

1.	Title of the course	Mechanics Laboratory
2.	Course number	CE213P
3.	Structure of credits (L-T-P-C)	0-0-3-2
4.	New course/modification to	New
5.	To be offered by	Civil and Environmental Engineering
6.	Proposed by	S Prasanna Venkatesh
7.	Prerequisite	None
8.	Course Objective(s): To discuss the fundamental theoretical concepts in solid and fluid mechanics through hands-on experimental studies.	
9.	Course Content: Introduction to tensile testing on steel flat coupons; Deformation behaviour of beams with different boundary conditions; Verification of Maxwell-Betti's theorem; Torsion test on solid shafts; Stress analysis in thin walled cylinders; Buckling of struts; Bending stresses in beams; Hydrostatic pressure on surfaces; Impact of jets on objects; Bernoulli's principle; Flow measurement devices; Friction losses in pipe flows; Flow through weirs.	
10.	Textbook(s): 1. Timoshenko S and Young D M, Strength of Materials, 3rd Edition, Affiliated East West Private Limited (2021). 2. White F M, Fluid Mechanics, 8th Edition, McGraw Hill (2017).	
11.	Reference(s): 1. Popov E P, Mechanics of Materials, 2nd Edition, Prentice Hall India Private Limited (2015).	