Korean Journal Of Remote Sensing Kjrs Or Kr

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Understanding GIS through Sustainable Development Goals Springer
In recent years, geographic information systems (GIS) and their coastal applications have drawn increasing awareness globally, regionally, and locally. These systems are used to monitor, model, and predict coastal zone issues. New technologies, including advances in GIS platforms and techniques, are being adopted and innovatively applied to coastal environments and disasters, coastal resources, coastal social systems, and coastal urban environments using new algorithms, big data processing, and deep learning approaches. This book examines a variety of GIS applications, providing a comprehensive overview of techniques, approaches, and experiences in GIS for coastal zones.

AGILE 2015 Springer Science & Business Media
Proceedings of SPIE offer access to the latest innovations in research and technology and are among the most cited references in patent literature.

Protected agriculture, precision agriculture, and vertical farming: Brief reviews of issues in the literature focusing on the developing region in Asia CRC Press
Geospatial data acquisition and analysis techniques have experienced tremendous growth in the last few years, providing an opportunity to solve previously unsolved environmental- and natural resource-related problems. However, a variety of challenges are encountered in processing the highly voluminous geospatial data in a scalable and efficient manner. Technological advancements in high-

SPIE-International Society for Optical Engineering
This is a book is a collection of articles that will be submitted as full papers to the AGILE annual international conference. These papers go through a rigorous review process and report original and unpublished fundamental scientific research. Those published cover significant research in the domain of geographic information science systems. This year the focus is on geographic information science as an enabler of smarter cities and communities, thus we expect contributions that help visualize the role and contribution of GI science in their development.

performance computing, computer vision, and big data analytics are enabling the processing of big geospatial data in an efficient and timely manner. Many geospatial communities have already adopted these techniques in multidisciplinary geospatial applications around the world. This book is a single source that offers a comprehensive overview of the state of the art and future developments in this domain. FEATURES Demonstrates the recent advances in geospatial analytics tools, technologies, and algorithms Provides insight and direction to the geospatial community regarding the future trends in scalable and intelligent geospatial analytics Exhibits recent geospatial applications and demonstrates innovative ways to use big geospatial data to address various domain-specific, real-world problems Recognizes the analytical and computational challenges posed and opportunities provided by the increased volume, velocity, and veracity of geospatial data This book is beneficial to graduate and postgraduate students, academicians, research scholars, working professionals, industry experts, and government research agencies working in the geospatial domain, where GIS and remote sensing are used for a variety of purposes. Readers will gain insights into the emerging trends on scalable geospatial data analytics.

Advanced Data Mining and Applications Elsevier

Comprehensive Remote SensingElsevier

Advanced Technologies for Water Quality Treatment and Management Springer

The aim of this book is to demonstrate the use of SAR data in three application domains, i.e. land cover (Part II), topography (Part III), and land motion (Part IV). These are preceded by Part I, where an extensive and complete review on speckle and adaptive filtering is provided, essential for the understanding of SAR images. Part II is dedicated to land cover mapping. Part III is devoted to the generation of Digital Elevation Models based on radargrammetry and on a wise fusion (by considering sensor characteristic and acquisition geometry) of interferometric and photogrammetric elevation data. Part IV provides a contribution to three applications related to land motion.

Geodesy CRC Press

State capacity is often equated with coercion. However, history has shown that it is extremely difficult for states with weak capacity to ensure compliance with their laws. In Capacity beyond Coercion, Susan L. Ostermann examines the largely unexplored capacities that allow coercively weak states to promote law-following behavior. Utilizing extensive data collected in adjacent districts in India and Nepal, she demonstrates how coercively weak states can significantly increase compliance by behaving pragmatically and designing implementation strategies around known barriers to compliance. In particular, she examines variation in compliance with conservation, education, and child labor regulations, investigating the mechanisms by which the Indian and Nepali states have, despite limited enforcement capacity, secured compliance with regulations that run counter to customary norms and to the self-interest of target populations. She argues that one such barrier is imperfect legal knowledge and shows how states that have engaged in what she terms "regulatory pragmatism" may circumvent this compliance barrier. They do so by designing implementation strategies for on-the-ground realities. Exploring two such efforts--delegated enforcement and information dissemination through local leaders, Ostermann demonstrates that states that suffer from limited coercive capacity but behave pragmatically can still bring about large-scale compliance. Given that many states have weak enforcement capacity, the findings in Capacity beyond Coercion point a way forward for more effective and responsive governance throughout the developing world.

