

VISVESVARAYA TECHNOLOGICAL UNIVERSITY
BELGAUM-590014



Shrishyla Educational Trust @, Bheemasamudra-577520

G.M.INSTITUTE OF TECHNOLOGY
DAVANGERE-577006, KARNATAKA



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING
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PROJECT REPORT
ON

“EYE BALL SENSED AUTOMATIC ELECTRIC WHEEL
CHAIR FOR PARALYZED PATIENTS”

(Sponsored by Karnataka State Council for Science and Technology)

PROJECT GUIDE

Ms. Indira.R.K.
BE, MISTE

PROJECT CO-GUIDE

Ms.Kalpavi.C.Y.
BE, M.Tech

HEAD OF THE DEPARTMENT

Prof. D. BASAVALINGAPPA
M.Tech, MISTE, FIE

PROJECT ASSOCIATES

1. Shilpa.B.M.
2. Smitha.B.S.
3. Sameera

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4GM05EC102
4GM05EC121

ABSTRACT

An assistive robotic wheel chair system should allow its user to travel more efficiently and with greater ease. While standard electric wheel chairs can be used by people with limited upper body mobility, some tasks such as door opening and moving around corners require fine joy stick control that these users often find difficult. This paper reports initial work in the development of a semiautonomous robotic wheel chair system. The robotic wheel chair system described in this paper, automates many common navigational tasks for the user.

Assistive robotics can improve the quality of life for disable people. Nowadays, there are many help systems to control and guide autonomous mobile robots. In the last years, the applications for developing help systems to people with several disabilities are increased, and therefore the traditional systems are not valid.

In new systems, we can see: VideoOculoGraphy Systems (VOG) or Infrared oculography(IROG) is used to detect the eye position. There are several techniques based in voice recognition for detecting basic commands to control some instructions or robots; the joystick is the most popular technique used to control different applications by people with limited upper body mobility. But it requires fine control that the person may be having difficulty to accomplish. All these techniques can be applied to different people according to their disability degree, using always the technique or techniques more efficiently for each person.