

## SCHEME OF COURSE WORK

### Course Details:

Course Title	:Multimedia and Application Development		
Course Code	:15IT1105	L T P C	: 3 0 0 3
Program:	: B.Tech		
Specialization:	:Information Technology		
Semester	:VI		
Prerequisites	:NIL		
Courses to which it is a prerequisite	: NIL		

### Course Outcomes(COs):

At the end of the course the student will be able to

CONo.	Courseoutcomes
CO1	Identifybasicmultimediacontenttypes
CO2	DescribetransmissionofAudioandVideo
CO3	Explainedatacompressionalgorithms
CO4	DiscussbasicsofVideocompression
CO5	Identifydifferentmultimediantetworks

### CourseOutcomeversusProgramOutcomes:

Course Outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	2												2	1	
CO2	3	3	3										2	1	
CO3	3	2											2	1	
CO4	3	2											1	1	
CO5	2												1	1	

S-Strongly correlated, M-Moderately correlated, Blank-No correlation

Assessment Methods:	Assignment / Quiz/Seminar/ Case Study / Mid-Test /End Exam

Teaching-Learning and Evaluation

Week	Topic/Contents	Course Outcomes	Sample Questions	Teaching-Learning Strategy	Assessment Method & Schedule

1	<p>UNIT-1:  What is Multimedia? Multimedia and Hypertext, World Wide Web, Overview of Multimedia Software Tools. Graphics and Image Data Representations: Graphics/Image Data Types.</p> <p><b>COLOR IN IMAGE AND VIDEO:</b>  color science, color models in images, color models in video.</p>	CO1	<p>1) Explain about different graphics/Image data types  Explain about different color models in video</p>	Lecture	<p>Quiz-1  Mid-1  Assignment 1</p>
3	<p>UNIT-2: Types of video signals, analog video, digital video, digitization of sound, MIDI, quantization and</p>	CO2	<p>1) Explain types of video signals</p>	Lecture	<p>Quiz-1  Mid-1  Assignment-1</p>
4	<p>UNIT-3 <b>MULTIMEDIA DATA COMPRESSION:</b>  <b>Lossless compression algorithms:</b> Run Length Coding, Variable Length Coding, a</p>	CO3	<p>1) Explain about LZW coding technique</p>	Lecture	<p>Quiz-1  Mid-1  Assignment 1</p>
<b>MIDTEST-1</b>					
5	<p>Lossy compression algorithms: Quantization, Transform Coding, Wavelet-Based Coding</p>	CO3	<p>1) Explain about wavelet based Coding</p>	Lecture	<p>Quiz-2  Mid-2  Assignment-</p>

6	<b>UNIT-4:</b> <b>BASICS OF VIDEO COMPRESSION :</b> Introduction to Video Compression, Video Compression with Motion Compensation, Search for Motion Vectors	CO4	1) Explain about Search for motion vectors	Lecture	Quiz-2 Mid-2 Assignment 2
7	<b>VIDEO CODING :</b> Overview of MPEG-1, MPEG-2 and MPEG-4. Motion compensation in MPEG-1, MPEG-2 Profiles, Object-based Visual	CO4	1) Explain about object based visual coding.	Lecture	Quiz 2 Mid-2
8	Synthetic Object Coding in MPEG-4, MPEG-4 Object types, Profile and Levels.	CO4	1) Explain about synthetic object coding.	Lecture	Quiz-2 Mid-2 Assignment 2
9	<b>UNIT-5:</b> <b>MULTIMEDIA NETWORKS :</b> Basics of Multimedia Networks, Quality of	CO5	1) Explain about Quality of service parameters.	Lecture	Quiz 2 Mid-2

	Transmission				
10	<b>MULTIMEDIA COMMUNICATION:</b> Multimedia over IP, Multimedia over ATM Networks, Transport of	CO5	1) Explain about different broadcasting techniques.	Lecture	Quiz 2 Mid-2

	MPEG4,Media-onDemand(MOD).				
	MIDTEST-2				
	ENDEXAM				