

ST. JOSEPH'S EVENING COLLEGE (AUTONOMOUS)

DEPARTMENT OF COMPUTER APPLICATIONS

TEACHING PLAN

BCA V Semester (June, 2018 to September, 2018)

SUBJECT: MULTIMEDIA TECHNOLOGY

Objective of the subject: To allow people to communicate ideas and information with digital and print elements. Professionals in this field use computer software to develop and manage online graphics and content.

Name of the Faculty: Ms. Megha S R

Time/Hours required – 60 hrs

Sl. No.	Module and Topics	No. of Hours.	Teaching methods	Evaluation of Learning process
UNIT 1	Multimedia Information Representation:	15	Lecture/ Powerpoint Presentation Video presentation on few select topics	Exercise problems and Assignment problems
	Introduction, Digitization Principles – Analog Signals, Encoder Design, Decoder Design.	(3)		
	Text: Unformatted Text, Formatted Text, Hyper Text.	(3)		
	Images: Graphics, Digitized Documents, Digitized Pictures.	(3)		
	Audio: PCM Speech, CD – Quality Audio, Synthesized Audio.	(3)		
Video – Broadcast Television, Digital Video, PC Video, Video Content.	(3)			
UNIT 2	Text Compression:	10	Lecture/ Powerpoint Presentation Video presentation on few select topics	Exercise problems and Assignment problem
Compression Principles – Source Encoder and Destination Decoder,	(3)			

	Lossless and Lossy Compression, Entropy Encoding, Source Encoding. (6 Hours)	(3) (2)		
	Text Compression – Static and Dynamic Huffman Coding, Arithmetic Coding. (4 Hours)	(2)		
UNIT 3	Continuous Media: Pcm speech, cd-quality audio, synthesizers musical instrument digital interface broadcast television Digital video, pc video.	10 (2) (2) (2) (2) (2)	Lecture/ Powerpoint Presentation Video presentation on few select topics	Exercise problems and Assignment problems
UNIT 4	Image Compression: Graphics Interchange Format (GIF) Tagged Image File Format (TIFF) Digitized Documents, JPEG.	8 (2) (2) (3)	Lecture/ Powerpoint Presentation Video presentation on few select topics	Exercise problems and Assignment problems
UNIT 5	Audio Compression: Differential Pulse Coded Modulation (DPCM), Adaptive Differential PCM (ADPCM) Adaptive Predictive Coding and Linear Predictive Coding, MPEG Audio Coding.	9 (2) (2) (3) (2)	Lecture/ Powerpoint Presentation Video presentation on few select topics	Exercise problems and Assignment problems
UNIT 6	Video Compression: Principles, CD, DVD, H.261 Video Compression, MPEG 1, MPEG2 and MPEG 4.	8 (3) (2) (3)	Powerpoint Presentation Video presentation on few select topics	Exercise problems and Assignment problems

BOOKS:

1. Halshall, Fred. "Multimedia Communications – Applications, Networks, Protocols and Standards". 2001. Pearson Education.