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

Special Issue on “Super-resolution of Remotely Sensed Images”

Recent advances in sensor technologies have enabled the acquisition of images with either high spatial resolution, high spectral resolution, or high temporal resolution. However, due to the limitation in existing hardware technologies and signal-to-noise (SNR) ratio, a trade-off exists between spatial, spectral, and temporal resolution in remote sensing. This means that remotely sensed images cannot be simultaneously acquired with high spatial, spectral, and temporal resolution, which has been an obstacle when trying to fully exploit the information contained in remote sensing images. Therefore, it is of paramount importance to develop advanced super-resolution (SR) techniques for improving the quality of remote sensing images using advanced signal processing techniques.

SR has actually become a hot topic in the computer vision arena due to the development of deep learning techniques. As a result, the application of these techniques to remote sensing (and the development of new SR techniques specifically developed for remotely sensed images) has just started to attract significant attention. In order to provide a comprehensive monograph dedicated to such emerging (yet consolidated) advances, this special issue aims to collect and highlight recent outstanding contributions in the field of resolution enhancement techniques of remotely sensed images. The topics of interests include, but are not limited to:

- Spatial SR of remote sensing images
- Spectral SR of remote sensing images
- Temporal SR of remote sensing images
- Fusion based SR techniques
- Deep learning based SR techniques
- Sub-pixel based analysis
- Computationally efficient implementations of SR techniques
- Relevant applications of SR techniques

Schedule

December 1, 2019: Submission system opening
August 31, 2020: Submission system closing
2020: Publication date

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 “Super-Resolution of Remotely Sensed Images” special issue manuscript type. Prospective authors should consult the site <http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=7676436> for guidelines and information on paper submission. All submissions must be formatted using the IEEE standard format (double column, single spaced). As of January 1, 2020, J-STARS will become a fully open-access journal, charging a flat rate of \$1250 for each paper.

Guest Editors

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