



**ATTENDANCE SYSTEM WITH FACIAL RECOGNITION USING
MTCNN AND FACENET IN A CLASSROOM**

By

Samuel

001201900005

A Final Project
Submitted to the Faculty of Computing
President University
in Partial Fulfillment of the Requirements
for the Degree of Bachelor of Science
in Information Technology

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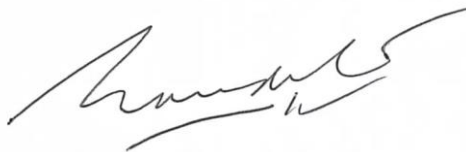
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ABSTRACT

Attendance fraud has been a widespread issue in the attendance system. At the same time, attendance marking is essential for session performance evaluation. An attendance system is usually applied in a classroom. The traditional attendance system using paper and pen is susceptible to attendance fraud and human error. Several technologies have already been introduced to overcome the traditional attendance system issues. However, some issues are still there. Therefore, a facial recognition attendance system will give a better attendance system and reduce the drawback's possibilities.

The facial recognition attendance system introduced implements several techniques. MTCNN to localize faces in an image or video frame, FaceNet to extract face features into 128-dimension face embedding, and Support Vector Machine as a classifier to the face embeddings. A web application for an attendance information system is provided for lecturers and students. Students can check their attendance status. The lecturer can load the live video of the class session and check their class attendance report. By implementing this, attendance fraud, such as marking unattended students, possibility is decreased and increases the quality and trust of the attendance data.

DEDICATION

I would like to dedicate this final project to myself for keeping up the energy to chase my dreams, my parents and brother for always supporting all of my decisions, friends and everyone that bear with me throughout my university life. I hope every knowledge and experience that I have gained can be helpful and bring positive changes for everyone with technology.

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