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ABSTRACT

A key challenge for rapidly growing cities of today is to provide effective public transport services to satisfy the increasing demands for urban mobility. Toward this goal, the Internet of Things (IoT) connected bus ticket generator has great potential to overcome existing deficiencies of public transport systems given its ability to embed smart technology into real-life urban contexts. an IoT enabled system for urban bus riders provides two novel information services for bus users: 1) micro-navigation and 2) crowd-aware route recommendation. 3) Bus travel time estimation. The navigation system for bus passengers, has the ability to seamlessly interconnect bus passengers with the real-world public bus infrastructure. The navigation system relies on a distributed IoT system comprising an embedded bus computing smartphone system to detect the presence of passengers on buses, backend computing infrastructure and a mobile smartphone app for passengers provide real-time information of a buses.

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APPENDIX A:

ACRONYMS AND ABBREVATIONS

API	Application Programming Interface
HTML	Hyper Text Markup Language
SQL	Standard Query Language
DBMS	Data Base Management System
CSS	Cascading Style Sheet
PHP	Hyper Text Pre-Processor
DFD	Data Flow Diagram
ERD	Entity Relationship Diagram
RFID	Radio Frequency Identification
GPS	Global Positioning System
RTC	Real Time Clock
IOT	Internet of Things
GTFS	Google’s general Transit Feed Specification
WRS	WI Rover System
AVL	Automated Vehicle Location
TCQSM	Transit Capacity and Quality of Service Manual
UBN	Urban Bus Navigation

APPENDIX B:

PAPER PUBLICATIONS

[1] Bhat Apoorva, Kavitha C, Bharath M, Nitesh Narayan Vaidya and Harshitha G M, "A smart bus ticketing and tracking system using IOT," is accepted by International Conference on Recent Trends in Technology ICRTT-2018 IN Collaboration with IJCA Paper ID ICRTT18171, May-2018.

[2] Bhat Apoorva, Kavitha C, Bharath M, Nitesh Narayan Vaidya and Harshitha G M, "A smart bus ticketing and tracking system using IOT," is accepted by IEEE-ICNTET Conference 2018.

[3] Bhat Apoorva, Kavitha C, Bharath M, Nitesh Narayan Vaidya and Harshitha G M, "A smart bus ticketing and tracking system using IOT," is accepted by International Journal of Research and Scientific Inovation (IJRSI) ISSN 2321-2705 Unique Manuscript ID: "5IJ04S221", 2018.

APPENDIX C:

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