



6G Training for Everyone

6G Technology Training course is a 2-day technical training. Participants will learn how the sixth-generation standard for wireless communications technologies is expected to support cellular data networks.

In the 6G Training course, attendees will examine the 6G Vision, 6G Roadmap, and 6G Technologies being touted for 6G. There's also a thorough look at 6G Applications Use Cases that will likely be part of the 6G journey.

The 6G technology market is expected to facilitate large improvements in the areas of imaging, presence technology and location awareness.

Working in conjunction with artificial intelligence (AI), the 6G computational infrastructure will be able to identify the best place for computing to occur. This includes decisions about data storage, processing and sharing.

Although there is no specific 6G Standard yet, there are technologies already in development that can be used to achieve 6G's benefits.

Audience

Knowledge on Mobile Technology

Duration : 2 Day

Content of the Training:

1) Module 1 : Why do we need another « G »

- 6G Fundamentals: vision and enabling technologies
- 6G Use cases (including 6G business cases)
- Analysis of 6G vision, architecture, and key technologies
- Overview of 5G and 5G Advanced
- Connecting a cyber-physical world with 6G
- 5G Advanced to migration to 6G
- 6G devices
- 6G technology requirements
- 6G initiatives
- Beyond 5G (B5G) and 6G initiatives

2) Module 2 : 6G frequencies

- 3GPP standardization development organizations
- Terahertz frequencies
- Holoportation
- Tactile/haptic communications
- Ubiquitous services (land, air, space, and sea)
- Advanced imaging and sensing

3) Module 3 : 5G Advanced: Evolution towards 6G

- 3GPP technology evolution
- 5G Advanced features
- 5G Advanced enhancements

- Intelligent network automation
- Extended reality (XR)
- Reduced capability (RedCap) NR devices
- Network energy savings
- Deterministic networking for IoT
- AI/ML for RAN enhancements
- AI/ML for physical layer enhancements
- AI/ML in 5G core
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4) **Module 4 : 6G Technology Building Blocks**

- 6G's network architecture
- 6G spectrum
- Terahertz (THz) communications
- 6G KPIs
- Parameters for 6G Cellular Technologies
- Reconfigurable Intelligent Surface (RIS)
- Reflecting intelligent surfaces, smart repeaters, and holographic radios
- Understanding RIS network node

5) **Module 5 : Migration from 5G to 6G**

- 6G enabling technologies
- Combined Sensing and Communication
- Information centric to integrated sensing and communication
- upper mmW band (100–300 GHz),
- THz band (>300 GHz)
- The upper mmW or THz band for sensing networks