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IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing

Special Issue on
“Multi-temporal and Multi-angle Remote Sensing: Data Processing, Applications, and Challenges”

Multi-temporal and multi-angle data provides a series of imageries, collected over both time and aircraft/satellite view-angle of the same area. The dramatic advances in the field are expected to contribute significantly to both theory and practical applications. Over the past few years, multi-temporal and multi-angle remote sensing data has gained a lot of attention in providing information about the dynamics and evolutions of the Earth, opening the way for all sorts of applications that go beyond the static observation. Multi-temporal and multi-angle data can be collected by visible light, multispectral, hyperspectral, radar, infrared, lidar sensors, which have been regarded as a leading paradigm in SPECIM, Gaofen, and other series systems. In fact, objects are often sensitive to the observation angle and time due to the imaging mechanism. Multi-temporal and multi-angle information is known to enhance accuracy effectively by jointly using more dimensions in samples of the same object. Furthermore, the omnidirectional reflection, scattering, or radiation characteristics of changes in the scenario are revealed in multiple imageries from different directions. Compared to static observation, dealing with multi-temporal and multi-angle remote sensing data is inevitably more challenging as it extends the temporal and spatial dimensions that raise the demands for more sophisticated solutions. This Special Issue encourages scholars to publish research papers and review articles on the novel multi-temporal and multi-angle remote sensing mechanisms, sensor, detection, recognition, interpretation, and analysis technologies, as well as their applications. The special issue would attract numbers of manuscripts interested in the challenges and limitations of remote sensing data processing.

The broad topics include (but are not limited to):

- Novel multi-temporal and multi-angle remote sensing models, concepts, and techniques
- Multi-temporal and multi-angle scattering modeling and analysis
- Multi-temporal and multi-angle sensors and datasets
- Preprocessing for multi-temporal and multi-angle imageries
- Segmentation, detection, location, tracking, and recognition in imageries
- Machine learning and deep learning for multi-temporal and multi-angle remote sensing
- Change monitoring and environments
- Applications to hyperspectral, synthetic aperture radar, and optical systems
- Applications to Geoscience and Remote Sensing
- Challenges and opportunities on multi-temporal and multi-angle processing

Schedule

Dec. 01, 2024 Submission system opening

Aug.31,2025 Submission system closing

Format

All submissions will be peer reviewed according to the IEEE Geoscience and Remote Sensing Society guidelines. Submitted articles should not have been published or be under review elsewhere. Submit your manuscript on <http://mc.manuscriptcentral.com/jstars>, using the Manuscript Central interface and select the “**Multi-temporal and Multi-angle Remote Sensing: Data Processing, Applications, and Challenges**” special issue manuscript type. Prospective authors should consult the site <https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=9082768> for guidelines and information on paper submission. All submissions must be formatted using the IEEE standard format (double column, single spaced).

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