Special Issue

Application of Machine Learning and Computer Methods for Advancing Forest Sciences

Message from the Guest Editors

The Special Issue aims to highlight how advanced computational tools are transforming the way we understand, monitor, and manage forests. In recent years, machine learning, artificial intelligence, and computer vision have advanced from experimental research to practical solutions and products, helping us detect pests earlier, map forest health more precisely, and make better decisions regarding sustainable management. From UAVs capturing high-resolution imagery to LiDAR and SAR revealing hidden forest structures, these technologies, combined with powerful algorithms, allow us to see and understand forests in ways that were impossible a decade ago. We welcome contributions that explore these possibilities, from innovative uses of deep learning and geospatial analytics to decision-support systems, simulation models, and applied robotics for forestry applications. Topics of interest include forest inventory optimization, biodiversity monitoring, carbon stock estimation, and mitigating the impacts of climate change. This Special Issue seeks not only to share cutting-edge research but also to inspire new collaborations and practical solutions to the challenges facing forests today.

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Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal *Applied Sciences* has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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