



## 5G NR Signaling for NSA and SA

### Description

This technical course offers an in-depth exploration of the 5G system architecture, main interfaces, identifiers, network protocol layers, Quality of Service (QoS) architecture, and various key procedures and signaling in the 5G network from NSA and SA. With several concise modules, the course covers essential topics to help participants gain a solid understanding of the signaling of 5G technology from NSA and SA.

By completing this course, participants will gain a comprehensive understanding of the 5G system, enabling them to work effectively in the rapidly evolving field of telecommunications and network technology.

### Content of the Training:

01 5G System Architecture and Main Interfaces (1)

02 5G System Architecture and Main Interfaces (2)

03 Identifiers on 5G Networks (1)

04 Identifiers on 5G Networks (2)

05 5G Network Protocol Layer States (1)

06 5G Network Protocol Layer States (2)

07 5G QoS architecture (1)

08 5G QoS architecture (2)

09 5G QoS architecture (3)

10 5G QoS architecture (4)

11 NSA Initial Attach (1) -NSA networking concepts

12 NSA Initial Attach (2) -NSA UE Initial Attach analysis (1)

13 NSA Initial Attach (3) -NSA UE Initial Attach analysis (2)

14 Initial SCG Addition and Deletion (1) -LTE attach

15 Initial SCG Addition and Deletion (2) -UE admission

16 Initial SCG Addition and Deletion (3) -UE capability reporting

17 Initial SCG Addition and Deletion (4) -SgNB addition (1)

18 Initial SCG Addition and Deletion (5) -SgNB addition (2)

- 19 Initial SCG Addition and Deletion (6) -SgNB release
  
- 20 NSA Mobility Management (1) SgNB modification& change
  
- 21 UE Initial Access (1) - Overview
  
- 22 UE Initial Access (2) -System information introduction
  
- 23 UE Initial Access (3) -NR System Information Processing (1)
  
- 24 UE Initial Access (4) -NR System Information Processing (2)
  
- 25 UE Initial Access (5) -SI Acquisition
  
- 26 UE Initial Access (6) -Random access (1)
  
- 27 UE Initial Access (7) -Random access (2)
  
- 28 UE Initial Access (8) - UE Initial Registration overview
  
- 29 UE Initial Access (9) - RRC connection setup
  
- 30 UE Initial Access (10) - Obtain the UE's SUPI
  
- 31 UE Initial Access (11) -Register with the UDM & PCF policy update

32 UE Initial Access (13) - SA security (1)

33 UE Initial Access (14) - SA security (2)

34 UE Initial Access (14) - SA Network Slice Selection (1)

35 UE Initial Access (15) - SA Network Slice Selection (2)

36 PDU Session Setup (1) -Overall PDU Session Establishment Procedure

37 PDU Session Setup (2) - PDU Session Establishment Process (1)

38 PDU Session Setup (3) - PDU Session Establishment Process (2)

39 PDU Session Setup (4) - SSC mode

40 Service Request (1) - UE-triggered Service Request Procedure

41 Service Request (2) - Network-triggered Service Request Procedure&paging

42 RRC State Transition (1) -RRC State Introduction

43 RRC State Transition (2) -RRC State Transition Process

44 Mobility Management (1) -Overview

45 Mobility Management (2) -RNA

46 Mobility Management (3) - NR Intra-RAT Handover

47 Mobility Management (4) - NG-based Intra-RAT Handover

48 Mobility Management (5) - Xn-based Intra-RAT Handover

49 Mobility Management (6) -Interoperability Between 5GS and EPS (1)

50 Mobility Management (7) -Interoperability Between 5GS and EPS (2)

51 Voice Service (1) -VoNR

52 Voice Service (2) -EPS Fallback