Special Issue

Advancements in Deep Learning for Object Detection and Segmentation in Remote Sensing Imagery

Message from the Guest Editors

Deep learning has revolutionized signal processing and computer vision, enabling precise and efficient analysis of large, complex datasets. Its integration into remote sensing image processing has surpassed traditional methods in multiple ways: managing large data volumes, automating intricate processes, adapting to varied image types (spatial, spectral, and temporal resolutions), and achieving high accuracy in detecting subtle patterns and segmenting objects in diverse and challenging scenarios. This Special Issue focuses on advancing algorithms and practical applications of these techniques in specialized domains, including environmental monitoring, water resource management, precision agriculture, climate change analysis, natural resource management, urban planning, and disaster response. It aims to explore various deep learning architectures and methods applied to satellite imagery, such as Convolutional Neural Networks (CNNs), Generative Adversarial Networks (GANs), Recurrent Neural Networks (RNNs), and Transformer-based models, fostering innovation and broadening their impact.

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Message from the Editor-in-Chief

Remote Sensing is now a prominent international journal of repute in the world of remote sensing and spatial sciences, as a pioneer and pathfinder in open access format. It has highly accomplished global remote sensing scientists on the editorial board and a dedicated team of associate editors. The journal emphasizes quality and novelty and has a rigorous peer-review process. It is now one of the top remote sensing journals with a significant Impact Factor, and a goal to become the best journal in remote sensing in the coming years. I strongly recommend *Remote Sensing* for your best research publications for a fast dissemination of your research.

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