MSc in Water and Sustainable Development
MODULE

Sensing and geo-processing for precision agriculture
Precise data is required for informed decision making in agriculture design and water management. Lack of data driven information often results in having less productivity from agricultural fields. Furthermore, there is often missing information on agricultural system boundaries and its proximity to structures which is crucial for planning and monitoring. Field level data at high spatio-temporal scale can support in achieving precision agriculture with optimized production. Deploying field data collection apps and developing capacity to collect relevant data will enhance understanding of the agriculture systems and their dynamics. The module cover land classification using topography and geomorphology mapping based on LIDAR and Drones, concepts of sensor observation services, IoTs, Field based sensing for soil moisture and meteo, process high frequent sensor data using advanced techniques, data assimilation from different sensors to make informed decisions on agriculture water management, geo processing tools for mapping and contextualize agriculture systems, Field data collection using mobile apps and open data.