

Course with Code: Computer Graphics and Visualization –BCG402				Faculty: Prof. Yogesh N			Semester & Section: IV	
Class No.	Date Planned (DD/MM)	Topics to be covered	TLP Planned	Class No.	Date of Conduction (DD/MM)	Topics Covered	TLP Executed	Remarks if any deviation
MODULE-1								
1		Course Introduction	PPT	1				
2		Computer Graphics: Application of Computer Graphics	PPT	2				
3		OpenGL: Introduction to OpenGL	PPT	3				
4		Coordinate reference frames, specifying two-dimensional world coordinate reference frames in OpenGL	PPT	4				
5		OpenGL point functions, OpenGL line functions	PPT	5				
6		Point attributes, line attributes	PPT	6				
7		Curve attributes, OpenGL fill area functions	PPT	7				
8		OpenGL Vertex arrays	PPT	8				
9		Line drawing algorithm- Bresenham's	PPT	9				
10		Sample OpenGL programs	PPT	10				

Course with Code: Computer Graphics and Visualization –BCG402				Faculty: Prof. Yogesh N			Semester & Section: IV	
Class No.	Date Planned (DD/MM)	Topics to be covered	TLP Planned	Class No.	Date of Conduction (DD/MM)	Topics Covered	TLP Executed	Remarks if any deviation
MODULE-2								
1		2D and 3D graphics with OpenGL: 2D Geometric Transformations	PPT	1				
2		Basic 2D Geometric Transformations	PPT	2				
3		Matrix representations and homogeneous coordinates	PPT	3				
4		OpenGL raster transformations	PPT	4				
5		Transformation between 2D coordinate systems	PPT	5				
6		OpenGL geometric transformation functions	PPT	6				
7		3D Geometric Transformations	PPT	7				
8		3D Translation, rotation, scaling	PPT	8				
9		OpenGL geometric transformations functions	PPT	9				

Course with Code: Computer Graphics and Visualization – BCG402				Faculty: Prof. Yogesh N			Semester & Section: VI	
Class No.	Date Planned (DD/MM)	Topics to be covered	TLP Planned	Class No.	Date of Conduction (DD/MM)	Topics Covered	TLP Executed	Remarks if any deviation
MODULE-3								
1		Interactive Input Methods and Graphical User Interfaces: Graphical Input Data, Logical Classification of Input Devices	PPT	1				
2		Input Functions for Graphical Data	PPT	2				
3		OpenGL Interactive Input-Device Functions	PPT	3				
4		OpenGL Menu Functions	PPT	4				
5		Designing a Graphical User Interface	PPT	5				
6		Computer Animation: Design of Animation Sequences	PPT	6				
7		Traditional Animation Techniques, General Computer- Animation Functions	PPT	7				
8		Computer-Animation Languages, Character Animation	PPT	8				
9		Periodic Motions, OpenGL Animation Procedures	PPT	9				

Course with Code: Computer Graphics and Visualization – BCG402				Faculty: Prof. Yogesh N			Semester & Section: IV	
Class No.	Date planned (DD/MM)	Topics to be covered	TLP Planned	Class No.	Date of Conduction (DD/MM)	Topics Covered	TLP Executed	Remarks if any deviation
MODULE-4								
1		Clipping: clipping window, normalization and viewport transformations	PPT	1				
2		Clipping algorithms, 2D point clipping	PPT	2				
3		2D line clipping algorithms: cohen-sutherland line clipping	PPT	3				
4		Color Models: Properties of light	PPT	4				
5		Color models, RGB and CMY color models	PPT	5				
6		Illumination Models: Light sources	PPT	6				
7		Basic illumination models-Ambient light	PPT	7				
8		Diffuse reflection, specular and phong model	PPT	8				

Course with Code: Computer Graphics and Visualization – BCG402				Faculty: Prof. Yogesh N			Semester & Section: IV	
Class No.	Date planned (DD/MM)	Topics to be covered	TLP Planned	Class No.	Date of Conduction (DD/MM)	Topics Covered	TLP Executed	Remarks if any deviation
MODULE-5								
1		3D Viewing:3D viewing concepts, 3D viewing pipeline	PPT	1				
2		Transformation from world to viewing coordinates	PPT	2				
3		Projection transformation	PPT	3				
4		Orthogonal projections	PPT	4				
5		Perspective projections	PPT	5				
6		OpenGL 3D viewing functions	PPT	6				
7		Visible Surface Detection Methods: Classification of visible surface Detection algorithms	PPT	7				
8		Depth buffer method	PPT	8				

	Activity	Planned	Actual	Remarks
1	Theory Classes	44		
2	Assignments/ Quizzes/ Self-study	2 Assignments		
3	Tutorials/ Extra classes	06		
4	Internal Assessments	03		
5	ICT based Teaching (% of usage in Curriculum)	100%		
Planning			Execution	
Faculty Signature:			Faculty Signature:	
HoD Signature:			HoD Signature:	