

Digital Farming

Case Studies and Applications of IoT and AI in Agricultural Industry

This book explores IoT-based ecosystems and AI-driven automation in agriculture to provide solutions for intelligent farming systems and precision agriculture techniques. It provides a comprehensive view of emerging technologies' integration and the resultant impact on the farming ecosystem. Real-world case studies and examples of IoT and AI applications in agriculture are included to show how IoT and AI have revolutionized conventional agriculture. The book also examines the potential and difficulties of deploying IoT and AI in the agricultural business with case studies. Features:

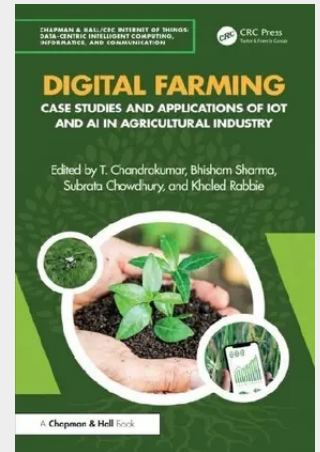
- Demonstrates how technologies like precision agriculture, smart sensors, and automated systems can be utilized to boost production, reduce waste, and increase sustainability by optimizing resource usage and reducing environmental impact.
- Explains how small sensors, intelligence drones, or low-power Internet of Things setups for detecting, monitoring, gathering, analyzing, and storing data through cloud platforms are encouraging smart and intelligent agriculture.
- Highlights IoT and AI intervention options for effective assessment of musculoskeletal, ergonomic, and postural analyses.
- Explains usage of AI and IoT in precision farming, agricultural drones and hopping systems, livestock monitoring, temperature monitoring, smart greenhouses, and computer imaging.
- Discusses challenges like data security, rural connectivity issues, infrastructure limitations, and the digital divide in rural areas.

The book is a helpful reference for professionals, scholars, and students interested in digital farming and sustainable agricultural practices. It acts as a guiding tool for practitioners, researchers, educators, and policymakers, encouraging discussions, innovations, and advancements that will shape a sustainable, efficient, and resilient future for agriculture.

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