## Special Issue

# Explainable Artificial Intelligence (XAI) in Radar Imaging: Recent Advances and Future Directions

#### Message from the Guest Editors

We welcome contributions that integrate XAI with various cutting-edge technologies to enhance the functionality and performance of imaging radars. This includes the use of compact deep neural architectures, complex-valued structures, and techniques for open set recognition, incremental learning, and frugal learning. The contributions may also involve data augmentation techniques, transfer learning, knowledge distillation, generative models, active learning, reinforcement learning, regression models for estimating target parameters, physical model integration, and data fusion. The benchmark datasets may involve synthetic aperture radar (SAR), inverse SAR (ISAR), interferometric SAR (InSAR), polarimetric SAR (PolSAR) data, and so on. This Special Issue is dedicated to the publication of original and high-quality research papers and comprehensive review articles that explore the latest advancements in the application of XAI to radar imaging. We are seeking submissions in related fields.

#### **Guest Editors**

Dr. Amir Hosein Oveis

Dr. Elisa Giusti

Dr. Selenia Ghio

Prof. Dr. Marco Martorella

#### Deadline for manuscript submissions

30 August 2025



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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 peerreview 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.

#### Editor-in-Chief

#### Dr. Prasad S. Thenkabail

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