

## ABSTRACT

The identification of medicinal plants is a crucial task for their effective utilization in traditional medicine. However, the identification process can be time-consuming and error-prone, especially for non-experts. In this project, we propose an application in which we use a deep learning-based approach for the automated identification of medicinal plants using a Convolutional Neural Network (CNN) and a machine learning algorithm and Xception CNN to extract highly discriminative features from plant images, and XGBoost for classification. The application built has a user-friendly interface with multilingual and voice-enabled features and provides various names of the medicinal plants and its benefits of curing the disease. We evaluate the performance of our approach using metrics such as accuracy, precision, recall, and F1-score. Our experimental results show that our approach achieves high accuracy in identifying medicinal plants, demonstrating the potential of deep learning-based approaches for medicinal plant identification. This project has the potential to assist researchers, traditional medicine practitioners, and even a civilian in identifying medicinal plants more accurately and efficiently, leading to better utilization of these valuable resources.