UNIVERSITI TEKNOLOGI MARA

RFID SMART ATTENDANCE SYSTEM

MIRA ELYANA BINTI MAHADI

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ABSTRACT

The RFID (Radio Frequency Identification) Smart Attendance System project aims to revolutionize the traditional method of tracking attendance by leveraging Radio Frequency Identification (RFID) technology to streamline the process efficiently and accurately. This innovative system seeks to address the problem of time-consuming manual roll calls and the potential for inaccuracies in attendance records. The objective of this project is to develop a user-friendly, automated attendance management system that minimizes human error and maximizes reliability. Our methodology involves integrating RFID tags with an attendance management software, which records each student or employee's attendance as they enter or exit the premises. This system not only simplifies the attendance tracking process but also provides real-time data analytics for better management. The expected result is a significant reduction in administrative workload, enhanced accuracy of attendance records, and improved overall organizational efficiency.

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CHAPTER ONE
INTRODUCTION

1.1 Background of Study

In general, the concept of attendance involves people, either individually or as a group, appearing at a location for a previously scheduled event. The measurement of attendance is of significant concern for many organizations, as such information can be used to gauge the effectiveness of their efforts and to plan for future endeavours [1].

Attendance has traditionally been done manually, fostering student-teacher relationships but prone to errors and time-consuming. Implementing an Automatic Attendance Management System can eliminate errors and save time, enhancing efficiency. The Internet of Things (IoT) connects physical objects like homes and cars via sensors and software, enabling seamless data exchange. This technology streamlines monitoring and connectivity between systems and devices, enabling autonomous communication without human intervention. However, conventional monitoring methods are slow and labour-intensive, especially for large groups of students. Students may miss signing attendance sheets, leading to inaccuracies in tracking [2].

The primary motivation behind the development of the RFID Smart Attendance System is to streamline the attendance tracking process, making it more efficient and accurate. Traditional attendance systems often rely on manual input, leading to errors and inconsistencies [3]. With RFID technology, the system automatically registers attendance, eliminating the need for manual record-keeping and reducing the likelihood of errors. Additionally, the RFID Smart Attendance System enhances security measures by providing real-time monitoring of attendance data, ensuring greater accountability and reliability in recording attendance information [4]. Overall, this innovative system aims to simplify attendance management while improving accuracy and security.

This project aims to develop RFID Smart Attendance System to simplify the process of collecting class attendance where it can be collected without human intervention during lecture session. This system is designed to be user-friendly and cost-effective. With minimal maintenance requirements, it et ensures affordability and