Workshop proposal – Intelligent Agriculture: Innovative Technology and Systems (iAgriculture 2024) of the 21st IEEE International Conference on Conference on Ubiquitous Intelligence and Computing

UIC 2024, Denarau Island, Fiji, December 02-07, 2024

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This workshop on **Intelligent Agriculture: Innovative Technology and Systems (iAgriculture 2024)** of UIC 2024 provides international coverage of advances in the development and application of computer hardware, software, electronic instrumentation, and control systems for solving problems in agriculture, including agronomy, horticulture (in both its food and amenity aspects), forestry, aquaculture, and animal/livestock farming.

This workshop aims to disseminate original research papers, reviews, and application notes focusing on advancements in the utilization of ubiquitous computing in agricultural production for plants and animals. The covered topics include but are not limited to:

- Agricultural information management system
- Agricultural internet of things system integration and practice technology
- Agricultural big data analysis and application
- Innovative application of Artificial Intelligence/Machine Learning in smart

agriculture

- Agricultural sensors and wireless sensor networks
- Intelligent processing and decision-making of agricultural information
- Agricultural animal and plant model and simulation
- Surveying and mapping and remote sensing
- Crop remote sensing estimation
- Intelligent detection and control system for agricultural machinery and equipment
- For mathematical modeling and software development for food processing
- Crop growth simulation model
- Agricultural machinery navigation and intelligent measurement and control
- Agricultural aviation technology and application
- Agricultural robots and other technologies
- Application of sensors in the management of crop seasons
- Digital agriculture and agriculture information engineering
- Agricultural information collection
- Analysis of agricultural data
- Agricultural system simulation
- Agricultural decision support system

The above fields also incorporate various technological advancements, including artificial intelligence, sensors, machine vision, robotics, networking, and simulation modeling. Technology transfer studies, such as skill needs, education, training, outreach, methods, surveys, agri-business, producers, distance education, Internet, simulations models, decision support systems, expert systems, on-farm experimentation, partnerships, quality of rural life, etc., are also involved.