

## **MC5212 GRAPHICS AND MULTIMEDIA LABORATORY**

### **DETAILED SYLLABUS**

#### **OBJECTIVES**

- To study the graphics techniques and algorithms
- To understand the concept of geometric, mathematical and algorithmic concepts necessary for programming computer graphics
- To enable the students to develop their creativity using Multimedia concepts and various I/O technologies
- To apply Multimedia data processing and analysis techniques to real world applications

#### **LIST OF EXPERIMENTS**

1. Creation of 2Dimensional objects using Graphics functions
2. 2Dimensional Transformations
3. 2Dimensional Composite Transformations
4. Clipping and Windowing of a 2Dimensional Object
5. 3Dimensional Simple Transformations
6. 3Dimensional Composite Transformations
7. Parallel and Perspective Projections
8. Visible Surface Detection of a 3Dimensional Object
  - a) Colour to Gray scale conversion of an image
  - b) Image optimization
  - c) Image manipulation using Filters
  - d) Creation of GIF animated images
  - a) Image Compression
  - b) Guide layer effects in an image
  - c) Frame by Frame Animation
  - d) Product Advertisement with Multimedia effects

#### **LIST OF SOFTWARE**

1. C/C++/Java
2. OpenGL 4.1 (Precompiled GLUT libraries 4.1 – Open source)
3. Any open source software like GIMP 2.8/ Flash 11.9 /Photoshop