Mini Project Proposal (III Semester MCA)

Approval of the mini project proposal is mandatory to continue and submit the project work.

The mini project proposal should clearly state the project objectives and the environment of the proposed project to be undertaken.

The following documents are to be submitted for approval

1. Pro forma for approval of the mini project (Present in this document)
2. Synopsis/Abstract with following contents

i. Title of the Mini Project.
ii. Introduction and Objectives of the Project.
iii. Tools / Platform, Hardware and Software Requirement
iv. Problem Definition and Initial Requirements
v.Basic functionalities of the project

The abstract should be submitted in the format given in the 3rd page of this document.

The Abstract in the given format shall be uploaded on or before **01**.**12.21**

MES COLLEGE OF ENGINEERING, KUTTIPPURAM
DEPARTMENT OF COMPUTER APPLICATIONS
20MCA245 – MINI PROJECT

PRO FORMA FOR THE APPROVAL OF THE THIRD SEMESTER MINI PROJECT

(Note: All entries of the pro forma for approval should be filled up with appropriate and complete information. Incomplete Pro forma of approval in any respect will be rejected.)

Mini Project Proposal No : 2 *(Filled by the Department)*	Academic Year : 2021-2022 Year of Admission : 2020

Title of the Project : DESIGN OF SMART-GATE BASED ON ARTIFICIAL INTELLIGENCE POSSIBLY FOR COVID-19 EARLY PREVENTION AT PUBLIC AREA

1.
2. Name of the Guide : Ms. FEBIN AZIZ
3. Number of the Student: MES20MCA-2048
4. Student Details (in BLOCK LETTERS)

Name SHYAMILA EA Roll Number 49 Signature

Date: 1/11/2021

Approval Status : Approved / Not Approved

Signature of Committee Members

Comments of The Mini Project Guide Dated Signature

Initial Submission :

First Review :

Second Review :

Comments of The Project Coordinator Dated Signature

Initial Submission:

First Review

Second Review

Final Comments :

Dated Signature of HOD

DESIGN OF SMART-GATE BASED ON ARTIFICIAL INTELLIGENCE POSSIBLY FOR COVID-19 EARLY PREVENTION AT PUBLIC AREA

SHYAMILA EA

Introduction & Objectives:

Since early 2020, the world has been experiencing the impact of the Coronavirus Disease 2019 (COVID-19) pandemic. It has spread out to more than 200 countries including Indonesia. As of July 6, 2020, in Indonesia the number of people confirmed with COVID-19 was 64,958 people with 3,241 people declared dead. The spread of COVID-19 in Indonesia has occurred in various places, such as markets, stations, terminals, and worship places. The emergence of new government policy, namely the Adaptation of New Habits (New Normal), which aims to keep people productive and safe from COVID-19during the pandemic, can backlash against people's productivity. Therefore, a solution in the form of Integrated COVID-19 Early Prevention Devices (INCEPS) in preventing the spread of COVID-19 at public area is proposed with artificial intelligence-based smartgate and website integration. Here, the implementation of the proposed solution is in the form of smart gate design integrated with the INCEPS website to monitor community density in various places and to provide reminders for the public to moreadhere in health protocols recommended by the government. Based on the identification of problems related to the spread of COVID-19 at public area, a preventive solution for the spread of COVID-19 to be doable activities comfortably and feel safe is proposed through Integrated COVID-19 Early Prevention Devices (INCEPS). An artificial intelligence-based smart-gate integrated with the INCEPS website is designed possibly for early preventing of the spread of COVID-19 at public area. It is expected that the proposed solution is able to increase the effectiveness in monitoring community density, implementing health protocols, and analyzing public health conditions. Therefore, by implementing the New Habit Adaptation policy recommended by the government, people can continue to be productive but still feel safe and comfortable in activities at public area.

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Objectives:

Based on the identification of problems related to the spread of COVID-19 at public area, a preventive solution for the spread of COVID-19 to be doable activities comfortably and feel safe is proposed through Integrated COVID-19 Early Prevention Devices (INCEPS).

HARDWARE & SOFTWARE REQUIREMENT

HARDWARE REQUIREMENTS

The selection of hardware is very important in the existence and proper working of any software. Then selection hardware, the size and capacity requirements are also important.

- Processor : Intel Pentium Core i3 and above, 64 bits
- RAM : Min3GB RAM
- HARD DISK: 10 GB

SOFTWARE REQUIREMENTS

One of the most difficult task is selecting software for the system, once the system requirements is found out then we have to determine whether a particular software package fits for those system requirements. The application requirement:

- OPERATING SYSTEM: WINDOWS 10
- FRONT END: HTML, CSS, JAVASCRIPT
- BACK END: Mysql
- IDE USED: JetbrainsPycharm, Android studio
- TECHNOLOGY USED: PYTHON JAVA
- FRAME WORK USED: Flask

PROBLEM DEFINITION AND INITIAL REQUIREMENT

EXISTING SYSTEM

Since early 2020, the world has been experiencing the impact of the Coronavirus Disease 2019 (COVID-19) pandemic. It has spread out to more than 200 countries including Indonesia. As of July 6, 2020, in Indonesia the number of people confirmed with COVID-19 was 64,958 people with 3,241 people declared dead. The spread of COVID-19 in Indonesia has occurred in various places, such as markets, stations, terminals, and worship places.

PROPOSED SYSTEM

Based on the identification of problems related to the spread of COVID-19 at public area, a preventive solution for the spread of COVID-19 to be doable activities comfortably and feel safe is proposed through Integrated COVID-19 Early Prevention Devices (INCEPS). An artificial intelligence-based smart- gate integrated with the INCEPS website is designed possibly for early preventing of the spread of COVID-19 at public area. It is expected that the proposed solution is able to increase the effectiveness in monitoring community density, implementing health protocols, and analyzing public health conditions. Therefore, by implementing the New Habit Adaptation policy recommended by the government, people can continue to be productive but still feel safe and comfortable in activities at public area.The design of artificial intelligence-based smart-gate has been presented which was equipped by various sub-systems including camera mask recognition, temperature sensor, automatic gate, disinfectant spraying box, and disinfectant gate. These sub-systems served to ensure visitors comply with health protocols established by the government and to prevent the spread of COVID-19 in public areas. Furthermore, the development of INCEPS website has been carried out systematically to display various features accessible by the public for activities in public areas. These features included general information on

COVID-19, population density in the area, health protocol information, information on access to markets, tourist attractions, and worship places based on visitor density. The integration of the smart- gate and the INCEPS website has been conducted by storing data on the number of visitors who come toa place on the smart-gate database to be pushed to the website database.

BASIC FUNCTIONALITIES

FUNCTIONAL MODULE

- **Smart-gate with the INCEPS**

Based on the overall design results of artificial intelligence-based smart-gate and the INCEPS website, integration of the smart-gate with the INCEPS website can be done automatically. This is conducted by storing data on the number of visitors who come to a place on the smart-gate database which is then pushed to the website database to be displayed in real-time on the INCEPS website. Therefore, real-time updating of information is needed to provide information to people who want to carry out activities outside the room or in public area which require interaction with many people.

MODULE DESCRIPTION

- Admin
- Camera

ADMIN

- Login
- View mask violation
- Change password

Camera

- Mask detection and temperature detection

- If violation occurs an alert is generated