

Practice Abstract 5

Smart sensorization of agricultural farming

This demonstrator is based on application of agriculture 4.0 solutions (sensory + IoT) to monitor small agricultural farms in the Peón Valley through environmental and soil sensor deployment.

Environmental (temperature, humidity, precipitation) and soil (temperature, humidity, conductivity, pH, NPK concentration) data are collected by IoT sensors connected to the LoRaWAN network. Then these data are analysed using IA models and displayed to end-users by an app. The information obtained by this system is very useful for small farmers, who will be able to know the evolution of crops in real time, adjust different variables (acidity, nutrients, irrigation...), thus improving crop quality and quantity. Moreover, the information can be used to prevent and combat pests that occur under certain agro climatic conditions.

This will serve as a reference for small farms in the Valley in order to carry out efficient resource management depending on soil state and plant requirements, as well as accurately estimate the sowing and harvest calendar based on the climatic conditions of the place and year. All this data facilitates agricultural decision making, and thus farm efficiency.

Contact Information

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Links

Include any relevant photos, diagrams, or links to videos or websites.

<https://www.youtube.com/watch?v=pc8gz61GV7M>

<https://www.youtube.com/watch?v=FvScuvsrJUQ>

<https://www.fundacionctic.org/es/ctic-ruraltech>



