A Project Report on,

"VOICE CONTROLLED WHEEL CHAIR"

(Sponsored By Karnataka State Council for Science and Technology)
Project Proposal Reference No:35S0712

Submitted In Partial Fulfillment of The Regirements For The Award of Degree of Bachelor of Engineering in Electrical & Electronics Engineering

Submitted by,

ARATI MANJREKAR
(2VD07EE007)
RENUKA CHAVAN
(2VD08EE034)
PRAMILA VASANT KUSUGAL
(2VD08EE028)
POORNIMA KALAL
(2VD08EE026)

Under the guidance of,

Prof. UTTAM SATPUTE

Prof. NAMITA KULKARNI

Department of Electrical & Electronics Engineering

KARNATAK LAW SOCIETY'S
Vishwanathrao Deshpande Rural Institute of Technology,
Haliyal 581 329
(Affiliated to Visvesvaraya Technological University, Belgaum)
(APPROVED BY AICTE NEW DELHI)
2011-2012

ABSTRACT

This project describes the significant design to build a voice-controlled wheelchair. This project is intended to increase the ease of mobility for disabled/injured people. The design would allow these people to live more independently. Presently, people use blow-tubes or chin-joysticks to control motorized wheelchairs. Speech recognition is a prominent technology which can give an alternative to people to interact with machines or devices especially to those who are quadriplegics. This is a voice controlled wheelchair designed to help quadriplegic people to move around. Since they have no arm or leg movement, the voice control enables their movement with the wheelchair without external help. We have resolved the disabled problems by implementing voice control interfacing, over a microphone, for the wheelchair.

This project consists of microphone as input, voice recognition kit, micro controller and DC motors as actuators. The manual wheelchair has been modified so that it can be actuated by two DC motors. The motions of the wheelchair are then controlled by the verbal instructions of the user. The results show that the design is applicable and feasible. The speech processing can be done in real-time and is therefore deemed a viable alternative to present methods of motorized wheelchair control. The design and the analysis of the project are presented in this report.