



LOCATION DISPLAY FOR PASSENGERS IN PUBLIC TRANSPORT SERVICES

Bachelor of Science and Technology Dissertation

M.KAMSAWARTHINEY

**Faculty of Science and Technology
Uva Wellassa University, Sri Lanka**

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ABSTRACT

People in Sri Lanka commonly use the public transport services such as buses and trains for long trips. But when it comes at night traveling, passengers couldn't identify the places where they are going through and where to get down. As same as in day time when a person falls in sleep and suddenly gets up he gets confuse where the place they are passing by. In order to avoid these situations in Sri Lanka, the display in buses or trains could reveal the places where they pass by with using Global Positioning System (GPS) module. This project shows how to interface the GPS with the Liquid crystal Display (LCD) display using Ultimate Arduino Microcontroller Pack, a USB cable and a GPS receiver. In this system GPS module is used which continuously produces a set of data regarding the position of the earth surface where it is situated which includes the current position with respect to the equator of the earth in terms of Latitude and Longitude. This data can be decoded and printed into the readable format with the help of a microcontroller only. In this project the data regarding the geographical coordinate is extracted from the GPS output with the help of the Arduino. By using this application of GPS module, the location display in transport services idea was developed [1]. The values of longitude and latitude coordinates of each area in the bus root of Sri Lanka were collected from the Google map and saved in the form of comma-separated values (CVS) file in Secure Digital (SD) card. Then, while using GPS module with Arduino MEGA, the location of each area in the transport path was checked. After that the whole code were developed and checked with the LCD display to display the location. At the End of the project, the system is finished by checking and testing the positions.