ENVISION - A MOBILE BANKING APPLICATION PROTOTYPE FOR THE VISUALLY IMPAIRED, ELDERLY AND ILLITERATE PEOPLE

A PROJECT REPORT

Submitted by

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In partial fulfilment for the award of the degree

Of

BACHELOR OF ENGINEERING

IN

COMPUTER SCIENCE AND ENGINEERING

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
UNIVERSITY COLLEGE OF ENGINEERING,
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BONAFIDE CERTIFICATE

Certified that this project report titled "**ENVISION - A MOBILE BANKING APPLICATION PROTOTYPE FOR THE VISUALLY IMPAIRED, ELDERLY AND ILLITERATE PEOPLE**" is a bona fide work of V. KETHARESWARAN (810015104038) and A. MANIKANDAN (810015104044), who carried out the work under my supervision, for the partial fulfilment of the requirements for the award of the degree of Bachelor of Engineering in Computer Science & Engineering. Certified further that to the best of my knowledge and belief, the work reported herein does not form part of any other thesis or dissertation on the basis of which a degree or an award was conferred on an earlier occasion.

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DECLARATION

We hereby declare that the work entitled **"ENVISION - A MOBILE BANKING APPLICATION PROTOTYPE FOR THE VISUALLY IMPAIRED, ELDERLY AND ILLITERATE PEOPLE"** is submitted in partial fulfilment of the requirements for the award of **BACHELOR OF ENGINEERING** in **COMPUTER SCIENCE AND ENGINEERING** at University College of Engineering, Bharathidasan Institute of Technology Campus, Anna University, Tiruchirappalli. It is the record of our own work carried out by us during the academic year 2018-2019 under the supervision and guidance of **Dr. I. Shahanaz Begum**, Assistant Professor, Department of Computer Science and Engineering / Information Technology, University College of Engineering, Bharathidasan Institute of Technology Campus, Anna University, Tiruchirappalli. The extent and source of information are derived from the existing literature and have been indicated through the dissertation at the appropriate places. The matter embodied in this work is original and has not been submitted for the award of any other degree, either in this or any other university.

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ABSTRACT

ENVISION is a mobile banking application prototype for the visually impaired, elderly and illiterate people. Currently, there are almost no features on mobile banking apps to assist the Visually Impaired especially people with 100% blindness. As of now, features like screen readers and tap-based readers are available but these are error prone and haven't really been optimized to save time and effort on the user's part. This time consumption and error-filled process isn't really suitable for banking operations, due to the time involved as well as the lack of security in simply reading out the options. Unlike the above, ENVISION is built from ground up with the requirements of the visually impaired in mind. In this app, standard keyboard-based input and touchscreen-based inputs have been replaced by voice assisted screen navigation and simple gestures. These user-friendly features make it viable for elderly people to carry out banking operations via ENVISION. Also, we concentrate upon huge sect of illiterate population by making certain provisions such as regional language support for encouraging their use towards this Prototype. The implementation of this app as a proper banking solution, albeit with bank specific changes and more features, cannot come any sooner. The application has opened us the trajectory to innovations in the banking and financial sector.

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