

IOT- BASED SCARE TACTICS IN CROP FIELDS

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In Sri Lanka, protecting crop fields from animals is observed as a Challenging Problem. Annually, crops damaged by wild animals are dramatically increasing in Sri Lanka. Since the wild animals cause damage to the crops, farmers cannot tolerate it. A large number of human and animal conflicts have been recorded in the past. With this background, there is a need to protect the crops from the animals and avoid harming them. Therefore, implementing an IoT-based scare-away mechanism can be an effective and sustainable solution to this problem. The system was proposed to avoid human and animal conflicts in crop fields. In that way, the objective of the study is to identify the animal before they enter the crop field and scare them away with a proper mechanism. In this study, a mobile application is developed to alert the farmer to the presence of animals in the crop field area. Whenever the presence of the animal is sensed by the thermal sensor, an alert will be sent to the mobile application. An interface will allow the user to identify the animal using Camera input. Based on the prediction, flashlights, ultrasound, and bee sounds will be produced to scare away the animal. Since the prediction is made with human interaction, the accuracy of the system is increased. This system significantly reduces human animal conflicts in crop fields at a reasonable cost that can be tolerated by farmers in Sri Lanka.

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