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# Arduino Based Covid-19 Sanitization and Water, Electricity Savior

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**Abstract:** This project "automatic washroom light controller with visitor counter using microcontroller" may be a reliable circuit that takes over the task of persons/visitor within the washroom very accurately.

Sanitation will be provided at various levels of service, and people levels have implications for benefits. With the help of this technique, we will save the energy bills as power is going to be consumed only when a human is present i.e. when required lights are going to be spontaneously turned ON or OFF. Sensor will spot the act and supported response of sensor unit will control the switching action. Proposed method can help us to cut back the consumption of electricity. The increasing scarcity of water resources, local drought is getting worse. Rational use and conservation of water become the topic of widespread concern. Due to detection of the quantity of one for the prevailing toilet facilities, which is susceptible to malfunction. At the moment reason paper design a mix of weight and photoelectric detection of two styles of signals. It's new flushing device of easy structure, reliable performance, water works well, easy to push.

## I. INTRODUCTION

This Project system is straightforward to style. Here power supply given to transformer and therefore the transformer is connected to Arduino Nano Board which is connected to 3 separate relays and also two sensors are used which are IR sensors. The Relay module connected to water system & sanitization through solenoid coil and pump motor and to display the information from Arduino Nano One LCD is connected. Our Project is intended to detect of person getting into the washroom or leaving the washroom. If number of persons present during a wash washroom is adequate to zero then all lights and fan will get OFF automatically thus saving power then automatically sanitizes wash washroom.

This project " ARDUINO BASED COVID-19 SANITIZATION AND WATER, ELECTRICITY SAVIOR " could be a reliable circuit that takes over the task of persons/visitor within the washroom very accurately. When somebody enters into the washroom it'll automatically switch ON the lights and sanitizing machine and when the visitors/persons leaves the washroom it'll also turn off the lights, water taps and sanitizing machine until all the persons within the washroom move out. The overall number of Person inside the washroom also displayed on the LCDs. The microcontroller does the above job. Microcontroller atmega328p continuously monitor the infrared receivers, when any object suffers the IR rays falling on the receivers are obstructed this obstruction is sensed by the microcontroller.

## II. LITERATURE SURVEY

### A. Design of latest water-saving flushing device supported ARM

CORTEX-M0 Qingfeng Wang; Jinhao Sun; Lina Xu; Zhonghao Sun. The increasing scarcity of water resources, local drought is getting worse. Rational use and conservation of water become the topic of widespread concern. Thanks to detection of the number of one for the prevailing toilet facilities, which is vulnerable to malfunction. Then reason paper design a mix of weight and photoelectric detection of two varieties of signals. It's new flushing device of straightforward structure, reliable performance, water works well, easy to market. Published in: 2019 International Conference on Electrical and Control Engineering Date of Conference: 16-18 Sept. 2019, Date Added to IEEE Xplore: 24 October 2019, ISBN Information: INSPEC Accession Number: 12342790, DOI: 10.1109/ICECENG.2011.6057593, Publisher: IEEE, Conference Location: Yichang, China

### B. A Study of Individual Household Water Consumption, Maisie Borg, Orion Edwards & Sarah Kimpel

Over the past several decades concerns are raised over the quantity of water utilized in California. When analysing a way to increase water efficiency and conservation, residential usage stands out as a very important factor. Our project's goal is to research the weekly per capita indoor water use of three households in Davis, California in an attempt to higher understand water demands, moreover because the best methods to extend water efficiency and conservation. The info gathered will then be accustomed compare and contrast average overall household water usage to that of the town of Davis, the state of California, and therefore the nation. Doing this allows individuals to gauge what proportion of an impression they need personally on the water system they draw from. Water Science and Management-USA.

### C. Peak Shaving Energy Management System for Smart House. Firas Abdullah Thweny Al-Saedi Private Researcher (New

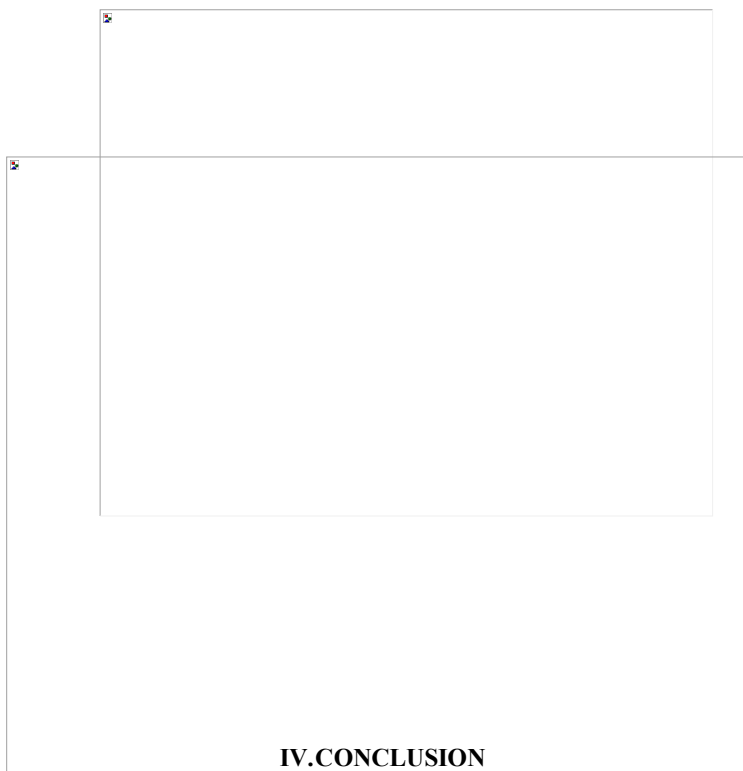


York City - USA).

This paper introduces a peak shaving energy management system that reduces peak demand of the facility usage, shifts usage to off-peak hours and lowers total energy consumption. Constraints like due time of a process, limit of power consumption and use of preferable resources are taken into consideration. The used sensor network includes motion detection sensor to show off the unnecessary devices when there's no need for it. It's proved that implementation of the proposed strategy would improve energy management by proper choice and timing of resource usage in smart houses.

<https://www.researchgate.net/publication/308948436>

### III. PROPOSED SYSTEM



### IV. CONCLUSION

From the proposed system we are able to conclude that an approach is taken to manage the area lights using various devices. As nowadays enormous amount of energy is wasted in standard of living. With the assistance of this technique the energy wastage are often preserved and might be contributed to great deal of power saving. The entire effective cost of system is incredibly less.

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