CERTIFICATION IN
INTERNET OF THINGS

Course Code : OCIT0017

IoT refers to an Internet Of Things (IoT). Connecting any device (including everything from cell phones, vehicles, home appliances and other wearable embedded with sensors and actuators) with Internet so that these objects can exchange data with each other on a network. IoT devices are a part of the larger concept of home automation, which can include lighting, heating and air conditioning, media and security systems.

Curriculum

Module 1: Introduction to IoT

M2M to IoT-The Vision-Introduction, From M2M to IoT, M2M towards IoT-the global context, A use case example, Differing Characteristics, M2M to IoT – A Market Perspective– Introduction, Some Definitions, M2M Value Chains, IoT Value Chains, An emerging industrial structure for IoT, The International driven global value chain and global information monopolies

Module 2: IoT Technology Fundamentals

M2M and IoT Technology Fundamentals- Devices and gateways, Local and wide area networking, Data management, Business processes in IoT, M2M and IoT Analytics, Knowledge Management

Module 3: IoT Architecture

IoT Architecture-State of the Art – Introduction, State of the art, Architecture Reference Model- Introduction, Reference Model, and architecture.

Module 4: IoT – Privacy, Security, and Governance

Introduction, Overview of Governance, Privacy and Security Issues, Contribution from FP7 Projects, Security, Privacy and Trust in IoT-Data-Platforms for Smart Cities, First Steps Towards a Secure Platform, Smartie Approach. Data Aggregation for the IoT in Smart Cities, Security

Module 5: IoT Applications

Introduction, IoT applications for industry: Future Factory Concepts, Brownfield IoT, Smart Objects, Smart Applications, Four Aspects in your Business to Master IoT, Value Creation from Big Data and Serialization, IoT for Retailing Industry, IoT For Oil and Gas Industry, Opinions on IoT Application and Value for Industry, Home Management, eHealth.

Learning Outcomes

- Key concepts of Internet of things and Internet of Everything
- How cloud plays an important role in IoT Infrastructure
- The communication protocols in IoT
- What are the real time applications and what is future scope related to same.
- Understand State of the Art – IoT Architecture.
- Learn Application area of IoT