

Assistive Navigation System for Visually Impaired and Blind People: A Review

Noopur Tyagi
Department of Computer Applications
Chitkara University Institute of
Engineering and Technology,
Chitkara University
Punjab, India
noopur.tyagi@chitkara.edu.in

2nd Deepika Sharma
Department of Computer Applications
Chitkara University Institute of
Engineering and Technology,
Chitkara University
Punjab, India
deepika.sharma@chitkara.edu.in

3rd Jaiteg Singh
Department of Computer
Chitkara University Institute of
Engineering and Technology,
Chitkara University
Punjab, India
Jaiteg.singh@chitkara.edu.in

Shisham Sharma
Department of Computer Science and Engineering
Department,
University School of
Engineering and Technology,
Chitkara University
Himachal Pradesh, India
shisham.sharma@chitkarauniversity.edu.in

5th Sushil Narang
Computer Science and Engineering
Department,
Chitkara University School of
Engineering and Technology,
Chitkara University
Himachal Pradesh, India
sushilk.narang@chitkara.edu.in

The emergence of modern technologies in healthcare, the Internet of Things, Wireless Sensor Network, etc. has ameliorated the cognitive abilities of people. Increased accessibility of healthcare data and the growth of advanced analytics can be attributed to the amalgamation of these technologies. These technologies have adaptive and self-correcting capabilities to increase accuracy depending on the information. Assistive technologies enable independence and attainment of quality of life for visually impaired people. With the support of navigation tools, assistive technologies aid the people's ability to move across inside as well as the outside. The major concern of a visually challenged and

Assistive devices play a vital role in an unknown environment for visually impaired or blind persons to navigate. It facilitates the movement from one location to another. In recent times, they have used the guidance of dogs (specialized human guides) hand in hand with sighted guides to navigate in indoor and outdoor environments. Various research works are being done in the navigation of visually impaired people but only some are in the continuation. Some research may appear to be good in principle, but it is not practical for the user. The acceptance of such devices is low. Other factors like the range of the device, power consumption, cost, etc.