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Intelligent Transportation System amid COVID-19 Pandemic Will Drastically Impact the Global ITS Market

Ajini Reji, Prasad C N

P.G. Student, Department of Computer Science, St. Joseph's College Bangalore, India

Assistant Professor, Department of Computer Science, St. Joseph's College Bangalore, India

ABSTRACT: The rise of Coronavirus has carried the world to a halt. Anyway, the diminished human presence is discrete due to the incitement of infections. Intelligent Transportation systems mostly center on improving transportation administrations with new advancements that can supplant humans taking care of and organization. Interestingly Coronavirus guidelines center to make the transportation less occupied, because in a packed transport or a train imports more possibility of influencing disease for the travelers.
In this paper, we discuss the intelligent transportation system amid covid-19, and the methods to focus on public transportation to resist viruses.

KEYWORDS: Intelligent Transportation Systems, COVID-19, passengers.

I. INTRODUCTION

Intelligent Transportation Systems and Coronavirus directions have an intermittent focal subject that is both synchronize the vision on taking out the human existences. Anyway, their purposes behind getting out the human presence are discrete. The Intelligent Transportation system's objective is to transfer the goal of controlling vehicles and transportation outline from people to impulsive innovations, so according to the outcome, there will be an adjustment of vehicles with fewer people and transportation architecture. On the other side, Coronavirus guidelines center as to move away from individuals from one another, so they can't spread the diseases, and due to this condition, less number of people in vehicles and transportation outline is useful [1].

Since public transportation systems are extremely prone to outbreaks of the disease, bringing up modern digital technologies such as artificial intelligence, virtual reality, and the internet of things (IoT) can play a serious advanced role within the equalization operations with public safety measures for dominant the spread and taking corrective action at the purpose of current scenario we are facing down. For various reasons, the Government gave high priority to the intelligent transportation system, even before the outbreak of the COVID-19 pandemic affected by public passenger's health and safety.

Intelligent transportation systems and the COVID-19 pandemic will also be affected by Public transportation. There is an issue raising why public buses might stay cost-efficient in an exceeding word with intelligent non-public vehicles solely in massive and dense zones. In the current situation public buses have less demand because of the pandemic, and because of that, public transportation at cost-effective. It is affordable for the passengers.

Even though the vaccine is available, a higher percentage of the population is still be scared to travel in crowded public transportation. Some people are scared that the vaccine is not effective enough, and a few are going to be petrified of different viruses. Moreover, in a poll in India, almost about ten percent took the vaccine rest ninety percent are not vaccinated because unavailability of vaccines and some are not willing to take it. The major portion of the population is doesn't seems to be insusceptible because the public transportation will still be crowded.

The way of driving is another issue.Many researchers have proved, that many ways of driving lead to traffic congestion and traffic jams.Intelligent transportation system operates like the similar way of motorist drives. Therefore by avoiding these types of driving vehicles provides intelligent transportation systems that will vastly reduce traffic jams. The use of intelligent transportation systems makes traffic jams more convenient and easy.

In public transportation will also bring down because of the current pandemic. In public vehicles, metallic barriers are prohibited to enclose because in metal the viruses can survive and can be spread. So, that public transportation passengers will secure from the viruses.

Moreover, for the public transportation tourist were the core users. The current situation makes people to travel for visiting other countries they are affected majorly Because of the COVID-19 outbreak.
By this concern regarding COVID-19 instruction, the idea of using High Occupancy Vehicles (HOV) lanes gives more precedence to more packed vehicles. The purpose of HOV vehicles is to occupy the maximum number of passengers in one vehicle. Whereas the covid-19 guidelines focus on the fewer passengers in each vehicle.
Anyhow, the use of HOV lanes reduces the traffic congestion, it fulfills to avoid traffic jams only if there is a traffic jam. So that, HOV lane is more convenient for the general-purpose lanes is to inspire the motorists for the essential purpose of ongoing congestion.

