**ACKNOWLEDGEMENT**

The satisfaction and euphoria that accompany a successful completion of any task would be incomplete without the mention of people who made it possible, success is the epitome of hard work and perseverance, but steadfast of all is encouraging guidance.

So, with gratitude we acknowledge all those whose guidance and encouragement served as beacon of light and crowned the effort with success.

We thank our project guide **Mrs. Harshitha G M**, Assistant Professor, in Department of Computer Science & Engineering, who has been our source of inspiration. She has been especially enthusiastic in giving her valuable guidance and critical reviews.

The selection of this project work as well as the timely completion is mainly due to the interest and persuasion of our project coordinator **Dr. Sumith N**, Professor, Department of Computer Science & Engineering. She has supported us in every stage of our project.

We sincerely thank, **Dr. Manjunath Kotari**, Head, Department of Computer Science & Engineering who has been the constant driving force behind the completion of the project.

We thank our beloved Principal **Dr. Peter Fernandes**, for his constant help and support throughout the project.

We are indebted to **Management of Alva’s Institute of Engineering and Technology, Mijar, Moodbidri** for providing an environment which helped us in completing our project.

Also, we thank all the teaching and non-teaching staff of Department of Computer Science and Engineering for the help rendered.

Finally we would like to thank our family and friends whose encouragement and support was invaluable.

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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:**

**PROJECT ASSOCIATES INFORMATION**

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