Risk Analysis XII CRC Press

This book constitutes the refereed proceedings of the 13th International Conference on Advanced Concepts for Intelligent Vision Systems, ACIVS 2011, held in Ghent, Belgium, in August 2011. The 66 revised full papers presented were carefully reviewed and selected from 124 submissions. The papers are organized in topical sections on classification recognition, and tracking, segmentation, images analysis, image processing, video surveillance and biometrics, algorithms and optimization; and 3D, depth and scene understanding.

Remotely Sensed Data Characterization, Classification, and Accuracies CRC Press

Coastal Altimetry: Selected Case Studies from Asian Shelf Seas provides information on developments over the past decade in the processing of remotely sensed altimetry in coastal areas, with an overview of expected errors and where they stem from, along with remaining gaps in processing. Challenges covered include the retracking of the altimetric signal to account for land contamination, tropospheric water corrections, and tidal model improvements, along with the pros and cons of widely available products. Additional chapters provide recent research in the regional seas of Asia and cover variability, dynamics, predictability and prediction, impacts of extreme events, effects to ecosystems, and more. This book offers readers a dataset that can illuminate our understanding of the propagation of planetary boundary waves that have a significant sea level signal in near coastal regions. As such, researchers and students who have a foundation in satellite altimetry and want to know the latest development of open ocean and coastal satellite altimetry, especially in Asian coastal regions, will benefit from this book. Presents the advancement of coastal altimetry technologies from various dedicated experts Includes case studies throughout to give real-life examples that can be implemented globally Provides chapters that include summaries of key points and an outlook to the future

Forest Hydrology Springer

The aquatic coastal zone is one of the most challenging targets for environmental remote sensing. Properties such as bottom reflectance, spectrally diverse suspended sediments and phytoplankton communities, diverse benthic communities, and transient events that affect surface reflectance (coastal blooms, runoff, etc.) all combine to produce an optical complexity not seen in terrestrial or open ocean systems. Despite this complexity, remote sensing is proving to be an invaluable tool for "Case 2" waters. This book presents recent advances in coastal remote sensing with an emphasis on applied science and management. Case studies of the operational use of remote sensing in ecosystem studies, monitoring, and interfacing remote sensing/science/management are presented. Spectral signatures of phytoplankton and suspended sediments are discussed in detail with accompanying discussion of why blue water (Case 1) algorithms cannot be applied to Case 2 waters. Audience This book is targeted for scientists and managers interested in using remote sensing in the study or management of aquatic coastal environments. With only limited discussion of optics and theory presented in the book, such researchers might benefit from the detailed presentations of aquatic spectral signatures, and to operational management issues. While not specifically written for remote sensing scientists, it will prove to be a useful reference for this community for the current status of

