

ABSTRACT

Title: Development of an Automated Payment Queuing System

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The Automated Payment Queuing System is an electronic device consisting of a keypad, LCD, printer and an auxiliary digital display that is interfaced with a computer to validate the entry if the student number entered is of someone of the students enrolled in the university. For a payer to start his transaction, he must use the keypad, where he will key-in his student number. Each keypad press corresponds to a distinct binary code which will be interpreted by the computer.

The system is composed of a Microcontroller Unit that contains programs specifically designed for the control and processes of the system. The

microcontroller, PIC16f84A, will perform the transmission of data to the RS232 port of the CPU. An LCD operated by PIC16f877 will serve as an output for the visualization of key presses.

If the student number is valid, he is queued to the counter with the shortest line. Aside from the approximate time of transaction that is printed in the stub, an additional guide through a digital display will show the number of the customer currently being served.

Visual Basic is used as the software that will control the operation of the system.

Tests were made to check the hardware's functionality.

