Deep Cognitive Modelling in Remote Sensing Image Processing

Part of the Advances in Geospatial Technologies Book Series

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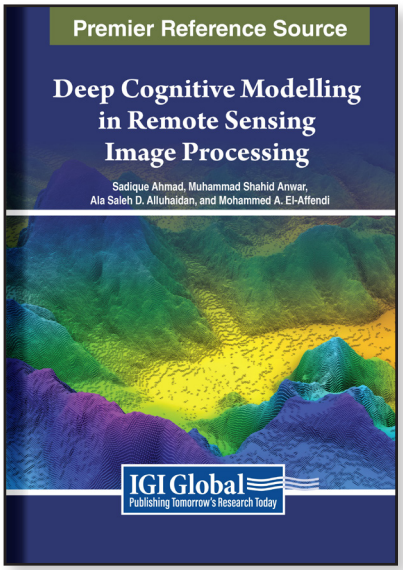

Description:

The field of remote sensing image analysis is constantly evolving. However, processing high-resolution images and comprehending the black boxes in land surface analysis and object recognition poses significant challenges. The need for a deeper exploration of these areas has become more pressing due to climate change, global security concerns, and border monitoring issues. With the surge in demand for satellite image analysis and advancements in deep learning techniques and remote sensing technologies, it has become necessary to have a comprehensive guide to navigate these complexities.

Deep Cognitive Modelling in Remote Sensing Image Processing is a groundbreaking solution to these challenges. This book delves into the depths of deep learning techniques and cognitive modeling to offer insights and solutions for optimizing existing models while simplifying the processing of high-resolution remote sensing images. By focusing on deep cognitive modeling, the book provides a framework for understanding and addressing the black boxes in land surface analysis and object recognition, empowering researchers and professionals to make meaningful advancements in the field.

This book, tailored for professionals and researchers in computer sciences, remote sensing, and related fields, explores cognitive algorithms, mathematical modeling, object localization, image segmentation, machine learning, and profound learning advancements. Through a collection of research articles and case studies, this book equips readers with the knowledge and tools needed to navigate and innovate in remote sensing image analysis, making it an indispensable resource in the era of rapidly advancing technology and increasing demands for satellite image analysis.

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Topics Covered:

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- Cognitive Algorithm
- Cognitive Approach in Remote Sensing Big Data
- Cognitive Modelling Approach for Remote Sensing Data
- Deep Learning in Remote Sensing
- Georeferencing
- Geospatial Data Analysis
- Image Processing
- Image Segmentation
- Image Segmentation
- Large-Scale and Multi-Resolution Image Analysis
- Mathematical Modeling
- Multi-Temporal Scene Classification
- Neural Networks for Moving Objects
- Object Localization
- Scene Detection

Subject: Environment & Agriculture

Classification: Edited Reference

Readership Level: Advanced-Academic Level (Research Recommended)

Research Suitable for: Advanced Undergraduate Students; Graduate Students; Researchers; Academicians; Professionals; Practitioners

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