Team ID	**PNT2022TMID34205**
Project name	**IOT Based Smart Crop Protection System for Agriculture**
Mark	**20 Marks**

IOT BASED SMART CROP PROTECTION SYSTEM

Abstract:

Agriculture is the backbone of the Indian economy, where more than 60% of the country's population is directly or indirectly depends on this sector. Where they need to feed this huge increasing population year by year with the decreasing land cultivating size. In near future, it is expected to have around 15-20% of food commodities to get increased within 5 years . Even though a huge number of the population dependent on this sector, they are still in uncertainty to lead their life in this sector. The reason for this may be inter and intra farm field variability's such due environment, seed selection, fertilization inputs, irrigation, etc . Nowadays, one more important factor causing crop loss is an animal intrusion into the farm field. The conflict between the animal and farmers is becoming common all over the region. That too in hill station area and adjacent to the forest area have major issues and the farmers suffer a huge loss. To date, they use some traditional and current methods to overcome this issue like Hellikites, Shot Gun, String and Stone, use of electrified welding mesh fence etc, but not up to the expectation of protecting their crops. Also, few attempts were tried to solve this conflict by using technology such as IoT and Machine learning, which is called AIoT (Artificial Intelligence for the Infrastructure of Internet of Things). Our proposed model uses IoT concepts based solution to it.

IoT (Internet of Things) controls the Things that are connected to it and transfers the data over the network. The IoT technology enables the collection of real-time data from the farm field using Sensors and various electronic components . In this work, we present the coordination of Pi Camera, LED, and Buzzer interacting with the cloud a new service in the domain. The peripheral part adopted wireless technologies such as WiFi for cooperating with the data center by an advanced IoT gateway. Pi Camera is used to capture real-time images in a farm field 24 × 7 i.e., day and night. The low cost and ease of programming controller Raspberry Pi for coordination of hardware part and data transferred through ESP8266 WiFi module, which uses TCP/IP protocol.

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