

Call for Contributions

We invite proposals for contributed chapters in a book with the working title:-

Innovations for Resilient and Secure Food Production Systems

Eds: Prof Chris Wallis*, Prof John Littlewood* and Prof Robert Howlett**

* Cardiff Metropolitan University, UK, ** KES International Research, UK

To be published in Springer book series (tbc)

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Synopsis

Civilisation faces huge challenges in the 21st century in feeding a growing population a healthy diet while avoiding excessive consumption of natural resources and damage to the environment. Innovative approaches are required to food production technology that increase yields and decrease waste, at the same time minimising harm to the ecosystem. Recent challenges such as the Covid global pandemic and armed conflicts in various parts of the world have demonstrated the importance of resilience throughout the 'Farm to Fork' food chain through sustainable production.

New technologies are increasingly being incorporated into various aspects of the food production process. Notable examples include: Artificial intelligence and machine learning (AI/ML) being used to optimise growing regimes; the Internet of Things (IoT), robotics, geolocation, being applied in precision agriculture; vertical farming can repurpose redundant buildings and bring food production closer to consumers, eliminating transport costs and emissions. Additionally, advances in sustainable energy technologies can reduce energy costs in greenhouses and controlled environment horticulture.

Moreover, there is a step-change in the way we consume food, leading to developments in food processing. From alternative proteins to lab-grown meat and fish, the way we source and process food is innovating with relentless pace. Ensuring these developments provide us with a reliable and safe supply of food is becoming a major concern. Thus, equal to the evolving production systems, innovations within the methodologies we use to secure our food quality and supply chain are also taking place.

The book will showcase the sustainable advances being made across all aspects of innovative food production and processing, especially where gains in good practice around safety and security have been made. New technologies under development and further opportunities for innovation will be presented from both industry and academic experts.

Call for Chapter Contributions

Contributions need to be 15-20 pages in length and may be on any topics related to the theme of the book. We aim for the book to be published at the end of 2024 or early 2025.

If you wish to propose a chapter please send a provisional title, a few lines indicating the content, and a short-form CV for the author, to Prof R.J.Howlett rjhowlett@kesinternational.org