

**Using Data Mining Techniques to Analyze the Best Bus
Route Available to Travel in Colombo**

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University of Moratuwa, Sri Lanka for the partial fulfillment of the
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Declaration

We declare that this thesis is our own work and has not been submitted in any form for another degree or diploma at any university or other institution of tertiary education. Information derived from the published or unpublished work of others has been acknowledged in the text and a list of references is given.

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Abstract

Sri Lanka is a developing country with mainly two main public transportation systems. Train and Bus system will cover 90% of the transportation routes available across the country. Apart from these two modes other people use private vehicles for cater their travel needs. But, more than 80% of the people use trains and buses as the mode of transportation. With the limited availability of the trains, buses are being used a lot in common environment. But, the biggest disadvantage is passengers who use buses do not have a proper information system to cater their needs.

With the lack of information, we are wasting more time to our transport than our valuable time with loved ones. So, thus to make the work easy people keen to use their private vehicles instead of busses and trains. So, we are wasting our valuable time, health as well as money. So, to reduce these facts, it is crucial to develop a system and improve the efficiency of the time taken for transport in human life. This is a very serious issue that needs to be addressed.

With the development of the technology, information transmission is very easy. Day by day the usage of the mobile devices more specifically smart phone devices increasing and with the help of that the solution is to introduce a user-friendly web system which can be directly get the best possible bus route that need to take to prevent the time wasting on the roads and overcome the discomfort. There are passengers who required more comfort in traveling than the quickness of the travel. But some vise verse. So, in the proposed solution we are focusing both options. So, for the passengers who required more comfort travel can be chosen the busses with a lesser number of passenger density and for the passengers who need to travel fast to their destination can be taken the fastest bus route without thinking of the comfortability much.

Either a passenger or a non-passenger can access the designed web interface without any authentication. Then they need to select the starting and ending locations and the required level of satisfaction. Then the output will suggest the best possible bus routes which satisfy the search needs. So, this development helps consumers to plan the travel more efficiently by choosing the best route available with comfort or quickness.

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