XCELERATE TRAINING INSTITUTE

your learning & development partner

TELECOMMUNICATION

5G Technology

DURATION	LANGUAGE	FORMAT
5 days	**English**	**Classroom / Online**

Upcoming dates

Dates	Venue	Format	Fee
8 – 12 Feb 2027	Live online	Online (live)	**€1,600**
15 – 19 Mar 2027	Madrid	Classroom	**€5,500**
16 – 20 Aug 2027	Live online	Online (live)	**€1,600**

Register or ask a question

Online: x8ti.com/course/5g-technology/

+491631686678 · info@x8ti.com

5G Technology

Introduction

This course by Xcelerate Training Institute introduces the fundamental concepts of 5G technology, building upon the foundation of existing mobile networks. It explores the key features and benefits of 5G, including increased speed, expanded coverage, and enhanced capacity. The course provides a comprehensive overview of 5G technologies, such as Massive MIMO, mmWave, and network slicing.

Learning Objectives

Upon completion, participants will gain a foundational understanding of 5G technology, its key components, and potential applications. They will be able to identify the opportunities and challenges associated with 5G deployment.

Training Methodology

The course combines theoretical knowledge with practical examples to provide a comprehensive learning experience. Participants will engage in interactive discussions, case studies, and hands-on activities to apply their knowledge.

Benefits for Your Organisation

Organizations investing in this course can expect to gain insights into the potential of 5G technology and identify opportunities for network modernization and service enhancement.

Benefits for You

Individuals will develop a foundational knowledge of 5G technology, expanding their understanding of the evolving telecommunications landscape.

Who Should Attend

This course is designed for professionals working in the telecommunications industry who seek a basic understanding of 5G technology.

Course Outline

This course aims to provide a comprehensive understanding of 5G networks, from their fundamental principles to their potential applications. Students will delve into the key advancements that 5G offers over previous generations, exploring the technological innovations that drive its performance and capabilities. By examining the diverse range of applications and use cases enabled by 5G, students will gain insights into its transformative potential across various industries. Additionally, the course will address the challenges and opportunities associated with 5G deployment and adoption, including technical, regulatory, and economic factors.

Introduction to 5G

- Evolution of mobile communication technologies (1G to 4G)

- Key drivers and goals of 5G development
- 5G vision and key requirements
- Comparison of 5G with previous generations

5G Architecture and Key Technologies

- 5G network architecture (RAN, Core Network, Transport Network)
- 5G radio access technologies (NR)
- Massive MIMO and beamforming
- Carrier aggregation and dynamic spectrum sharing
- Network slicing and virtualization
- Edge computing and network function virtualization (NFV)

5G Use Cases and Applications

- Enhanced mobile broadband (eMBB)
- Massive machine-type communications (mMTC)
- Ultra-reliable low-latency communications (URLLC)
- Internet of Things (IoT) and smart cities
- Industry 4.0 and automation
- Autonomous vehicles and connected transportation
- Healthcare and remote monitoring

5G Challenges and Opportunities

- Spectrum allocation and management
- Interoperability and standardization
- Security and privacy concerns
- Economic and social impact
- Deployment and infrastructure challenges
- Regulatory framework and policy issues

5G Future Trends and Research

- 6G vision and key requirements
- Emerging technologies and research areas
- Future applications and use cases
- Challenges and opportunities for 5G evolution

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Registration Form

5G Technology

Preferred dates: ..... Venue or online: .....

Duration: 5 days Language: .....

Please complete and email this form to us, or register online. We confirm your place and send the invoice within one working day.

Delegate information

Full name (Mr / Ms / Dr / Eng): .....

Position: ..... Telephone / mobile: .....

Official email: ..... Personal email: .....

Company information

Company name: .....

Address: .....

City / country: ..... VAT / tax number: .....

Person responsible for training & development

Full name (Mr / Ms / Dr / Eng): .....

Position: ..... Telephone / mobile: .....

Email: .....

Payment

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Signature: ..... Date: .....

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Email this form
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Register online
Open the course page