



## IFIP IoT 2021 Special Session Proposal

### Modernizing agricultural practice using IoT

#### Scope

Through Horizon Europe financing program the EU acknowledges the importance of focused research and testing on the Internet of Things (IoT) to support the development and take-up of the technology in different economic sectors (industry, agriculture, logistics, transport). In conditions of population increases, achieving a more sustainable world is based on smart farming, precision agriculture which requires reducing human interventions in practice and increasing the production. Specifically, IoT systems and drones are used in precision agriculture in applications like crop irrigation planning, plant disease detection, soil texture mapping, monitoring crop maturity for correct assessment of optimal harvest time, monitoring the production in order to plan the necessary equipment for harvesting the production, its transport, respectively the storage. Images collected with drones can lead to a correct estimation of biomass or identifying some fruits diseases. The automation harvesting using mobile robots and robotic arms can reduce the human labor and increase the productivity. This special session aims novel solutions based on the Internet of Things, smart drones, robotics or AI for the modernization of agriculture practice and livestock. Such solutions are needed especially in countries where digitalization has less penetrated agriculture given the existing imbalance in agricultural development at least in Europe but also worldwide.

#### Session Organizers

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#### Topics / Keywords

- IoT and WSN to collect data from land field about soil and crop status
- IoT systems and smart drones used in precision agriculture
- Cyber-physical System (CPS) in agriculture
- Automation of agricultural processes using robots
- IoT systems and Artificial intelligence algorithms applied in food process monitoring and control
- Predictive analytics for smart farming
- Green IoT for Sustainable Development

All papers must be written in English. Full papers should be at most 18 pages long in total including references and appendices. The paper should be intelligible without having to read the appendices. Poster presentations should be at most 4 pages. Submissions should not be anonymized. Authors must follow the Springer formatting instructions. For paper submissions go to <https://easychair.org/conferences/?conf=ifipiot2021>

#### Deadlines:

Abstract Due - 15 May 2021  
Full Paper Due - 15 June 2021  
Notification of Acceptance - 31 August 2021  
Deadline for final version - 15 December 2021