RURAL TECHNOLOGY DEVELOPMENT CENTRE

GOVERNMENT COLLEGE OF ENGINEERING KANNUR

WILD ELEPHANT DETECTION AND REPELLENT SYSTEM

PROJECT INVESTIGATOR : DR.BABURAJ P, ASSISTANT PROFESSOR EEE

ABOUT THE PROJECT :

Elephant intrusion causes major problems like crop damage, human death and injuries. Elephant Intrusion has been on the rise in the forest border areas with groups of elephants entering into human habitation and creating a heavy loss to grown plants in agriculture land and their properties. The surveillance and tracking of elephants by humans alone may not always be effective. Mostly the elephants enter into the agriculture land in the night. Detecting elephant intrusion and driving it back is very difficult by the farmers because of practical difficulty associated with human surveillance. So, it is necessary to develop a system which detects the elephant intrusion, creates an alert and repel the elephant away from human habitat. So it is required to develop a system which detects the elephant intrusion, creates an alert and repel the elephant away from human habitat.

OBJECTIVES :

1. **To detect the presence of elephant using night vision camera.**
2. **Send messages to forest officials.**
3. **Following detection, a high intensity light and a thunder sound creating systems are used to cease elephant.**

OUTCOME :

This project will provide fast access about the presence of elephants. By relaying the information about the presence of the elephants, the forest officials can take appropriate action to protect the people living along the forest areas. The training of elephant images is done on a SSD-MobileNet architecture in Google Colab. The testing of the detection model is done on a video from www.africam.com, a 85-99% accuracy is obtained during detection. Not only informing but also stops elephant entering human habitat by providing a high intensity light. This system will not harm forest environment. Structural organization of the system is simple, so less maintenance is required.