aquatic coastal remote sensing.
River Sedimentation CRC Press
This book is a baseline reference for researchers, environmentalist, planners, policy makers as well as administrators who are concerned with the future of the planet Earth.
Laser Scanning Systems in Highway and Safety Assessment Springer Nature
The frontiers of technologies have been constantly expanded in many industries around the world, including the agricultural sector. Among many “frontier technologies” in agriculture, are protected agriculture, precision agriculture, and vertical farming, all of which depart substantially from many conventional agricultural production methods. It is not yet clear how these technologies can become adoptable in developing countries, including, for example, South Asian countries like India. This paper briefly reviews the issues associated withthese three types of frontier technologies. We do so by systematically checkingthe academic articleslisted in Google Scholar, which primarily focus on these technologies in developing countries in Asia. Where appropriate, a few widely-cited overview articles for each technology were also reviewed. The findings generally reveal where performances of these technologiescan be raised potentially, based on the general trends in the literature. Where evidence is rich, some generalizable economic insights about these technologies are provided. For protected agriculture, recent research has focusedsignificantly on various features of protective structures (tunnel heights, covering materials, shading structures, frames and sizes) indicating that there are potentials for adaptive research on such structures to raise the productivity of protected agriculture. The research on protected agriculture also focuses on types of climate parameters controlled, andenergy structures, among others. For precision agriculture, recent research has focused on the spatial variability of production environments, development of efficient and suitable data management systems, efficiency of various types of image analyses and optical sensing, efficiency of sensors and related technologies, designs of precision agriculture equipment, optimal inputs and service uses, and their spatial allocations, potentials of unmanned aerial vehicles (UAVs) and nano-technologies. For vertical farming, research has often highlighted the variations in technologies based on out-door / indoor systems, ways to improve plants’ access to light (natural or artificial), growing medium and nutrient / water supply, advanced features like electricity generation and integration of production space into an office / residential space, and water treatment. For India, issues listed above may be some of the key areas that the country can draw on from other more advanced countries in Asia, or can focus in its adaptive research to improve the relevance and applicability of these technologies to the country.
Machine Learning Techniques Applied to Geoscience Information System and Remote Sensing BoD – Books on Demand
Forests cover approximately 26% of the world's land surface area and represent a distinct biotic community. They interact with water and soil in a variety of ways, providing canopy surfaces which trap precipitation and allow evaporation back into the atmosphere, thus regulating how much water reaches the forest floor as through fall, as well as pull water from the soil for transpiration. The discipline "forest hydrology" has been developed throughout the 20th century. During that time human intervention in natural landscapes has increased, and land use and management practices have intensified. The book will be useful for graduate students, professionals, land managers, practitioners, and researchers with a good understanding of the basic principles of hydrology and hydrologic processes.
Remote Sensing Handbook - Three Volume Set Springer Science & Business Media
This book aims to promote the core understanding of a proper modelling of road traffic accidents by deep learning methods using traffic information and road geometry delineated from laser scanning data. The first two chapters of the book introduce the reader to laser scanning technology with creative explanation and graphical illustrations, review and recent methods of extracting geometric road parameters. The next three chapters present different machine learning and statistical techniques applied to extract road geometry information from laser scanning data. Chapters 6 and 7 present methods for modelling roadside features and automatic road geometry identification in vector data. After that, this book goes on reviewing methods used for road traffic accident modelling including accident frequency and injury severity of the traffic accident (Chapter 8). Then, the next chapter explores the details of neural networks and their performance in predicting the traffic accidents along with a comparison with common data mining models. Chapter 10 presents a novel hybrid model combining extreme gradient boosting and deep neural networks for predicting injury severity of road traffic accidents. This chapter is followed by deep learning applications in modelling accident data using feed-forward, convolutional, recurrent neural network models (Chapter 11). The final chapter (Chapter 12) presents a procedure for modelling traffic accident with little data based on the concept of transfer learning. This book aims to help graduate students, professionals, decision makers, and road planners in developing better traffic accident prediction models using advanced neural networks.
Proceedings of the 2018 Conference of the Computational Social Science Society of the Americas Springer Nature
Remote Sensing of Aerosols, Clouds, and Precipitation compiles recent advances in aerosol, cloud, and precipitation remote sensing from new satellite observations. The book examines a wide range of measurements from microwave (both active and passive), visible, and infrared portions of the spectrum. Contributors are experts conducting state-of-the-art research in atmospheric remote sensing using space, airborne, and ground-based datasets, focusing on supporting earth observation satellite missions for aerosol, cloud, and precipitation studies. A handy reference for scientists working in remote sensing, earth science, electromagnetics, climate physics, and space engineering. Valuable for operational forecasters, meteorologists, geospatial experts, modelers, and policymakers alike. Presents new approaches in the field, along with further research opportunities, based on the latest satellite data Focuses on how remote sensing systems can be designed/developed to solve outstanding problems in earth and atmospheric sciences Edited by a dynamic team of editors with a mixture of highly skilled and qualified authors offering world-leading expertise in the field
High Performance Computing for Geospatial Applications CRC Press
Understanding GIS through Sustainable Development Goals applies a pedagogical shift to learning GIS, as the readers employ the concepts and methodologies on real-world problems. This book provides 16 case studies across most of the Sustainable Development Goals (SDGs) with step-by-step practical instructions using QGIS(Quantum Geographic Information System) , an open-source software. It helps readers develop GIS skills on real-world data, while learning the fundamentals including spatial data

