

Multiple Crop Disease Prediction using Machine Learning

Sahadev Maruti Shinde¹, Rahul KisanDevkate², Umesh Vijay Madane³, Shubham Gorakh Shende⁴, Swapnil Bharat More⁵, Dnyaneshwar Sanjivan Lohar⁶

Assistant Professor, Department of Computer Science and Engineering¹

Student Department of Computer Science and Engineering^{2,3,4,5,6}

SVERI's College of Engineering, Pandharpur, Maharashtra, India

Affiliated to Punyashlok Ahilyadevi Holkar Solapur Vidyapeeth, Solapur Maharashtra, India

Abstract: The recognizable proof and discovery of infections of crops are one of the central matters which decide the deficiency of the yield of harvest creation and horticulture. The investigations of crop diseases are the investigation of any noticeable places in any piece of the crop which assists us with separating between two plants, actually any spots or variety conceals. The manageability of the crop is one of the central issues that is for the agrarian turn of events. The identification of crop diseases is genuinely challenging to get right. The distinguishing proof of the diseases requires loads of work and mastery, heaps of information in the field of plants, and the investigations of the identification of those diseases. Thus, picture handling is utilized for the discovery of crop diseases. The Identification of diseases follows the techniques for Image Collection, Image extraction, Image division, and Image Pre-processing. This article shows how to detect crop diseases using images of leaves. It also describes the use of image extraction and image pre-processing to create this project.

Keywords: Identification, Diseased and Healthy Leaf, Deep Learning, Classification

REFERENCES

- [1] Dataset Kaggle, <https://www.kaggle.com/>
- [2] 'Detection of Plant Leaf Disease Using Image Processing' Approach, Sushil R. Kamapurkar Department of Electronics & Telecommunications, Karmaveer Kakasaheb Wagh Institute of Engineering Education & Research, Nashik, India.
- [3] S. C. Madiwalar and M. V. Wyawahare, "Plant disease identification: A comparative study," 2017 International Conference on Data Management, Analytics and Innovation (ICDMAI), 2017.
- [4] 'Crop Disease Detection Using Deep Learning O Kulkarni - 2018 Fourth International Conference 2018 - ieeexplore.ieee.org
- [5] Schmidhuber, J. (2015). Deep learning in neural networks: an overview. Neural Network.
- [6] R. M. Haralick, K. Shanmugam and I. Dinstein, "Textural Features for Image Classification," in IEEE Transactions on Systems, Man, and Cybernetics.
- [7] Breiman, L. Random Forests. Machine Learning 45, 5–32 (2001). <https://doi.org/10.1023/A:1010933404324>
- [8] 'Detection and measurement of paddy leaf disease symptoms using image processing