NITEC IN ELECTRICAL TECHNOLOGY (LIGHTING & SOUND)

CERTIFICATION

Credits required for certification:

Core Modules	:	43
Life Skills Modules	:	9
Elective Modules	:	4
Total	:	56

COURSE STRUCTURE

Module Title	Credits
CORE MODULES	
Residential Installation and Testing	6
Industrial and Commercial Installation and Testing	6
Power System and Switchboard	6
Lighting Systems and Control	6
Sound Systems and Control	6
Visual Media Systems and Control	5
Industry Attachment	8
ELECTIVES (COURSE SPECIFIC)	
PLC Applications and Networking	2
Entertainment Lighting Design	2
Smart Home	2
3D Audio and Acoustics	2
Digital Sound Production	2
ELECTIVES (INTER-DISCIPLINARY)	
Sensor Technology	2
SCADA	2
Structured Cabling	2
Applied Pneumatic Control	2
ELECTIVES (JOINT ITE-INDUSTRY)	
PLC Control Builder	2
ELECTIVES (GENERAL) AND LIFE SKILLS MODULES	
For details, click here	

Note: The offer of electives is subject to the training schedule of respective ITE Colleges. Students are advised to check with their Class Advisors on the availability of the elective modules they intend to pursue.

Core Modules

Residential Installation and Testing
On completion of the module, students should be able to design, install, test and maintain single phase electrical installation and wiring systems in residential premises in compliance with relevant local standards, regulations and codes of practice.

Industrial and Commercial Installation and Testing
On completion of the module, students should be able to design, install, test and maintain three phase electrical installation and wiring systems in industrial and commercial premises in compliance with relevant local standards, regulations and codes of practice.

Power System and Switchboard
On completion of the module, students should be able to perform proper isolation, lockout tag out procedures as well as maintain low voltage electrical switchboards, power monitoring system and temporary electrical supply system in compliance with relevant local standards, regulations and codes of practice.

Lighting Systems and Control
On completion of the module, students should be able to install, test and operate lighting equipment and systems used in MICE, entertainment and performing arts industry in compliance with relevant local standards, regulations and codes of practice.

Sound Systems and Control
On completion of the module, students should be able to plan, install, test and maintain sound equipment and systems used in MICE, entertainment and performing arts industry in compliance with relevant local standards, regulations and codes of practice.

Visual Media Systems and Control
On completion of the module, students should be able to install, test and operate visual media equipment and systems used in MICE, entertainment and performing arts industry in compliance with relevant local standards, regulations and codes of practice.

Industry Attachment
Students will be attached to relevant companies to complement and reinforce the skills and knowledge acquired at ITE and to gain professional and working experience.

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.

Digital Sound Production

On completion of the module, students should be able to perform digital sound productions including making sound recordings and digitizing, editing, equalizing, applying effects & mastering audio files.

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 IE61131-3 standard with one or several applications running in PLC.

Electives (General) and Life Skills Modules

For details, click here.