IT441: Computer Graphics

1. Course Title: Computer Graphics.
2. Credit structure: 3-0-2-4.
3. Course Type: Technical Elective
4. Prerequisites: Object Oriented Programming, Algebraic structures (linear algebra).
5. Course overview: Computer Graphics deals with simulating the process of formation of images of 3D objects. There are well known applications that include Data visualization, Animation & movies, Virtual reality, Medical Imaging.

In the course we will deal with all entities involved in the process of image formation: The object, camera/viewer and light. Rather than developing libraries bottom-up, we will use available libraries in a top-down fashion to analyze various aspects of Computer graphics. The course intends to rely on WebGL for all programming labs and assignments. The core of the course consists of Geometric transformations, viewports - parallel and perspective projections, and lighting & shading.

6. References

7. Evaluation:
   (a) Lab assignments - 60%
   (b) End-sem lab examination/project. - 20%
   (c) One exam/viva. - 20%