II.   METHODS

Methods to focus for effective smart transportation solutions:
Thermal scanners and hygiene: Thermalscanners are more viable in distinguishing individuals who have a higher than typical internal heat level. By the utilization of a warm scanner, we can recognize the fever. It is not difficult to utilize and send, just set it up on the mount and it will consequently filter body temperature.it utilizes infrared to recognize temperature which can disclose to us how much warmth in our body. It can distinguish temperature and gives a visual portrayal of infrared radiation discharged by people and encompassing items which are viable to human exposed eyes. in the post-pandemic world, using warm and optical sensors, cleanliness control strategies, for example, dampness checks, wearing copper fiber mask with high protection toughness, why copper fiber cover implies in copper infection can't survive. Individuals with higher temperatures, similar to those related to Coronavirus can be handily recognized rapidly. Warm scanners likewise limit actual contact during a period of social removing .prior to voyaging, pack disinfecting wipes, and hand sanitizer within any event 60% alcohol.

COPPER FIBER MASK: This mask is made of a patented fiber that is knitted with copper yarm.it can resist antibacterial viruses, blocks UV rays.

Autonomous vehicles and anomaly detection: while this idea of self-governing vehicles is as yet under the measure, the Covid-19 pandemic has pointed out the job driverless vehicles can play in guaranteeing quicker reaction during emergencies, disease anticipation, and disease control.To make this idea into the real world, there is a need to assemble public certainty and dependence on artificial keen and the web of things as they can guarantee the public's safety. Currently, 5G innovations are coming up, and IoT gadgets and sensors can limit choice inactivity to work with continuous occurrence reaction with the expectation of lessening the street accidents.By irregularity recognition, we can keep away from street peculiarities utilizing cell phone sensors. Some self-governing vehicles, for example, self-driving car, a driverless vehicle is a vehicle that is fit for detecting its current circumstance and moving securely with a non-human. These self-driving vehicles consolidate an assortment of sensors to detect the environmental factors a few sensors like sonar, GPS, odometer, radar and, so on… in the present situation, self-driving vehicles are more convenient [4].
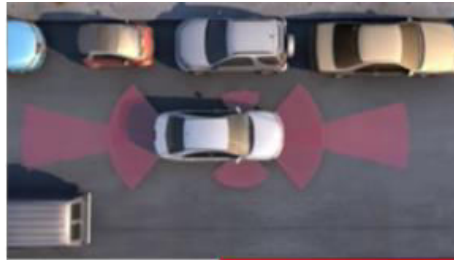
SELF DRIVING CAR

Contactless fare payment: contactless charge installments are as of now being utilized for public transportation tolls, the primary center is to decrease traveler association with any actual installment. Mobile ticketing and the use of digital wallets can give priority to the passengers to complete the transaction securely through their smart devices, it also helpful for passenger's journey and experiences, also it will increase the improving running time and scheduling. Since the early stages of the COVID-19 pandemic have become the norm as operators strive to ensure the safety of passengers.As a result of COVID-19, many public transportation agencies suspended collecting fares to avoid riders coming in close contact with the vehicle operators. There are some payment methods such as open-loop systems, so open-loop payments are attracting attention worldwide as they are a convenient method of paying for transport and other services. Open-loop means a customer can use any payment method to buy goods or services. Suppose to use a bus, we won't need to get from the bus operator a transport card that cannot be used anywhere else. Instead of that, customer can use their existing contactless cards to pay for journeys even if they do not have an account with that transport network. A single payment method can use multiple services. The next method is hand-free ticketing technology, this hand-free automation fare collection system replaces existing card payment methods and uses long-range radio frequency identification (RFID) technology is continuously sent the radio waves and deducts fares automatically as they pass the sensor. The hand-free ticketing technology removes the need for passengers to tap their cards at the fare gates. Instead of that, the participants can just walk through carrying a radio frequency identification enabled card. Sensors on both sides of the fare gates read these cards, even if the cards are in bags or pockets. Hands-free access to public transport implies new levels of freedom, mobility, and ease to use for people with differentially abled. Using public transport would be faster, easier, and more ease during rush hours [5].

III. CONCLUSION

In this paper, the impact of the gigantic intelligent transportation system advancement and the effect of the Coronavirus flare-up is as yet misjudged by numerous governments. hence they are prepared to put resources into customary transportation as opposed to moving towards another age of transportation innovations. By the techniques to center in open transportation systems, using brilliant transportation arrangements, for example, self-ruling vehicles, dynamic reacts to demand. Intelligent transportation frameworks unite the force of integration, advanced information investigation, and information the executives for working clever transportation. government specialists can sustain the utilization of current advancements to ease the resident's worry about utilizing public transportation. Transport suppliers immediately carried out to console travelers on the wellbeing and security viewpoint.

Such savvy advances can offer a superior administration with no requirement for associations and better protection from infections.

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