

POTATO PLANT DISEASE DETECTION

USING DEEP LEARNING

ABSTRACT

The identification of plant disease in potato plant is an imperative part of crop monitoring systems. Computer vision and deep learning (DL) techniques have been proven to be state-of-the-art to address various agricultural problems. This research performed the complex tasks of localization and classification of the disease in potato plant leaves. Deep Learning rich libraries and user as well as developer friendly environment to work with, all these qualities make Deep Learning as the favourable method to get started with this problem. In this, we have used Deep Learning because of the advantages it offers to work with images especially in image classification to get improvised results. The methodology includes taking leaves of infected crops and label them as per the disease pattern. The images of infected leaves are processed pixel-based operations are applied to improve the information from the image. As a next step feature extraction is done followed by image segmentation and at the last classification of crop diseases based on the patterns extracted from the diseased leaves. In the future, the proposed detection methodology can also be adopted for other agricultural applications.