ABSTRACT

Natural flower classification is a challenging task due to the non-rigid deformation, illumination changes, diversity of flower species and inter-class similarity. It is very hard to classify them as they can be very similar to each other. Deep CNN techniques have become the latest technology for such problems. Development of the recognition of plant species will be advantageous in the fields such as the pharmaceutical industry, botany, agricultural, and trade activities.

Our project aims to develop an effective flower classification model to cultivate the performance of classifying of flower images. We have focused on using Deep Convolutional Neural Network (CNN) with the support of Keras and Tensor Flow libraries for extracting the features. Sequential model from Keras is used to build the flower classifier. The model demonstrates the use of image augmentation for achieving better performance results. At last, the performances of the classifier used to build model is evaluated. This method for classification of flowers can be implemented in real-time applications and can be used to help botanists for their research as well as camping enthusiasts. Moreover, the system is capable of automatically recognize the flower name with a high degree of accuracy.