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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 Laboratory and Mini Project | 1. Understand basics of computer graphics, different graphics devices and application of computer graphics.  Use various scan conversion and object filling algorithms and their comparative analysis.  2. Use geometric transformations on graphics objects and their application in composite form.  3.Extract scene with different clipping methods and its transformation to graphics display devices.  4.Explore projections and visible surface detection technique for display of 3D scene on 2D scree | 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 |
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|  |  | 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 OpenGL 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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