



Visvesvaraya Technological University
Belgaum

A
Project report
on

***“MULTI-PURPOSE WHEEL CHAIR FOR HIGHLY
PHYSICALLY DISABLED PEOPLE”***

Submitted in the partial fulfillment of the requirements for the award of Bachelor's degree in
Instrumentation Technology

Project Associates

Mr. Sharanabasappa. G	3PG06IT006
Ms. Shruthi. A	3PG06IT009
Ms. Zakira begum	3PG06IT013

Under the guidance of
Smt.Sandhya Dass

M.Tech., (Ph.D)

Department of Instrumentation Technology



Bellary V.V. Sangha's

PROUDADEVARAYA INSTITUTE OF TECHNOLOGY

T.B.DAM – 583225, HOSPET, KARNATAKA
2010

Chapter1

1. Introduction

In the history of technology few inventions such as microcontrollers became revolutionary ever since they have invented. With the exponential increase in computing power and shrinkage of size and price, microcontroller is finding its way into every aspect of human life. It is used as examples in a wide spectrum of applications such as dc motor control, robotics and bio control systems. However speech recognition has a key role in many application fields.

In our project we have introduce a new wheel chair for a highly physically disabled people means who lost their legs. hands. eyes, and also deaf and dumb. These type of people can handle or control the wheel chair successfully and used for going to one place to another.

The application to be integrated in this embedded system is first simulated using keil, then implemented in a RISC architecture microcontroller adapted to a speech recognition development kit.

2. Objective(s) and Scope

The type of artificial aid needed by a disabled person in order to move about depends, to a large extent on the level of his incapacity. For example, in order to guide a wheelchair various situations can be distinguished

- a) If the user is capable of controlling his head or hands the ideal solution is to control it using a keypad.
- b) Where there is a high level of incapacity solutions are basically centred on other means such as voice or eye moments. In this case the presence of safety sensors is justified with the object of assisting the user to guide the chair(detection of obstacles, nearness to certain places, the existence of stairs etc).