CHAPTER 1
INTRODUCTION

1.1. Background

Attendance is a crucial task that usually wastes a lot of time and very vulnerable to being cheated if done manually. Many automatic methods, such as fingerprint biometric attendance also available for this purpose. But , as we know this methods waste time as well because we must form a line to place our thumb on scanning device. Face recognition method are the disadvantages less biometric because its had a lot advantages such as fast and secure.

An attendance using facial recognition can be implemented by using a digital camera or webcam as a face scanning media, then compared with the image previous faces that have been stored in the database. Computers can recognize and identify an image face based on facial image extraction that has been entered in database folder using an Algorithm called OpenFace.

Our attendance system with facial recognition can prevent fraud in attendance such as off-site attendance or what the Indonesians said as "Titip Absen" . Our system automatically detect fraud if employee or students make a "Titip Absen" so they can't make an attendance.

1.2. Problem Formulation

1. How fast is the algorithm in doing authentication for attendance ?
2. How is the accuracy of using Openface ?
3. How reliable is face authentication as a method of taking attendance?
4. How efficient are face authentication methods in preventing attendance fraud ?
5. How efficient of using an Attendance Web-Apps ?

1.3. Scope

The limitation of the scope of this research is to make a basic absentee web-app feature that is equipped with a face authentication system to replace the manual attendance system which still uses signatures.

1.4. Objective

Changing the manual attendance system to one that uses Facial Recognition to prevent employee fraud.