Design and Construction of smart transportation and ticketting system

Abstract

Introduction

It is the major problem for everyone. In this present scenario, we are designing a GPS-GSM based system which identifies bus exactly at which location it has started recently. For this purpose here we are using GSM-GPS connected to the bus. The project implements solution for enhancing public transportation management services based on GPS and GSM .In this system the message is send to the passenger who are waiting for the that bus when the bus is leave previous station. In this system the passengers are counted automatically.The main goal of this project is to design and implement smart bus transport system using GSM and GPS.Regulating the transport services. In this paper, a transportation management system is developed for Enhancing public transportation services based on integration of GPS and GSM. GPS is used as a positioning here arduino board plays an important role in designing a smart bus. GSM and GPS is important to send message to the passenger to give information about the bus location.People need to waste lot time. In order to avoid the above mentioned, you are going to build an innovative smart ticketing card for local trains based on RFID. With this project person who has the smart card, they can directly using the local train services without buying ticket at the time. But the fair for their travel will be collected at the end of every month.

Arduino to interface the Microcontroller with the RFID scanner and Wi-Fi module. Here everyone will have one RFID card. There will be RFID scanner in every railway station at entrance and exit. If anyone wants to enter or exit the railway station, he needs to scan his RFID. Once the RFID card is scanned then only the gate will be opened. You will programme the microcontroller in such a way that Whenever a person scans his RFID card at entrance of the station, that station will be marked as starting station and as soon as he scans his card at exit of the other station, that will be assigned as ending station. Now based on the distance between starting station, fare will be assigned. All this data will be stored in the remote server. And GPS-GSM based system which identifies bus exactly at which location it has started recently. For this purpose here we are using GSM-GPS connected to the bus. The project implements solution for enhancing public transportation management services based on GPS and GSM .In this system the message is send to the passenger who are waiting for the that bus when the bus is leave previous station. In this system the passengers are counted automatically.At the end of the month, the entire fair can be paid at once. Once the fair is paid, the RFID will reset automatically.
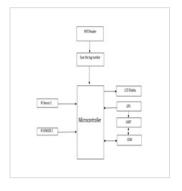
KEY WORDS: ARDUINO MEGA 2560, GPS, GSM, RFID Module, Wifi Module, Smart Public Transport.

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Biography

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