



## CALL FOR PAPERS

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

#### Special Issue on “Pattern Recognition in Remote Sensing”

Due to recent advancement in sensor technology, the capabilities of acquiring images of the Earth surface have been dramatically improved. The improvements involve larger swath width, finer spectral, spatial, temporal, and/or radiometric resolutions. Therefore, the amount of data to be processed is growing rapidly, and, in particular, the number of dimensions of the corresponding feature spaces is rising. This poses methodological challenges that require the utilization of more advanced pattern recognition techniques for effective and efficient data/image interpretation. There are similar challenges for multiple data collected by different types of sensors, such as optical, multispectral, hyperspectral, thermal, LiDAR and RADAR sensors. Within the machine-learning and pattern recognition community, new methods or crucial improvements of known methods are being developed that also will be useful for the analysis of such high dimensional and high resolution remotely sensed imagery. This special issue includes approaches using deep learning but is not restricted to such models.

This special issue is following the successfully held Pattern Recognition in Remote Sensing (PRRS) Workshop in 2016 (<http://iapr-tc7.de/prrs/PRRS2016.htm>), which was co-organized by the Technical Committee on Pattern Recognition in Remote Sensing and Mapping (TC7) of the International Association for Pattern Recognition (IAPR), the Inter Commission Working Group for Pattern Analysis in Remote Sensing (ICWG II/III) of the International Society for Photogrammetry and Remote Sensing (ISPRS), and IEEE Geoscience and Remote Sensing Society (GRSS). This special issue is open to any submission in the scope. For a paper presented in PRRS 2016, it is required that the journal version is 2 to 3 times longer.

Specifically, we invite submissions of unpublished original research in the following topics:

- Feature extraction
- Feature selection and reduction
- Supervised and semi-supervised classification
- Clustering
- Active and transfer learning
- Deep learning
- Target and anomaly detection
- Data fusion
- Nonlinear methods for pattern recognition
- Novel pattern recognition tasks in remote sensing applications
- Technical reviews on related topics

#### Schedule

August 31, 2017    Full paper submission deadline  
August 2018        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 “Pattern Recognition in Remote Sensing” 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). Please note that IEEE JSTARS applies a mandatory page over length charge of \$200 per page (beginning with page 7 and beyond).

#### Guest Editors

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