Special Issue

Remote Sensing of Soil Moisture and Properties for Agricultural Applications

Message from the Guest Editors

The constant search for higher yields and lower production costs is an objective present in 21st century agriculture. Water is a key input to ensure agricultural production and increase productivity. Compared to other inputs, water is less expensive and more important for agriculture. The water content in the soil must be known so that the farmer can make the best decisions. Soil properties such as texture, soil density, porosity, and infiltration capacity, among others, are also used for this purpose. However, these factors present spatial and temporal variability. Therefore, a more detailed monitoring of these factors is needed, where agricultural producers are resorting to technology. In this context, one of the advances in this area has occurred with the increasing use of aerial and orbital images in agriculture. The images provide information that can be used to determine moisture and other soil characteristics. For this, the use of data science and machine learning techniques plays a prominent role in the process of transforming data into soil information.

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