



Course Content Transmission

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| Name of the course: | Certificate in Applied Telecommunication Systems |
| Duration: | 10 days |
| Venue: | Welisara |

Course content:

- ✚ Telecommunication Switching Systems (Theory, System Principles and Practical)
 - ❖ Switching Networks
 - Switching hierarchy: primary, secondary, tertiary and gateway switches
 - ❖ Access Network
 - ❖ Conventional wired access
 - Interfacing for exchange
 - Subscriber line signaling
 - ❖ Trunk Interfacing
 - Analogue Trunk interface
 - Digital Trunk interface
 - ❖ Inter- exchange signaling
 - Channel associated (R2) signaling system
 - Common channel (C7) signaling system
 - ❖ Stored Program Control concept & the digital switch
 - ❖ Time and Space switching
 - ❖ Introduction to IP based services
 - ❖ Asymmetric digital subscriber line (ADSL) & Voice over IP (VoIP)
 - ❖ Next generation networks (NGN)
 - ❖ Systems data backup
 - ❖ Operation and maintenance of a switching system



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- ✚ Transmission System (Theory, System Principles, and Practical)
 - ❖ Transmission Mediums and Characteristics
 - ❖ Level Measurements
 - ❖ Introduction to Analogue Transmission (FDM)
 - ❖ Pulse Code Modulation (PCM)
 - ❖ Introduction to Higher Order Multiplexing (PDH)
 - ❖ Principles of Fiber Optic Transmission Systems (FOTS)
 - ❖ Introduction to Digital Modulation
 - ❖ Principles of Digital Microwave Radio (DMR)
 - ❖ Introduction to Synchronous Digital Hierarchy (SDH)
 - ❖ Introduction to Cellular Communication
 - ❖ Principles of Wire and Wireless Access Technologies (ISDN, ADSL, CDMA)
- ✚ Telecommunication Power Systems (Theory, System Principles, and Practical)
 - ❖ Power requirement of telecommunication systems
 - ❖ DC Power Systems
 - ❖ Linear and switched mode rectifier
 - ❖ Rectifier Control
 - ❖ Battery Bank
 - ❖ Stand by generator with auto control
 - ❖ Uninterrupted Power Supplies
 - ❖ Protection
- ✚ Outside Plant (Theory, System Principles, and Practical)
 - ❖ General OSP Layout
 - ❖ Installation of overhead routes
 - ❖ Underground cable splicing and maintenance
 - ❖ Optical fibers: splicing and maintenance