

Preface: Workshop “Smart Forests – Forest ecosystem assessment and monitoring using Remote Sensing, Artificial Intelligence, and Robotics”

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New advances in sensors, platforms, data sciences have paved the way of constant observation and monitoring of ecosystems such as forest with unprecedented high resolutions in space, spectrum, and time. This Smart Forests workshop focuses on the assessment and monitoring of forest ecosystems using state-of-the-art Remote Sensing (RS), artificial intelligence (AI), and robotics. Highlighted in this workshop will be emerging topics on data acquisition, pre-processing, information extraction, and forest remote sensing applications to support improved understanding of forest ecosystems, efficient management of forest resources, and multi-scale approaches for forest assessment and monitoring. One of the aims of this workshop will be to encourage discussions on innovative robotic operation of sensors, platforms, and AI powered processing technologies, from the perspectives of practical applications. The workshop also encourages the benchmarking of various data sources and processing methods for extracting key forest metrics and attributes and modelling forest processes.

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Responsible Technical Commissions/ involved Working Groups

WGIII-1 Remote Sensing Data Processing and Understanding

WGI-7 Data Quality and Benchmark of Sensors

WGIII-8 Remote Sensing for Agricultural and Natural Ecosystems