Geoinformation for Informed Decisions

This book presents the latest research developments in geoinformation science, which includes all the sub-disciplines of the field, such as: geomatic engineering, GIS, remote sensing, digital photogrammetry, digital cartography, etc.

Features

- The recent findings presented in the book will benefit all researchers in the field
- Presents cutting-edge findings in different sub-fields
- Identifies potential new research directions

Contents


Fields of interest

Geographical Information Systems/Cartography; Remote Sensing/Photogrammetry; Natural Hazards

Target groups

Research

Product category

Monograph

Remote Sensing of the African Seas

The African Seas include marginal basins of three major oceans, the Atlantic, Indian and Southern Ocean, a miniature ocean, the Mediterranean Sea and an infant ocean, the Red Sea. Understanding the wide spectrum of environmental features and processes of such a varied collection of marine and coastal regions requires that in situ observation systems be integrated and actually guided, by the application of orbital remote sensing techniques. This volume reviews the current potential of Earth Observations to help in the exploration of the marginal seas around Africa, by virtue of both passive and active techniques, working in several spectral ranges – i.e.

Features

- Focus on the issues, peculiarities and special challenges of the African Seas
- Complete and thorough review of the current Earth Observations potential
- Section devoted to multi-technique assessment of the marine environment

Contents


Fields of interest

Remote Sensing/Photogrammetry; Oceanography; Geotechnical Engineering & Applied Earth Sciences

Target groups

Research

Product category

Monograph

Urbanisation, unlimited

The book consists of a series of essays covering themes which are relevant to the process of urbanisation worldwide – such as dispersion, privatisation or vitality. With reference to each of the 15 themes, specific instances are displayed with one photo each and a description of anecdotal character. The instances are taken from Europe, the Middle East, Brazil, South Africa and the United States. The tone of the text is analytical, based on a post-voluntarist attitude, critical to both neoliberal policies and determinist planning traditions.

Features

- An effective insight is given into the workings of urbanisation without requiring scientific background
- Unique cases embedded in broader analytical reasoning
- The book appeals to architects interested in urban development

Contents


Fields of interest

Landscape/Regional and Urban Planning; Cities, Countries, Regions; Urbanism

Target groups

Graduate

Product category

Monograph

Due March 2014

2014. 300 p. 150 illus. (Lecture Notes in Geoinformation and Cartography) Hardcover

➤ approx. * € (D) 106,99 | € (A) 109,99 | sFr 133,50
➤ approx. € 99,99 | £90.00
ISBN 978-3-319-03643-4

Due April 2014

2014. 450 p. 187 illus., 124 in color. Hardcover

➤ approx. * € (D) 139,05 | € (A) 142,94 | sFr 186,50
➤ approx. € 129,95 | £117.00
ISBN 978-94-017-8007-0

Due December 2013

2014. 190 p. 75 illus. in color. Hardcover

➤ approx. * € (D) 106,99 | € (A) 109,99 | sFr 133,50
➤ approx. € 99,99 | £90.00
ISBN 978-3-319-03586-4
The Fundamentals of Human Factors Design for Volunteered Geographic Information

This book explores the roles in which volunteered and professional information play within neogeography from a human factors perspective. The unique advantages of each information type are considered alongside how they may be utilised to create products and services delivering highly functional, efficient and satisfying experiences to their users. The overall aim of this book is to address the issue of how Volunteered Geographic Information (VGI) can be combined with Professional Geographic Information (PGI) to satisfy the information search requirements of consumers/users via highly usable mashups.

Features
► Gives a comprehensive look at Volunteered Geographic Information (an area which has grown in importance over the last 4 years) from a human centered perspective ► Links the technical world of Geographic Information to the practical and applicable world of computing ► Outlines the key design principles which should be considered for developing effective Volunteered Geographic Information products

Contents

Fields of interest
Geographical Information Systems/Cartography; Human Geography

Target groups
Research

Product category
Monograph

Due December 2013
2014. VI, 102 p. 16 illus. in color. (SpringerBriefs in Geography) Softcover
► * (D) 53,49 | (A) 54,99 | sFr 67,00
► 49,99 | £44.99
ISBN 978-3-319-03502-4

Complex Terrain Mapping
Integrated Use of Stereo Air Photos and Satellite Images

A review of five major categories of morphogenetic terrain types meet the complex terrain criteria: landslides, field photos of slope failures, bedrocks, nonglacial surficial deposits, glacial and alpine-glacial, and periglacial. Interpretations are based on personal knowledge and available background materials. This monograph documents a concept of complex terrains with the use of 208 illustrations, including 64 analyzed and extensively commented examples of stereo-pair air photos and 64 related satellite images.

Features
► First comprehensive documentation of the concept of complex terrain ► Integration of satellite imagery and air photos ► Mono and stereo air photo viewing at a glance

Contents
Preface.- Complex terrain.- Stereo air photos.- High resolution stereo satellite images.- Introduction.- Air photo layout format.- Regional setting satellite images.- Landslide types.- Field photos of slope failures.- Bedrock types.- Nonglacial surficial deposits.- Glacial and alpine-glacial types.- Periglacial types.

Fields of interest
Geographical Information Systems/Cartography; Geomorphology; Remote Sensing/Photogrammetry

Target groups
Professional/practitioner

Product category
Monograph

Due March 2014
2014. 200 p. 208 illus., 100 in color. Hardcover
► approx. * (D) 106,99 | (A) 109,99 | sFr 133,50
► 99,99 | £90.00
ISBN 978-3-319-02449-3

Quantitative Remote Sensing in Thermal Infrared
Theory and Applications

This book provides a comprehensive and advanced overview of the basic theory of thermal remote sensing and its application in hydrology, agriculture, and forestry. Specifically, the book highlights the main theory, assumptions, advantages, drawbacks, and perspectives of these methods for the retrieval and validation of surface temperature/emissivity and evapotranspiration from thermal infrared remote sensing.

Features
► Provides the most comprehensive and advanced overview of the terminology, radiative transfer theory, methods for surface temperature/emissivity retrieval, and methods for evapotranspiration estimation in thermal infrared remote sensing ► Includes abundant and colorful examples of the validation of surface temperature/emissivity retrieval and evapotranspiration estimation, and of the application of thermal remote sensing in geography, agriculture, and forestry ► Offers in-depth perspectives on the future trends of thermal remote sensing

Contents

Fields of interest
Remote Sensing/Photogrammetry; Earth System Sciences; Hydrology/Water Resources

Target groups
Research

Product category
Monograph

Due December 2013
2014. X, 296 p. 70 illus., 40 in color. (Springer Remote Sensing/Photogrammetry) Hardcover
► * (D) 139,09 | (A) 142,99 | sFr 173,50
► 129,99 | £117.00
ISBN 978-3-642-42026-9