

ABSTRACT

Development of the Voice Operated Intelligent Wheel-Chair (VOIC) is the objective of our project. The main idea of the VOIC system is speech recognition with a strong need for verbal commands in a case of wheelchair operating. The most important parameter of such verbal commanded wheelchair is safety of the users such as quadriplegics, people paralyzed from neck downward and for people that do not control their movements.

Strong need for the voice recognized operation is from the fact that, a survey of clinicians found that 9 to 10 % of patients who receive Wheel-Chair training “find it extremely difficult or impossible to use the wheelchair for activities of daily living”. A voice controlled wheelchair that understands high level commands can increase the mobility options for such people. Such a chair will be used constantly by the user, so there exists an opportunity for it to benefit by establishing a relationship with its user.

VOIC is designed to provide independent mobility for physically disabled person, also keyboard is provided as an alternative input.