

SAPTHAGIRI COLLEGE OF ENGINEERING


14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru - 560057.


Department of Computer Science and Engineering




Certificate

Certified that the Project Work entitled **"TALKATIVE ASSISTANCE SYSTEM FOR VISUALLY IMPAIRED PEOPLE"** carried out by Priyanka Kumari(1SG14CS083), Saya Chatterjee(1SG14CS102), Shradha Kannan(1SG14CS104), Stuti Singh(1SG14CS113), bonafide students of Sapthagiri College of Engineering, in partial fulfillment for the award of Bachelor Engineering in Computer Science and Engineering of Visvesvaraya Technological University Belagavi during the academic year 2017-2018. It is certified that all corrections/suggestions indicated in Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of Project Work (10CS) prescribed for the said degree.


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ABSTRACT

The development of electronic sensing devices for the visually impaired requires knowledge of the needs and abilities of this class of people. In this project we present a rough analysis that can be used to properly define the criteria to be adopted for the design of such devices. In particular, attention will be focused on clear-path indicators, highlighting their role in orientation and mobility tasks. A new device belonging to this class is presented. The system can immediately warn users of the obstacles ahead. The detector is based on a multi-sensor strategy and adopts smart signal processing to provide the user with suitable information about the position of objects hindering his or her path. Compared to traditional guiding systems that are only applicable under specific circumstances, the usage of our system is unlimited as it provides more information in addition to being applicable to different environments. Thus, specific areas and special conditions are not necessary. Users in unfamiliar areas can instantly know the situation in front of them through the application developed in this study. Thus, visually impaired people can quickly become acquainted with their surrounding environment, and be prepared to react to any circumstance occurring at any time. Actual tests and experiments verified that the obstacle recognition function and user interface meet user requirements.