PANDEMIC PREVENTION SYSTEM BASED ON MQ3 SENSOR, INTERFACED WITH RFID AND SERVO MOTOR

PROJECT REPORT

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BONAFIDE CERTIFICATE

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INTERNAL EXAMINER

EXTERNAL EXAMINER

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- RFID - Radio Frequency IDentification
- I/O - Input and Output
- UART - Universal Asynchronous Receiver Transmitter
- V - Voltage
- SPI - Serial Peripheral Interface
- PWM - Pulse With Modulation
- USB - Universal Serial Bus
- MHZ - Mega HertZ
- AC - Alternating Current
- DC - Direct Current
- KB - Kilo Byte
- EEPROM - Electrically Erasable Programmable Read Only Memory
- SRAM - Static Random Access Memory
- LED - Light Emitting Diode
- GND - Ground
- Vin - Voltage input
- IOREF - Input Output Reference
- RISC - Reduced Instruction Set Computer
- RTOS - Real Time Operating System
- ADC -Analog to Digital Converter
- IOT - Internet Of Things
- GPIO - General Programmable Input Output
- SDIO - Secure digital Input Output
- UID - Unique Identification

ABSTRACT

The recent COVID-19 pandemic has highlighted the need for effective virus prevention measures in public areas to reduce the rapid spread of viruses. This project proposes a pandemic prevention system that utilizes an MQ3 sensor with RFID and a servo motor to reduce the virus transmission through hands.

The proposed system aims to detect the presence of ethanol in hand sanitizers to ensure proper hand hygiene and to automate door opening and closing to minimize physical contact and prevent the spread of the virus in public areas. The MQ3 sensor, which is sensitive to ethanol, detects the presence of ethanol in hand sanitizer, ensuring that people sanitize their hands before entering a public area. The RFID technology allows for easy tracking of attendance in public areas like companies, factories, and colleges.

The servo motor automates the door opening and closing process after hand sanitization, preventing the spread of the virus through physical contact. The system is designed to be easy to use and can be installed in various public areas, such as hospitals, schools, and public transportation systems, where there is a high risk of infection.

Overall, the pandemic prevention system proposed in this project has the potential to significantly reduce the spread of viruses in public areas, particularly during pandemics. The use of the MQ3 sensor, RFID technology, and servo motor offers a comprehensive solution to reduce the risk of infection in public areas. Further research and development can improve the system's efficiency and effectiveness, making it an essential tool for virus prevention in public areas.

In conclusion, this pandemic prevention system offers an innovative solution to the current pandemic crisis and can be a valuable tool in reducing the risk of infection in public areas. The use of technology to automate and streamline the process of virus prevention can lead to significant improvements in public health and safety.