Record Nr. UNINA9910366632803321 Artificial Intelligence Techniques for Satellite Image Analysis / / edited Titolo by D. Jude Hemanth Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Springer,, 2020 **ISBN** 3-030-24178-5 Edizione [1st ed. 2020.] Descrizione fisica 1 online resource (VIII, 274 p. 150 illus., 100 illus. in color.) Remote Sensing and Digital Image Processing, , 2215-1842; ; 24 Collana 006.3 Disciplina 910.28563 Soggetti Artificial intelligence Geographic information systems Computer vision Pattern recognition systems Artificial Intelligence Geographical Information System Computer Vision **Automated Pattern Recognition** Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di bibliografia Includes bibliographical references. Nota di contenuto 1. Heightening satellite image display via mobile augmented reality - a cutting-edge planning model -- 2. Multithreading Approach for clustering of Multi-Plane Satellite Images -- 3. Classification of field level crop types with a time series satellite data using Deep Neural Network -- 4. Detection of ship from satellite images using deep convolutional neural networks with improved median filter -- 5. Artificial Bee Colony optimized contrast enhancement for satellite image fusion -- 6. Effective transform domain denoising of oceanographic sar images for improved target characterization -- 7. Fused segmentation algorithm for the detection of nutrient deficiency in crops using SAR images -- 8. Detection of natural features and

objects in satellite images by semantic segmentation using neural networks -- 9. Change Detection of Tropical Mangrove Ecosystem with Subpixel Classification of Time Series Hyperspectral Imagery -- 10.

Crop Classification and Mapping for Agricultural Land from SatelliteImages -- 11. Next Generation Artificial Intelligence Techniques for Satellite Data Processing -- 12. A wavelet transform applied spectral index for effective water body extraction from moderate resolution satellite images.

Sommario/riassunto

The main objective of this book is to provide a common platform for diverse concepts in satellite image processing. In particular it presents the state-of-the-art in Artificial Intelligence (AI) methodologies and shares findings that can be translated into real-time applications to benefit humankind. Interdisciplinary in its scope, the book will be of interest to both newcomers and experienced scientists working in the fields of satellite image processing, geo-engineering, remote sensing and Artificial Intelligence. It can be also used as a supplementary textbook for graduate students in various engineering branches related to image processing.