5G Network Introduction Webinar

Course Duration: 2 days

Course Content:
- Evolution **-**
  - 2G and 3G: Frequency range, Mobile Backhauling 2G/3G General Architecture
  - LTE and LTE advanced
  - Development from 4G to 5G
- What is 5G?
- 5G Spectrum: Non-Millimeter Waves, Millimeter Waves, Global Frequency Distribution Snapshot, Carrier Aggregation (CA), Dynamic Spectrum Sharing (DSS)
- Massive MIMO: Beamforming, Small Cells (Micro/Macro)
- Types of RAN Network - Structure of gNodeB, D-RAN, C-RAN, vRAN, Open RAN
- RAN Disaggregation - Split RAN Architecture, X haul, Site & Tower Sharing
- 5G Architecture
  - Modes in 5G - Non stand-alone mode (NSA), Stand-alone mode (SA), Migration Options
  - LTE Evolved Packet Core vs 5G Service Based Architecture Core
  - 5G QoS
- Network Services
  - Enhanced Mobile Broadband (eMBB)
  - Ultra-reliable and Low-latency Communications (uRLLC)
  - Massive Machine Type Communications (mMTC)
  - Private Networks
  - Industry 4.0
- Pillars of 5G Services
  - Network Functions Virtualization (NFV)
  - Software Defined Network (SDN)
  - Multi-Access Edge Computing
  - Timing Mobile BackHaul Network
  - SD-WAN
  - 5G Security
  - End to End Network Slicing – FlexE, Time Sensitive Network, Segment Routing
- 5G Market Readiness
- Use cases emerging out of SDN and NFV across Fixed, Mobile, Enterprise, Data Centers and Traditional Service Provider Networks.
- How to monetize 5G
- Beyond 5G and 6G