

Branch: BCA	Semester-V
Subject Code: 5104	Lecture: 02 Credit: 02
Course Opted	Skill Enhancement Course-3
Subject Title	MULTIMEDIA AND APPLICATION

Course Objectives:

- To learn and understand technical aspect of Multimedia Systems.
- To understand the standards available for colour model and different images, video and text applications.
- To Design and develop various Multimedia Systems applicable in real time
- To learn various multimedia authoring systems, computer graphics used for multimedia applications and Display devices.
- To understand Video signal formats and TV broadcasting system.

Course Outcomes:

- Learner will Developed understanding of technical aspect of Multimedia Systems.
- Learner will understand various file formats for images, video, text media, colour models and software tools.
- Learner will develop various Multimedia Systems applicable in real time with action script.
- Learner will design interactive multimedia softwareprogram multimedia data and be able to design and implement media applications.
- Learner will understand different graphics algorithm, Display devices, Video signal formats and TV broadcasting system.

Modules	Sr. No.	Topic and Details	No. of Lectures Assigned	Marks Weightage %
UNIT- I	1	<p>Fundamental concept of multimedia: An overview of multimedia, Multimedia presentation and production, multiple media, Hardware-software requirement, uses of multimedia, steps for creating multimedia presentation.</p> <p>Graphics & Image Data Representations: Graphics/Image Data types: 1 Bit Image, 8 Bit Gray level Image, Image Data types, 24-Bit color images, Higher-Bit-Depth Images, 8-Bit color Image, color Lookup Tables.</p> <p>Popular File Formats: GIF, JPEG, PNG, TIFF, Windows BMP, Windows WMF, Netpbm format, EXIF.</p>	12	24
UNIT- II	2	<p>Color in Image & Video: Color Science & Color Models in Image Color, Models in Video.</p> <p>Fundamental Concepts in Video: Analog Video, Digital Video, Video Display Interfaces, 3D Video and TV</p> <p>Basics of Digital Audio: Digitization of Sound, MIDI.</p> <p>Multimedia Anchoring:</p>	13	26

	Basic Concepts, Anchoring Tools, Macromedia Director Flash. Multimedia Applications: Media preparation, Media Editing, Integration: Interactive Services, Multimedia Distribution Services, Media Usage (Electronic Books & Magazines, Kiosks, Tele-shopping, Entertainment).		
TOTAL		25	50

Text Books:

1. Fundamentals of Multimedia by Ze- Nian Li and Mark S. Drew PHI/Pearson Education.
2. Principles of Multimedia by Ranjan Parekh (McGraw-Hill).
3. Multimedia Applications by Ralf Steinmetz, Klara Nahrstedt.
4. Multimedia: Computing Communications & Applications by Ralf Steinmetz

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.
7. Multimedia System Design, P K Andleigh &Thakrar (PHI).
8. Advanced Graphics Programming in C & C++ By Roger.