DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

COURSE MODULE

Faculty Name:**Dr. Shalini Hanok & Mr. Rajeev Gowda**				Academic Year: **2025-26 (EVEN Sem)**			
Department: **ECE**							

Course Code	Course Title	Core/Elective	Prerequisite	Contact Hours			Total Hrs/ Sessions
				L	T	P	
BEC613A	**Multimedia Communication**	**Core**	**Digital Communication, Information coding**	**3**	**-**	**-**	**40 (8 Hours / Module)**

Course objectives: This course will enable students to:
- Gain fundamental knowledge in understanding the basics of different multimedia networks and applications.
- Understand digitization principle techniques required to analyze different media types.
- Analyze compression techniques required to compress text and image and gain knowledge of DMS.
- Analyze compression techniques required to compress audio and video.
- Gain fundamental knowledge about multimedia communication across different networks.

Topics Covered as per Syllabus

Module-1
Multimedia Communications: Introduction, Multimedia information representation, Multimedia networks, multimedia applications, Application and networking terminology. (Chapter 1 of Text1)

Module-2
Information Representation: Introduction, Digitization principles, Text, Images, Audio and Video. (Chapter 2 of Text 1).

Module-3
Text and Image Compression: Introduction, Compression principles, text compression, image Compression. (Chapter 3 of Text 1)

Module-4
Audio and video compression: Introduction, Audio compression, video compression, video compression principles, video compression. (Chapter 4 of Text 1)

Module-5
Multimedia Information Networks: Introduction, LANs, Ethernet, Token ring, Bridges, FDDI (Chapter 8.1 to 8.6 of Text 1).

List of Text Books
1. Multimedia Communications –Fred Halsall, Pearson Education,2001,ISBN-978813170994

List of Reference Books

1. Multimedia: Computing, Communications and Applications- Raif Steinmetz, Klara Nahrstedt, Pearson
Education, 2002, ISBN-978817758
2. FundamentalsofMultimedia–Ze-NianLi,MarkSDrew,andJiangchuanLiu

List of URLs, Text Books, Notes, Multimedia Content, etc

1. https://youtube.com/playlist?list=PLfxYQ3zfSrafcG3QM4kLPluRbd2cAITUc&si=DDRQZVPcKt6-HzRd- Electrostudy
2. https://www.slideshare.net- NPTEL Video Lectures
3. https://archive.nptel.ac.in/courses/117/105/117105083/- Multimedia Computing lecture: Communications & Networking –You Tube

Course Outcomes: At the end of the course the student will be able to:

CO1: *Explain* the basics of different multimedia networks, applications and analyze the different media types to represent them in digital form.	**L2**
CO2: *Identify* the different types of text and image compression techniques with DMA	**L2**
CO3: *Apply* the different types of compression techniques to compress audio and video with DMS.	**L3**
CO4: *Describe* the multimedia communication across the network	**L2**

The Correlation of Course Outcomes (CO's) and Program Outcomes (PO's)

Subject Code:BEC613A	TITLE: Multimedia Communication									Faculty Name: Dr. Shalini Hanok		

List of Course Outcomes	Program Outcomes												Total
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	
CO-1	2	1	1	-	-	-	-	-	-	-	-	1	5
CO-2	3	2	1	-	1	-	-	-	-	-	-	2	9
CO-3	3	2	1	-	1	-	-	-	-	-	-	2	9
CO-4	2	1	1	-	-	-	-	-	-	-	-	2	6
Total	10	6	4	-	2	-	-	-	-	-	-	7	**29**

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The Correlation of Course Outcomes (CO's) and Program Specific Outcomes (PSO's)

Subject Code: BEC613A		TITLE: Multimedia Communication	
List of Course Outcomes	**Program Specific Outcomes**		
	PSO1	**PSO2**	**Total**
CO-1	2	1	3
CO-2	2	2	4
CO-3	2	2	4
CO-4	2	1	3
Total	**8**	**6**	**14**

Note: 3 = Strong Contribution 2 = Average Contribution   1 = Weak Contribution   - = No Contribute