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

Special Issue on
“Computer Vision-based Approaches for Earth Observation”

Earth Observation is an ever-growing field of investigation where computer vision, machine learning, and signal/image processing meet. The general objective is to provide large-scale information about processes at the surface of the Earth exploiting data collected by air- and space-borne sensors. Earth Observation thus implies the need for multiple inference tasks, ranging from detection to registration, data mining, multi-sensor, multi-resolution, multi-temporal, and multi-modality fusion, and regression. With this special issue we aim at fostering collaboration between computer vision and Earth Observation communities.

The technical topics of interest include (but are not limited to):
• Multi-modal, multi-temporal, and multi-scale data analysis
• Deep learning for Earth Observation tasks
• 3D object recognition and classification
• Dynamic scene understanding
• Domain adaptation and concept drift
• Semantic labelling, structured prediction, and structured learning
• Interactive, human-in-the-loop interpretation of remote sensing data
• Large-scale 3D reconstruction of urban scenes from very high-resolution data

The special issue follows the special sessions organized at Living Planet Symposium and the CVPR conference (the EarthVision and Computer Vision for Global Challenges workshops), but also welcomes new original submissions. The papers will be judged by their quality only.

Schedule
September 1st, 2019: Submission system opening
February 28th, 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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