Special Issue

Machine Learning (ML) and Deep Learning (DL) Applications in Wildfire Science: Principles, Progress and Prospects (2nd Edition)

Message from the Guest Editors

This SI aims to compile the most recent research & advancements in AI applications within wildfire science. We welcome original research that not only contributes to a better understanding of ML & DL methods among wildfire researchers & managers but also sheds light on the diverse & challenging array of problems in wildfire science. It includes, but is limited to:

Fuels characterization, fire detection & mapping Fire weather & climate change

Fire occurrence, susceptibility & risk Fire behavior, effects & management

Mapping fire extent & severity
ML & DL & big data & Integration of AI analytics & drones in wildfire analysis & management
Wildfire prevention & early warning systems

Remote sensing & satellite imagery in wildfire monitoring

Firefighting strategies & technologies
Fire ecology & ecosystem management
Socioeconomic impacts & community resilience to
wildfires

Adaptive management & decision support systems in wildfire response

Fire risk assessment & modeling Innovative approaches to wildfire suppression & containment

Post-fire rehabilitation & restoration techniques Multi-agency collaboration & coordination in wildfire management

Wildfire policy, governance & public awareness efforts

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

Dr. Grant Williamson

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