





DEVELOPMENT OF ROOM MANAGEMENT SYSTEM:  
THE TEMPERATURE CONTROL

By  
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**PENGAKUAN DAN PENGESAHAN LAPORAN PENYELIDIKAN SFZ 4399 A/B**

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## DECLARATION

I hereby declare that this project report entitled **Development of Room Management System: The Temperature Control** is the result of my own research except as cited in the references.

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## **DEVELOPMENT OF ROOM MANAGEMENT SYSTEM: THE TEMPERATURE CONTROL**

### **ABSTRACT**

The new PIC16F877 Controller is an ideal solution for use as a standard controller in many applications. In this project, the PIC was introduced to design and develop the temperature control system to improve the quality of life. This temperature control system is able to control the air-conditioning in stable conditions. There are more efficiency with the automatically control and maintain the temperature by using microcontroller PIC. Human can select the desired temperature by just pressing the number on the keypad. On the same time, the microcontroller can control multi devices separately. All of these applications were developed using PCWH C-compiler. C was chosen because it complies with highly efficient machine code; it was particularly well-suited to engineering application. The developed programs were then downloading to this microcontroller. The motor fan was assumed as cooler which is one of the outputs that result from the programming. In addition, the development of room management system can be applied to household, office, school, laboratory, medical centre and so on.

## **PEMBANGUNAN SISTEM PENGURUSAN BILIK: PENGAWALAN SUHU**

### **ABSTRAK**

Pengawal PIC16F877 terkini adalah satu penyelesaian unggul untuk penggunaan seperti satu piawai pengawal dalam banyak aplikasi. Dalam projek ini, PIC telah diperkenalkan untuk mereka dan membangunkan suhu sistem kawalan untuk meningkatkan kualiti hidup. Sistem kawalan suhu ini berupaya menguasai sistem penyaman udara dalam syarat-syarat stabil. Terdapat lebih kecekapan dengan secara automatik mengawal dan mengekalkan suhu dengan menggunakan mikropengawal PIC. Manusia boleh memilih suhu keinginan dengan menekan nombor pada pad kekunci. Pada masa yang sama, mikropengawal boleh mengawal peranti-peranti yang pelbagai secara berasingan. Kesemua aplikasi-aplikasi tersebut sedang dibangunkan menggunakan Penyusun C PCWH. Bahasa C telah dipilih kerana ia mematuhi dengan kod mesin yang kecekapan tinggi; ia adalah terutama sesuai untuk membina aplikasi dalam bidang kejuruteraan. Program-program maju itu adalah kemudian muat turun untuk mikropengawal. Kipas enjin telah diandaikan sebagai pendingin yang merupakan salah satu daripada pengeluaran hasil itu daripada pengaturcaraan. Tambahannya, pembangunan sistem pengurusan bilik boleh digunakan ke atas penyediaan rumah, pejabat, sekolah, makmal, pusat perubatan dan sebagainya.