

Advanced Research in Hydrology and Knowledge Dissemination

Abstract:

The project proposal aims to carry out advanced research in the broad areas of hydrology and climate change under the specific themes such as Detection and Impact of Climate Change which includes climate change impacts on hydrology of Indian rivers, Global water cycle and impact of climate change, Detection of climate change and; Regional Hydrology including regionalization and modelling of hydrometeorologic extremes, Hydrologic flux retrieval, validation and modelling Urban hydrology and Adaptive Water Management. Under the project, R&D projects would be taken up with specific deliverables in the areas of hydrology and water sciences, and to develop outreach programmes in the mentioned areas through workshops and short term training programmes to disseminate knowledge. The project would develop a first-order working (physically-based) model for the simulation of daily discharge of the Ganga-Brahmaputra river system. The Project will involve assessment of projected impacts of climate change on surface water availability, groundwater availability and irrigation water demands in Tunga Bhadra river basin. It is expected that the knowledge gained from the successful completion of the project would be helpful in addressing of the issues which are scale-dependent, namely global scale (climate change) to regional (river basins, droughts and water quality) to urban scale (floods and water quality). The study will provide adaptive water management policies at river basin scales.