**Title of the Project** : Wheat leaf disease recognition using tensorflow and keras

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**ABSTRACT**

Smart farming system using necessary infrastructure is an innovative technology that helps to improve the quality and quantity of agricultural production in the country. Wheat leaf disease has long been one of the major threats to food security because it dramatically reduces the crop yield and compromises its quality. Accurate and precise diagnosis of diseases has been a significant challenge and it recent advances in computer vision made possible by deep learning has proved the way for camera-assisted disease diagnosis for Wheat leaf. It described the innovative solution that provides efficient disease detection and deep learning with convolutional neural networks (CNN’s) has achieved great success in the classification of various Wheat leaf diseases. A variety of neuron-wise and layer-wise visualization methods were applied using a CNN, trained with a publicly available wheat leaf disease given image dataset. So, it observed that neural networks can capture the colours and textures of lesions specific to respective diseases upon diagnosis, which resembles human decision-making.