HIGHER NITEC IN ELECTRICAL ENGINEERING

Electives (Course Specific)

Sensor Technology
On completion of the module, students should be able to explain the principles of operation, characteristics and applications of various sensors in industrial and electrical engineering works.

SCADA
On completion of the module, students should be able to explain the basic configuration and provide an overview of a SCADA system. They are also trained to explain the techniques and methods used on data acquisition, the control of the field devices, communication, applications and operation of the system.

Structured Cabling
On completion of the module, students should be able to explain the principles of structured cabling and install a standard cabling system accordingly to the relevant standard. They also should be also able to perform testing and trouble-shooting and certify the quality of structured cabling installations with both copper and fibre-optic cables.

Applied Pneumatic Control
On completion of the module, students should be able to develop control circuits based on knowledge of the construction, principles of operation and application of the various components and equipment in electromechanical, pneumatic and electro-pneumatic control systems.

Power Quality
On completion of the module, students should be able to use monitoring tools to measure power quality (PQ) in an electrical power installation. They should also be able to explain the various sources of power quality problems and their mitigation techniques.

Lighting Effects and Applications
On completion of the module, students should be able to apply the principles of lighting effects to install and maintain lighting schemes for different client requirements.

Electives (Joint ITE-Industry)

PLC Control Builder
On completion of the module, students should be able to use PLC engineering tool to configure projects based on IEC61131-3 standard with one or several applications running in PLC.