Course Objectives:
- To identify and analyze the requirements that a distributed multimedia application may enforce on the communication network.
- To include all the important aspects that has significant impact on the enhancements to the basic Internet architecture and its associated protocols.

Unit I

Unit II
Multicast - Coding and compression: Host Functions- Routing and addressing- Multicast routing- Reliable multicast transport- Calling down traffic on a Site- Coding and compression: System Components- Nature of the signal- lossless data compression- Audio- Still image- Moving image- Multiplexing and synchronizing- Performance- Processing requirements for video Compression.

Unit III
Transport Protocols: Introduction- TCP adoption algorithms- MPEG systems- Transport and program streams- RTP- Synchronization- Reliable multicast transport- Session Directories, Advertisement and Invitation protocols: Session Description protocol (SDP)- Session announcement protocol (SAP)- Section initiation protocol (SIP)- Conference Controls: ITU model H.320/ TGCC- MMCC a Centralized Internet model- CCCP distributed Internet model- Using ISDN to do IP access to the Mbone.

Unit IV
Applications: Introduction- Shared applications in the Mbone: Design- Limitations of the data model- Usability issues- Asynchronous events- Generalizing the models- Distributed virtual reality: General idea and problems- Virtual reality operations, user views and network considerations- application model- Distributed virtual reality multicast protocol (DVRMP).

Unit V

Text Book:

Reference Books: