

Digital Agriculture System for Crop Prediction Based on Machine Learning

Ashish Shahaji Jarad¹, Akshay Bhauso Baravkar², Akash Sukumar Koli³,
Sumit Ramkrushna Madame⁴, Dr. M. L. Bangare⁵

Students, Department of Information Technology^{1,2,3,4}

H.O.D, Department of Technology⁵

Smt. Kashibai Navale College of Engineering, Pune, Maharashtra, India

Abstract: *Agriculture is the number one source of livelihood for approximately 58 percent of India's population and is the most crucial part of GDP. Indian farming is based totally on economic advantages from crop yields, but now day's agricultural generation has failed to verified satisfactory crop choice techniques and to boom crop yield in all over India. So, lower in crop yield will increase the trouble in farmer's monetary health situations. So, it will become the maximum trending hassle for our agricultural region to invent such noble technique to advocate super appropriate crop for a particular region. To reap high-quality appropriate crop desire for areas primarily based on parameters like soil conditions, rainfall and weather we have got applied gadget studying method. Secondary hassle is lack of understanding or absence of steering even as farming. Lack of guidance in Indian farmers may follow incorrect farming strategies or inefficient traditional strategies. Most of farmers are uneducated and non-technical backgrounds so they'll be relying on conventional crop choice and farming techniques which falls them into reasonable loss. With the assist of disorder assessment tool, we predict the crop disease prediction and propose the precaution from the ones illnesses. Last and most essential hassle isn't any right marketplace assessment at the equal time as cultivation of any unique crop, which can also reason a cheap lack of farmers.*

Keywords: Agriculture, Machine Learning

REFERENCES

- [1]. Miss. Snehal S. Dahikar and Dr. Sandeep V. Rode, "Agricultural Crop Yield Prediction Using Artificial Neural Network Approach", International Journal of Innovative Research in Electrical, Electronics, Instrumentation and Control Engineering, 2014.
- [2]. Saeed Khaki and Lizhi Wang, "Crop Yield Prediction Using Deep Neural Networks", Industrial and Manufacturing Systems Engineering, Iowa State University, Ames, IA, United States, 2019.
- [3]. Rakesh Kumar, M.P. Singh, Prabhat Kumar and J.P. Singh, "Crop Selection Method to Maximize Crop Yield Rate using Machine Learning Technique", International Conference on Smart Technologies and Management for Computing, Communication, Controls, Energy and Materials (ICSTM), 2015.
- [4]. Pritam Bose, Nikola K. Kasabov, Lorenzo Bruzzone and Reggio N. Hartono, "Spiking Neural Networks for Crop Yield Estimation Based on Spatiotemporal Analysis of Image Time Series", IEEE Transactions on Geoscience and Remote Sensing, 2016.
- [5]. Francisco Yandun, Giulio Reina, Miguel Torres-Torriti, George Kantor and Fernando Auat Cheein, "A Survey of Ranging and Imaging Techniques for Precision Agriculture Phenotyping", IEEE/ASME Transactions on Mechatronics, 2017.
- [6]. Prof. K. A. Patil and Prof. N. R. Kale, "A Model for Smart Agriculture Using IoT", International Conference on Global Trends in Signal Processing, Information Computing and Communication, 2016