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Smarter Restroom for Visitors Using IOT

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Abstract : ***In this dynamic world , the population and growth of our nation increases rapidly at the same time our nation face the big issues of cleanliness Power consumption and security purpose it is necessary to develop such device to consume or minimized the usage of electricity. The abstract of this paper is explain the importance of cleanliness in our health and environment and the importance of the electricity. In future this paper is helpful foe cleanliness project of India. Our government introduce the 'Bharat Sawach Abhiyan' project to clean the India and protect from various diseases. Keeping the toilet clean is one of the most important task of our government. Therefore, this paper optimize the manpower and real-time tracking of toilet condition in term of odour level and user count using different sensor ammonia sensor , PIR sensor ,buzzer, LCD display.***

Keywords: Node MCU, PIR sensor, LDR, Ammonia sensor, Buzzer, Ubidots (IOT platform)

I. INTRODUCTION

In our world, people are not sensitive for cleanliness and usage of energy. Hence, we introduce our project as automatic light controller for restroom and through our project we also cover serval cleaning system . Proposed system monitor the condition of toilets in the term of odour level using odour sensor, and users count by using people counter, control the light system of the washroom using light control sensor .Our main purpose of this project is to provide restroom and protect users from serval diseases and at the same time to create the awareness of the conservation of electricity.

II. LITERATURE REVIEW

Kitisak Osathanunkul, KittikornHantrakul, half Pramokcho has planned “Configurable Automatic good plumbing fixture Flusher supported MQTT Protocol”, This paper examines one probable thanks to cut the wastage of unpolluted water employed in a public convenience. [1].

The system uses MQTT as associate degree underlying communication protocol. The protocol is employed in gathering, governing, powerful and correcting the system. The ends up in the testing setting show that employing a flushing period for two.5 seconds is enough to satisfy most users whereas wasting clean water as less as attainable.

There square measure 2 half square measure concerned here. They are,

Automatic Flusher half (AFP)

Server half

The alpha fetoprotein detects if there's associate object ahead of its infrared detector. once a user stands ahead of the plumbing fixture, associate infrared detector will observe the user. If the user keeps staying ahead of the detector for three seconds unendingly, it's thought of that a user is presently employing a plumbing fixture. when the plumbing fixture has been flushed alpha fetoprotein unit conjointly sends a MQTT message concerning it usage information to the server half.

In server half, it receives the usage information from alpha fetoprotein unit. The usage information are hold on into a information for a future use.

Pandya Chintan, Yadav Jatin, KareliyaSanket Pandya Chintan, Yadav Jatin, KareliyaSanket 2015 has projected “Automatic operating bio- locations in mentioned paper for cleansing the bathroom square measure static. As planned system is applied to dynamic location like bogs in railway in addition as static bogs conjointly. As mentioned paper solely ismerely issimply isjust is barely} for cleansing {the toilet the rest room the bathroom} however planned system not only clean however conjointly build it hygiene; as used planned system carries with it use of toilet tank for railway coaches”, Bio rest room tank is excretion disposal mechanism in space with no infrastructure facilities. that's straightforward to control various to the tradition waste disposal system. in this project square measure 2 doors in tank, the one input door and second entrance. [2]

The input door is on high of the tank and entrance is collecting within the tank. The doors square measure open and shut by victimization gas cylinder. rate controller is employed to live the speed of the train and transfer those details to proximity device, which might sends management over the train, gas cylinder is management by victimization rate controller, Proximity device, and compressed gas tank. So, whole system is controlled with train speed. If the train speeds exceed thirty km/h then entrance can open and total waste investor come by tracks and input door is shut. Input door is open once train is beneath thirty km/h speed.

It is famous within the literature survey to produce that there's no existing technology for automatic cleansing of Indian bathroom to scrub instead of manually; labours or cleaners square measure appointed by the contractors to scrub the bogs. As

mention in IJIERE vol-4 Special Issue one, NCIAR2k17 of 'Automatic toilet cleansing Robot' e-ISSN: 2394-3343. in line with mentioned paper the laundry and cleansing facility for public usage in faculties, colleges, offices and public places by the cut liquid disinfectant that results in hygiene bogs or lavatory. the benefits of the planned system square measure as: It will scale back human efforts, shield masses from harmful & contagious diseases, will scale back the foul smell and at last it might maintain the standard of loo cleansing [4].

III. METHODOLOGY

Designing and develop the system for cleaning the washroom i.e. Smarter Restroom for Visitors Using IOT. By Node MCU, LDR, PIR sensor, Ammonia sensor, buzzer, power supply,connecting wires and IOT platform ' Ubidot'.

