Course title: **Artificial Intelligence in Agriculture**

Course specifications:

Artificial Intelligence (AI) in Agriculture - Internet of Things (IoT) in Agriculture - Information Technology (IT) in Agriculture - Digitalization on the bioeconomy - Smart Agriculture.

Cell phone applications, desktop software and web applications in biofuels, biochemicals, and further bioproducts such as bioplastics, biocement, pharmaceuticals, nutraceuticals, etc.

IoT applications and cell phone applications in agricultural systems: greenhouses, livestock building, irrigation systems, and agricultural machinery, etc.

Decision support systems and expert systems and their applications in agricultural and biosystems and food supply chain

Drones (unmanned aerial vehicles “UAV”), quadcopters, and robotic bees for agricultural applications: crop pollination, spraying pesticides and fertilizers, crop health monitoring (drone-based crop imaging), etc.

Agricultural Robots: robotics in livestock farming, robots in animal husbandry (e.g., robotic milking systems), robotics in the poultry industry, robots in plant production such as robots used for planting seeds, crop harvesting, weeding and mowing, bowery farming, fresh fruit robotics, robots in greenhouses, etc.

Artificial intelligence applications in precision agricultural, plant health analysis, precision livestock farming (PLF), agri-food systems and supply chain

Artificial intelligence (AI) and internet of things (IoT) advancements for reducing carbon emissions through adopting renewable energy routes

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energy production from different agricultural wastes. Computers and Electronics in Agriculture, 163: 104873.

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