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| **Sl. No** | **Syllabus** | **Curriculum** | **Deployment Strategy and**  **Tool** | **Cross-cutting issues**  **integrated** | **PO, PSO and CO** | **Attainment Verification** |
| 1. | COMPUTER GRAPHICS AND VISUALIZATION | 1. In the course advanced Internet procedures and technologies are described which support an efficient, effective and secure interconnection of both distributed applications and related structured data  2 It provides tools for producing pictures not only of concrete real world objects but also of abstract, synthetic objects such as mathematical surface in 4D and of data that have no inherent geometry such as survey results. The computer graphics provides tool called motion dynamics.  3. Computer graphics is receiving much attention in the development of interactive educational software, multimedia systems, and many other applications. It not only adds a new dimension to such applications but also makes them more exciting and dynamic. | 1. Chalk and   Talk method   1. PPT | * Business   Ethics   * Human   values | PO1:Engineering Knowledge  PO2:Problem Analysis  PO3:Design/Development Of Solutions  PO4:Conduct Investigations Of Complex Problems  PO5:Modern Tool Usage  PO9:INDIVIDUAL AND TEAM WORK  PO10:COMMUNICATION |  |
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|  |  | PSO1:Professional Skills  PSO2:Problem Solving Skill |
|  |  | **CO1:Understand** suitable hardware and software to develop graphic packages using OpenGL and **implement** algorithm for 2D graphics using primitives and attributes  **CO2:Apply** concepts of polygon fill area functions for 2D geometric primitives and **Implement O**penGL geometric transformation functions for 2D objects.  **CO3:Apply** concepts of line clipping algorithm and illuminations models for 2D geometric primitives and **Implement** OpenGL geometric transformation functions for 3D objects.  **CO4:Comprehend** projection transformation matrices for 2D and 3D viewing and **Apply** visible surface detection methods using OpenGL functions.  **CO5:Implement** menu driven interactive programs using OpenGL functions and **Explain** corresponding OpenGL functions for curves and surfaces. |
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