Special Issue

The Application of Machine Learning and Deep Learning Techniques in Agriculture

Message from the Guest Editors

This Special Issue aims to showcase the research findings in the use of Machine Learning and Deep Learning techniques and related technologies when applied to agricultural practice. The introduction of technologies is creating opportunities to gather digital datasets in real-time, which can then be used by models with the ability to learn from and interpret this information. At the core of this manner of working are the concepts of Artificial Intelligence, Machine Learning and Deep Learning. Research areas include but are not limited to how machine learning and deep learning techniques may be applied to the following:

- Improving crop yields using datasets provided by the IoT technologies.
- Enhancing land usage from geographical imagery produced by Earth observation satellites or Unmanned Aerial Vehicle platforms.
- Targeting the use of weed control products by analyzing the quality of the soil from in situ sensors.
- Determining the health and quality of plants and the risk of disease from graphical imagery.
- Applying irrigation from information provided by wireless sensor networks.
- Identifying the optimum time to sow, fertilise and harvest crops.

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