



CALL FOR PAPERS
3rd International Workshop on Smart Agriculture for the environmental
emergency (SmartAgr)

June 29th-July 2nd, 2024 (exact date to be defined)

Osaka International Convention Center

Osaka, Japan

<https://smartagr.santannapisa.it/>

In conjunction with IEEE Int. Conference on Smart Computing (SMARTCOMP 2024)

The global environmental emergency, due to rapid climate change, is having a strong impact on human activities and life, as confirmed by the recent United Nations Conference on Climate Change (COP 28) conference, held at the end of 2023. Agriculture, as one of the main human activities, is directly involved in meeting the needs of the growing population, it is responsible of around the 70% of total water consumption and has heavy effects on the environment and on the land use, increasing the pollution of natural resources (air, water, soil). Recently, agriculture was addressed by a technology evolution where the new paradigm of Smart Agriculture guided the introduction of ICT technologies to sustain and make more efficient the agriculture production. Currently, the global environmental emergency solicits a further evolution represented by the Climate-Smart Agriculture (CSA) to provide scientific and technological solutions suitable to make agriculture more resilient to climate changes, to better address the issues related to the protection of natural resources and to the increased food needs facing off the shortage of soil.

This requires an interdisciplinary approach in the context of ICT technologies for different types of applications (smart monitoring, smart water management, agrochemicals applications, disease management, smart harvesting, supply chain management, smart agricultural practices..). For instance, IoT provides the tools for monitoring crops, equipment, vehicles, animals, and resources, and different technologies such as communications technologies, embedded systems, wireless sensor networks, data analytics, cloud/fog computing, Artificial Intelligence are required to collect, manage, share, analyse, and utilize the collected data. Smart Agriculture can drive the evolution of the agriculture, improving the productivity and the environmental sustainability, preserving natural resources (soils, water, and biodiversity) and reorienting the focus on the Three Pillars of CSA as stated by the FAO: sustainably increasing agricultural productivity and incomes; adapting and building resilience to climate change; reducing and/or removing greenhouse gas emissions, where possible. These pillars outline the direction of action regarding the FAO Strategic Framework 2022-2031 based on the Four Betters: better production, better nutrition, a better environment and a better life for all, leaving no one behind.

The 3rd International Workshop on Smart Agriculture for the environmental emergency (SmartAgr) investigates the design, implementation, and assessment of innovative technological solutions, including new paradigms, methods, systems, and tools to ensure the implementation of Smart Agriculture to face off the environmental emergency.

SmartAgr is an interdisciplinary, multi-national initiative to invite for participation both representatives of academia and industry across the world interested in discussing on the last evolution of Smart Agriculture with a focus on the environmental emergency to meet the aforementioned challenges. From this point of view the workshop can provide a place where to profitably exchange ideas, present applications and solutions taking advantage from the heterogeneity of the contributors to encourage the cross-fertilization of ideas and competencies.

The papers should address forefront research and development in Smart Agriculture with a particular focus on, but is not limited to, the following topics:

- Pervasive computing and embedded systems solutions enabling Smart Agriculture to face off environmental emergency.
- Artificial intelligence in Smart Agriculture with attention to the environmental emergency.
- Communications and networking technologies supporting Smart Agriculture systems and solutions to preserve natural resources and improve productivity.
- New solutions, systems, models, applications to reduce CO₂ emissions.
- Technologies and applications to sustainably increase agricultural productivity and resilience to climate changes.
- Technologies and application to preserve natural resources (soil, water, and biodiversity).

Each accepted paper requires a full SMARCOMP registration and will be included and indexed in the IEEE digital libraries (Xplore) and in Scopus Database.

IMPORTANT DATES:

Extended submission Deadline:	April 12, 2024
Acceptance Notification:	April 30, 2024
Camera Ready Submission:	May 10, 2024

Organizers and Workshop Chairs

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