Special Issue

Progress in Remote Sensing and Scalable Computing for Natural Hazard Detection and Emergency Response

Message from the Guest Editors

This Special Issue focuses on advances that are reshaping how scientists observe, model, and respond to a wide range of natural hazards. As climate change. environmental degradation, and urban expansion continue to intensify the frequency, severity, and cascading nature of events such as floods, landslides, earthquakes, volcanic eruptions, wildfires, extreme storms, heatwaves, droughts, and coastal hazards, the demand for timely, accurate, and operationally reliable monitoring frameworks has never been greater. Modern research on natural hazards must therefore integrate high-resolution and multi-sensor Earth Observation data with computational platforms capable of managing unprecedented data volumes and delivering rapid, decision-ready insights. Topics of interest include, but are not limited to, enhanced detection and earlywarning algorithms; cross-platform interoperability and data fusion; physically based and data-driven hazard modelling; machine learning and deep learning approaches; rapid damage assessment and exposure mapping; and the integration of predictive analytics into emergency management systems.

Guest Editors

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Remote Sensing is now a prominent international journal of repute in the world of remote sensing and spatial sciences, as a pioneer and pathfinder in open access format. It has highly accomplished global remote sensing scientists on the editorial board and a dedicated team of associate editors. The journal emphasizes quality and novelty and has a rigorous peerreview process. It is now one of the top remote sensing journals with a significant Impact Factor, and a goal to become the best journal in remote sensing in the coming years. I strongly recommend Remote Sensing for your best research publications for a fast dissemination of your research.

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