

Practice Abstract 4

Climate Simulator to study crops adaptation through IoT sensorization

Climate change is one of the main concerns for agricultural practices, an economic activity highly dependent on weather conditions. At CTIC Rural Tech there is an infrastructure focused on the development of Agriculture 4.0 projects from the perspective of climate research and the development of digital technologies (software and hardware).

This infrastructure is made up of three independent simulators in which different weather conditions can be simultaneously reproduced. In this sense, climate stress experiments can be performed with different types of crops to study their adaptation/resistance degree to future climate scenarios.

This is possible thanks to IoT technology and the LoRaWAN sensor network that allows controlling many variables such as temperature, humidity, radiation, ventilation, irrigation, CO2 concentration. Furthermore, real-time monitoring of the state of crops using IoT technology allows the design of more efficient and sustainable management practices, optimizing available resources.

Contact Information

Jimena Pascual | Director of Social and Organizational Innovation
Mob: (+34) 661279529 | @: jimena.pascual@fundacionctic.org

Covadonga Cima Granda | Project Manager
Mob: (+34) 681 961 466 | @: covadonga.cima@fundacionctic.org

Claudia Fuente García, PhD | Technician
Mob: (+34) 984 291 212 @: claudia.fuente@fundacionctic.org

Links

https://www.youtube.com/watch?v=pk0_L9DQX98

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

