Special Issue

Advances in Miniaturized Radar Systems for Close-Range Sensing

Message from the Guest Editors

Radar systems have undergone significant miniaturization in recent years, with compact systems now being deployed on mobile platforms like UAVs, and UGVs. Compared to conventional airborne and spaceborne platforms, these miniaturized radar systems offer higher revisit frequency, operational flexibility, and enhanced spatial resolution. This evolution has created exciting new opportunities in close-range remote sensing applications, such as surface displacement monitoring of civil infrastructures (e.g., bridges, dams), 3D digital twin modeling of urban buildings, security screening, non-destructive testing of industrial materials, and agriculture monitoring in vegetation environments. These platforms face significant resource limitations from both system and environmental perspectives. System constraints include radar aperture design, signal power, navigation accuracy, positioning precision, and onboard capabilities for sampling, storage, and processing. Environmental challenges arise from the shorter range—proximity to targets amplifies interference from ground reflections, multipath signals, and complex scattering in cluttered scenes.

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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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