

## ELTEX - GPON

<b>Course Name:</b>	Introduction, design and implementation of ELTEX-GPON
<b>Course Duration:</b>	32 hours
<b>Requirements:</b>	PC skills at the level of a confident user (Linux, MS Windows) Network fundamentals Knowledge of the TCP/IP protocol stack Switching
<b>Who should take this Course:</b>	Network administrators Network designers Network engineers Technical solutions architects Network support technicians Help desk technicians

### Syllabus Course

#### Concept (5 hours)

- Passive Optical Lan (POL) introduction
- Gpon technology introduction
- Gpon and active ethernet network comparison
- Passive components (connectors, patch cords, pigtail, splitters, sfp-pon, ...)
- Fiber optics attenuation and calculation
- Fiber optic tester equipment (OTDR, pon-meter, ...)
- Gpon network design and network attenuation calculation
- Gpon active equipment (OLTs, ONTs, SFP-ONU, ...)

#### GPON Basics Course (16 hours)

- OLT (Hierarchy, CLI, GEM tunnel ...)
- VLAN, Multi VLAN
- Profiles (cross connect, ports, DBA, shaping, management)
- Route services (IPOE, PPPOE)
- Bridge services



- Voice services
- Template
- Traffic shaping (per ONT, per VLAN)
- Port bridging
- Port channel
- Isolation
- Multicasting
- OLT management (IP management, SSH, Telnet, NTP, ...)
- Syslog
- ACS internal
- DHCP
- Save backup config file on TFTP/FTP server
- Update OLT firmware
- Update ONT firmware
- MA4000 configuration

### **GPON Advanced Course (11 hours)**

- ACL, LLDP
- DHCP relay
- DHCP snooping
- IP Source Guard
- Mac filtering
- Mac static tables
- AAA on OLT
- Port forwarding on ONT
- ACS external
- EMS/ACS server