**LITERATURE SURVEY**

**ON**

**CONTAINMENT ZONE ALERTING APPLICATION**

Abishek S

Gopinath M

Raj kumar E

Dhakshina Moorthy K

Yuvaraj V

Tagore Engineering College

**ABSTRACT**

The World Health Organization has declared the outbreak of the novel coronavirus, Covid-19 as pandemic across the world. With its alarming surge of affected cases throughout the world, lockdown, and awareness (social distancing, use of masks etc.) among people are found to be the only means for restricting the community transmission. In a densely populated country like India, it is very difficult to prevent the community transmission even during lockdown without social awareness and precautionary measures taken by the people. Recently, several containment zones had been identified throughout the country and divided into red, orange and green zones, respectively. The red zones indicate the infection hotspots, orange zones denote some infection and green zones indicate an area with no infection. This paper mainly focuses on development of an Android application which can inform people of the Covid-19 containment zones and prevent trespassing into these zones. This Android application updates the locations of the areas in a Google map which are identified to be the containment zones. The application also notifies the users if they have entered a containment zone and uploads the user’s IMEI number to the online database. To achieve all these functionalities, many tools, and APIs from Google like Firebase and Geofencing API are used in this application. Therefore, this application can be used as a tool for creating further social awareness about the arising need of precautionary measures to be taken by the people of India.

|  |  |  |
| --- | --- | --- |
| **Book/journal** | **Author’s name** | **Inference** |
| **Containment zone Tracking and Temperature Detection System 2K20** | JUSTINE JOSE | Covid 19 pandemic, which taken over the world and left crores of people dead, has been a significant setback in this era. Covid spreads quickly, and intensity has in different waves. The only possible way of reducing the spreading of this infectious disease is social distancing, proper sanitization, and tracking high-risk containment zones. Development of Containment zone tracking and temperature detection system 2k20 enables the conduction of university An HC-SR04 Ultrasonic Sensor fitted at the top of the frame is used to allocate the person's forehead standing in the frame. The Arduino sends a signal to the trigger pin of the sensor; thereby, the transmitter sends the ultrasonic signals, which will get deflected over the person's head and reach back to the sensor's receiver. At that time, Arduino receives a call from the echo pin. The Arduino program does the forehead allocation by simply adding an allowance of +8 mm to the measured value. The Arduino Integrated Development Environment is the main test editing program used for Arduino programming. |
| **Mobile Geo-Fencing Triggers for Alerting Entries Into COVID-19 Containment Zones Using Cloud Computing** | M. V. Ramana Rao | In a thickly populated nation like India, it is hard to forecast community transmission of COVID-19. Hence, a number of containment zones had been recognized all over the country separated into red, orange, and green zones, individually. People are restricted to move into these containment zones. This chapter focuses on informing the public about the containment zone when they are in travel and also sends an alert to the police when a person enters the containment zone without permission using the containment zone alert system. This chapter suggests a containment zone alert system by means of geo-fencing technology to identify the movement of public, deliver info about the danger to the public in travel and also send an alert to the police when there is an entry or exit detected in the containment zone by the use of location-based services (LBS). By creating a fence virtually called geo-fence at the containment zones established based on the government info, this system monitors public movements like entry and exit to fence. |
| **Cloud Computing: Concepts, Technology & Architecture** | Thomas Erl | THE COVID-19, an abbreviation for “Coronavirus Disease-2019”, is a breathing disease brought about by the serious intense lung disorder coronavirus-2 (SARS-CoV-2), an infectious infection having a place with a group of single-abandoned, positive-sense RNA infections known as coronavirus. Much like the flu infection, SARS-CoV-2 assaults the respiratory framework, causing infirmities, for example, hack, fever, fatigue, and shortness of breath. While the specific wellspring of the infection is obscure, researchers have planned the genome grouping of the SARS-CoV-2, which normally determines its quality sources from bats and rodents Cascella, M., (2021). The COVID-19 was first answered to influence human life in Wuhan City, in the Hubei territory of China in December 2019. Since at that point, the COVID-19 has fanned out quickly all through the rest of the world, denoting its quality in 213 nations furthermore, free domains. As per the WHO, the current worldwide tally1 of affirmed coronavirus cases remains at 2,285,210 while the loss of life has arrived at 155,124. The quick ascent in the quantity of COVID-19 occurrences around the world has provoked the requirement in Cloud Computing |
| **Development of An Android Application for Viewing Covid-19 Containment Zones and Monitoring Violators Who are Trespassing into It Using Firebase and Geofencing** | Ranajoy Mallik, Amlan Protim Hazarika | Currently there are several research works undergoing in the country to prevent Covid-19 cases from rising. Previously our country was importing medical kits like PPE (Personal Protection Kits), mask from outside, but now it has been successful in developing these kits. Along with taking initiatives to fight this disease, our country has also taken steps to make people aware of the disease. The news and media have a great part in creating this awareness by informing the public about the preventive measures that can keep them away from infection. Awareness among the people to carry out all the preventive measures can immensely help to reduce spread of the virus. The country has created containment zones throughout the cities wherever Covid-19 cases have been reported to prevent further spread of the virus. These containment zones have been kept isolated from the outside public to ensure no contamination occurs outside. |
| **Features and Functionalities of Smartphone Apps Related to COVID-19: Systematic Search in App Stores and Content Analysis** | Collado-Borrell R | We performed an observational, cross-sectional, descriptive study of all smartphone apps associated with COVID-19. Between April 27 and May 2, 2020, we searched the App Store (iOS) and Google Play Store (Android) for COVID-19 apps. The search terms used were coronavirus, COVID-19, and SARS-COV-2. The apps were downloaded and evaluated. The variables analyzed were name, platform, country, language, category, cost, update date, size, version, number of downloads, developer, and purpose. Purpose was further classified into the following categories: news, general information, self-diagnosis, contact tracing, notices to contacts, notification of close cases, awareness, helplines, monitoring of clinical parameters, recording of symptoms and treatment, and messaging with health care professionals. |