**ABSTRACT**

Rice is one of the major cultivated crops in India which is affected by various diseases at various stages of its cultivation. It is very difficult for the farmers to manually identify these diseases accurately with their limited knowledge. Recent developments in Deep Learning show that Automatic Image Recognition systems using Convolutional Neural Network (CNN) models can be very beneficial in such problems. Since rice leaf disease image dataset is not easily available, we have created our own dataset which is small in size hence we have used Efficientnetb5 Architecture to develop our deep learning model. The proposed system is based on Efficientnetb5 Architecture is trained and tested on the dataset collected from rice fields and the internet. The accuracy of the proposed model is training accuracy of 95.34%. and validation accuracy of 96.00%.