

1. Record Nr.	UNINA9910674036903321
Titolo	Applications of Remote Sensing/ GIS in Water Resources and Flooding Risk Managements // Hongjie Xie, Xianwei Wang, editors
Pubbl/distr/stampa	Basel, Switzerland : , : MDPI, , 2018
Descrizione fisica	1 online resource (230 pages)
Disciplina	630.2515
Soggetti	Meteorology, Agricultural
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references.
Sommario/riassunto	Remote sensing and GIS play critical roles in water resource and flood inundation mapping and risk management. Remote sensing provides data sources for mapping water resources (snow and glaciers, water bodies, soil moisture and groundwater), measuring hydrological fluxes (ET, precipitation and river discharge), and monitoring drought and flooding inundation, while GIS provides the best tools for water resources, drought and flooding risk management and for setting up hydrologic models, inputting data processing and output analyses and visualizations. This Special Issue Book presents the best practices, cutting-edge technologies and applications of remote sensing, GIS and hydrologic models for water resources mapping, satellite rainfall measurements, runoff simulation, water body and flood inundation mapping and risk management. The latest technologies applied include 3D model analysis and visualization of glaciers, UAV video image classification for turf grass mapping and irrigation planning, ground penetration radar for soil moisture estimates, TRMM and GPM satellite rainfall measurements, storm hyetograph analysis, rainfall runoff and urban flooding simulation, satellite radar and optical image classification for urban water bodies and flooding inundation. The application of these technologies is expected to greatly relieve the pressures on water resources and assist in better mitigating and adapting to the impact of drought and flooding.

