WORK-STUDY DIPLOMA IN ELECTRICAL ENGINEERING

Course Objective

This course equips trainees with the skills, knowledge and professional attributes to design, install, maintain, repair, inspect, test, operate and supervise electrical installations and systems in accordance with engineering specifications as well as codes of practice and regulations.

Module Synopsis

Module 1: Electrotechnology
On completion of the module, trainees should be able to analyse, connect, test and troubleshoot DC, AC and electromagnetic circuits.

Module 2: Industrial Control Automation
On completion of the module, trainees should be able to design and install programmable logic control system.

Module 3: Electrical Design & Installation
On completion of the module, trainees should be able to design, install, test and maintain electrical installations in compliance with the relevant codes of practice and statutory regulations.

Module 4: Electrical Drafting
On completion of the module, trainees should be able to produce electrical layout drawing and single-line diagram.

Module 5: Circuit Analysis
On completion of the module, trainees should be able to determine electrical quantities as well as apply concepts and theorems in circuit analysis for three-phase systems and manage electrical loading.

Module 6: Power Electronics
On completion of the module, trainees should be able to maintain power electronics and energy storage systems.

Module 7: Electrical Motor & Control System
On completion of the module, trainees should be able to design, install and maintain electrical motor and control systems.

Module 8: Power Distribution System
On completion of the module, trainees should be able to design, install and maintain major electrical equipment and its associated protective devices in the power distribution system, in compliance with the relevant codes of practices and statutory regulations.

Module 9: Power System Analysis
On completion of the module, trainees should be able to analyse power distribution and mitigate power quality issues.

Module 10: Solar Photovoltaic System & Electric Vehicle Charger
On completion of the module, trainees should be able to design, install and maintain solar

photovoltaic system as well as maintain electric vehicle charging infrastructures.

Module 11: Company Project
On completion of the module, trainees should have applied their acquired competencies in an authentic project that would value-add to the company.

Module 12: On-the-Job Training
On completion of the module, trainees should be able to apply the skills and knowledge acquired at ITE College and workplace to take on the full job scope, including supervisory function, where appropriate, at the company.