MULTIMEDIA AND APPLICATION DEVELOPMENT

UNIT–I: Fundamental concepts in Text and Image: Multimedia and hypermedia, World Wide Web, overview of multimedia software tools. Graphics and image data representation graphics/image data types, file formats, Color in image and video: color science, color models in images, color models in video.

UNIT–II: Fundamental concepts in video and digital audio: Types of video signals, analog video, digital video, digitization of sound, MIDI, quantization and transmission of audio.

UNIT–III: Action Script I: ActionScript Features, Object-Oriented ActionScript, Datatypes and Type Checking, Classes, Authoring an ActionScript Class.

UNIT–IV: Action Script II: Inheritance, Authoring an ActionScript 2.0 Subclass, Interfaces, Packages, Exceptions.

UNIT–V: Application Development: An OOP Application Frame work, Using Components with ActionScript MovieClip Subclasses.

UNIT–VI: Multimedia data compression: Lossless compression algorithm: Run-Length Coding, Variable Length Coding, Dictionary Based Coding, Arithmetic Coding, Lossless Image Compression, Lossy compression algorithm: Quantization, Transform Coding, Wavelet-Based Coding, Embedded Zerotree of Wavelet Coefficients Set Partitioning in Hierarchical Trees (SPIHT).

UNIT–VII: Basic Video Compression Techniques: Introduction to video compression, video compression based on motion compensation, search for motion vectors, MPEG, Basic Audio Compression Techniques.

UNIT–VIII: Multimedia Networks: Basics of Multimedia Networks, Multimedia Network Communications and Applications: Quality of Multimedia Data Transmission, Multimedia over IP, Multimedia over ATM Networks, Transport of MPEG-4, Media-on-Demand (MOD).

TEXT BOOKS:

1. Fudamentals of Multimedia by Ze-Nian Li and Mark S. Drew PHI/Pearson Education. 2. Essentials ActionScript 2.0, Colin Moock, SPD O,REILLY.

REFERENCE BOOKS:

1. Digital Multimedia, Nigel chapman and jenny chapman, Wiley-Dreamtech 2. Macromedia Flash MX Professional 2004 Unleashed, Pearson. 3. Multimedia and communications Technology, Steve Heath, Elsevier (Focal Press). 4. Multimedia Applications, Steinmetz, Nahrstedt, Springer. 5. Multimedia Basics by Weixel Thomson 6. Multimedia Technology and Applications, David Hilman , Galgotia