Multimedia Technology
CS-605C
Contact: 3L
Credits: 3

Introduction [2L]
Multimedia today, Impact of Multimedia, Multimedia Systems, Components and Its Applications

Text and Audio [6L]
Text: Types of Text, Ways to Present Text, Aspects of Text Design, Character, Character Set, Codes, Unicode, Encryption; Audio: Basic Sound Concepts, Types of Sound, Digitizing Sound, Computer Representation of Sound (Sampling Rate, Sampling Size, Quantization), Audio Formats, Audio tools, MIDI

Image and Video (8L)

Synchronization [4L]
Temporal relationships, synchronization accuracy specification factors, quality of service

Storage models and Access Techniques [4L]
Magnetic media, optical media, file systems (traditional, multimedia) Multimedia devices – Output devices, CD-ROM, DVD, Scanner, CCD

Image and Video Database [8L]
Image representation, segmentation, similarity based retrieval, image retrieval by color, shape and texture; indexing-kd trees, R-trees, quad trees; Case studies- QBIC, Virage. Video Content, querying, video segmentation, indexing

Document Architecture and Content Management [9L]

Multimedia Applications [4L]
Interactive television, Video-on-demand, Video Conferencing, Educational Applications, Industrial Applications, Multimedia archives and digital libraries, media editors.

Books:
2. Nalin K. Sharda , Multimedia Information System , PHI.
3. Fred Halsall , Multimedia Communications , Pearson Ed.
5. Fred Hoffstetter , Multimedia Literacy , McGraw Hill.
7. J. Jeffcoate , Multimedia in Practice: Technology and Application , PHI.