# TUS

# iDentity- Biometric Face Recognition Time Management System

## Introduction

This final year project proposes a web-based time management and user identification system that uses facial recognition technology to improve time tracking and enhance security in various settings. By capturing an image of the user's face and comparing it to a registered image in the system's database, the system provides accurate time tracking data and eliminates the need for traditional methods like punch cards or keycards.

This project presents an opportunity to develop skills in biometric technology, web development, and project management. It requires a thorough understanding of facial recognition technology and the ability to design and implement a web-based system.

## Objectives

The proposed system will use a camera to capture an image of the user's face and compare it to a registered image in the system's database to verify the user's identity.
Upon successful verification, the system will grant access and log the user's entry and exit times, providing accurate time tracking data. The system can be implemented in various settings such as businesses, educational institutions, and healthcare facilities to enhance security and manage employee time more efficiently.

The project's objective is to provide a reliable and user-friendly solution that simplifies the time tracking process, reduces human error, and increases workplace efficiency. The article will outline the necessary steps to set up the system, including hardware and software requirements, installation procedures, and customisation options. Ultimately, the system's implementation will improve workplace safety, accessibility, and compliance.

## Testing

During the testing process, unit testing was utilized to isolate and test individual components of the code for this application. This approach allowed for the verification of the application's functionality in isolation, making it easier to identify and address any issues that arose.

Throughout the testing phase, the OpenCV face recognition algorithm was extensively tested to ensure that it correctly identified registered users and rejected unauthorized access attempts. The time logging feature was also thoroughly tested to ensure that it accurately recorded user entry and exit times.

## Methodology

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## Conclusion

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## Technologies used