SMART ALARM

Thesis is presented in partial fulfillment for the award of the
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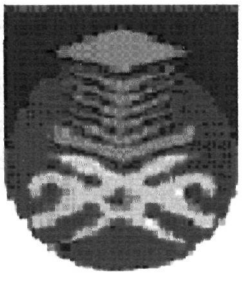

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ABSTRACT

This project paper describes the hardware and the software development of smart alarm for boarding school using Peripheral Interface Controller (PIC). The equipment is designed to remind the students and teachers about the school routine in the academic calendar year.

Three alarm sectors are set in the boarding school. The sectors are academic building which operates during academic period, the girls hostel and the boys hostel which operate during the non-academic period including weekend. Separate sectors for academic, boys and girls are required so the minimal disturbance to other sectors is achieved.

The system allows automatic setting up to alarm or siren in the appropriate sectors according pre planning list table. It also provide for alarm sounding in all sectors during emergencies.

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CHAPTER 1

INTRODUCTION

1.1 Introduction

This Smart Alarm project is for Boarding School, which normally has academic blocks, boy's and girl's hostel sectors and other auxiliary areas. There are three (3) alarms designated in this project. The first alarm is for the academic blocks operating during academic period. The second alarm sector is for the boy's hostel and the other one is for girl's hostel normally operated during non-academic period and weekends. Separate alarms fur boys and girls are required due to different schedule during weekend.

The Smart Alarm will switch on the alarm at the specified place and time that had been set/program. To make the smart alarm run automatically, the clock calendar will be used as an input. An alarm in a clock calendar had been used to recognize the time and day. It will be setting at 12.00 am and start counting for a day. Then, increase a day until a week. If the last week is even week, so for the next week, it will change to odd week. It will detect which alarm will be switch on based on setting time in Peripheral Interface Controller (PIC).

The reset and an emergency switches can be activated at any time. If the reset switches is pressed, it will start to loop the program from the top of the program. But, if an emergency switches is pressed, the three of the alarm, at the same time will be on. The alarms will be off when the reset switches is pressed.