

ABSTRACT

Basically fire is something that is needed by humans, but it is undeniable that fire also has a tremendous negative impact if not used wisely. One of the negative effects of fire is fire. Fire can happen anywhere and so many causes, one of which is home fire. The most common causes are gas leakage, short circuit, forgotten burner, sparks from cigarette butts and waste from garbage incineration, and so on. Usually home fires that occur late to be known and spread quickly. Material of home builders and wind power became a rapid fire factor enlarged and widespread. Unavailability of supporting tools for early prevention of kebakaran and lack of public knowledge about APAR is also a factor of rapid fire support extends. With so the fire suppression became more and more difficult to extinguish. Loss of property and life was inevitable due to house fires that occurred. Therefore, the use of WSN (Wireless Sensor Network) is very important to be used for early prevention of house fires installed at some point in the house.

With the use of sensor nodes, coordinator, and utilization of android applications can overcome the problem of house fires that coverage area is wide enough. The use of smoke, and fire sensors can show indications of gas emissions, and sudden light. Then the sensors are connected to the microcontroller and the resulting data will be received by the user through an Android-based app.

The use of methods used by measuring gas, and flame is appropriate. Android application is also needed to monitor the state of the house, whether safe or not. GPS module placement is required to determine the location of the fire, so that the fire location can be sent to the extinguisher quickly. With this tool, we can know with certainty whether the house is safe or not from fire hazard.

Keyword: WSN, Fire House, Sensor Node