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FINAL YEAR PROJECT 2 (EEE368)

REPORT

**ATTENDANCE SYSTEM USING
FINGERPRINT SENSOR**

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ABSTRACT

A fingerprint scanner is a biometric security tool that identifies people by recognizing and authenticating their fingerprints. Thermal sensors and optical sensors are the two different categories of scanners. This project is created to reduce the amount of time spent on learning activities and to allow students to work uninterrupted. An Arduino microcontroller that outputs to an LCD display and a serial monitor will control the fingerprint scanning procedure. The issue that has encountered while working on this project was that proteus does not include a biometric sensor, so user had to create my own block module. Because it is a foolproof method for documenting students' attendance without the possibility of deception, many institutions or schools may benefit from this initiative. **Keywords—fingerprint sensor, attendance system**

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CHAPTER 1

INTRODUCTION

The term "attendance" refers to the act of attending lessons on a consistent basis and being a regular student at a learning institution. It is the responsibility of the educational institutions to ensure that each and every student is present. When utilising the manual technique, which is extremely inefficient, it takes significantly more time to compute and record the attendance of each individual student. Therefore, the issue of manually taking attendance is one that has to be remedied by a system. Despite the fact that the shift to the digital era is occurring at a quicker rate than ever before, biometric technologies are already having an ever-present influence on the lives of individuals in their day-to-day activities. In order to verify an individual's identity, biometric technology makes use of a variety of characteristics, including fingerprints, retinal patterns, and facial irises. As a dependable alternative to conventional security measures such as identification cards or passwords, these solutions are gaining popularity as a result of their utilization of physical data. The use of measurement data is a component of the biometric personal authentication process. In the course of a person's life, this sort of knowledge is unique to that individual at that time period. It is of the utmost importance to correctly identify the equipment that should be utilized in both scientific and commercial research. Bluetooth, Near Field Communication (NFC), RFID systems, barcode scanners, and other similar devices are some examples of the type of equipment that fall under this category. However, because of their exorbitant price, their usefulness was severely limited. Keeping this in mind, a biometric facial detection and identification system is developed that does not call for any particular infrastructure to be in place.