Special Issue

Innovative Applications of Remote Sensing and Machine Learning in Forest Fire Detection and Prevention

Message from the Guest Editors

Wildland and forest fires, as significant ecological factors within ecosystems, play a pivotal role in maintaining the balance of the global ecosystem. In recent years, the utilization of remote sensing and machine learning for forest fire prediction, deep learning-based forest fire monitoring, and UAV-assisted forest fire severity classification have received growing attention in the fire management domain. This Special Issue aims to cover the full range of applications in forest fire prediction and management. Possible topics include, but are not limited to, the following:

- Wildland and forest fire spreading analysis, monitoring, and prediction;
- Wildland and forest fire detection;
- UAV-based forest fire severity classification;
- Deep learning models for chronological analysis of forest succession;
- Pattern recognition techniques for forest parameter retrieval;
- Visible light smoke and fire recognition processing and intelligentization;
- Early fire detection;
- Accuracy of fire protection system positioning;
- UAV-based forest fire spreading, monitoring, and prediction;
- Forest aviation patrol.

Guest Editors

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About the Journal

Message from the Editor-in-Chief

Fire is an international open-access journal about the science, policy, and technology of fires and how they interact with communities and the environment. *Fire* seeks to provide a forum to help the fire science community convey how we can live with fire in a changing world. *Fire* seeks submissions from interdisciplinary studies that take a pyrogeography perspective of fires occurring in natural, cultural, and industrial landscapes and how they interact with communities in the science-policy interface. *Fire*'s Editorial Board are widely recognized international leaders. The journal emphasizes quality and innovation and has a rigorous peer-review process. I strongly recommend *Fire* for the rapid publication of your innovative research publications and case studies.

Editor-in-Chief

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