A Smartphone Based Traffic Information System (AFromT)

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Today traffic congestion is a growing problem in many metropolitan areas. It can have a big impact on our lives, career, future and even our safety. Several solutions have been proposed over the years to address traffic congestion. Traffic Information Systems (TISs) can play a significant role towards creating cities with improved traffic conditions. A smartphone based traffic information system is a cost-effective way to collect traffic data, leveraging existing communication infrastructure such as the cellular network. A traffic monitoring system based on GPS-enabled smartphones exploits the comprehensive coverage provided by the cellular network, the high accuracy in position and velocity measurements provided by GPS devices, and the existing infrastructure of the communication network. In this project, Location Based Services (LBSs) was used for the purpose of getting real time traffic information. When the user gives the destination of the tour, then the system provides the optimal route with minimum traffic, from the current location, according to the average speed of the other users on all the alternative routes. Also every user can communicate with other online users to cognizance the current traffic conditions, through messages. The experimental evaluation has shown that, because of this AFromT being introduced through the GPS Navigator, road users will be able to avoid traffic jams, unpredicted short way road plans as well as any unforeseen emergency changes of roads, road block etc., will be instantly communicated to the AFromT user. In addition to these features, AFromT will automatically inform the user, when they exceed the speed limit.

Keywords— Traffic information systems, Location Based Services, GPS navigator, Google map

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