Special Issue

Remote Sensing for Digital Twins in Forestry: Applications and Future Perspectives

Message from the Guest Editors

The integration of concepts such as high-resolution remote sensing, precision forestry, and artificial intelligence (AI) heralds a new era in forest management. Digital twins (DTs) for forestry, leveraging these advancements, represent transformative tools for real-time data-driven modelling and management. These systems enable the simulation of forest dynamics, which was difficult to achieve using manual data collection and models. Once data captured by sensors are converted to a DT, these systems can potentially offer a set of new tools that may be more effective in addressing critical issues such as climate-induced risks, pathogen and pest outbreaks, carbon dynamics, or sustainable resource management. This Special Issue will explore the development and application of DTs in forestry using high-resolution remote sensing technologies, including UAVs, LiDAR, and satellite imagery, with the integration of AI models. This Special Issue will emphasise innovations that enhance our understanding and stewardship of forest ecosystems. It will provide a platform for advancements in spatial ecology, 3D modelling, and predictive analytics.

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Message from the Editor-in-Chief

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 peer-review 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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