

Project idea/ Field of expertise:

Organisation Name:

Addressed topic(s):

IoT integration of agricultural production processes powered by agrivoltaics

Faculty of Engineering, Czech University of Life Sciences Prague cooperation with Research Institute of Agricultural Engineering, p. r. i.

Horizon Europe Cluster 4

C4_D4_23 - IoT mutli technology integration

C4_D4_23 - multi-scale modelling

C4_D4_24 - towards AI-powered robots

C4_D2_23 - Intelligent sensors for electronic devices

Thematic Brokerage Workshops



Faculty of Engineering

Czech University of Life Sciences Prague

Public; established in 1952; over 8,000 graduates

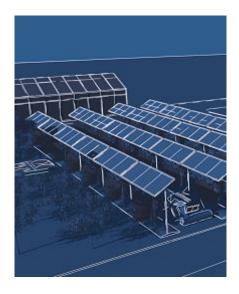
Agricultural engineering - precision agriculture, robotics, remote sensing, crop and soil status Electrical engineering - PV control, PV panels, sensing systems, IoT, num. simulation, digital twins Mechanics - constructions e.g. for PV





Production technologies - operational characteristics, production economics, circular economy
Prototype laboratory - design, construction and operation of drones and robots

46 implemented international projects at CZU in 2020 e.g. CARES - City Air Remote Emission Sensing (<u>https://cares-project.eu/</u>)



IoT integration of agricultural production processes powered by agrivoltaics

PV powered systems applicable for orchards, vineyards, horticulture that would operate as autonomously as possible through IoT sensors and controllers, AI, water management and irrigation, field robots with docking, remote sensing

Renewable energy supply with farm production maintained

Smart automation of time and labour consuming work

Integration into Community Energy



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