

SMART TRANSPORTATION SOLUTION FOR IMPROVED PUBLIC TRANSPORTATION USING SENSOR TECHNOLOGIES

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Smart transportation is playing a vital role as an important building block in smart city, providing solutions to many issues that relate to traffic on the road. This influences safety and quality of living (QoL), the main goals of smart city development. Smart transportation system in an urban area will save time, save environment by reducing fuel consumption and unwanted driving time. This study presents a smart transportation solution to improve public transportation system as it can facilitate more customers in single ride which utilizes the effective use of limited road network in country. Also, this represents a literature review based on previous related studies done on smart transportation in smart cities in order to understand the research area as well as the future research needs and gaps to be fulfilled. Here it provides a solution where it can facilitate passengers as unpredictability and uncomfotableness of public transportation are found as the greatest reasons for people to move in to private transportation. The solution proposes a real time system where it indicate bus location, information, seat occupancy, time to reach passengers pickup place and same information about next bus on mobile phones, websites and on display board at bus stands as this will reduced the time that passengers have to waste on road. In the methodology used here first current systems failures and difficulties are identified by conducting questionnaire. Then available and proposed solution for the issues are found through literature review and a solution was proposed finally to identify and facilitate user by providing needed information for them. Here the system was developed as the result, which can provide bus location information, seat availability information and next bus arrival and other related information. Here GSM, GPS modules were used and sensors to calculate seat occupancy was used. An IoT based smart transportation solution was proposed to improve the public transportation and reduce traffic on road.

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