CS6513   **COMPUTER GRAPHICS LABORATORY**   **L T P C**
                                                                              0 0 3 2

OBJECTIVES:
The student should be made to:
- Understand graphics programming
- Be exposed to creation of 3D graphical scenes using open graphics library suits
- Be familiar with image manipulation, enhancement
- Learn to create animations
- To create a multimedia presentation/Game/Project.

LIST OF EXPERIMENTS:
IMPLEMENT THE EXERCISES USING C / OPENGL / JAVA
1. Implementation of Algorithms for drawing 2D Primitives – Line
   (DDA, Bresenham) – all slopes
   Circle (Midpoint)
2. 2D Geometric transformations –
   Translation
   Rotation Scaling
   Reflection Shear
   Window-Viewport
3. Composite 2D Transformations
4. Line Clipping
5. 3D Transformations - Translation, Rotation, Scaling.
6. 3D Projections – Parallel, Perspective.
7. Creating 3D Scenes.
8. Image Editing and Manipulation - Basic Operations on image using any image editing
   software, Creating gif animated images, Image optimization.
9. 2D Animation – To create Interactive animation using any authoring tool.

                                                                  TOTAL: 45 PERIODS
OUTCOMES:
At the end of the course, the student should be able to
- Create 3D graphical scenes using open graphics library suits
- Implement image manipulation and enhancement
- Create 2D animations using tools

REFERENCE:
spoken-tutorial.org

LIST OF EQUIPMENT FOR A BATCH OF 30 STUDENTS

SOFTWARE
     C, C++, Java, OpenGL

HARDWARE:
Standalone desktops   - 30 Nos.
                    (or)
Server supporting 30 terminals or more.