

Arrow Network Systems (www.arrownetworks.net)
Detailed Outline of WAN & WiFi Training Topics

(*Take Away Package now includes a WAN configured Tablet PC*)

THEORY AND PRACTICAL LESSONS OF ELECTRONIC DATA TRANSMISSION

Twisted pair, coax, fiber
satellite, microwave, voice cellular
line-of-sight, non-line-of-sight data radio
ISM Spread Spectrum
Licensed Spectrum
Fixed/mobile wireless
Legacy Systems, Telephony
Emerging Technologies
Switched/Non-switched networks, Packet switching
Private/Public Networks, PSTN, PABX
Digital Transmission - Signal Conversion, Pulse Code Modulation, Consternation, MiMo
Codecs and Modems
OSI Model on the WAN - ISO 7498
WAN Technologies - Legacy and Emerging
Integrated Networks - ISDN, xDSL, SONET/SDH, CATV, Frame Relay, ATM, TCP/IP, MPLS, GMPLS, VPLS, Cellular 3.x/4G/LTE
Leased Line Dedicated Transmission
Packet Transmission - X.25, SMDS, IP, Cloud Computing
Point-to-point, Point-to-Multipoint, WiFi, WIMAX technologies
WiFi 802.11 a/b/g/n, link coverage and distance
Line-of-sight, Non-line-of-sight transmission

Broadband, Narrowband Applications
Copper, Wireless, VSAT, Cellular, Fiber, SDH/SONET Rates (OC-1...OC-192, STM-1...STM-64),
ExtremeHighThroughputLowCostWirelessBroadband
Blockchain Technology^{NEW}
QuBit Computing^{NEW}

Security & Maintenance
Modems, VPN, MPLS, Tunneling, Authentication, Encryption/Decryption, Firewalling, Hardware-based, ping,
throughput, ftp, traceroute

Network Survey & Design
Installation conditions, application characteristics, bandwidth usage

Frequency Ranges
MF, HF, VHF, UHF, SHF, EHF

POLICY: Telecom RFP (asking the right questions in your RFP to get the right solution from your contractors)
Writing the telecom RFP to reduce network cost and maximize performance and reliability

HANDS-ON PRACTICAL SESSIONS

Equipment selection, Installing/Aligning antennae, Signal level/tuning, link configuration, routing,
link commissioning. Actual hands-on link installation (Tablet PC shall be provided for each participant) [Back to top of page](#)

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Training Dates: 14 – 18 May, 2018. Venue: Golden Tulip Hotel, Accra, Ghana (7am – 4pm each day).

Registration Deadline: April 23, 2018

[Next Training Sessions are 13–17 August, 2018 19-23 November, 2018]

5-day Training Package Includes: Training Materials, WAN-configured Tablet PC, WiFi Device, Training Certificate, Lunches and Snacks