

ABSTRACT

DESIGN OF FIRE EARLY WARNING AND SECURITY SYSTEMS AT VILLAGE OFFICE BASED ON THE INTERNET OF THINGS (IoT) USING ARDUINO UNO

(Case Study : Jetis Village Office Dagangan District Madiun Regency)

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A warning system is a mechanism designed to provide notification or information to relevant people or entities regarding certain situations or conditions that may require further attention or action. Based on research conducted, the problems that arise are the absence of a warning system that can detect theft and early detection of fires at village offices when conditions are quiet or at night. So based on these problems it is necessary to have a system that can provide warnings against theft and fire early warning at the village office that can be monitored remotely via a smartphone device. In the system testing that has been carried out, the PIR sensor is used to detect moving objects, the moving object in question is an unknown person with the sensor detecting the presence of people with a maximum range of 100 cm, then the flame sensor can detect the presence of fire up to a distance 100 cm, then on the MQ-2 sensor which will detect the presence of smoke if the minimum range value is 450 ppm. So that if the indications from the three sensors are on, the buzzer alarm will sound and send notifications via the blynk application.

Keywords: *Arduino Uno, IoT, Sensor, Technology*