Special Issue

The Application of Remote Sensing in Forest Wildfire Management

Dear Colleagues,

Guest Editor:



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In recent years, the world witnessed many devastating wildfires that resulted in destructive human and environmental impacts across the globe. Emergency response and rapid response for mitigation calls for effective approaches for near real-time wildfire monitoring. Mapping of burnt areas and assessment of wildfire/forest fires effects is one of the most successful applications of satellite remote sensing. Satellite remote sensing provides the means for acquiring comprehensive and harmonized information on wildfire/forest fires effects for large territories at low cost.

Fire is a naturally occurring phenomenon and is a vital part of ecosystem succession. Due to decades of fire suppression, many forests are in an overgrown state, which contributes to the massive fires we have seen in recent years. "Fire season" in many parts of the world now lasts the entire year versus just a few months. Remote sensing can play an enormous role in the mitigation phase for preventing and planning for wildfires. While some aspects require more advanced remote sensing skills, many can be performed with the guided tools that come in Arc GIS, Envi, Erdas Imagine, QGIS and etc., like change detection, vegetation health, deep learning to map man-made structures and more. This Special Issue is intended to assemble a unique collection of the latest research and review papers that address wildfires, forest fires, prescribed fires, Forest management and policy aspects of wildfires and its mitigation and adaptation options, and to advance our knowledge in these areas.

Key word:

- Wildfires
- Forest Fires
- Optical Remote Sensing
- SAR

- Burnt Area
- Time Series
- Fire Severity
- Fire Mapping

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