

1. Record Nr.	UNINA9910863152503321
Titolo	Water Management and Water Governance : Hydrological Modeling / / edited by Ashish Pandey, S.K. Mishra, M.L. Kansal, R.D. Singh, V.P. Singh
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2021
ISBN	3-030-58051-2
Edizione	[1st ed. 2021.]
Descrizione fisica	1 online resource (XI, 550 p. 265 illus., 231 illus. in color.)
Collana	Water Science and Technology Library, , 1872-4663 ; ; 96
Disciplina	551.48011
Soggetti	Water Hydrology Geographic information systems Ecology - Methodology Environmental sciences - Social aspects Geographical Information System Ecological Modelling Environmental Social Sciences
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	1. Application of RS and GIS in Watershed Management -- 2. Application of RS and GIS in Agricultural Water Management -- 3. Hydrological Modeling -- 4. Intelligent Water Management -- 5. Water Governance.
Sommario/riassunto	This book focusses on hydrological modeling, water management, and water governance. It covers the applications of remote sensing and GIS tools and techniques for land use and land cover classifications, estimation of precipitation, evaluation of morphological changes, and monitoring of soil moisture variability. Moreover, remote sensing and GIS techniques have been applied for crop mapping to assess cropping patterns, computation of reference crop evapotranspiration, and crop coefficient. Hydrological modeling studies have been carried out to address various issues in the water sector. MODFLOW model was successfully applied for groundwater modeling and groundwater

recharge estimation. Runoff modeling has been carried out to simulate the snowmelt runoff together with the rainfall and sub-surface flow contributions for snow-fed basins. A study has been included, which predicts the impact of the land use and land cover on stream flow. Various problems in the water sector have been addressed employing hydrological models such as SWAT, ArcSWAT, and VIC. An experimental study has been presented wherein the laboratory performance of rainfall simulator has been evaluated. Hydrological modeling studies involving modifications in the curve number methodology for simulation of floods and sediment load have also been presented. This book is useful for academicians, water practitioners, scientists, water managers, environmentalists, and administrators, NGOs, researchers, and students who are involved in water management with the focus on hydrological modeling, water management, and water governance.. .