models, projections, and spatial databases, different cartographic methods, such as graduated symbology, change maps, and dynamic visualization, as well as more intermediate and advanced spatial analysis such as geoprocessing, multiple criteria analysis, and spatial statistics. The topics chosen are taught in secondary and tertiary education institutions which make this a textbook for all students and educators. Features: Focuses on learning GIS through 16 real world case studies. Introduces an open-source software that can be used beyond the classroom. Analyzes Sustainable Development Goals in a global framework and provides an alternative approach to learning GIS. Supports both secondary and tertiary educators and improves GIS education at all levels. Contains a holistic range of case studies that extend across several disciplines, from geography education, environmental sciences, geosciences, natural sciences, social sciences, and digital humanities. This is a textbook for all students and educators, providing 16 case studies across most of the SDGs with step-by-step practical instructions using QGIS, an open-source software.

Computational Life Sciences II Springer
Sediment dynamics in fluvial systems is of great ecological, economic and human-health-related significance worldwide. Appropriate management strategies are therefore needed to limit maintenance costs as well as minimize potential hazards to the aquatic and adjacent environments. Human intervention, ranging from nutrient/pollutant release to physical modifications, has a large impact on sediment quantity and quality and thus on river morphology as well as on ecological functioning. Truly understanding sediment dynamics requires as a consequence a multidisciplinary approach.River Sedimentation contains the peer-reviewed scientific contributions presented at the 13th International Symposium on River Sedimentation (ISRS 2016, Stuttgart, Germany, 19-22 September 2016), and includes recent accomplishments in theoretical developments, numerical modelling, experimental laboratory work, field investigations and monitoring as well as management methodologies.

Remote Sensing of Aerosols, Clouds, and Precipitation Springer Science & Business Media
Geodesy, which is the science of measuring the size and shape of the Earth, explores the theory, instrumentation and results from modern geodetic systems. The beginning sections of the volume cover the theory of the Earth's gravity field, the instrumentation for measuring the field, and its temporal variations. The measurements and results obtained from variations in the rotation of the Earth are covered in the sections on short and long period rotation hanges. Space based geodetic methods, including the global positioning system (GPS) and Interferometric synthetic aperture radar (SAR), are also examined in detail. Self-contained volume starts with an overview of the subject then explores each topic with in depth detail Extensive reference lists and cross references with other volumes to facilitate further research Full-color figures and tables support the text and aid in understanding Content suited for both the expert and non-expert

Monitoring of Harmful Algal Blooms Elsevier
The ICCASCE 2015 conference covers a wide range of fields in science and engineering innovation and aims to bring together engineering technology expertise. Scientists, scholars, engineers and students from universities, research institutes and industries all around the world gathered to present on-going research activities. This proceedings volume

Advanced Concepts for Intelligent Vision Systems Comprehensive Remote Sensing
This is an open access book.The International Conference of Geography and Disaster Management (ICGDM2022) invites prospective authors, academics and industries to submit papers related to human geography, human-nature interactions, social aspect of disaster management, remote sensing and GIS applications for society. The conference will be held virtually. This conference is part of a conference program called International Summit on Science Technology and Humanity (ISETH) 2022 Organized by Universitas Muhammadiyah Surakarta.