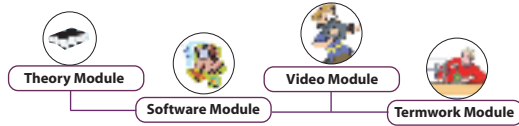


# Data Communication & Networking

Introduces Global e-Learning System in Education & Training in the form of Learning Resources with Computer Aided Instructions



System Requirement:- IBM-PC Compatible with Window-OS, 128 MB RAM/Multimedia Kit

## Theory module

**Features :** Theory, Figures, Photographs, Animations with controller, Highlighter tool, Note creation facility, Systematic page navigation, Printing facility, Access to Videos at appropriate locations.

## List of Topics

### Data Communication



Communication model, Network's Standards functions and line configurations

### Wide Area Networks

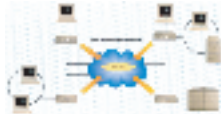
**Circuit Switching-** Circuit switching concepts, Space division and time division, Routing and Signalling techniques,

**Packet Switching-** Principle, Switching techniques, comparison with circuit switching, routing methods- fixed, flooding, broadcasting, adaptive and optimal.

ARPANET- datagram routing, TYMNET- virtual circuit routing, X.25-virtual circuit services.



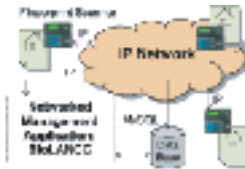
### Frame Relay



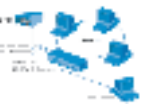
Protocol Architecture, call control, user data transfer, network data transfer and functions and congestion control.

### TCP/ IP

Internet working concept & Architectural model, internet protocol, user datagram protocol, transport control protocol, applications - TELNET, FTP.

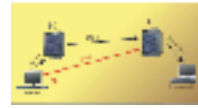


### Bridge



Operation, routing with bridges(fixed, source, spanning tree), Spanning tree algorithm, construction of MST.

## Distributed Applications



Simple Network Management Protocol(SNMP), Simple Mail Transfer Protocol(SMTP), Multipurpose Internet Mail Extensions(MIME), Hypertext transfer protocol(HTTP), File transfer Protocol(FTP).

## ISDN

Principle, User interface, Architecture, ISDN Channels, User access, Broad Band ISDN: functional Architecture, Protocol, User Network, Interface, transmission Structure.