A. This gadget is capable of tracking how frequently restroom are used with the help of SMS alert.

B. It detect the odour level present in the washroom with the help of ammonia sensor.

C. The PIR sensor, detect the motion of person when they enter in the washroom and with the help of sensor we can make restroom lights on and off.

D. Ammonia sensor get stable at particular range, but the range is increases the message send to the sweepers or increase the buzzer.

E. Then the sweeper cleaned it in a proper way.

IV. CONCLUSION

A. Public toilets are still in demand among people everywhere bit along with their demand is their desire for cleaner, better maintained safer,healthier and environment friendly public toilets.

B. In our daily life to comfort everyone and improve energy usage we introduce our project automatic light controller for restroom and through or project we will also develop cleaner system.

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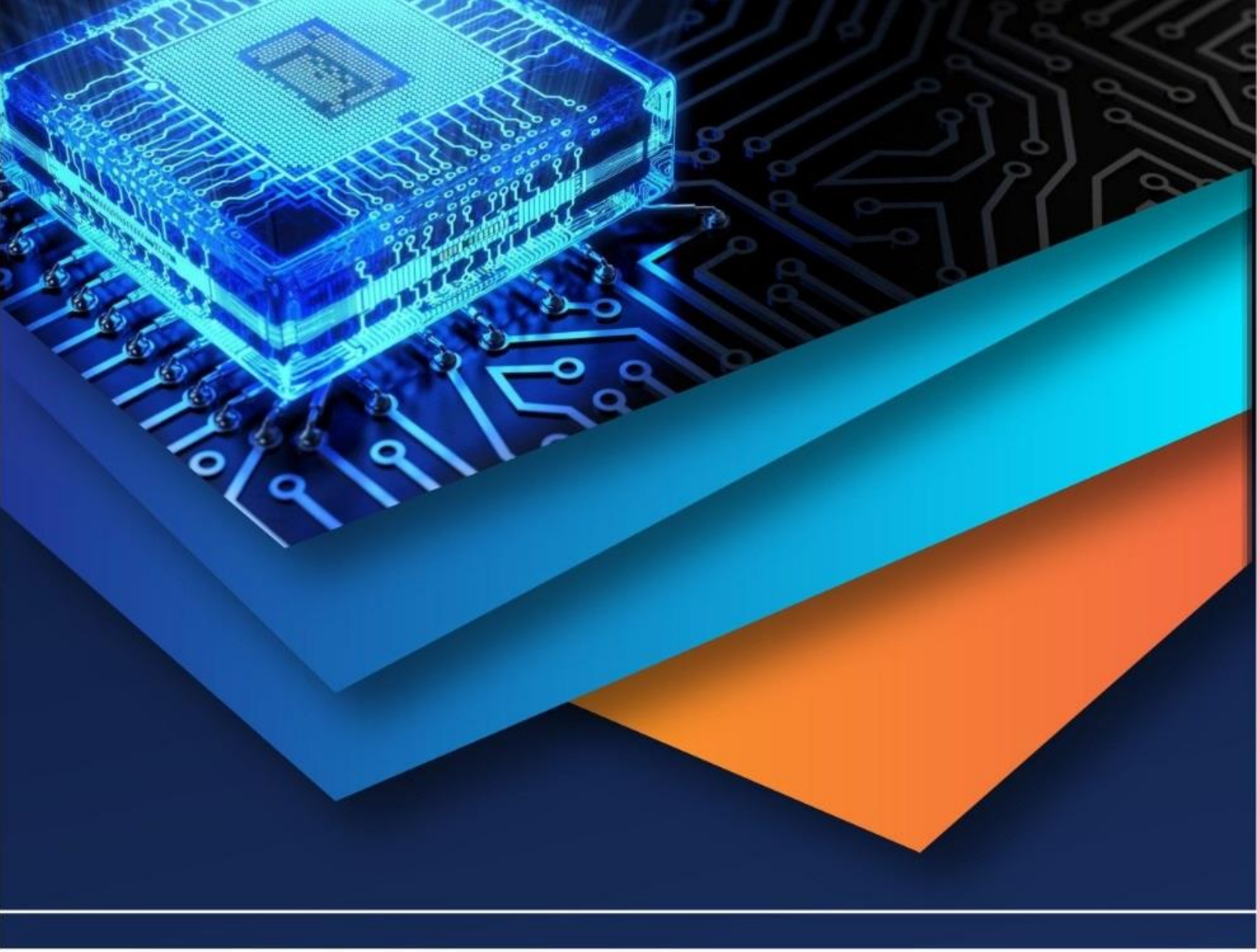

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