



CALL FOR PAPERS

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

Special Issue on “Remote Sensing Technologies for Bathymetric Mapping”

Bathymetry data is central not only to the determination of seafloor topography and the generation of navigational charts, but also to research in coastal engineering, ocean modelling, fisheries management, biological oceanography, marine infrastructure planning, etc. Technologies for acquiring bathymetric data include multibeam sonar, lidar and multispectral analysis of high-resolution satellite imagery. All these technologies have undergone significant development in recent years as a consequence of both advances in opto-electronics and the impact of artificial intelligence on data processing and analysis, along with demands for greater productivity and capability. Significant research efforts into bathymetry are presently underway, both in technology advancement and application areas, including LiDAR systems incorporating capability for both topographic and bathymetric surveys (well suited to littoral zone surveys); autonomous management of bathymetric mapping; ocean environmental analysis through a combination of multispectral analysis of satellite imagery, LiDAR and sonar; and the application artificial intelligence-based approaches, such as deep learning, to 3D point cloud processing and analysis. The proposed special issue will feature papers highlighting recent advances in the science, technology and applications of bathymetric mapping.

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

- Instruments for bathymetric mapping
- Multiple sensor fusion for bathymetric mapping
- Bathymetric data processing from remotely sensed images, LiDAR and sonar
- Quality analysis and accuracy assessment of bathymetric data
- Coastal bio-environment analysis associated with bathymetric mapping
- Applications of bathymetric data

Schedule

January 1, 2021 Submission system opening

June 30, 2021 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 “**Remote Sensing Technologies for Bathymetric Mapping**” 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 as of Jan. 1, 2020, IEEE J-STARS has become a fully open-access journal charging a flat publication fee \$1,250 per paper.

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