1.	Title of the course	Hydroinformatics Laboratory
2.	Course number	CE527P
3.	Structure of credits	0-0-3-2
4.	Offered to	PG
5.	New course/modification to	Modification To CE5191/8
6.	To be offered by	Department of Civil and Environmental Engineering
7.	To take effect from	July 2022
8.	Prerequisite	Nil
9.	**Course Objective(s):** This course will provide hands-on opportunity to work with hydro-systems simulation models using example datasets from real-world problems. The student will learn basics of machine learning techniques and its application in water resources and environmental engineering problems	
10.	**Course Content:** Hydro-systems: Watershed Simulation, Reservoir operation, Design of water distribution system, Water surface profile computation, Storm drainage design, Groundwater flow simulation, Watershed delineation, Land-use classification; Machine Learning Techniques: Flood forecasting, water and air quality modelling.	
11.	**Textbook(s):** 1. Mays L W, *Water Resources Engineering*, Wiley (2010).	
12.	**Reference(s):** 1. Stefano Marsili-Libelli, *Environmental Systems Analysis with MATLAB*, CRC Press (2005).	