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

Special Issue on
“Transfer Learning in Remote Sensing”

For remote sensing images, it is often difficult and cost to acquire labels. “Borrowing” labeled information from some relevant images is an attractive way to decrease the labeling cost. However, directly reusing the labeled data may not work well on the new target image, since the labeled training data from the source image and the test data from target image are drawn from different distributions. The spectral drift between domains may be caused by the topography, the angle of the sun, changed soil moisture, vegetation composition, etc. Transfer learning is capable of addressing this problem since it attempts to learn an adaptive classifier or detector for the new image by transferring knowledge from the source image. Transfer learning is very important to the future earth observation, since the multitemporal and multisensor images are becoming increasingly available.

The topics of interest of this special issue include but are not limited to:

- Domain adaptation for remote sensing
- Domain generalization for remote sensing
- Multi-task learning for remote sensing
- Deep transfer network for remote sensing
- Invariant feature learning for remote sensing
- Heterogeneous transfer learning for remote sensing
- Active learning and transfer learning for remote sensing
- Adaptive land classification
- Adaptive target detection

Schedule

November 1, 2019: Submission system opening
April 30, 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 using the Manuscript Central interface (<http://mc.manuscriptcentral.com/jstars>) and select the “Computer Vision-based Approaches for Earth Observation” special issue manuscript type. Please consult <http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=7416303> for guidelines and information on paper submission. All submissions must be formatted using the IEEE standard format (double column, single-spaced). For a layout template, please see http://www.ieee.org/publications_standards/publications/authors/author_templates.html. Note that as of Jan. 1, 2020, IEEE J-STARS will become a fully open-access journal charging a flat publication fee \$1250 per paper.

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