

## **4G/5G Wireless Networks and Services**

### **Module:1**

Introduction to 4G/5G Wireless Networks  
Wireless Communication Fundamentals  
Radio Access Technologies for 4G/5G Networks  
LTE Architecture and Protocols  
5G Architecture and Protocols

### **Module:2**

Radio Access Network (RAN) and Core Network (CN) for 4G/5G Networks  
4G/5G Network Architecture Evolution (NAE)  
5G New Radio (NR) Interface and Protocol Stack  
LTE-Advanced Pro and 5G Advanced Features  
Voice over LTE (VoLTE) and Voice over 5G (Vo5G)

### **Module:3**

Network Slicing in 4G/5G Networks  
Mobile Edge Computing (MEC) and 4G/5G Networks  
Internet of Things (IoT) and 4G/5G Networks  
Machine-to-Machine (M2M) Communications in 4G/5G Networks  
Network Function Virtualization (NFV) and Software-Defined Networking (SDN) for 4G/5G Networks

### **Module:4**

5G Radio Access Network (RAN) Deployment Options and Scenarios  
5G RAN Capacity and Coverage Planning  
5G RAN Performance Management and Optimization  
5G Core Network (CN) Deployment Options and Scenarios  
5G CN Capacity and Scalability Planning

**Module:5**

5G Service-Based Architecture (SBA)

5G Service Enablement and Delivery

5G Service Assurance and Quality of Experience (QoE)

5G Security Architecture and Protocols

5G Business Models and Use Cases