

DEPARTMENT OF IT/CSE

Year: July 18 – December 18

Semester: ODD

COURSE FILE

Faculty Details

Name of the Faculty	D. ASIR ANTONY GNANA SINGH
Designation	TEACHING FELLOW
Department	IT/CSE

Course Details

Name of the Programme	B. Tech IT	Batch	2016-2020					
Semester & Year	V & III	No. of Students	40					
Subject Code & Name	IT6501– GRAPHICS AND MULTIMEDIA							



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PROGRAMME EDUCATIONAL OBJECTIVES (PEO's)

- **PEO-1** Provide proficiency in technical knowledge to responsibly and critically analyze to solve the technological problems
- **PEO-2** Motivate research and development activities to develop novel products and provide sustainable solutions to meet the societal needs
- **PEO-3** Provide high professionalism to work in diverse and innovative environments with Modern tools
- **PEO-4** Develop ethical attitude, provide communication and managerial skills, and induce the ability for life-long learning.

PROGRAMME OUTCOMES (PO's)

- **PO1**: Apply the knowledge of mathematics, science, and engineering.
- **PO2**: Analyze, design, implement and evaluate a computer-based product to meet desired need.
- **PO3**: Demonstrate technical competency in information technology with environmental consideration.
- **PO4**: Identify requirements, formulate, analyze and provide sustainable solutions for technological problems.
- **PO5**: Conduct the experiment and evaluate the results for providing valid conclusions.
- **PO6**: Communicate and Function effectively as an individual and as a part of diverse groups.
- **PO7**: Recognize the recent technological changes to effectively meet the present needs by independent and lifelong learning.
- **PO8**: Apply ethical principles and professionalism in engineering practice to solve the societal, health, safety, legal, and cultural issues in the global environment.
- **PO9**: Conduct the research and development activities to develop the innovative products for satisfying the societal needs.
- **PO10**: Play different roles in project development and participate in multidisciplinary teams.
- **PO11**: Enhance the necessary skills with the available resources for life-long learning.
- **PO12**: Design documentation and make effective reports, effective presentations about the developed product or project.



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SYLLABUS

UNIT I OUTPUT PRIMITIVES

Basic - Line - Curve and ellipse drawing algorithms - Examples - Applications - Attributes - Two- Dimensional geometric transformations - Two-Dimensional clipping and viewing - Input techniques.

UNIT II THREE-DIMENSIONAL CONCEPTS

Three-Dimensional object representations - Three-Dimensional geometric and modeling transformations - Three-Dimensional viewing - Hidden surface elimination

- Color models – Virtual reality - Animation.

UNIT III MULTIMEDIA SYSTEMS DESIGN

Multimedia basics - Multimedia applications - Multimedia system architecture — Evolving technologies for multimedia - Defining objects for multimedia systems - Multimedia data interface standards - Multimedia databases.

UNIT IV MULTIMEDIA FILE HANDLING

Compression and decompression - Data and file format standards - Multimedia I/O technologies -Digital voice and audio - Video image and animation - Full motion video - Storage and retrieval technologies.

UNIT V HYPERMEDIA

Multimedia authoring and user interface - Hypermedia messaging - Mobile messaging - Hypermedia message component - Creating hypermedia message - Integrated multimedia message standards - Integrated document management - Distributed multimedia systems.



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COURSE OBJECTIVES & OUTCOMES

COURSE OBJECTIVES

The student should be made to:

- Develop an understanding and awareness of how issues such as content, information
 architecture, motion, sound, design, and technology merge to form effective and
 compelling interactive experiences for a wide range of audiences and end users.
- Be familiar with various software programs used in the creation and implementation of multimedia (interactive, motion/animation, presentation, etc.).
- Be aware of current issues relative between new emerging electronic technologies and graphic design (i.e. social, cultural, cognitive, etc). understand the relationship between critical analysis and the practical application of design.
- Appreciate the importance of technical ability and creativity within design practice.

COURSE OUTCOMES

Upon completion of the course, the student should be able to:

- Use the output primitives in computer graphics
- Apply the three dimensional concepts
- Discuss the multimedia systems design concepts
- Apply the concepts of multimedia file handling
- Analyze the concepts of hypermedia



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Mapping CO-PO

Mapping CO – PO:

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

3–Excellent; 2 – Good; 1 - Average

Staff HOD