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Nota di contenuto	Section 1 General -- Chapter 1: Introduction to Challenges and Future Directions in Remote Sensing and GIScience -- Section II Challenges in Sustainable Natural Resources Management -- Chapter 2: Environmental and Livelihood Impact Assessment of 2013 Flash Flood in Alakananda and Mandakini River Valley, Uttarakhand (India) using Environmental Evaluation System and Geospatial Techniques -- Chapter 3: Assessment of Vegetation Vigor using Integrated Synthetic Aperture Radars -- Chapter 4: Landslide Susceptibility Mapping using Bivariate Frequency Ratio Model and Geospatial Techniques: A Case from Karbi Anglong West District in ASSAM, India -- Chapter 5: Retreating Glacier Dynamics over the last quarter of a century at Uttarakhand Region using optical Sensors Time Series Data -- Section III Remote Sensing and GIScience in Urban Growth Management -- Chapter 6: Studying the Impact of Urbanization on HYV Rice Fields at a Local Level using Fine Resolution Temporal RISAT-1 Datasets -- Chapter 7: Identification of Impervious Built-up Surface Features using Resources at 2 LISS-III based Novel Optical Built-up Index -- Chapter 8: Assessment of Building Subsidence in Hanoi Urban Area from 2011 to 2014 by high resolution Radar satellite images -- Chapter 9: Land Use/Land Cover Mapping for Sustainable Land Resources Development of Hisar District, Haryana, India -- Section IV Challenges and Future Directions in GIScience -- Chapter 10 A Spatial Investigation of the Feasibility of Solar Resource Energy Potential in Planning the Solar Cities of INDIA --

Chapter 11 Mapping Rice Growth Stages Employing MODIS NDVI and ALOS AVNIR-2 -- Chapter 12 Habitat Suitability Mapping of Sloth Bear (*Melursus ursinus*) in the Sariska Tiger Reserve (India) using a GIS-based Fuzzy Analytical Hierarchy Process -- Chapter 13 Estimation of Air Pollution Using Regression Modelling Approach for Mumbai Region Maharashtra, India -- Chapter 14 Mapping of Agriculture Productivity Variability for the SAARC Nations year 2050 -- Section V GIScience for Revolution in Science and Society -- Chapter 15 Future Direction of GIScience for Revolution in Science and Society over the Past Twenty Years.

Sommario/riassunto

This book covers several themes related to forestry, agriculture, water, soil, urban, and atmospheric research. GIScience technology systems have increased in significance in recent decades and have the ability to acquire information at ground level with a higher spectral resolution using a field radio-spectrometer, which is a great improvement compared to other remote sensing systems. GIScience technology systems are widely used for solving and understanding the concept of forestry, crop, water resources, and related research themes. This book aims to advance the scientific understanding of GIScience technology and applications. The chapters present GIScience data integration with other sources such as LiDAR, Multi-spectral data and their applications in forestry, crop assessment, soil assessment, mineral mapping and related themes. The book will be of interest to geospatial experts, modellers, foresters, agricultural scientists, hyperspectral remote sensing and space community, ecologists and conservation communities, environmental consultants, big data compilers, and computing experts. .
