

Special Issue

Advancement in Controlled Environment Agriculture (CEA) Automation and Crop Management—2nd Edition

Message from the Guest Editors

Controlled environment agriculture (CEA) has the potential to minimize these problems by enhancing nutrition security, reducing the carbon footprint and increasing resource use efficiency. Automation technologies have evolved to encompass a wide spectrum of tasks, ranging from environmental control to precise resource allocation. Through the integration of sensors, robotics, and smart control systems, CEA facilities can optimize conditions such as temperature, humidity, CO₂ levels, light, and nutrients, thereby creating an ideal environment for plant growth, which not only enhances crop quality and quantity but also contributes to environmental sustainability by minimizing waste. The integration of CEA automation and crop management heralds a new era in agriculture, fostering resilience and adaptability in the face of evolving environmental challenges. With ongoing advancements, the future promises even more sophisticated and interconnected systems, further elevating the accuracy, efficiency, and eco-friendliness of CEA practices.

Guest Editors

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