LAN trainer is a versatile desktop system that provides hands on experimentation & understanding of local area Networks. The field being diverse, this trainer has been designed with an aim to touch upon the various aspects of LAN's such as hardware & cabling, software configuration & protocols. The LAN trainer is supplemented by a set of 4 exhaustive manuals covering the various aspects of LAN's. The unique feature of this trainer is an onboard Hub & Cabling setup via jumpers so as to minimize the loss of expensive cable during training.

OBJECT - Study of LAN (Local Area Network)

FEATURES
01.   Three sets of onboard cabling setup for Ethernet.
02.   On board parallel port direct cable connection setup.
03.   On board serial port direct cable connection setup.
04.   A 10 mbps hub is provided onboard with the circuitry exposed.
05.   The power supply circuit for Hub is provided onboard.
06.   A separate Hub is also provides so to train students for multi Hub Networking.
07.   A set of 4 exhaustive manuals covering LAN hardware & cabling, software configurations protocols, terms & definitions.
08.   The trainer comes with a cable fabrication kit to provide hands on experience on real cabling.

SPECIFICATION
LAN HARDWARE

01.	10/100 Mbps Ethernet Card	:	3 Nos.
02.	UPT Straight cable with Connectors	:	5 mtr.x 3 + ½ mtr.x3
03.	Coaxial Cable with connectors and termination	:	10 mtr.
04.	traight Parallel port cables	:	2 Nos.
05.	Straight Serial port cables	:	2 Nos.
06.	10 Mbps 8 port Hub.	:	2 Nos.
07.	Set of patch cords for the Onboard cabling setup		
08.	Cable fabrication kit.	:	8 RJ 45 male connectors, crimping tool & 10 mtr. UTP cables

TRAINING PACKAGES AND EXPERIMENTS
(A) LAN HARDWARE AND CABLING
01.   Setup a network between 2-8 Computers using Hub and straight cables (WIN XP)
02.   Setup a network between two Computers without using Hub by using Cross cables (WIN XP)
03.   Multi Hub Networking (WIN XP)
04.   Setup a networking between Two computers using parallel port direct cable connection.
05.   Setup a networking between two computers using serial port direct cable Connection.

Note: Specifications are subject to change.

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(B) SOFTWARE CONFIGURATION
01. Networking Win9x (Adding a Network Adapter)
02. Setting up a Win9x Peer to Peer Network
03. Windows XP Peer-to-Peer Networking
04. Sharing Local Resources
05. Adding Local or Network Printers
06. Adding a Network Printer With Windows XP
07. Adding Workstation Print Drivers for Windows 2000 Printers
08. Adding NT4 Workstation Print Drivers for Windows 2000 Printers
09. Adding a Windows2000 Workstation to a NT4 Domain
10. Configuring Dial-Up Internet Access with Windows9x (Adding the Dial-Up Adapter)
11. Windows2000 Dial-Up Internet Connection
12. Dial-Up Server (Installing and Configuring Dial-Up Server)
13. Windows2000 Networking Changes
14. WindowsXP Remote Assistance
15. WindowsXP Remote Desktop
16. Sharing a Fax/Modem on a Network
17. Configuring a machine running Window 95/98/ME to use DHCP.
18. Configuring a machine running Windows 2000 Professional Edition to use DHCP.
19. Configuring a machine running Windows NT 4.0 to use DHCP.
20. Configuring a machine running Windows XP to use DHCP.
21. Setting up and Configuring IIS
22. Configuring a Windows 2000 VPN Server
23. Windows2003 VPN Server
24. WindowsXP VPN Server
25. Windows98 VPN Client
26. WindowsXP VPN Client
27. DNS Concept
28. How DNS Works
29. Various DNS Configuration
30. How Reverse - Lock up works
31. DNS Terms.
32. Third Level Domains
33. Setting up MS DNS
34. MS DNS and Forwards
35. MS DNS Server as a Secondary
36. Client Side Caching (Offline Files)
37. Troubleshooting Internet
38. Troubleshooting TCP / IP Networks
39. Network Commands
(C) STUDY MANUAL
01. Communicaton and Network Concepts
a). Introduction
b). What is a Network
c). Need for Networking
d). Evolution of Networking
e). Switching Techniques
f). Transmission Media
g). Data Communication Technologies
h). Types of Networks
i). Network Topologies
j). Network Devices
k). Communication Protocol

l). Wireless/ Mobile Computing
m). Internetworking Terms and Concept
N). Network Security
02. The TCP/IP and OSI Networking Models
03. Data Link Layer Fundamentals : Ethernet LAN's
04. Fundamentals of WAN's
05. Fundamentals of IP
06. Fundamentals of TCP and UDP
07.Virtual LAN's and Trunking
08. LAN Cabling,Standerds,and Topologies
09. IP Addressing and Subnetting
(D) STUDY MANUAL
01. Network Topology
02. Network Hardware Connections
03. TCP/IP Ports and Addresses
04. Network Protocol Levels
05. IEEE 802 Standard
06. Network Categories
07. Network Devices
08. Address Resolution Protocol (ARP and RARP Address Translation) Translation)
09. Basic Addressing
10. Internet Protocol11. Transmission Control Protocol
12. User Datagram Protocol
13. Internet Control Message Protocol
14. Network Cabling
15. Wireless Networking
16. Network WAN Connections
17. Ethernet
18. Token Ring
19. ARC net Network (Attached Resource Computer Network)
20. AppleTalk Network
21. FDDI (Fiber Distributed Data Interface)
22. IPX/SPX
23. NetBEUI
24. AppleTalk Protocols
25. System Network Architecture
26. Other Transport Protocols
27. Network Routing
28. More Complex Networking Routing
29. IP Masquerading
30. Firewalls
31. Domain Name Service (DNS)
32. Virtual Private Networking
33. DHCP
34. BOOTP
35. RPC and NFS
36. Internet Group Management Protocol
37. Dynamic Routing
38. Simple Mail Transfer Protocol (SMTP)
39. Simple Network Management Protocol
40. Network Services (Networking Services and Ports)
41. Wide Area Networks
42. Network Backup
43. Network Fault Tolerance
44. Network Trouble Shooting
45. Network Drivers
46. Network operating systems (NOS)
47. Network Applications
48. Network Terms

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