Title:
Malaysia Public Bus Monitoring Real-Time System

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Abstract:
In today's world, transportation system has a very vital role to play in day to day life. However, when it comes to take the public transportation especially bus transport, time and patience are of essence. In the other word, many people who use bus transport have experienced time loss because of waiting at the bus stop. In order to overcome this problem, the Malaysia Public Bus Monitoring Real-Time System via GPS and GSM is implemented to help the bus user to track the current location of the bus in the form of latitude and longitude coordinates by using GPS technology. It is to reduce the waiting time of the bus user and enhance the current bus service system to become more effective and efficient. This technology of Global Positioning System and Global System for Mobile communication is used where the GPS module will track on the current position of a particular bus by receiving signal from at least three GPS satellites. The data is then will be send to the microcontroller unit to be processed, control and interpreted. A microcontroller board based on the ATmega328P act as interface between the GPS and GSM Module where it will perform the process to interpret the output and input. As for the GSM Module, it will be used to allow the message to be sent to the user regarding the current bus position. As the outcome, the bus user will receive a text message containing the latitude and longitude coordinate of the current bus position. Results show that the location of the bus can be tracked in the form of latitude and longitude coordinates by using GPS technology. The waiting time of the bus user can be reduced by applying the GSM technology to inform the user vis Short Message Service. The current bus service system can also be enhanced to be more effective and efficient.

Remark

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