

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

PROJECT REPORT

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In partial fulfillment for the award of the degree of

BACHELOR OF ENGINEERING

IN

ELECTRONICS AND COMMUNICATION



SRI BALAJI CHOCKALINGAM ENGINEERING COLLEGE

ANNA UNIVERSITY::CHENNAI 600 025

MAY 2023

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BONAFIDE CERTIFICATE

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ACKNOWLEDGEMENT

First of all, we would like to express our sincere gratitude and respect to our **PARENTS** who have always been a source of inspiration and guiding forces in each and every step all through our lives.

We are very thankful to **THE MANAGEMENT** of the Sri Balaji Chockalingam Engineering College for giving us a wonderful opportunity to be a part of this esteemed institution and providing us with the facilities and environment to work towards our goal.

We would like use to this opportunity to thank our beloved Principal, **Dr.V.THIRUNAVUKKARASU M.E., Ph.D.**, and our Head of the Department **Mr.S.BOOPATHI M.E.**, Department of Electronics and Communication Engineering for being pillars of the strength and a huge motivating factor not only towards this project but all through our college life.

We are extremely indebted to our Guide **Mr. D. PRABAGARAN M.E.**, Assistant Professor, Department of Electronics and Communication Engineering for constantly motivating, guiding and encouraging us throughout the project. We also express our gratitude to all the faculty members and lab assistants for their supports and understanding since the beginning of the project.

Most importantly, we are thankful to **THE ALMIGHTY**, for having showered their blessing upon us for our many attempts.

TABLE OF CONTENTS

CHAPTER NO	TITLE	PAGE NO
1.	INTRODUCTION 1.1 GENERAL 1.2 VIRAL PANDEMIC. 1.3 PREVENTING METHODS. 1.4 IMPORTANCE OF HAND SANITIZER. 1.5 CARELESSNESS OF PEOPLE.	1 1 2 3 3
2.	I/O DEVICES 2.1 MQ3 SENSOR. 2.2 RFID. 2.3 SERVO MOTOR.	5 6 7
3.	DEVELOPMENT BOARDS 3.1 ARDUINO UNO. 3.1.1 ARDUINO UNO. 3.1.2 ARDUINO UNO SPECIFICATION. 3.1.3 POWER SUPPLY SPECIFICATION. 3.2 NODE MCU (ESP 8266). 3.2.1 ESP 8266 NODE MCU. 3.2.2 PIN SPECIFICATION.	9 11
4.	PROPOSED SYSTEM 4.1 PANDEMIC PREVENTION SYSTEM BASED ON MQ3 SENSOR 4.1.1 AUTOMATIC DOOR LOCK SYSTEM INTEFACED WITH MQ3 SENSOR 4.1.2 RFID ATTENDANCE SYSTEM INTERFACED WITH MQ3 SENSOR.	14 15 17

	4.1.3 INTERFACING OF DOOR LOCK SYSTEM AND ATTENDACE MAKING SYSTEM USING MQ3 SENSOR 4.2 APPLICATIONS & ADVANTAGES. 4.2.1 APPLICATIONS. 4.2.2 ADVANTAGES.	19 22
5.	COST ESTIMATION 5.1 COST OF ATTENDANCE SYSTEM INTERFACED WITH MQ3 SENSOR. 5.2 COST OF AUTOMATIC DOOR LOCK SYSTEM INTERFACED WITH MQ3 SENSOR. 5.3 COST OF INTERFACING DOOR LOCK SYSTEM AND RFID ATTENDANCE SYSTEM THROUGH MQ3 SENSOR.	26 26 27
6.	CONCLUSION & FUTURE SCOPE 6.1 CONCLUSION. 6.2 FUTURE SCOPE.	28
7.	APPENDIX	30
8.	REFERENCES	54
	LIST OF FIGURES	IV
	LIST OF TABLES	IV
	LIST OF ABBRIVATION	IV

LIST OF FIGURES

FIGURE NO	TITLE	PAGE NO
2.1.1	MQ3 SENSOR	5
2.2.1	RFID READER	6
2.3.1	SERVO MOTOR	7
3.1.1	ARDUINO UNO (ATmega328P)	10
3.2.1	NODE MCU (ESP 8266)	12
4.1.1	AUTOMATIC DOOR LOCK SYSTEM WITH MQ3 SENSOR	15
4.1.2	ATTENDANCE SYSTEM WITH MQ3 SENSOR	17
4.1.3	INTERFACING DOOR LOCK SYSTEM AND ATTENDANCE SYSTEM THROUGH MQ3 SENSOR	20

LIST OF TABLES

TABLE NO	TITLE	PAGE NO
5.1	COST OF ATTENDANCE SYSTEM WITH MQ3 SENSOR	26
5.2	COST OF DOOR LOCK SYSTEM WITH MQ3 SENSOR	26
5.3	COST OF INTERFACING DOOR LOCK SYSTEM AND ATTENDANCE SYSTEM THROUGH MQ3 SENSOR	27

LIST OF ABBRIVATIONS

- 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.