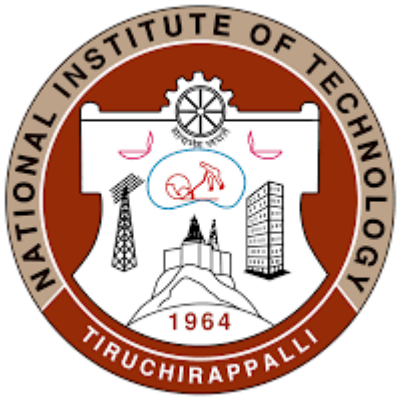

Internet of Things based **Mini-Project**

2022-2023

"AUTO TEMPERATURE AND FACEMASK SCANNING SYSTEM"

Team Members

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IOT AUTO TEMPERATURE AND FACEMASK SCANNING SYSTEM

Abstract:

In these trying times, due to the covid pandemic, we are at a lot at risk of exposer to covid19, especially in public places. So, when we enter public places like train stations, airports, offices or an amusement park, we need to check if they are not showing covid symptoms and wearing masks at all times. But we need extra personal to check each person of body temperature. But sometimes manual scanning is disadvantageous. The personnel are not well trained on using temperature scanner devices. There is human error in reading values. Many a times people are not barred from entry even after higher temperature readings or no masks. The scanning is skipped by the personnel if supervisors are not watching. So manual scanning system is not suitable for large crowds. To solve this problem, we here propose a fully automated temperature and facemask scanner and entry provider system. The system makes use of a contactless temperature scanner and a mask monitor. The scanner is connected directly with a human barrier to bar entry

if high temperature or no mask is detected. Any person will not be provided entry without temperature and mask scan. Only person having both conditions is instantly allowed inside. The system uses temperature sensor and camera connected with an Arduino uno to control the entire operation. The camera is used to scan for mask and temperature sensor for forehead temperature. The raspberry processes the sensor inputs and decides whether the person is to be allowed. In this case the system operates a motor to open the barrier allowing the person to enter the premises. If a person is flagged by system for high temperature or no Mask the system glows the red light and bars the person from entry. Also the face and temperature of person is transmitted over IOT to server for authorities to take action and test the person for covid. Thus, the system provides a 100% automated system to prevent the spread of COVID.

HARDWARE MATERIALS

Items	Cost(Rs)
Arduino UNO	700
16 X 2 I2C LCD DISPLAY	216
E18-D80NK Adjustable IR Sensor:	158
10mm green and red LED	10
Servo motor	240
Lm2596 adjustable dc-dc controller	58
9v battery	261
Esp32-CAM WIFI	680
CH340G USB to TTL serial converter	230
Resistors(1k)	20
Jumper wires	58
Total	2631 INR.

Software Required: Arduino Ide

Block diagram