Special Issue

Advanced Fire Detection and Monitoring Technologies for Early Warning and Safety

Message from the Guest Editors

This Special Issue, "Advanced Fire Detection and Monitoring Technologies for Early Warning and Safety", showcases advances in enhancing fire detection, rapid response, and public safety. With evolving fire regimes and growing global risk, there is a critical need for new multi-sensor, Al-driven, and networked platforms—such as satellite, drone, and ground-based systems-that deliver earlier, actionable warnings. We invite original research, reviews, and case studies on improved smoke and heat detection algorithms, automated alerts, machine learning for fire forecasting, remote sensing integration, and decision support tools. Emphasis is placed on solutions demonstrating real-world transferability, interoperability, and scalability for communities and responders. Contributions addressing false alarms, uncertainty quantification, and equitable warning access are encouraged. This issue aims to advance proactive fire risk mitigation and foster safer, more resilient communities.

Guest Editors

Dr. Nicholas LaHaye

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Deadline for manuscript submissions

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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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