IV Year B.Tech. IT   I - Semester

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CS434 MULTIMEDIA SYSTEMS
(Elective-III)

Course Description and Objectives:
Understand the characteristics of multimedia systems and how to address issues Be aware of the differences among multimedia authoring systems. Be familiar with the software development process as practiced in a multimedia development environment Be able to design, write, document, debug and evaluate a non trivial multimedia system. Appreciate and understand the legal and ethical issues associated with developing multimedia systems, particularly in regard to use of media clips developed by others.

Course Outcomes:
- *Write action script for a particular problem.*
- *Design and Draw customized GUI components.*
- *Apply Transformations on Components.*
- *To make use of fundamental concepts and formulate best practices*

UNIT I - Introduction
Introduction to Multimedia, Media and Data Streams, Sound/Audio, Images and Graphics, Video and Animation.

UNIT II - Compression Techniques
Data Compression, Optical Storage Media; Computer Technology, Multimedia Operating Systems.

UNIT III - Netwroking
Networking Systems, Multimedia Communication Systems; Database Systems.

UNIT IV - Multimedia Architecture
Introduction to Multimedia Architecture, Multimedia Documents, Hypertext and MHEG.

UNIT V - Application Development

User Interfaces, Synchronization, Abstractions for Programming; Multimedia Application Development; Virtual Reality; Future Directions.

TEXT BOOKS:

1. Ralf Steinmetz, Klara Nahrstedt "Multimedia: Computing Communications & Applications" Pearson Education (2004)
2. Parekh Ranjan "Principles of Multimedia" Tata McGraw-Hill (2007)

REFERENCE BOOKS:

1. John E Koegal, Buford "Multimedia Systems" IIBK. (1994)
2. John Vince "Virtual Reality Systems" ACM Press (1995)