# Special Issue

# Applications of Machine Vision, Image Analysis and Artificial Intelligence in Food Technology

## Message from the Guest Editors

Food technology addresses global challenges of food security and sustainability. With growing populations and climate pressures, the field must optimize yields, minimize losses, and ensure safe food distribution. Traditional methods often lack the precision modern agri-food systems require. Transformative technologies like machine vision and AI enable data-driven decisions across the food chain. AI models enhance shelf-life estimation and logistics through real-time data. Robotic systems with computer vision ensure hygienic sorting and packaging, while neural networks optimize processing efficiency. These innovations improve food safety while reducing waste through circular economy approaches. The convergence of computational science and food engineering creates essential tools for sustainable systems. Deep learning with visual data enables precise texture classification, spoilage modeling, and automated processing. We encourage evaluation of model generalizability and adoption barriers across food ecosystems.

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# About the Journal

## Message from the Editor-in-Chief

*Foods* (ISSN 2304-8158) is an open access and peer reviewed scientific journal that publishes original articles, critical reviews, case reports, and short communications on food science. Articles are released monthly online, with unlimited free access. Currently, Foods has been indexed by the Science Citation Index Expanded (SCIE - Web of Science), PubMed, and Scopus. Our aim is to encourage scientists, researchers, and other food professionals to publish their experimental and theoretical results as much detail as possible. We therefore invite you to be one of our authors, and in doing so share your important research findings with the global food science community.

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