Special Issue on
Artificial and Computational Intelligence Utilizing Multi-Sensor Fusion Data in Forest Management

CALL FOR PAPERS

Multi-sensor data and advanced Artificial Intelligence (AI) algorithms have been guiding components in the recent advancements of environmental systems. Innovations in remote-sensing (RS) and geographic information system (GIS) technologies coupled with computer vision have also been critical in rapid data collection and information extraction in broad earth observation. Specific fields that have benefited from these advancements include forest inventory and management, natural hazard detection/prediction, environmental modelling, feature extraction and object detection.

In recent times, access to high-quality temporal and spectral resolution data from visual, multispectral, thermal and radar/ radio frequency (RF), Ground-penetrating radar (GPR) images, etc., have been made widely available, allowing more voluminous data collection. Fusing data from various sources at different resolutions can provide more comprehensive representation of a given area. For RS images, fusion occurs at three levels, namely the pixel- (i.e. raw data), feature-, and decision-levels. A fused data representation is more effective for estimation and decision-making tasks compared to just using a single source. This enables more accurate estimation and monitoring at local, regional, and global scales once all the data are automatically and intelligently analyzed.

Based on these advancements and tremendous data availability, this Special Issue serves as an outlet for fellow researchers to share recent innovations that apply machine/deep learning algorithms and/or other computational intelligence approaches with multi-sensor fusion data. Original research and review articles are welcome.

Potential topics include but are not limited to the following:

- ▸ Multi-sensory image processing and computer vision
- ▸ Forest characteristic identification using multi-spectral data
- ▸ Multi-sensor fusion
- ▸ Feature extraction from multi-sensor data
- ▸ Forest modelling using multi-sensor data

Authors can submit their manuscripts through the Manuscript Tracking System at https://review.hindawi.com/submit?specialIssue=891086.

Papers are published upon acceptance, regardless of the Special Issue publication date.

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