AI and Robotics: Revolutionizing Agricultural Practices for Sustainable Farming

Jamie Nelson
PhD
University of Chile
Av. Libertador Bernardo O'Higgins 1058, Santiago, Chile

Jesse Rodriguez
Dr.
Chulalongkorn University
254 Phayathai Rd, Wang Mai, Pathum Wan, Bangkok 10330, Thailand

Riley Roberts
Prof.
University of Vienna
Universitätsring 1, 1010 Wien, Austria

Abstract. This paper explores how artificial intelligence and robotics are revolutionizing agricultural practices to promote sustainable farming. By integrating AI-driven robots, we aim to improve crop monitoring, pest control, and resource management. The study presents various AI models applied in agriculture and their impact on productivity and sustainability. Our findings suggest that AI and robotics can significantly enhance farming efficiency, offering solutions to meet the growing demand for food production while minimizing environmental impact.

Keywords: Sustainable Farming, AI in Agriculture, Robotics, Crop Monitoring, Pest Control

Introduction

Sustainable farming is crucial for meeting the global demand for food production while minimizing environmental impact. Artificial intelligence and robotics present innovative solutions to enhance agricultural practices. This article investigates the integration of AI-driven robots in agriculture, focusing on improving crop monitoring, pest control, and resource management. By applying advanced AI models, the study evaluates the impact on productivity and sustainability, highlighting the potential to revolutionize farming practices. The findings suggest that AI and robotics offer viable solutions for achieving sustainable farming, addressing both productivity and environmental concerns.

References

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