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A Cloud-Based Bus Tracking System Based on Internet-of-Things Technology (Conference Paper)

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Abstract

The technological rise in public transportation is on the horizon, but the bus network structure and intelligent bus tracking system should first be in place. Bus transport service is on the edge of digital revolution, generating real-time tracking information about the bus service using smartphones. In this paper, a cloud-based bus tracking system based on IoT is proposed to reduce human intervention, waiting time and energy. The exact location and arrival time of the bus can be tracked dynamically by using a mobile application to provide better and efficient bus service. Furthermore, passengers can buy tickets without queuing and book the available seats by making online payments. The proposed scheme allows more flexibility and user satisfactory service to the rider in terms of time loss and encourages more people to ride by providing real-time bus tracking information to improve passenger satisfaction. The main objective is to minimize the unnecessary waiting and queuing time uncertainty of passengers. Riders can utilize their waiting time more productively by choosing the nearest route and alternative transportation. The sustainability of public transport service can be maintained by providing noteworthy benefits to the passengers using the proposed IoT-based bus tracking system. © 2019 IEEE.

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