

## ABSTRACT

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*smart home is a system that build and implemented on buildings or homes that give some convenient and safety for the user, for that its's helping human doing their jobs.*

*Currently there's a lot of smart home product that offer various weather control features, such as show a temperatures and humidity, air pressures, and so on. But currently there's no smart home services that using 4 sensors at the same time to provide full weather control features. And currently there's no smart home services that offer the air pollution monitoring and rain waring system features at real time, a lot of smart home services which give the air pollution monitoring and rain warning system using the monitoring result from other weather forecast services provider. For that the result that user sees is not real time as it is at their house.*

*Therefore, a smart home system was created using 4 sensors at the same time which is temperatures and humidity sensor, air pressure sensor, air pollution sensor, rain drip sensor, and all of that data captured from all the 4 sensor which will be displayed on the monitor in real time, so the user can monitor the condition inside and around the house. So it's provide smart home experiences for the user at real time.*

*This final project aim to design and build a prototype of a smart home system using the raspberry Pi 3 B+, as well as created smart home system using 4 sensor at the same time and then display it to the user using monitor in real time.*

**Keywords:** Raspberry Pi, Smart Home