**HIGHWAY GEOMETRIC DESIGN LAB**
**(Skill Oriented Lab Elective –V)**

**Course Code: 20CE11U3**                                                **L T P C**
                                                                         **0 1 2 2**

**Pre-requisites:** Highway Engineering

**Course Outcomes**
At the end of the course, the student will be able to:
**CO1:** Analyse a terrain model
**CO2:** Sketch Horizontal and vertical alignment of a road
**CO3:** Design a typical cross section of a road
**CO4:** Design a corridor and superelevation of a road
**CO5:** Estimate the material quantities of a road

**LIST OF EXPERIMENTS:**

1. Referencing/Importing a Terrain model file

2. Create/Edit Horizontal Alignment

3. Create/Edit Vertical Alignment

4. Create a new Template (Typical Cross Section)

5. Apply End Conditions to Templates (Cut and Fill conditions)

6. Create a Corridor

7. Create Superelevation

8. Assign Superelevation to Corridor and Review Cross Sections

9. Creating Cross-Sectional Drawings

10. Creating Plan and Profile Drawings

11. Compute bill of Quantities

12. Compare bill of Quantities for various alternatives

**REFERENCES:**

**1.** OpenRoads Designer Training Manual.