6CE126 Hydrology and Open Channel Flow Lab

L-T-P-Cr: 0-0-3-1

 Prerequisite: A Pass grade or having obtained at least 75% of the classes conducted or at least 60% attendance and a minimum of 40% marks in the course Fluid Mechanics and Hydraulics (CE 105).

Objective: To impart knowledge and skills to measure/ estimate all the hydrological and meteorological processes- precipitation, evaporation, infiltration, and runoff. It will also impart knowledge for the types of flow and related computations in the open channel.

Practical: 1. Measurement of rainfall using raingauges,

 2. Measurement of evaporation using evaporimeter,

 3. Measurement of infiltration using double ring infiltrometer,

 4. Study of measurement of River Discharge at gauging site,

 5. Study of hydraulic jump and hump in Laboratory flume,

 6. Measurement of sun shine hours, 7. Measurement of relative humidity,

8. Measurement of wind speed and direction. Depending upon the availability of the instrument/ apparatus.

Books and Laboratory Manuals: 1. Engineering Hydrology by K. Subramanya,Tata McGraw-Hill Pub., New Delhi. 2. Flow in Open Channels by K.Subramanya, Tata McGraw Hill Pub. Co. Ltd., New Delhi. 3. Hydrology by H.M. Raghunath, New Age Publication, New Delhi.

Expected Outcome: The student would be able to measure and analyse rainfall, evaporation, infiltration and stream flow.