# **Special Issue**

# Artificial Intelligence in Hyperspectral Remote Sensing Data Analysis

### Message from the Guest Editors

Hyperspectral remote sensing, which captures hundreds of contiguous narrow spectral bands across the electromagnetic spectrum, has emerged as a cornerstone technology for analyzing the surface with unparalleled spectral fidelity. By integrating artificial intelligence (AI), this field has undergone a paradigm shift, enabling the extraction of actionable insights from high-dimensional datasets that were previously intractable using conventional methods. Al techniques. particularly deep learning and machine learning, address the intrinsic challenges of hyperspectral data. such as the curse of dimensionality, spectral mixing, and noise, while unlocking novel capabilities for feature extraction, classification, and predictive modeling. This Special Issue will include studies covering artificial intelligence in hyperspectral remote sensing data analysis, including both the optimization and enhancement of hyperspectral interpretation algorithms and application case studies based on deep learning for hyperspectral data analysis.

#### **Guest Editors**

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### Message from the Editor-in-Chief

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#### Editor-in-Chief

#### Dr. Prasad S. Thenkabail

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