

Project Title: Mobile based AI module for Rice pest detection

Problem Statement - Rice is the most important crop in India. It is widely cultivated in diverse ecologies and agro ecological zones. Biotic stresses play a crucial role in limiting the rice production. Farmers often face critical situations for diagnosis and management of several pests, diseases and weeds. Integrated pest management practices need to be employed harmoniously to meet the above challenges. This demands complex decision making in the light of vast information knowledge base. The recent advancement in the field of software technologies especially Artificial Intelligence (AI) and mobile based applications have opened up new challenges as well as opportunities to fulfil the needs of farmers for up-to-date and precise information. Mobile phones have been spreading fast among farmers for exchanging the information among each other. Hence, an intelligent mobile based application is needed to reach farmers easily and generate quick decisions for real time problems facing at the field level. Farmers often face difficulty in identifying damage symptoms and pests as most of these have overlapping and confusing symptoms. Biotic stresses identification can be done based on the appropriate questionnaire along with real time images captured at field level using deep learning techniques of Artificial Intelligence.