Applications of Artificial Intelligence in Forestry

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Deadline for manuscript submissions:
closed (15 July 2024)

Message from the Guest Editors

Dear Colleagues,

Recent advances in big data in Earth observations have fostered interdisciplinary studies of forest dynamics and management, as well as their interactions with the environment. Artificial intelligence (AI) provides an interesting and efficient solution for big data applications in forestry. In the era of big data, there are emerging opportunities to utilize deep learning models to improve our understanding of forest dynamics and forest–climate interactions in the warming environment, and explainable artificial intelligence methods can be used to obtain explanations of the model results. Therefore, original research papers using AI approaches to improve our understanding of forestry are welcome in this special collection.

Topics may include but are by no means limited to:

- Forest mapping and change detection;
- Forest disturbance and damage assessment;
- Forest threat and health monitoring;
- Ecosystem service assessment;
- Forest carbon estimation;
- Smart decision system of forest management;
- Wildfire risk assessment and prediction;
- Forest meteorology;
- Forest–climate interactions.

mdpi.com/si/160539

Special Issue

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Message from the Editor-in-Chief

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Journal Rank: JCR - Q1 (Forestry) / CiteScore - Q1 (Forestry)

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