**CONCLUSION**

In this paper we have proposed a deep learning architecture with training on 2558 images of rice leaves and testing on different images and that correctly classifies the test images. The number of epochs used was stopped at 25 because we had received a cut point after which the accuracy was not improving and the loss was not decreasing on both training and validation data. Our proposed system with Efficientnetb5 Architecture has obtained training accuracy of 95.34% and validation accuracy of 96.00% which is the best from all other existing systems.

FUTURE WORK

In future work, we would like to collect more images from agricultural fields and Agricultural Research institutes so that we can improve the accuracy further. We would like to add cross-validation process in future in order to validate our results. We would also like to use better deep learning models and other state-of the art works and compare it with the results obtained. The developed model can be used in future to detect other plant leaf diseases, which are important crops in India.