AgroGenie: A Smart Approach to Agriculture Using Machine Learning

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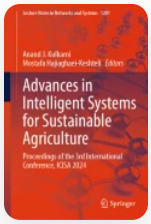

Advances in Intelligent Systems for Sustainable Agriculture

(ICISA 2023)

Abhiroop Sarkar ✉, Kinshuk Ganguly, Snehal Ghosh, Debayan Ghosh, Subhajit Saha, Piyali Datta & Deepsubhra Guha Roy

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Abstract

Precision agriculture is an instrumental approach for a nation whose economy is greatly influenced by agricultural yield. Crop Recommendation is a very valuable tool in the field of agriculture. This research involves the utilization of a machine learning-based approach to analyze the values of several parameters influencing crop growth. It then accepts a novel set of input parameters and recommends the most probable crops that can be cultivated. Adequate preprocessing methods have been applied to ensure the optimum removal of partiality from data. The ML models have been compared for their performance using a well-accepted validation measure. Then crops with similar features have been clustered to provide a more flexible farming option for the farmer.

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