VISVESVARAYA TECHNOLOGICAL UNIVERSITY,
BELGAUM.

B.L.D.E. Association's

VACHANA PITAMAHA Dr P.G.HALAKATTI COLLEGE OF ENGINEERING & TECHNOLOGY,
BIJAPUR – 586 103.

DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

(Accredited by NBA, New Delhi)

A PROJECT REPORT ON

"SMART AGV FOR MOTION IMAGE TRACKING"

BACHELOR OF ENGINEERING
VIII Semester (2008-2009)

Under the Guidance of

Prof. U. D. DIXIT

:Submitted by:

AASHA SAJJAN	2BL05EC002
ANUSHA BANNUR	2BL05EC008
DEEPA PAMPANNAVAR	2BL05EC015
JAYASHREE KAMAGOND	2BL05EC021

2008-09

1. INTRODUCTION

The aim of this project is to design and develop of a model of Robot which can be helpful to show a demo version of Soldier. Observations show that armies will be using Robots for the war in the future. The Robot system discussed here can be used for spying. Here the Robot can be controlled wirelessly. The user can control the Robot Axis like forward, Reverse, left turn Right turn camera control wirelessly with the help of wireless Remote. The project employs a wireless camera which captures the live video of the Real Application and transmits the Image wirelessly. At the receiving end the image can be viewed on a Monitor and also The police can keep track the gangster movements by seeing their video which is displayed on the monitor. The monitor can be placed in Police Car so that they can control the device from a particular distance and keep track of their movements so that if the police came to know where they are, they can easily catch and attack on them.

Now a days gangsters will make a way to rescue from the police as soon as they get information that police is going to attack on them. After their rescue of the gangsters police will come to the place and which is of no use. These types of incidents are regularly happening in daily life. If the system continues like this means gangsters will increase in the city and nobody can avoid. And also we can see many terrorists keeping bombs in public places. This crime is also increasing day by day. To overcome this we have designed a project in such a way that it will help in tracing the movements of gangsters and we can find the place where bomb is located.

Working principle:

The main modules of this project is microcontroller, RF decoder, RF encoder, wireless camera, computer, motor, three wheeled vehicle etc The RF data receiver is standard 433 MHz receiver and it can support 4 bit data type. The decoder chip used is 12D which has totally 12 address bits and 4 bit data, these 4 bit combinations is used to control the movement of car.

Ex: 0001 - Forward

0010 - Reverse

0011 - Left

0100 – Right

In the computer side user can control the car by pressing the arrow keys, the software will convert each key press into commands to control the car and is given to microcontroller, and the microcontroller will send these data into RF encoder & RF transmitter. Mean while the video signals send by the camera is captured by the PC using TV tuner card.

In the vehicle the RF receiver will receive the signals and decode it as commands using decoder chips, this decoded value is read by the microcontroller and will control the movement of car. Watching the video we can control the movements of the car.