

Certification in Telecommunication Fundamentals and SS7

Course Code:- FS_BTSS7

Duration :- 6 Weeks

Technical Level :- Intermediate

Training Objective: - This course is ideal for those who want to understand the fundamentals of telecommunications. Topics covered in this course are building blocks for understanding any technology. We have tried to design this for anyone who may be having absolutely no knowledge of telecom. Beginning with the basics of telecommunications, it also covers the complex concepts of Signaling System 7 or SS7.

Learning Objectives: - On completion of this program the student will learn:

1. landline telephone network architecture
2. Signaling System 7 or CCS#7 architecture and protocols
3. signaling flow for call setup in landline telephone networks

Pre-Requisites:- B.E, B.E (Final Year), M.C.A, B.C.A, M.E or equivalent

Audience: - Suitable for students, marketing professionals and anyone aspiring to be a part of telecom industry.

Benefits & Key Highlights:-

1. Practice interview(s) with those actually conducting interviews in IT companies
2. Placement guidance & full technical support, even after completion of training

Course Contents:- This course covers following topics:

1. Definition of Telecommunications
2. Examples of Telecom Networks
3. Telecom Signaling
4. Signaling Transmission Methods
 - o Robbed-Bit Signaling
 - o Direct Current (DC) Signaling
 - o In-Band and Out-of-Band Signaling

- o Channel Associated Signaling (CAS) and Common Channel Signaling (CCS)
5. Switching
 6. Telephone Network Architecture
 - o Telephone switch
 - o Local Loop
 - o Central Office (CO) / End Office
 - o Local Exchange Carrier (LEC) Network
 - o Inter-Exchange Carriers (IEC / IXC) or Long Distance Carrier Networks
 7. Signaling in the telephone network
 8. Simple Telephone network working
 9. Signaling System #7 (SS7)
 10. SS7 Functions
 11. SS7 Signaling Points
 - o Service Switching Point (SSP)
 - o Signaling Transfer Point (STP)
 - o Signaling Control Point (SCP)
 12. SS7 Network Architecture
 13. SS7 Links
 - o A Links
 - o B Links
 - o C Links
 - o D Links
 - o F Links
 - o E Links
 14. SS7 Protocols
 - o MTP-1
 - o MTP-2
 - o MTP-3
 - o ISUP - ISDN User Part
 - o SCCP - Signaling Connection Control Part
 - o TCAP - Transactions Capability Application Part

Course Material: - This course is covered as following:

1. White board sessions recorded over 2 DVD's covering all the course topics
2. Technical notes covering all the course topics in detail.
3. Access to quizzes and assignments through e-University

4. Advanced topics discussed during classroom/tutorial sessions scheduled over weekends

Query Resolution Methods:-

1. Interactive classroom/tutorial sessions scheduled during weekends covering doubts, advanced topics and other interesting discussions.
2. Voice conference sessions over Skype
3. Emails
4. Discussion Forum in e-University

Evaluations: -

1. Online Quizzes and Assignments for each course topic
2. Interview at completion of training

Course Fee:-

1. Rs. 4000 for Indian Students (including postal charges)
2. \$ 200 for Non-Resident Students (excluding postal charges)

