نوران ارتباطات نوین
تهران، بلوار میرداماد، برج آرین
طبقـه نهـم شـــرقی، واحـد۳۳
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## GPON

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

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- 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