5G Foundation Training

The purpose of this 5G course is to enable the delegate to understand the 5G technology ecosystem along with certain key policy/regulatory elements of mobile communications.

Exploring the key concepts of 5G and explore the end-to-end architecture that comprises the new generation of mobile network environments, including radio access network, core network.

We will also explore the seismic change to the way we communicate with smart phone has impacted mobile communications and the fact that components such as; batteries, processors and antennas may require major upgrades. We will also go through 5G security, 5G private Network and Mobile edge computing technologies

Audience

Anyone requiring an end to end overview of the 5G Technology

Duration : 2 Days

Content of the Training:

1) 5G overview and 5G concepts

1. What is 5G ?
2. 5G promises
3. 5G use case families: eMBB, URLLC, mMTC
4. 3GPP position with 5G
5. Services and requirements for vertical sector
6. Cooinnovation between verticals

2) 5G Radio access Network

1. What is spectrum
2. What are 5G bands
3. What is 5G New radio
4. 5G New technologies
5. Massive Mimo
6. 5G Beamforming
7. 5G New Radio Design
8. 5G Numerology
9. 5G Slots
10. Internet of Things

3) 5G Industry progress and offers

1. Vision ITU
2. Deployments in 5G bands
3. Spectrum in belgium
4. Mmwave
5. 5G offers
6. Impact of 5G on Altimeters in plane
7. Impact of 5G on Health

4) 5G End to end architecture

1. 5G radio architecture
2. Standalone Vs Non standalone architectures
3. 5G deployment options
4. 5G Core architecture
5. 5G Network Slicing
6. NFV, SDN and Orchestration
7. NFVI

5) 5G Core Network

1. Evolution of 5G Core
2. Enablers for 5G Core
3. Components of 5G Core SBA
4. Interworking between EPC and 5GC
5. 5G QoS

6) 5G Technology enablers and 5G Security

1. 5G Massive Mimo details
2. 5G Beamforming with example
3. Which massive Mimo to choose
4. 5G security concepts and mechanisms
5. 5G Security players and threats
6. User Privacy Protection Requirements
7. Protecting the Subscriber Identity in 5G
8. User plan integrity

7) 5G Private networks and MEC

1. What is a private Network
2. Challenges of 5G Private Network
3. Spectrum requirements for 5G Private Network
4. MEC and its Architecture
5. Key drivers of MEC
6. Market with MEC