HIGHER NITEC IN ELECTRICAL ENGINEERING (2 YEARS)

CERTIFICATION

Credits required for certification:

Cluster Core Modules	:	27
Specialisation Modules	:	12
Internship Programme Modules	:	8
Life Skills Modules	:	9
Cross-Disciplinary Core Modules	:	6
Electives	:	6
Total	:	68

COURSE STRUCTURE

Module Title	Credits
CLUSTER CORE MODULES	
Residential Electrical Installation	3
Electrical Design & Drafting	3
Electrical Principles	3
Electrical Motor & Control	3
Electrical Switchboard	3
Commercial Electrical Installation	3
Electrical Machine & Drive	3
Power Distribution System	3
Solar Photovoltaic System	3
SPECIALISATION MODULES	
Solar Photovoltaic Design	3
Sustainable Energy System	3
Intelligent Building System	3
Instrumentation & Control System	3
INTERNSHIP PROGRAMME MODULE	
Internship Programme	8
ELECTIVES (GENERAL) AND LIFE SKILLS MODULES	
For details, click here	

Note: The offer of Cross-Disciplinary Core (CDC) modules and 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 CDC and elective modules they intend to pursue.

MODULE OBJECTIVES

Cluster Core Modules

Residential Electrical Installation
On completion of the module, students should be able to install, maintain, inspect and test electrical installation in residential and office premises.

Electrical Design & Drafting
On completion of the module, students should be able to design electrical installation and prepare electrical drawing of electrical installation.

Electrical Principles
On completion of the module, students should be able to troubleshoot DC and AC circuits.

Electrical Motor & Control
On completion of the module, students should be able to maintain DC and AC motors as well as maintain motor control circuit and equipment.

Electrical Switchboard
On completion of the module, students should be able to maintain electrical switchboard circuit and equipment, manage electrical power monitoring system and perform predictive and condition-based maintenance for electrical system.

Commercial Electrical Installation
On completion of this module, students should be able to manage, inspect and test commercial electrical installation, maintain temporary electrical supply system as well as manage smart monitored emergency lighting and fire alarm system.

Electrical Machine & Drive
On completion of the module, students should be able to maintain transformer installation, electrical motor and drive system installation as well as select electrical motor for application.

Power Distribution System
On completion of the module, students should be able to manage electrical standby supply system, electrical power factor improvement system and maintain electricity distribution system.

Solar Photovoltaic System
On completion of the module, students should be able to install and maintain solar photovoltaic system.

Specialisation Modules

Solar Photovoltaic Design
On completion of this module, students should be able to design and troubleshoot solar photovoltaic system.

Sustainable Energy System
On completion of the module, students should be able to manage electric vehicle supply equipment and maintain energy storage system.

Intelligent Building System
On completion of the module, students should be able to program PLC and smart relays as well as install intelligent building control system and smart home control system.

Instrumentation & Control System
On completion of the module, students should be able to maintain instrumentation and control system as well as smart instruments.

Electives (General) and Life Skills Modules
For details, click here.