# Visvesvaraya Technological University
## Belgaum, Karnataka- 590014

**Project Report On**

# SMART ELEVATOR USING WIRELESS MULTI-HOP AD-HOC NETWORK

Submitted in the partial fulfillment of the requirements for the award of the Degree of

**BACHELOR OF ENGINEERING**
in
**INFORMATION SCIENCE AND ENGINEERING**

Submitted by


| | |
|---|---|
| **MANJUNATH P** | **1DS09IS041** |
| **NITILAKSHA S HALAKATTI** | **1DS09IS053** |
| **RUSHABH B P** | **1DS09IS073** |
| **SANTHOSH BHARADWAJ K R** | **1DS09IS076** |


Under the Guidance of
**Dr. K N RAMA MOHAN BABU**
Associate Professor, Dept. of ISE


2012-2013


**DEPARTMENT OF INFORMATION SCIENCE AND ENGINEERING**

## DAYANANDA SAGAR COLLEGE OF ENGINEERING

**SHAVIGE MALLESHWARA HILLS, KUMARASWAMY LAYOUT, BANGALORE-78**

# DAYANANDA SAGAR COLLEGE OF ENGINEERING

**Shavige Malleshwara Hills, Kumaraswamy Layout**
**Bangalore-560078**

## Department of Information Science and Engineering

2012-2013

# Certificate

This is to certify that the Project Work entitled **"SMART ELEVATOR USING WIRELESS MULTI-HOP AD-HOC NETWORK"** is a bonafide work carried out by **Manjunath P**(1DS09IS041),**Nitilaksha S Halakatti**(1DS09IS053), **Rushabh B P** (1DS09IS073) and **Santhosh Bharadwaj K R**(1DS09IS076) in partial fulfillment for the 8th semester of Bachelor of Engineering in Information Science & Engineering of the Visvesvaraya Technological University, Belgaum during the year 2012-2013. The Project Report has been approved as it satisfies the academics prescribed for the Bachelor of Engineering degree.

| _____ | _____ | _____ |
|---|---|---|
| Signature of Guide | Signature of HOD | Signature of Principal |
| [Dr.K N Rama Mohan Babu] | [Dr.M Ravishankar] | [Dr.A.N.N. Murthy] |

| Name of the Examiners | Signature with Date |
|---|---|
| 1._____ | _____ |
| 2._____ | _____ |

# ACKNOWLEDGEMENT

It is great pleasure for us to acknowledge the assistance and support of a large number of individuals who have been responsible for the successful completion of this project.

We take this opportunity to express our sincere gratitude to **Dayananda Sagar College of Engineering** for having provided us with a great opportunity to pursue our Bachelor Degree in this institution.

In particular we would like to thank **Dr. A.N. N Murthy,** Principal, Dayananda Sagar College of Engineering for his constant encouragement and advice.

Special thanks to **Dr. M. Ravishankar,** HOD, Department of Information Science & Engineering, Dayananda Sagar College of Engineering for his motivation and invaluable support well through the development of this project.

We are highly indebted to our internal guide **Dr. K N RAMA MOHAN BABU,** Associate Professor, Department of Information Science & Engineering, Dayananda Sagar College of Engineering for his constant support and guidance. He has been a great source of inspiration throughout the course of this project.

Finally, we gratefully acknowledge the support of our families during the completion of the project.

**Manjunath P** **1DS09IS041**

**Nitilaksha S Halakatti** **1DS09IS053**

**Rushabh B P** **1DS09IS073**

**SanthoshBharadwaj K R** **1DS09IS076**

# ABSTRACT

In modern day world, time has become a precious resource. Therefore, different strategies and techniques are constantly being employed in all fields of life to save every bit of time. Increasingly many of such applications involve wireless Ad-hoc networks. A highly potential system that can be made significantly more efficient using Wireless Ad-hoc networks is an elevator system. There have been numerous attempts to improve the serving efficiency of the elevator system over the course of time. This project proposes to utilize the elevator system effectively so that more number of people can be served in a lesser time. To achieve this goal, we implement the elevator system based on a wireless ad-hoc network. of intelligent floors which can communicate with each other in a multi-hop fashion. In this way, every floor is aware of the traffic conditions, i.e., the number of upward/downward requesting-passengers, waiting at every other floor and make efficient decisions of where to direct/stop the elevator. To design the GUI we have used NetBeans IDE. NetBeans IDE provides first-class comprehensive support for the newest Java technologies and latest Java enhancements before other IDEs. With its constantly improving Java Editor, many rich features and an extensive range of tools, templates and samples, NetBeans IDE sets the standard for developing with cutting edge technologies out of the box.

# CONTENTS

# List of Diagrams