AUTOMATED TIME AND ATTENDANCE MONITORING DATABASE USING BAR CODES

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ABSTRACT

Bar code is a common sight in our everyday life. The research tries to explore the properties of bar codes and apply it to improve a particular business transaction. The time and attendance application of bar code is specifically studied and would be applied to the ADDU Non-Teaching Personnel. Punching time cards consumes so much time by adding them up, verifying them and transferring them into a different sheet. The study aims to replace the traditional operations on manual monitoring of their attendance. ID badges will be used instead of traditional timecards virtually eliminating payroll errors and reducing payroll preparation time.

The services of the system created include effective monitoring of attendance, eliminating weekly calculations of time cards, ensuring timely payroll processing, retrieving and compiling job quickly. With the availability of this system, a wider variety of reports can be produced by range of dates, one or all schools, per divisions, or per employee.

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INTRODUCTION

1.1 Background of the Study

There is curiosity surrounding bar code, which intimidates many people. Bar codes can be seen all over and can be used in every business around the world. Virtually every type of industry is using bar codes to replace keyboard data entry.

Bar coding is the most common ID technology providing timely, error-free information that can be used to accurately verify routine business transactions and increase productivity. It is through this commonality, which attracted the group to conduct research that would help us further understand the growing popularity of bar codes and its associated technology. This study examines the suitability of Bar codes in replacing the traditional operation on manual time and attendance tracking of personnel.

The system is expected to be user-friendly, and realize its goal of maintaining an accurate and efficient track of an employee's time in and time out, and generating various reports concerning the performance of each employee, division or school.

1.2 Statement of the Problem

The main problem of this research is focused on how to develop an automated time and attendance monitoring database using bar codes.

The specific problems to be addressed are:

1. What are the business processes involved in monitoring the time and attendance of the ADDU Non-Teaching personnel?
2. What are the factors to be considered in developing an automated time and attendance monitoring database?
3. How database is structured?

1.3 Objectives of the Study

The study aims to use bar codes in developing an automated time and attendance monitoring database of the Ateneo de Davao University (ADDU) Non-Teaching personnel.

The specific objectives to be addressed are the following:

1. To know the business processes involved in monitoring the time and attendance of the ADDU Non-Teaching personnel
2. To determine the components to be considered in developing an automated time and attendance monitoring database

1.4 Significance Of the Study:

Developing an automated Time and Attendance Monitoring Database gives the following advantages:

For The ADDU Non-Teaching Personnel:

- They can have faster access to information related to their attendance status

For School Administrators:

- Better accuracy since manual data errors are eliminated
- Less manual works since manpower is no longer wasted on preparation, distribution, collection and summation of time cards
- Better Decision-making – This is an end result of having better information being readily available. A wide variety of reports can be produced by range of dates, one or all divisions, or per employee.
- Time and Attendance information can be recalled for immediate reporting or gathered into meaningful formats and used for long term planning.

For the School:

- Reduced Revenue Losses Resulting from Data Collection Errors – Significant error on counting the number of hours personnel has worked is avoided.

1.5 Scope And Limitations of the Study

The system to be developed will cover the Non-Teaching Personnel of Ateneo de Davao University. The development focuses on the Time and Attendance Tracking process of the school.

Necessary information will be generated by the system like the daily attendance reporting of each employee, each division, each school and comparing them statistically.

A single PC with a single handheld bar code reader to process data would be used. The Code 39 BarCode Format will be applied and the coding process will make use of Visual Basic 6.0 as the programming language.

The proponents also consider the accuracy, security, and performance of the system.