

WORK-STUDY DIPLOMA IN APPLIED ELECTRONICS & AI

Course Objective

This Work-Study Diploma course aims to equip graduates with applied and emerging digital skills to support Electronics Manufacturing and Engineering Services. It includes Industrial IoT (IIoT), Artificial Intelligence (AI), Automation, Data Analytics and Visualisation for a digitalised work environment.

Module Objectives

Electronics & Electrical Principles

On completion of the module, trainees should be able to manage operations and performance for equipment and products. They should also be able to manage equipment and product failures by implementing Electrostatic Discharge (ESD) Control measures and evaluating performance metrics.

Applied Electronics

On completion of the module, trainees should be able to manage system integration by designing and implementing integrated system, as well as maintaining system performance.

IoT Devices & Networking

On completion of the module, trainees should be able to manage IoT network and connectivity by programming and deploying IoT devices, configuring IoT network connectivity and monitoring IoT data transmission for quality IoT data communication.

IoT Connectivity & Integration

On completion of the module, trainees should be able to deploy and manage IoT solutions, as well as implement remote monitoring, and maintaining IoT security.

Automation & Programming

On completion of the module, trainees should be able to manage automation process by designing, validating and optimising automation process.

Data Analysis & Visualisation

On completion of the module, trainees should be able to extract and transform data into useful information, as well as create visual elements, to aid in business decision-making. They should also be able to manage projects through collaboration and teamwork.

AI & Machine Learning

On completion of the module, trainees should be able to deploy and deliver AI/Machine Learning (ML) solutions by automating data processing and evaluating AI/ML models.

Autonomous System Applications

On completion of the module, trainees should be able to set up, program and integrate autonomous robots for applications.

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

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.