



Department of Electrical and Computer Engineering

NORTH SOUTH UNIVERSITY

Senior Design Project

AI Dekho

(Smart spectacle for visually challenged people)

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**Faculty Advisor:
DR. ATIQUR RAHMAN
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APPROVAL

Shajeda Parvin (ID # 1931313042) and Md Shadman Zarif (ID # 1931796042) from Electrical and Computer Engineering Department of North South University, have worked on the Senior Design Project titled "AI Dekho (Smart spectacle for visually challenged people)" under the supervision of Dr. Atiqur Rahman in partial fulfillment of the requirement for the degree of Bachelors of Science in Computer Science and Engineering and has been accepted as satisfactory.

Supervisor's Signature

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Dr. Atiqur Rahman
Associate Professor

Department of Electrical and Computer Engineering
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Chairman's Signature

.....

Dr. Rajesh Palit
Professor

Department of Electrical and Computer Engineering
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DECLARATION

This is to declare that this project is our original work. No part of this work has been submitted elsewhere partially or fully for the award of any other degree or diploma. All project related information will remain confidential and shall not be disclosed without the formal consent of the project supervisor. Relevant previous works presented in this report have been properly acknowledged and cited. The plagiarism policy, as stated by the supervisor, has been maintained.

Students' names & Signatures

1. Shajeda Parvin

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2. Md Shadman Zarif

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Abstract

AI Dekho

(Smart spectacle for visually challenged people)

Our study addresses the hardships experienced by individuals lacking good vision. The current technology that helps the visually impaired people is quite expensive and does not work well for recognizing people's faces and objects around them. The paper introduces a new idea of glasses that can help visually impaired people. As the wearable market expands, the primary aim is to enhance people's lives through the use of wearable technology. The primary goal of this project is to provide assistance to visually impaired individuals through the utilization of glasses equipped with a distinctive camera. The camera helps them to identify people and objects, which is important for their daily lives. A collection of pictures showing regular people is put together to help with identifying them. This method uses cameras to help people who can't see well. The main goal is to make special glasses that can recognize faces and objects in real-time using library called OpenCV. The system has two parts, one that faces the user and one that connects to a computer. The findings indicate its ability to identify individuals and surroundings, although concerns remain regarding its speed and data transmission methodologies. It aims to redevelop the wearable with more features and cloud computing technologies.