Soil Type Detection and Crop Recommendation Using IoT and Machine Learning

Vishal Dhongde, Bhavesh Shukla, Rushikesh Patthe, Nabhesh Dayma

Guru Gobind Singh Polytechnic, Nashik, India

Abstract: *The integration of the Internet of Things (IoT) and Machine Learning (ML) in agriculture has revolutionized farming practices by enabling precise soil type detection and crop recommendation. This research paper explores a system that employs IoT devices for real-time soil data collection and ML algorithms for analyzing the data to recommend suitable crops. The proposed system aims to enhance agricultural productivity, reduce resource wastage, and promote sustainable farming practices. This study evaluates existing systems, identifies their limitations, and presents a novel framework for accurate soil classification and efficient crop recommendation.*

Keywords: Internet of Things