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Crop Disease Detection System Using Convolutional Neural Network

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Abstract: *One of the essential and tedious task in agricultural practices detecting of disease on crops. It requires huge time as well as skilled labour. This paper proposes a smart and efficient technique for the detection of crop disease which uses machine learning techniques. Every year India loses a significant amount of annual crop yield due to unidentified plant diseases. The traditional method of disease detection is manual examination by either farmers or experts, which may be time-consuming and inaccurate. It is proving infeasible for many small and medium-sized farms around the world. To mitigate this issue, a computer aided disease recognition model is proposed. It uses leaf image classification with the help of deep convolutional networks. In this paper, CNN was proposed to detect plant disease. It has three processing steps namely feature extraction, downsizing image, and classification. In CNN, the convolutional layer extracts the feature from the plant image. It helps to give personalized recommendations to the farmers based on soil features, temperature, and humidity.*

Keywords: Crop Disease Detection, CNN (Convolutional Neural Network),Agriculture, image Processing

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