

Special Issue

Application of Remote Sensing Technology in Irrigated Agriculture

Message from the Guest Editor

Remote sensing in irrigated agriculture from satellites and drones is becoming a useful tool in managing and optimizing irrigation systems. Thermal sensors detect plant stress and enable the calculation of the daily energy balance and crop evapotranspiration (ET).

OpenET is a satellite-based system to calculate ET based on an ensemble of energy balance models. It provides ET data to the western United States.

Validation experiments compare OpenET with fluxtower-measured ET. Visible and NIR sensors detect plant canopy cover, the normalized difference vegetation index (NDVI), and the crop coefficient. Other parameters, such as expected yield, can be inferred.

Remote sensing data is combined with models to manage water application and water productivity. This Special Issue requests papers that validate ET remote sensing platforms such as OpenET, utilize remote sensing to estimate plant status and the crop coefficient, and utilize remote sensing data in evapotranspiration and crop growth models to manage irrigation application.

Guest Editor

Dr. Peter Waller

College of Agriculture & Life Sciences / College of Engineering,
Biosystems Engineering, The University of Arizona, Tucson, AZ, USA

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Water
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
water@mdpi.com

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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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