SISTEM DETEKSIKEBAKARAN DAN KEBOCORAN GAS BERBASIS INTERNET OF THINGS (IOT)

Moch. Syafi'I Misbachul Mufid
Program Studi Teknk Elektro, Fakultas Sains & Teknologi
Universitas Teknologi Yogyakarta
Jl. Ringroad Utara Jombor Sleman Yogyakarta
Email: mmisbachulmufid@gmail.com

Abstract

An automatic security system is a system that can ease the humans' work because this system can work alone according to the commands given. Like the Internet of Things (IoT)-based fire and gas leak detection system, the device will automatically detect fire and gas leakage. Simultaneously warning users through applications on smartphones by firing signals or sending data from NodeMCU to firebase, the data will arrive at users despite the distance, as long as the user's smartphone is still connected to the internet. The Internet of Things-based smart home (IoT) system uses the NodeMCU ESP8266 module as a microcontroller. The system consists of a Fire Infrared (IR) sensor controller, a gas sensor (MQ-2) and a Buzzer. The Infrared Fire Sensor (IR) will detect a fire. The Gas Sensor (MQ-2) will detect a gas leak, and Buzzer will provide a sound alert. According to the instructions given, the results of testing and analysis control electronic equipment on this smart home.

Keywords: Internet of Things (IoT), Smartphone, NodeMCU, infrared fire sensor (IR), gas sensor (MQ-2) and Buzzer