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**(57) Abstract :**

In the present invention, a Deep Learning method has been used to detect diseases caused by fungi in spinach leaves, and suggest a suitable cure to the user. A Convolutional Neural Network (CNN)-based model is used for this purpose as these models give more accurate results for image classification. The model was trained and validated, and it achieved 89.86% accuracy. A PySide2-based GUI application has been implemented which utilizes the trained model to classify the disease in spinach leaf images given as input while also suggesting the remedy/medication for the particular disease along with product links for the medications from several e-commerce sites. This solution will enable the end users in analysing the infected spinach leaf images, classify the disease accurately, and take the necessary actions by applying various remedies and purchasing the right medication.

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