

PREFACE

Sustainable water resources development and management necessarily depends on proper planning, implementation, operation and maintenance. In the context of computer-aided analysis for resource management remote sensing technique with Geographic Information Systems (GIS) can be used. The synoptic large area repetitive coverage provided by satellite sensors when integrated with detailed time series information coming from ground sensors can provide appropriate data base which would lead to sustainable water resources development. GIS software are used to develop databases that usually have a spatial component for the storage and processing of the data. Hence these software have the potential to both store and create map like products. Furthermore, GIS software have potential for carrying out the performing multiple analysis as well as the evaluations of scenarios such as model simulations. It is therefore, high time that water resources personnel become aware and get mobilised to apply these techniques for efficient water resource development and management.

Keeping in view the importance of Remote Sensing and GIS in water resources development, National Institute of Hydrology, Roorkee is organising a five days training course on "Remote Sensing and GIS Applications in Water Resources Management" from October 20 to October 24, 2008 under Hydrology Project Phase-II at NIH, Roorkee. During the course principles of remote sensing and GIS along with their applications in reservoir sedimentation, flood, rainfall runoff, soil erosion, ground water etc. will be covered. Also use of GIS in Decision Support System (DSS) will be demonstrated. The knowledge imparted during the Course would be useful for development and customization of DSS (Planning). It is hoped that there would be fruitful discussions and mutual dialogue during this training course. The experience of faculty members and participants will be assimilated and it would definitely improve the application of remote sensing and GIS techniques in water resources sector.

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