

Special Session on Application of Intelligent Systems in Smart Farming and Precision Agriculture

Chair: Irina Radeva
Intelligent Systems Department
Institute of Information and Communication Technologies
Bulgarian Academy of Sciences
irina.radeva@iict.bas.bg

Artificial Intelligence (AI) is one of the main drivers of digital transformation and is an important factor in ensuring the competitiveness of the economy and improving the quality of life. The implementation of AI in agriculture will significantly contribute to the development of modern, efficient, knowledge-based agriculture to improve food quality and conserve natural resources.

The special session will include the presentation of the achieved results of the ongoing research regarding the use of artificial intelligence and digital technologies in agriculture. The focus is on presenting basic and applied scientific research to create models for robotic technologies, digital methods for diagnosis and forecasting, as well as digital management of farms to ensure a sustainable and efficient food system.

The scientific research in the field will support the development of agriculture as a high-tech, sustainable, highly productive and attractive field. This interdisciplinary research will contribute to a more sustainable management of natural resources, reducing the harmful impact of agriculture on the environment and climate, reducing the use of pesticides and increasing the quality and safety of agricultural production, thus ensuring food security and public health.