

NITEC IN ELECTRICAL TECHNOLOGY (LIGHTING & SOUND)

Electives (Course Specific)

PLC Applications and Networking

On completion of the module, students should be able to set up, configure and test a PLC network for an industrial automation system.

Entertainment Lighting Design

On completion of the module, students should be able to apply the knowledge of basic lighting design principles and techniques in producing a small entertainment show using lighting visualization software.

Smart Home

On completion of the module, students should be able to program a smart home system for controlling lighting in a house.

3D Audio and Acoustics

On completion of the module, students should be able to apply the knowledge, skills of 3D audio for live, and studio applications, which includes the ability to employ the right type of equipment to carry out, setting up 3D sound systems. Student should also be able to apply the knowledge and skills in acoustic fundamentals, which includes understanding room mode and acoustic treatment.

Electives (Inter-disciplinary)

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 principle of structured cabling and install a standard cabling system according to the relevant standard. They should also be 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.

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 IEC 61131-3 standard with one or several applications running in PLC.