

ENGINEERING SOFTWARE LAB

(Elective - 1)

Course Code: 19CE2157

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Course Outcomes:

At the end of the course, the student will be able to:

CO1 Practice Templates for Traffic Volume Study.

CO2 Explore the application of VISSIM Software.

CO3 Estimate various soil properties using Geo 5 Software Package.

CO4 Develop sewer characteristics Using SEWER GEM .

CO5 Explore the applications of Open Roads.

LIST OF EXPERIMENTS:

1. Creating Template for Traffic Volume Study Using Excel - Mid Block
2. Creating Template for Traffic Volume Study Using Excel –Intersection
3. Creating Network in VISSIM Software
4. Inputting Traffic on Network in VISSIM Software
5. Study of a parking lot using VISSIM Software
6. Calculation of Earth Pressure for C-Phi Soil
7. Determine the factor of safety of a C-Phi Soil Slope
8. SEWER GEMS - Experiment 1 (Network Creation)
9. SEWER GEMS - Experiment 2 (Network Simulation)
10. Open Roads - Experiment

References:

1. <https://www.finesoftware.eu/engineering-manuals/>
2. https://www.et.byu.edu/~msaito/CE662MS/Labs/VISSIM_530_e.pdf
3. https://www.ct.gov/dot/lib/dot/documents/aec/cad_pw_selectseries/ctdot_ope-nroads_manual_for_designers.pdf