Analysis of climatic and hydrological variability and change

A solid science-based understanding of climate variability is indispensable in assessing and managing water related risks due to floods and droughts, particularly within the context of the changing climate. Skills in assessing climatic data to characterise floods and droughts and future trends in water resources are fundamental to the scientific underpinning of climate adaptation strategies, as well as flood and drought management planning. This module provides students with solid knowledge and skills in the analysis of climatic and hydrological data within the context of water resources and climate change. Concepts of climate change data and downscaling of climate data (statistical and dynamic) will be highlighted. Skills will be developed in the assessment of trends, correlations, data validation & quality control, and statistical techniques for assessment of datasets from surveys; classification techniques, inference, significance testing.