



## SMARTPHONES FOR VISUALLY CHALLENGED: ANALYSIS AND POSSIBILITIES

Dushyant Singh  
Computer Engineering And Application  
National Institute Of Technical Teachers' Training  
and Research  
Bhopal (MP), India  
[dushy.illuminati@gmail.com](mailto:dushy.illuminati@gmail.com)

Dr Sanjay Agrawal (Dean)  
Computer Engineering And Application  
National Institute Of Technical Teachers' Training  
And Research  
Bhopal (MP), India  
[sagrawal@nitttrbpl.ac.in](mailto:sagrawal@nitttrbpl.ac.in)

### ABSTRACT

The Smartphone era has evolved tremendously and given the access to information services that could only be dreamt of a decade ago. The aim is to bring the same level of lifestyle improvements to the visually impaired and blinds community enhancing the ways for them to gain access to highly advanced features on a Smartphone with just their touch and sound. All this packed within a single, affordable Smartphone device has been faced as a major challenge in the field of technology. The first problem in applying the potential of the computers to severely physically handicapped individuals involves providing an interface which they can control efficiently. There are basically three approaches that have been used to allow them some measure of control: encoding techniques, scanning techniques, and techniques employing a direct selection such as a keyboard. The encoding systems utilize one or more switches which the person operates in a repetitive fashion to encode his output. The Morse code, for example, might be used in such an encoding system. This approach works best with people who have small but quick and well controlled movements such as might be found in the breath control of a para- or quadriplegic.



© IJRPS International Journal for Research Publication & Seminar

**Keywords:** information services, visually impaired, Morse code, encoding, para- or quadriplegic.

### INTRODUCTION

Mobile phones play a significant role in our lives. While owning a mobile phone was once considered as a luxury, but these days mobile phones have taken a critical place in our lives and has become a necessity for majority of the people [1]. In this regard, Pew study [2] found that over 75% of the adults living in USA owns a mobile phone and in addition, majority of the people among them were of view that it is nearly impossible to give up and stop using their cell

**Note :** For Complete paper/article please contact us [info@jrps.in](mailto:info@jrps.in)

Please don't forget to mention reference number , volume number, issue number, name of the authors and title of the paper