Special Issue

Using Artificial Intelligence and Big Data Analytics to Improve Food Safety

Message from the Guest Editors

Ensuring food safety is a critical global challenge that impacts public health and economic stability. With increasingly complex food supply chains, traditional monitoring methods often struggle to prevent contamination and ensure compliance. The emergence of artificial intelligence (AI) and big data analytics offers transformative solutions, enabling real-time monitoring, predictive risk assessment, and enhanced traceability. These technologies are revolutionizing food safety management by improving efficiency and reducing hazards. In this Special Issue, we welcome original research articles and reviews. Topics of interest include, but are not limited to, the following:

- AI-driven models for foodborne pathogen detection;
- Big data analytics for supply chain traceability;
- Machine learning approaches for contamination control;
- IoT-based AI solutions for real-time food safety monitoring;
- Risk assessment and regulatory compliance models.

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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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