



## INVITED SESSION SUMMARY

**Title of Session:**

**Emerging Technologies for Smart & Sustainable Agriculture (ETSSA)**

**Name, Title and Affiliation of Chair:**

Christine Lahoud, AP (Université de technologie de Belfort Montbéliard - UTBM), Hajer Baazaoui, Prof. (ETIS, CY Paris Cergy University), Jérôme Dantan, AP (Institut Polytechnique UniLaSalle), Faten Chaieb Chakchouk, Prof. (Efrei Paris Panthéon-Assas University)

**Details of Session (including aim and scope):**

The deployment of emerging technologies such as Internet of Things, Computer Vision and sensors in agriculture plays a key role in renewing the agricultural landscape, including agricultural services, territorial management and greenhouse operations,...

First, emerging technologies present several opportunities that significantly contribute to the integration of innovative agricultural practices, offering substantial benefits to farmers, consumers and society in general. Recently, Computer Vision techniques with remote cameras are reshaping agricultural practices, offering non-contact and scalable sensing solutions.

Next, these technologies facilitate the extraction, formalization and management of knowledge which is made available to different users through decision support systems.

The core objective of systems integrating emerging technologies and knowledge management, is to effectively manage agricultural data to boost productivity while reducing costs. Nevertheless, the adoption of these innovative technologies involves several challenges across various domains: technical and technological barriers; data storage, exploitation and analysis; accessibility to these technologies; security and ethical considerations; and finally socio-economic and environmental impacts.

The scope of **ETSSA 2024** includes, but is not limited to, the following topics:

- Data representation of agriculture domain
- Data integration and management in agriculture
- Agriculture linked data and semantic web
- Recommender systems for agriculture
- Big data analysis for decision-making
- Artificial intelligence, robotics and IoT in agriculture
- Remote sensing for smart agriculture

- Computer vision approaches
- Ethics and security problems of using emerging technologies
- Socio-economic and environmental implications of emerging technologies in agriculture
- Global issues of using emergent technologies in agriculture
- Smart technologies for sustainable agriculture

**Main Contributing Researchers / Research Centres (tentative, if known at this stage):**

- ETIS, CY Paris Cergy University
- Institut Polytechnique Unilasalle
- Panthéon Assas
- CIAD, UTBM
- LARI, Liban
- eXascale Infolab, University of Fribourg, Switzerland

**Website URL of Call for Papers (if any):**  
(page Web à créer)

**Proposed International Program Committee (to be completed):**

Nader Abdelmalek, HEUDIASYC CNRS UMR, Université de technologie de Compiègne, France  
 Marie-Hélène Abel, HEUDIASYC CNRS UMR, Université de technologie de Compiègne, France  
 Rana Alaa, Arab Academy for Science, Technology and Maritime Transport, Egypt  
 Narjes Bellamine, University of Manouba, Tunisia  
 Sana Ben Abdallah-Ben Lamine, RIADI Laboratory, University of Manouba, Tunisia  
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 Hervé Coppier, UniLaSalle, France  
 Hassen Drira, Télécom Physique Strasbourg, France  
 Stéphane Galland, CIAD, Université de Technologie de Belfort-Montbéliard, France  
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 Christophe Nicolle, CIAD, University of Bourgogne, France  
 Davy Monticolo, ERPI, Université de Lorraine, France  
 Katarzyna Wolska, Université Paris Panthéon Assas, France

**Important dates:**

Submission of papers: 15 April 2024

Notification of acceptance: 2 May 2024

Final paper publication files to be received by 28 May 2024

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