

1. Record Nr.	UNINA9910298376803321
Titolo	Geospatial Technologies and Climate Change // edited by Janardhanan Sundaresan, K M Santosh, Andrea Déri, Rob Roggema, Ramesh Singh
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2014
ISBN	3-319-01689-X
Edizione	[1st ed. 2014.]
Descrizione fisica	1 online resource (306 p.)
Collana	Geotechnologies and the Environment, , 2365-0575 ; ; 10
Disciplina	551.6
Soggetti	Physical geography Climatology Geographical information systems Geotechnical engineering Earth System Sciences Geographical Information Systems/Cartography Geotechnical Engineering & Applied Earth Sciences
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Geospatial Technologies as Impact Assessment Tools in Scoping and Monitoring the Impact of Climate Change -- Climate change around the world: Australia, the Netherlands and India -- Dust storms over Indo-Gangetic basin and their impact on Regional climate, precipitation, Himalayan snow/glaciers and Ocean-Ecology supplement -- Impact of Climate Change on Coral Reefs -- Landslide disaster management -- Studies on mangrove Regeneration in tsunami affected area of port Blair, south Andaman using in situ and remote sensing techniques -- Phyto and Zooplankton community assemblages of Car Nicobar Islands, Andaman Sea, India and its Significance with Climatic Change -- Application of GIS and Remote Sensing in Landslide Hazard Zonation -- Geospatial Technologies as Decision Support Tools in Planning for Adaptation and Mitigation -- Swarm Planning for Climate Change: How Transformations can be Achieved -- Maps, Knowledge, Resilience: Application of ArcGIS in building small island's resilience to Climate

Change -- Evaluation of remote-sensing-based potential fishing zones (PFZs) advisories along Mumbai coast -- Application of geo-spatial technologies in Coastal Vulnerability studies due to Sea Level Rise (SLR) along the select regions of Indian coast -- Geospatial Technologies: Exploring their Technical Potential in Climate Change Research -- Generation of Morphometric Information Using Satellite Images Satellite Geoid/Gravity for Offshore Exploration -- Modelling of climate and climate projection: A data intensive paradigm -- DGPS Principles, Errors and Achievable Accuracies -- Fundamentals of Geographical Information System (GIS), Map Sources and Digital Map Preparation -- Generation of Morphometric Information Using Satellite Images -- Fundamentals of Remotesensing.

Sommario/riassunto

“Geospatial Technologies and Climate Change” is a scholarly compilation of seventeen chapters from researchers working on climate change related research in five countries of four continents. Geospatial technologies, synergetic applications of remote sensing and geographical information systems, offer versatile cross-scale tools to study climate change, the climate system’s changes over decades, and their impacts on social- and ecological systems. A wide variety of climate change applications and the most advanced tools for climate change research are presented in this volume. The detailed treatment of the topic is framed in the paradigm of spatial planning for mitigation and adaptation. Through multifunctional and flexible thinking the authors investigate the dynamics of natural systems and suggest planning ahead for longer terms, as changes of the climate unfold only over longer periods. The book argues that technological innovations for climate change mitigation and adaptation should begin locally. Three strands of spatially defined climate change research come together in this volume. The first part explores geospatial technologies as assessment tools that play important roles in scoping and monitoring climate change impacts. The second part reviews geospatial technologies as decision support tools applied in planning for adaptation and mitigation. The third part provides an introduction to the basics of geospatial technologies and uncovers their technical potential in advanced climate change research. Designed for students, academics and decision-makers, the volume accounts for the leading currents of thought in applying geospatial technologies in climate change research and adaptation. By demonstrating how diversity of discovery methods can broaden our knowledge, from design charettes through hands-on engagement with the local environment to interpreting satellite imagery, the authors emphasize the importance of inter-disciplinary approaches in addressing uncertainties over climate change. The broad and fresh perspectives of the authors make this volume an invaluable guide in innovative application of geospatial technologies in climate change research.
