

Workshop on Innovation in Sustainable Agriculture and Food Production Catania, Sicily, Italy : 17-19 September 2025

**Chairs: Prof. Robert Howlett, KES International and Cardiff Metropolitan University, UK
and Prof. Giacomo Scarascia Mugnozza, Politecnico di Bari, Italy**

Civilisation faces a huge challenge in feeding a world population estimated to reach 10 billion by 2050 a healthy diet while avoiding excessive consumption of natural resources and damage to the environment. Innovative approaches are required to agriculture and food production technology that increase yields and decrease waste, while minimising harm to the ecosystem. Recent challenges have demonstrated the importance of resilience throughout the 'Farm to Fork' food chain. The Sustainable Agriculture and Food Production workshop aims to address this challenge.

We invite contributions on any topic applicable in the area of sustainable agriculture, food production and processing, including the following:-

- from local community scale to large industrial scale food production in urban and rural settings
- reducing growth in demand for food and agricultural products
- increasing food production without additional land use
- reducing greenhouse gas emissions from agricultural processes
- technology assisted open-field agriculture
- efficiency in water use, irrigation, water recovery and recycling
- controlled and protected environment agriculture (C&PEA) and horticulture
- control systems, energy efficiency and water efficiency for (C&PEA)
- heat pumps, heat batteries and earth tubes for (C&PEA)
- greenhouse technology, vertical farming, plant factories
- passive greenhouses, sunken greenhouses, extreme climate greenhouses
- polyculture, permaculture, regenerative farming
- agriculture 4.0, digital farming, precision agriculture
- AI/ML, IoT and robotics in food production
- soilless cultivation, hydroponics, aeroponics and aquaponics
- soil protection technologies, erosion prevention and remediation, carbon sequestration, bio-char
- innovation in using peat free growing mediums and fertilisers for food production
- urban agriculture, roof-top gardens, allotments, community gardens
- integrating food production into smart buildings and smart towns/cities
- food safety and security; food resiliency
- circular economy principles for food production.

The workshop will be held as part of the **KES International Sustainability in Energy and Buildings (SEB-25) and Sustainable Design and Manufacturing (SDM-25)** conferences to be held in Catania, Sicily, in Italy during 17-19 September 2025. Submitted papers will be reviewed by members of the Programme Committee. Accepted papers will be presented at the conference and published in the SEB-25 conference proceedings as a volume in the Springer SIST series, indexed in Scopus, EI Compendex and other places and submitted to Web of Science.

Dates

- Submission of papers: 28th April 2025
- Notification of Acceptance: 2nd June 2025
- Final Camera-Ready Publication File Upload and Author/Early registration: 16th June 2025
- Conference: 17-19 September 2025

Website: see <http://seb-25.kesinternational.org> and
<http://seb-25.kesinternational.org/gentracks.php>

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