

Requirements to Establish a Taxi Sharing System in an Urban Area

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Abstract : That Transportation system plays an important role in management of societies is an undeniable fact and it is one of the most challenging issues in human beings routine life. But by increasing the population in urban areas, the demand for transportation modes also increase. Accordingly, it is obvious that more flexible and dynamic transportation system is required to satisfy peoples' requirements. Nowadays, there is significant increase in number of environmental issues all over the world which is because of human activities. New technological achievements bring new horizons for humans and so they changed the life style of humans in every aspect of their life and transportation is not an exception. By using new technology, societies can modernize their transportation system and increase the feasibility of their system. Real-time Taxi sharing systems is one of the novel and most modern systems all over the world. For establishing this kind of system in an urban area it is required to use the most advanced technologies in a transportation system. GPS navigation devices, computers and social networks are just some parts of this kind of system. Like carpooling, real-time taxi sharing is one of the best ways to better utilize the empty seats in most cars and taxis, thus decreasing energy consumption and transport costs. It can serve areas not covered by a public transit system and act as a transit feeder service. Taxi sharing is also capable of serving one-time trips, not only recurrent commute trips or scheduled trips. In this study, we describe the requirements and parameters that we need to establish a useful real-time ride sharing system for an urban area. The parameters and requirements of this study can be used in any urban area.

Keywords : transportation, intelligent transportation systems, ride-sharing, taxi sharing

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