ATTENDANCE MONITORING AND RECORDS MANAGEMENT SYSTEM FOR PILAR NATIONAL COMPREHENSIVE HIGH SCHOOL USING FACE RECOGNITION

A Project Study Presented to the Faculty of the Master in Information Technology Aemilianum College Inc. Rizal St., Piot, West District, Sorsogon City Sorsogon, Philippines 4700

In Partial Fulfillment of the Requirements for the Degree MASTER IN INFORMATION TECHNOLOGY

LEO HIGUIT GREFALDO, JR.

RECOMMENDATION FOR ORAL DEFENSE

In partial fulfillment of the requirements for the degree of MASTER'S IN INFORMATION TECHNOLOGY, this research project entitled, "ATTENDANCE MONITORING AND RECORDS MANAGEMENT SYSTEM FOR PILAR NATIONAL COMPREHENSIVE HIGH SCHOOL USING FACE RECOGNITION," by LEO HIGUIT GREFALDO, JR., is hereby submitted to the thesis committee for oral examination.

MILAN E. BAUSA, MIT Adviser

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Project Title : **ATTENDANCE MONITORING AND RECORDS**

MANAGEMENT SYSTEM FOR PILAR NATIONAL

COMPREHENSIVE HIGH SCHOOL USING

FACE RECOGNITION

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ACKNOWLEDGEMENT

The successful completion of this capstone project, "Attendance Monitoring and Records Management System for Pilar National Comprehensive High School Using Face Recognition," is the result of the unwavering support, guidance, and encouragement of several individuals and organizations. The researcher would like to extend her sincere gratitude to everyone who contributed to this endeavor.

First and foremost, the researcher expresses **her** heartfelt thanks to the Almighty Lord God, whose grace and guidance provided strength and wisdom throughout this project. Without His blessings, this achievement would not have been possible.

The researcher is deeply grateful to **Aemilianum College Inc.** for the opportunity to undertake this research. Special thanks are due to **Rev. Fr. Rey Genaro M. Malabanan, CRS**, the School Director of Aemilianum College Inc., whose support and leadership created an environment conducive to academic growth and development. The researcher also wishes to thank **her** adviser, **Mr. Milan E. Bausa, MIT**, for his invaluable suggestions and feedback, which were instrumental in refining the project.

Acknowledgment is extended to the panel of examiners—Marco L. Espinosa, MIT, Dr. Sherry Mae R. Llandelar, Dr. Josefina R. Sarmiento, Dr. Lydia D. Doctor,

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and Rev. Fr. Mandee N. Batac, CRS—who provided constructive critiques and

insights during the project defense, helping the researcher strengthen and enhance

her work. The researcher is also immensely grateful to the **administration**, **faculty**,

and staff of PNCHS for their openness to the study and cooperation in facilitating data

collection and system testing, which were essential in tailoring the system to the

school's needs.

Special thanks go to the Registrar, Administrative Staff, and Security

Personnel of PNCHS for their support and contributions to the project's

implementation. The researcher would also like to recognize the faculty and

students who participated in testing the system and provided valuable feedback that

improved its usability and functionality.

Finally, the researcher expresses **her** profound appreciation to **her loved**

ones: Leo G. Grefaldo Sr. and Marilyn H. Grefaldo, her parents; Geselle B. Wong,

her sibling; and **friends**, whose encouragement and assistance with the manuscript

were invaluable. Their unwavering support and belief in **her** capabilities served as a

source of motivation throughout this journey.

Thank you all.

L. H. G. J.

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PROJECT STUDY ABSTRACT

Title : **ATTENDANCE MONITORING AND RECORDS**

MANAGEMENT SYSTEM FOR PILAR NATIONAL

COMPREHENSIVE HIGH SCHOOL USING

FACE RECOGNITION

Number of Pages : 105

Author : Leo Higuit Grefaldo, Jr.

Type of Document : Project Study

Type of Publication: Published

School : Aemilianum College Inc.

Rizal St., Piot, West District, Sorsogon City

Sorsogon, Philippines

Degree Conferred : Master in Information Technology (MIT)

Keywords : Aemilianum College Inc., Attendance Data Management,

Attendance Monitoring, Attendance Tracking, Automated

Attendance System, Automated Record-Keeping, Digital Attendance System, Digital Record System, Education Technology, Face Detection and Recognition, Face Recognition Technology, Facial Recognition Attendance, Facial Recognition System, High School System, Pilar National Comprehensive High School, School Attendance System, Student Monitoring

The Attendance Monitoring and Records Management System for Pilar National Comprehensive High School Using Face Recognition was developed to automate and streamline attendance tracking using facial recognition technology. This system aims to enhance accuracy, efficiency, and security in managing attendance records for students and employees. Utilizing Rapid Application

Development (RAD) methodology, the system was iteratively designed, tested, and refined based on user feedback to ensure its functionality and effectiveness. Key features include a structured database for efficient data management, an intuitive user interface for ease of navigation, and a real-time attendance receiver module integrated with face recognition technology.

Findings from the testing and evaluation of the system confirmed its effectiveness in various aspects. The structured database provided an organized and secure approach to attendance management, improving data accessibility. The intuitive interface facilitated seamless user interaction, enhancing system usability for administrators and employees. Additionally, the attendance receiver module ensured real-time updates, increasing reliability and accuracy in attendance tracking. The incorporation of face scanners/web cameras and internet connectivity further strengthened the system's efficiency and accessibility. The system's overall effectiveness was validated through an ISO 25010 software quality model evaluation, achieving a high rating of 4.4, affirming its compliance with industry standards.

Based on these findings, the study concludes that the system successfully meets its objectives by providing an accurate, reliable, and user-friendly solution for attendance monitoring and record management. The structured database, technological integration, and real-time processing capabilities contribute to its overall functionality and efficiency. Furthermore, the positive evaluation results



confirm that the system is suitable for deployment, demonstrating its capability to improve attendance tracking processes at Pilar National Comprehensive High School.

To further enhance the system, several recommendations are proposed. Regular database maintenance and backup strategies should be implemented to ensure data integrity and security. Additional usability improvements, such as customizable settings and accessibility features, are suggested to accommodate a wider range of users. Continuous monitoring and optimization of the attendance receiver module will help maintain real-time accuracy and performance. Moreover, incorporating offline functionality and backup mechanisms can address potential connectivity issues. Finally, periodic re-evaluation of the system using updated industry standards and user feedback is encouraged to ensure its long-term effectiveness, security, and reliability.

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