

## **Module Synopsis**

### **PDC 1 Certificate in Smart Systems & Cloud Computing**

#### **1. Smart Sustainable Systems and Applications (60 hours)**

This module provides an overview of smart city technologies, urban sustainable solutions and applications. This module will also discuss various digital technologies such as Networking, Internet of Things (IoT) and Machine-to-Machine (M2M) communication, Cloud Computing Services, Digital Security Management and Video Analytics, focusing on how they work together to create a complete digital solution for smart sustainable cities.

#### **2. Data Analytics and Cloud Computing (60 hours)**

The module covers the concepts of Data Analytics, starting with an introduction to the tools for preparation and pre-processing of data, followed by various analysis tools in the domains of supervised and unsupervised learning. Students will learn to write analysis programs using general data analytics languages and will also use latest cloud data analytics software tools for data analysis.

### **PDC 2 Certificate in Sensors & Mobile Development**

#### **3. Sensors and Communication for AIoT Solutions (60 hours)**

The module aims to equip students with Artificial Intelligent of Things (AIoT) concepts and skills, such as Python Programming, Client-Server Technologies, Data Analytics and Machine Learning, security in IoT applications, and the use of a graphical programming language to develop AIoT applications.

#### **4. Low-Code Mobile Application Development (60 hours)**

The module introduces to the students a low-code application development platform and its Graphical User Interface (GUI) tools and Drag-and-Drop features for mobile application development in a quick and easy way.

The low-code development platform uses visual interfaces with simple logic and Drag-and-Drop features, reusable components, instead of traditional coding languages. These intuitive tools allow users with no formal knowledge of coding or software development to create applications for various purposes including mobile apps for business.