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

Special Issue on
"UAV Remote Sensing Monitoring and Applications"

Unmanned Aerial Vehicle (UAV) provides a cost-effective solution for high-frequency, high-resolution, and on-demand data collection. This affordability allows for more frequent monitoring, which is crucial for tracking dynamic changes in the environment or emergency situations. The exceptional capabilities of UAV remote sensing in Earth observation enable its applications across a broad spectrum of monitoring and analytical tasks, encompassing environmental monitoring, ecological assessment, urban planning, smart agriculture, and disaster management. And the integration of UAV remote sensing with cutting-edge technologies such as information geography, artificial intelligence, and big data analytics has significantly enhanced the efficiency and accuracy of data processing and interpretation. This synergy enables more sophisticated and nuanced analysis of remote sensing data, leading to more informed decision-making.

This Special Issue intends to highlight the methods and solutions of applying UAV remote sensing data and processing techniques to gather accurate geometry, physical properties, and evolutionary processes of Earth's surface targets. Intelligent imagery processing, application and monitoring technology for UAV remote sensing are encouraged. Quantitative inversion theories, algorithms, architectures, and applications using UAV remote sensing data, including RGB, multispectral, and hyperspectral images, LiDAR are welcome.

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

- UAV remote sensing dataset;
- UAV remote sensing data synthesis, mosaic;
- Cross modal UAV data registration, assimilate;
- UAV remote sensing imagery enhancement (image fusion, feature extraction, noise reduction, shadow removal, defect repair, etc.);
- Object detection and semantic analysis based on UAV remote sensing data;
- 3D target reconstruction based on UAV remote sensing technology;
- Analysis of surface morphology changes;
- Theories and methods of quantitative inversion using UAV remote sensing;
- Advancements in quantitative remote sensing inversion based on UAV data;
- Monitoring natural resources and disasters with UAV remote sensing;
- Applications of UAV remote sensing in precision agriculture, urban environments, lakes and oceans.

Schedule
Aug 1, 2024, Submission system opening
Apr 30, 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 "**UAV Remote Sensing Monitoring and Applications**" 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). Please visit http://www.ieee.org/publications_standards/publications/authors/author_templates.html to download a template for transactions. Please note that since Jan. 1, 2024, IEEE J-STARS, as a fully open-access journal, is charging a flat publication fee $1,496 per paper.

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