

Special Issue

Smart-Farming of Irrigated Agriculture: Opportunities and Challenges

Message from the Guest Editor

Intensifying water constraints threaten food security and nutrition. The freshwater resources available per person have declined, and levels of anthropogenic emissions of GHGs are now at their highest in history. Agricultural production and its effect on land use are major sources of these emissions. Furthermore, agriculture has an important role to play on the path to sustainability, as irrigated agriculture accounts for more than 70% of global water withdrawals. In addition, climate change is already seriously disrupting rainfall patterns. In a context of scarcity of water resources and high consumption of resources by agriculture, irrigation becomes a major scientific and societal challenge. Smart farming systems, e.g., remote and proximal sensing instruments and techniques, weather station and soil moisture sensors, innovative irrigation systems and instruments for monitoring irrigation, enable advanced decision support, smart analyses and planning, improving irrigation sustainability. In this Special Issue, we are open to contributions exploring the opportunities and challenges of smart farming, and the advancement of irrigation systems and technologies.

Guest Editor

Dr. Stefano Marino

Department of Agricultural, Environmental and Food Sciences,
University of Molise, Campobasso, Italy

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

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Editor-in-Chief

Prof. Dr. Leslie A. Weston

Gulbali Centre for Agriculture, Water and Environment Research,
Charles Sturt University, Wagga Wagga, NSW 2678, Australia

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