**IOT BASED SMART CROP PROTECTION SYSTEM FOR AGRICULTURE**

ABSTRACT:

Crops in farms are many times ravaged by local animals like buffaloes, cows, goats, birds, and fire etc. This leads to huge losses for the farmers. It is not possible for farmers to barricade entire fields or stay on field 24 hours and guard it. So here we propose automatic crop protection system from animals and fire. This is a arduino Uno based system using microcontroller. This system uses a motion sensor to detect wild animals approaching near the field and smoke sensor to detect the fire. In such a case the sensor signals the microcontroller to take action. The microcontroller now sounds an alarm to woo the animals away from the field as well as sends SMS to the farmer and makes call, so that farmer may know about the issue and come to the spot in case the animals don’t turn away by the alarm. If there is a smoke, it immediately turns ON the motor. This ensures complete safety of crops from animals and from fire thus protecting the farmer’s loss. This is a arduino Uno based system using microcontroller. This system uses a motion sensor to detect wild animals approaching near the field and smoke sensor to detect the fire. In such a case the sensor signals the microcontroller to take action.

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A Systematic Literature Review on IoT-based Irrigation

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The Internet of Things (IoT) has become one of the most demand-

ing technologies throughout the world in recent times. At present

the main technology behind the concept of smart home, smart ve-

hicle, smart agriculture, etc. is the efﬁcient use of IoT which is a

ubiquitous technology of interconnected things capable of sensing,

actuating, and communicating among themselves and with the en-

vironment. In traditional agriculture, a farmer has to depend only

on human skills and experiences for production as there is no spe-

ciﬁc and arranged way to gather data from the ﬁeld. However, this

type of manual process does not ensure higher productivity and ef-

ﬁciency, and it is needed to modernize the agricultural system to

increase production. IoT assists us to determine the appropriate ne-

cessity by analyzing the dynamic condition of the soil, weather,

and plant, with a time reduction of manual monitoring. Though the

practice of IoT-based irrigation and smart farming is at its incep-

tion, the world is rapidly moving towards the perfect implementa-

tion of smart farming. In this study, 56 papers are reviewed from

2015 to 2021, where IoT-based irrigation is the main concern. The

objective is to abstract and accumulate the works regarding IoT-

based irrigation. Based on the work, the issues regarding IoT-based

irrigation, sensors, related technologies, wireless communication

protocols, IoT platforms, and cloud computing will be analyzed to

get a clear view and understand its future scop