Special Issue

Advancements in Remote Sensing and UAV Technologies for Water Management in Climate-Smart Agriculture Systems

Message from the Guest Editors

The goal of this issue is to synthesize high-quality research and review articles that highlight innovative solutions for monitoring, assessing, and managing water use in agriculture, supporting the transition toward climate-smart agriculture (CSA). Remote sensing and UAVs enable real-time and spatially detailed insights into soil moisture, plant water stress, evapotranspiration, and irrigation efficiency, and help farmers make informed decisions while conserving resources and improving yields. We invite contributions that cover topics including, but not limited to, climate-smart water management practices using remote sensing technologies; UAV-based monitoring of crop water stress and evapotranspiration; remote sensing techniques for soil moisture and irrigation mapping; integration of UAV data with AI and machine learning for water management; precision irrigation systems informed by remote sensing and UAVs; and digital twins and GIS tools for modeling water usage in agriculture. This Special Issue aims to contribute to the advancement of smart, data-driven water management in agriculture and promote sustainable and climate-resilient farming systems globally.

Guest Editors

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Message from the Editor-in-Chief

In the context of global changes, the sustainable management of water cycles, going from global and regional water cycles to urban, industrial and agricultural water cycles, plays a very important role on the water resources and on their relationships with food, energy, biodiversity, ecosystem functioning and human health. *Water* invites authors to provide innovative original full articles, critical reviews and timely short communications and to propose special issues devoted to new technological and scientific domains and to interdisciplinary approaches of the water cycles. We ensure a critical review process and a quick turnaround between submission and final decision.

Editor-in-Chief

Dr. Jean-Luc PROBST
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