

## ABSTRACT

Public toilets are sanitation facilities to satisfy requirement physical, social, and psychological that can be used by the general public, regardless of age. In general condition of public toilet, the doors is always in a closed position. Toilets user find it hard to know whether someone is using the toilet room or not. Where as its not possible if the toilet user must be see the indicator located on the toilet door lock one by one. In addition to violating the ethics of queuing in the toilet, in general the distance to the front door of the more narrow the movement of toilet users is also the longer the queue in public toilets.

The system be composed of an infrared sensor placed on the toilet door lock to retrieve High or Low data on the device. There are 4 sensors infrared interconnected with NodeMCU. Which is where the infrared will be used to knowoing, as a obstacle on the sensors. If there are obstacles, the sensor will send a binary data which is in the valeu is 1. And if not found a obscle, the sensor infrared will send a value 0 to NodeMCU. Then NodeMCU as a microcontroller processing and displaying on a website. If the door icon closed is means the toilet room is being used form someone. Or a door icon is open which means the toilet room can be used.

In the last project a draft informaton system design of utilization the toilet rooms. This purpose to make it eassy for users to know which toilet room is ready to use, can be seen on the website. The test result functionality of the first sensor is successfull testig with a percentage 100%. On the second sensors successfull the testing with a 90 %. On the third sensors successful the testing with a 93.3%. and the last sensors successfull the testing with a 86.6 %. A average obtained is 92.48%. The average delay obtained is 2.94 second. Data used requered for 1 door is 10.3 KB, for 2 doors, door 1 and 2 is 14.7 KB. And then 3 doors, door 1, 2, and 3 is 24.5 KB. And all doors a need big is 44.5 KB.

***Key Words : Microcontroller, Infrared Sensor, Toilet Room, NodeMCU, Website.***