

INTELLIGENT & DYNAMIC POWER SAVER AND CONTROL SYSTEM FOR AUDITORIUM

Prepared by: Ng Mei Chee

ABSTRACT

A substantial body of experience and a set standards have made 'green' a realistic choice for building projects and so it has for Go Green World. In developing a green future, there is the need of the hour and a necessity for the entire world. One of the methods in contributing to the green development is to reduce the energy consumption and cost by letting application workloads drive power usage only when needed.

The project title proposes is Intelligent & Dynamic Power Saver and Control System for Auditoriums. This project is about building a power saver control system which can automatically switch on and off the electrical appliances in an auditorium that seats a maximum of 20 people as a reference count. This project is built with the usage of a microcontroller PIC16F876A and is implemented as the brain of the project itself. In order to function the system, C language programme using mikroC is written into the PIC as it will receive data from other individual system and generates the output required in this project.

The IR sensor is adapted for outputting a signal towards the microcontroller when there is a count of people. The microcontroller receives the signal from the sensor and correspondingly display the number of people presents in the auditorium in the LCD display. When the auditorium contains a maximum of 20 people which has been set as a reference count, a signal will be sent to the buzzer by the microcontroller and it beeps. Meanwhile when the auditorium is vacant, all electrical equipment will automatically switched off. The design approach is valid with the design implemented thus achieving the aim of the project.