

## ABSTRACT

Lepanto Ceramics Inc., a manufacturer of ceramic floor and wall tiles located at Calamba, Laguna, do not have an automated payroll system. They compute salaries by manually encoding records using Microsoft Excel. Problems were encountered such as dishonesty in time keeping of the employees and difficulty in computing the company's payroll. The company also encountered problems in managing employee records such as finding or updating records.

With these problems, the proponents developed a Network-Based Payroll System with Biometrics Technology specifically designed for Lepanto Ceramics Inc. The purposes of the system are for easier generation of the company's payroll and for easier management of employee records.

The proponents observed and interviewed employees to gain information. The proponents used the V Model, a variation of the waterfall model, in developing the system. The proponents also used the Data Flow Diagram to map the company's processes and to understand and analyze the different activities and processes in the company. The proponents used an Entity-Relationship diagram to illustrate the relationships between different entities in the company.

Microsoft Visual C# .NET, an object-oriented computer programming language, and Microsoft SQL Server, a relational model database server, were used in developing the system. The system used fingerprint recognition, which is the automated method of verifying a match between two human fingerprints. It automated the computation of employees' attendance based on their records through

their log-in and log-out time. It also minimized miscalculations and prevented forgery and tampered data. The system has maintenance function to easily edit and update records. The system also features a back-up and recovery function to have a copy and be able to recover important files. The system generates reports such as pay slips, payroll summary, bank, and remittances reports using Crystal Reports.

The proponents conclude that the automation of payroll process is necessary for Lepanto Ceramics Inc. due to the many loads their payroll process consists. The proponents also recommend the continuous implementation of the proposed system.

