



Information Booklet

Course Name:
Basics in Hardware and Networking
Course Code: H1



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Hardware and Networking

1. Introduction:

The Course in Hardware and Networking helps students become industry ready for careers in Hardware and Networking immediately post completion of the course.

2. Eligibility:

A minimum educational qualification of being 10th Pass or B1/B2 from ITKC

3. Duration:

100 Hours. Two Hours each day

- Theory 25 hours
- Practical 75 hours

4. Course Details:

Type of course	Professional IT Course
Syllabus	<ul style="list-style-type: none"> • Introduction <ul style="list-style-type: none"> ○ Computer Fundamentals ○ Introduction to Computers ○ Types of Computers ○ Introduction to Input Output Devices ○ Introduction to Storage Devices ○ Principals of Data Communication • Assembling and Installation <ul style="list-style-type: none"> ○ Hardware Configuration ○ Introduction to basic components of a typical PC ○ Assembling a PC ○ Formatting, Installing Operating System and other system software • Troubleshooting <ul style="list-style-type: none"> ○ Basic Trouble shooting during the assembling ○ Basic troubleshooting of PC • Networking Fundamentals <ul style="list-style-type: none"> ○ Introduction to various types of cables and connectors used in networking ○ Introduction to networking and networking concepts, networking topology and protocols ○ The 7 Layer architect ○ Three way handshake ○ 7 Layer components

- Repeaters, Hubs, Switches, Bridges, Routers
- WAN
- Hubs vs Switches

- Network Installation and Configuration
 - Installing the NIC Card, MAC Address
 - LAN Standards – Ethernet, Token Ring
 - Structured Cabling
 - LAN Practicals
 - IP Addressing and IP Classes
 - TCP/IP Concepts and configuration of IP Address
 - Joining computer to a AD Domain
 - Basic network troubleshooting

Introduction to Security

- Security truisms
- Security policy
- Strategies for secure network
- Ethics of computer security
- Security threats and levels
- Security plan (RFC 2196)
- Security incident handling, Containment and Eradication
- Principles of security
- Types of attacks
- Cookies
- Specific attacks – sniffing

Classes of attack

- Stealing of passwords
- Social Engineering
- Bugs and backdoors
- Authentication failures
- Protocol failures
- Information leakages
- Viruses and worms
- Denial of service attacks

Computer security

- Viruses, Trojan horse and worms
- Types of viruses
- Protection of computer against virus attack
- Life stage of Virus
- Structure and components of Virus

	<p>Firewall and Proxy Servers</p> <ul style="list-style-type: none">• Kinds of firewalls• Packet filters• Application level filtering• Circuit level gateways• Dynamic packet filters• Distributed firewalls• Filtering Services• Packet filtering• Implementing policies

5. Fee:

Rs. 8000/- (exclusive of Service Tax)