IJARSCT



International Journal of Advanced Research in Science, Communication and Technology

International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal

Impact Factor: 7.67

Volume 5, Issue 13, April 2025

Internet-of-Things (IoT)-Based Smart Agriculture

Soham Ingale and Aditya Jadhav

AISSMS Institute of Information Technology, Pune, Maharashtra, India sohamngale2003@gmail.com and adityaraje1409@gmail.com

Abstract: This paper explores the transformation of agriculture into a data-driven, technology-enabled industry. It focuses on the use of IoT, wireless sensors, and AI-particularly Convolutional Neural Networks (CNNs)—for crop disease prediction through leaf image analysis. The study discusses how these technologies support early disease detection, resource optimization, and automated monitoring. It also examines the integration challenges with traditional farming and outlines current trends and future research directions in smart agriculture.

DOI: 10.48175/IJARSCT-26024

Keywords: Convolutional Neural Networks





