

## Public Transport Planning System by Dijkstra Algorithm: Case Study Bangkok Metropolitan Area

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**Abstract :** Nowadays the promotion of the public transportation system in the Bangkok Metropolitan Area is increased such as the "Free Bus for Thai Citizen" Campaign and the prospect of the several MRT routes to increase the convenient and comfortable to the Bangkok Metropolitan area citizens. But citizens do not make full use of them it because the citizens are lack of the data and information and also the confident to the public transportation system of Thailand especially in the time and safety aspects. This research is the Public Transport Planning System by Dijkstra Algorithm: Case Study Bangkok Metropolitan Area by focusing on buses, BTS and MRT schedules/routes to give the most information to passengers. They can choose the way and the routes easily by using Dijkstra STAR Algorithm of Graph Theory which also shows the fare of the trip. This Application was evaluated by 30 normal users to find the mean and standard deviation of the developed system. Results of the evaluation showed that system is at a good level of satisfaction (4.20 and 0.40). From these results we can conclude that the system can be used properly and effectively according to the objective.

**Keywords :** Dijkstra algorithm, graph theory, public transport, Bangkok metropolitan area

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