

DRIVING SYSTEM FOR DISABLED

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ABSTRACT

The need to help the persons with disabilities has led to the development of assistive technology. In this paper, a technology is presented with the use of which a person with disability can control his or her surroundings effectively. They can move their wheelchair; operate electronic appliances, computer as well as phones. Persons who have different degrees of disabilities can operate their surroundings in different manners. The people who are having a minimal amount of upper limb movement only and no lower limb movement can control the system using a magnet on their tongue. Whereas those people who cannot move their lower limb but have access over their upper body can control their vehicle using their hands. The tongue can be used in the project because there is a degree of freedom with the tongue and moreover it is connected to the brain by the hypoglossal nerve, which generally escapes severe damage even in high level spinal cord injuries. Non-invasive access to the tongue is readily available. The paper additionally presents the practical use of encoder–decoder module and the LMX Bluetooth module for transferring data as a wireless transmission. The results show that the system is efficient and highly practical.

KEYWORDS: Assistive Technology, LMX Bluetooth Module, Magnetic Tracer Tongue, Wireless Transmission