

Automating the Green: A Comprehensive Overview of Robotics and IoT in Polyhouse Cultivation

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Abstract: *This review paper explores the transformative impact of Robotics and Internet of Things (IoT) technologies on polyhouse farming practices, shedding light on the revolutionary changes that have taken root in agricultural landscapes. Under the lens of our scrutiny, we dissect the intricate fusion of robotics and IoT, unraveling its multifaceted applications within the domain of polyhouse agriculture. From precision farming techniques to real-time monitoring and control systems, this comprehensive review navigates the landscape of technological interventions that are reshaping traditional approaches to cultivation. We delve into the enhanced crop management strategies, resource optimization, and sustainability aspects that arise from the integration of these cutting-edge technologies. As we traverse the uncharted territories of agricultural innovation, this review not only highlights the groundbreaking developments but also underscores their collective potential to cultivate a future where polyhouse farming stands as a beacon of sustainable, efficient, and technologically-driven agricultural practices. Join us in this exploration of how the amalgamation of robotics and IoT is breaking ground and cultivating a promising future for polyhouse farming.*

Keywords: Polyhouse; Smart Farming; robotics; Automation; IOT; Arduino.

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