CE 248 JAN 3:0

GIONALIZATION IN HYDROLOGY AND WATER RESOURCES ENGINEERI

Instructor

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Email:

Department: CIVIL ENGINEERING

Course Time:

Lecture venue:

Detailed Course Page:

Announcements

Brief description of the course

The course is offered to MTech and PhD students of Civil Engineering. It could be of interest to students in Earth Sciences, ICWaR and Atmospheric Sciences disciplines. The course entails topics covering estimation of hydrometeorological variables, hydrological processes and environmental extreme events (floods, rain storms, droughts) in real world scenario where data are often sparse or unavailable.

Prerequisites

CE 203 (Surface Water Hydrology)

Syllabus

Prediction in ungauged basins. Regional frequency analysis- probability weighted moments and its variations, stationary and non-stationary distributions, regional goodness-of-fit test. Approaches to regionalization of hydrometeorological variables and extreme events. Regional homogeneity tests. Prediction of hydrometeorological variables in gauged and ungauged basins, Estimation of probable maximum precipitation and probable maximum flood, and their use in hydrologic design

Course outcomes

Students would learn about various regionalization approaches which facilitate estimation of hydrometeorological variables, hydrological processes and environmental extreme events (floods, rain storms, droughts) in real world scenario where data are often sparse or unavailable.

Grading policy

10% for assignments, 40% for mid-term (two tests), 50% for end-term exam

Assignments

Resources