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Research field

Smart agriculture

PhD title

Analyze the behavior of plants in smart agriculture using deep learning and Internet of Things

Keywords
- agriculture
- Tiny Machine Learning
- IoTs
- deep Learning
- forecasting
- computer vision

Summary

In the context of agriculture, Deep Learning for embedded devices, and Internet of Things (IoT) this research focuses on making the most of today's popular IoT and Tiny Machine Learning to build a faster learning model that reduces inference runtime while taking full advantage of the available resources, and that could be used to analyze the behavior of plants in smart agriculture. In this regard, several research studies have been conducted in this area, the majority collecting data via sensors or cameras and processing the data in the cloud or on a high-performance server. This research allows us to develop optimized Forecasting and Computer Vision models with high accuracy, to have a global supervision of the state and needs of the plant during all its evolution. The final objective is to digitalize the green house with new technologies.

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