**The Intelligent Transport System**

**The Project report** submitted to

**Gautam Buddh Technical University, Lucknow**

**(Formerly known as ‘Uttar Pradesh Technical University’)**

For the award of the degree of

**Bachelor of Technology**

In

**Computer Science**

****

**June 2011**

**Project Guide: Submitted By:**

Mr. K.M. Pandey Gaurav Sagar

Assistant Professor, (C.S. Dept.) 0712710032

ACKNOWLEDGEMENT

The satisfaction that accompanies the successful completion of any task would be incomplete without the mention of people whose ceaseless cooperation made it possible, whose constant guidance and encouragement crown all efforts with success.

I owe special debt of gratitude to **Mr. K.M. Pandey, Assistant Professor**, Department of Computer Science & Engineering, IIMT Engineering College, Meerut for his constant support and guidance throughout the course of our work. His sincerity, thoroughness and perseverance have been a constant source of inspiration for us. It is only his cognizant efforts that our endeavors have seen light of the day.

We also take the opportunity to acknowledge the contribution of **Mr. Amar Singh**, Department of Computer Science & Engineering, IIMT Engineering College, Meerut for his full support and assistance during the development of the project.

We also do not like to miss the opportunity to acknowledge the contribution of all faculty members of the department for their kind assistance and cooperation during the development of our project.

Last but not the least, we acknowledge our friends for their contribution in the completion of the project.

Gaurav Sagar

0712710032

Date: 08-06-2011

DECLARATION

I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person nor material which to a substantial extent has been accepted for the award of any other degree or diploma of the university or other institute of higher learning, except where due acknowledgment has been made in the text.

Gaurav Sagar

0712710032

## Date: \_\_/\_\_/\_\_\_\_

Certificate

This is to certify that this Project Report entitled “**Intelligent Transport System**” which is submitted by **Gaurav Sagar**, having Roll No **071210032**, in the partial fulfillment, for the award of degree of **Bachelor of Technology** in Department of Computer Science & Engineering, of IIMT Engineering College, Meerut, affiliated to GAUTAM BUDH TECHNICAL UNIVERSITY, Lucknow; is carried out by him under my supervision.

The matter embodied in this Project Work has not been submitted earlier for award of any degree or diploma in any university/institution to the best of our knowledge and belief.

Mr. K.M. Pandey Mr. Harshvardhan

Assistant Professor (C.S. Department) H.O.D. (C.S. Department)

IIMT Engineering College, Meerut IIMT Engineering College, Meerut

Table of Contents

Abstract………………………………………………………………………………………………………. 1

1. Introduction…………………………………………………………………………………….……… 3
   1. Purpose ………………………………………………………………………………………………………..……… 3
   2. Document Organization ……………………………………………………………………………….………. 3
   3. Audience ……………………………………………………………………………………………………….……… 4
   4. Acronyms, Abbreviations, Terms and Definitions ………………………………………….………. 4
2. Design Overview …………………………………………………………………………………….. 5
   1. Architectural Goals………………………………………………………………………………………………… 5
   2. Guiding Principles …………………………………………………………………………………………………. 5
      1. Scalable ……………………………………………………………………………………………….……… 5
      2. Flexible ……………………………………………………………………………………………….………. 6
      3. Standards Based …………………………………………………………………………………….…… 6
   3. Design Patterns …………………………………………………………………………………………………….. 6
      1. Front Controller ……………………………………………………………………………………….…. 6
      2. Model View Control ………………………………………………………………………………….… 7
   4. Design Principles …………………………………………………………………………………………………… 7
3. Hardware and Software Requirements………………………………………………………8
4. Topology Diagram .………..………………………………………………………………………… 9
   1. Interaction of various components ……………………………………………………………………….10
5. Data Flow Diagrams ...………………….………………………………………………………… 11
   1. Context Level Diagram ………………………………………………………………………………………… 11
   2. Level 1 Diagram …………………………………………………………………………………………………… 12
   3. Level 2 Diagram …………………………………………………………………………………………………… 13
6. Package Structure View …………………………….…………………………………………… 14
   1. Brief Description of Package of Web-application ………………………………………………… 16
   2. Brief Description of Package of Desktop-app ………………………………………………………. 17
7. Application Implementation …………………….……………………………………………. 19
   1. Directory Structure ……………………………………………………………………………………………… 19
8. Database Design ……………………….......……………………………………………………… 20
   1. Registered\_user Description ……………………………………………………………………………….. 20
   2. Users\_info Description ………………………………………………………………………………………… 20
   3. Travelers\_log Description ……………………………………………………………………………………. 21
   4. ER Diagram ……………………………………………………………………………………………………………21
9. User Interface …………………………………..……………………………………………………. 23
   1. Station Machine User Interface …………………………………………………………………………… 23
   2. Station Manager interface to the web-app …………………………………………………………. 28
   3. Customer interface to the web-app ………………………………………………………………..….. 31
10. Testing………..……………………………..…………………………………………………………….37
    1. Integration and Test Case……………………………………………………………….………………37
       * 1. Testing………………………………………………………………………………….….……..38
         2. Testing Methodologies………………………………………………………….…….….38
         3. Test Planning…………………………………………………………………………..……...38
         4. Result Analysis…………………………………………………………………………….….39
         5. Test Case Document…………………………………………………………….…...……39
    2. Functional Testing…..…………………………………………………………………….…..……………39
    3. Structural Testing…………….…………….…………….…………….…………….……………….……39
    4. Stress Testing…………………..…………….…………….…………….…………….…………………….40
    5. Test Cases…………….…………….…………….…………….…………….…………….………………….41
11. Future Scope……………………………………………………………………………………………44
12. Coding………………………………………………………………………………………………….….45

Appendix A: Acronyms, Abbreviations, Terms and Definitions……………………………91

Appendix B: Products and Tools ………………………………………………………………………. 92

Appendix C: Configuration Files ……………………………………………………………………….. 93

Bibliography …..………………………………………………………………………………………………… 94