

**PANIPAT INSTITUTE OF ENGINEERING & TECHNOLOGY**  
**Department of Electronics & Communication Engineering**

**LESSON PLAN**

**Subject Name: - Multimedia Communication**  
**Year: - 3<sup>rd</sup>**

**Subject Code: - ECO-6A**  
**Semester: - 6<sup>th</sup>**

Lecture No	Unit No	Topic	COs Covered
L 1	UNIT-I	Introduction to Multimedia Communication	Multimedia communications: Fred Halsall; Pearson Education Asia.
L 2		Multimedia networks: Telephone networks	
L 3		Data networks, Television Networks	
L 4		ISDN, B-ISDN	
L 5		Multimedia Applications: Interactive applications over the internet	
L 6		Multimedia Applications: Interactive applications over Entertainment applications.	
L 7		Digitization Principles	
L 8		Representation of Text, Images	
L 9		Representation of Audio and Video	
L 10	UNIT-II	Text Compression: Compression principles	Multimedia communications: Fred Halsall; Pearson Education Asia.
L 11		Text Compression techniques: Static Huffman Coding	
L 12		Dynamic Huffman Coding	
L 15		Arithmetic Coding, Lempel Ziv and Lempel Ziv welsh coding	
L16		Image Compression: Graphics interchange format	
L17		Tagged image file format,	
L 18		Joint Photographic	
L 19		Experts Group (JPEG).	
L 20		Revisions	
L 21	UNIT-III	Audio Compression: Differential Pulse Code Modulation	Multimedia communications: Fred Halsall; Pearson Education Asia.
L 22		Adaptive Differential PCM	
L 23		Adaptive Predictive coding	
L 24		linear predictive coding and MPEG audio coders	

L 25		Video Compression: Video Compression principles	
L 26		Frame types, Motion estimation and compensation	
L 27		Implementation Schematics of I, P and B frames	
L 28		H.261	
L 29		H.263	
L 30	UNIT-IV	Multimedia Synchronization	Multimedia communications: Fred Halsall; Pearson Education Asia.
L 31		Basic definitions and requirements	
L 32		Time stamping	
L 33		Pack architecture	
L 34		Domain name System	
L 35		Electronic Mail	
L 36		Internet Telephony	
L37		Based Image Retrieval Systems	
L38		Revision	

**Text Books:**

1. Multimedia communications: Fred Halsall; Pearson Education Asia.

**Reference Books:**

1. Multimedia Systems” by Ralf Steinmetz and Klara Nahrstedt
2. Multimedia Systems, Standards, and Networks” by A. Puri and T. Chen

**Web resources:**

<https://nptel.ac.in/courses/117105083>

<https://nptel.ac.in/courses/117101051>