

# Medicinal Plant Identification using Machine Learning Algorithms

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**Abstract:** *In the recent days automated plant species recognition systems are developed to help the ordinary people in identification of the different species. But the automatic analysis of plant species by the computer is difficult as compared to the human interpretation. The research has been carried out in this field for the better recognition of plant species. Still these approaches lack with exact classification of the plant species. The problem is due to the inappropriate classification algorithm. Especially when we consider the recognition of medicinal plant species, the accuracy will be the primary criteria. The proposed system in this research adopts the deep learning method to obtain the high accuracy in classification and recognition process using computer vision techniques. This system uses the Convolutional Neural Network (CNN) and the machine learning algorithms for deep learning of medicinal plant images. This research work has been carried out on the leaf dataset of FLAVIA from source forge website. This data is fed as the training dataset for the CNN and machine learning based proposed system. An accuracy of 98% has been achieved in the recognition of the medicinal plant species*

**Keywords:** Human interpretation, the recognition of medicinal plant species, the Convolutional Neural Network, the leaf dataset of FLAVIA

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