where the modules are offered and there is insufficient enrolment, the classes will be cancelled and a full refund will be given to the affected students.