

DESIGN OF THE BASIC CIRCUIT OF REMOTE  
CONTROL FOR HOME APPLIANCES SYSTEM

GREETIA RUM RAHMOULIYAH

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FAKULTI SAINS DAN TEKNOLOGI  
UNIVERSITI MALAYSIA TERENGGANU

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**DESIGN OF THE BASIC CIRCUIT OF REMOTE CONTROL FOR HOME  
APPLIANCES SYSTEM**

**By**

**GREETHARAN PANITCHILVOM**

**A thesis submitted in partial fulfilment of  
the requirements for the award of the degree of  
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**DEPARTMENT OF PHYSICAL SCIENCES  
FACULTY OF SCIENCE AND TECHNOLOGY  
UNIVERSITI MALAYSIA TERENGGANU**

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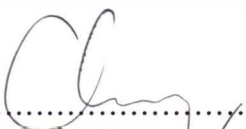
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Adalah ini diakui dan disahkan bahawa laporan penyelidikan bertajuk: Design  
of the basic circuit of remote control for home  
appliances system.

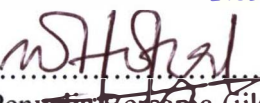
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telah diperiksa dan semua pembetulan yang disarankan telah dilakukan. Laporan ini dikemukakan kepada Jabatan Sains Fizik sebagai memenuhi sebahagian daripada keperluan memperoleh Ijazah Sarjana Muda Sains Gunaan (Fizik Elektronik & Instrumentasi), Fakulti Sains dan Teknologi, UMT.


Disahkan oleh:

  
 .....  
 Penyelia Utama  
 Nama: **DR. CHAN KOK SHENG**  
 Cop Rasmi: **Pensyarah**  
**Jabatan Sains Fizik**  
**Fakulti Sains dan Teknologi**  
**Universiti Malaysia Terengganu**  
**21030 Kuala Terengganu**

Tarikh: 30/4/2009

  
 .....  
 Penyelia Bersama (jika ada)  
 Nama: **WAN HAFIZA BINTI WAN HASSAN**  
 Cop Rasmi: **Pensyarah**  
**Jabatan Sains Fizik**  
**Fakulti Sains dan Teknologi**  
**Universiti Malaysia Terengganu**  
**21030 Kuala Terengganu**


Tarikh: 30/04/09

  
 .....  
 Ketua Jabatan Sains Fizik  
 Nama: **DR. MOHD IKMAR NIZAM BIN MOHAMAD ISA**  
 Cop Rasmi: **Head**  
**Department of Physical Sciences**  
**Faculty of Science and Technology**  
**University Malaysia Terengganu**  
**21030 Kuala Terengganu**

Tarikh: 30/4/09

## DECLARATION

I hereby declare that this thesis entitled design of the home appliances systems by using remote control is the result of my own research expect as cited in the references.

Signature :  .....

Name : Gneetha Parithivaram .....

Matrix No. : U14257 .....

Date : 30/4/09 .....

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## **DESIGN OF THE BASIC CIRCUIT OF HOME APPLIANCES SYSTEM BY USING REMOTE CONTROL**

### **ABSTRACT**

The usage of radio control circuits nowadays is widely used and it develops very fast. The characteristic of the RC circuits cause a lot of consumer creates many type of application for human usage. In this research, a basic circuit of home appliances system with remote control is developed. This will make human work became easy and reduce the time wastage in our daily life. The function of the system is done by using receiver and transmitter circuits. PLC device is used to function the system automatically in some situation. The TX2C and RX2C chips are used in the circuits to communicate. In the end of the study, the home appliances system able to achieve several goals. These are, basic transmitter and receiver circuits able to communicate properly. Signal sent by the transmitter circuit able to detect by receiver circuit. The second objective is to develop the home appliances system to operated in stated condition. The light and the fan able to turn ON and OFF according to the time set. The last objective is to make this system as the security system for the house when nobody in the house. By doing this research, hopefully it will assist to development of high technology in our country.

## **KAJIAN TENTANG REKABENTUK ASAS LITAR BAGI SISTEM PERKAKAS RUMAH DENGAN MENGGUNAKAN ALAT KAWALAN JAUH**

### **ABSTRAK**

Penggunaan litar alat kawalan jauh semakin meluas dan peningkatan prestasi alat kawalan jauh semakin meningkat. Kelebihan litar alat kawalan radio menyebabkan penciptaan benda baru untuk kegunaan manusia. Dalam kajian ini, litar asas untuk alat kawalan jauh perkakas rumah dibangunkan. Kajian ini menjadikan kerja manusia menjadi mudah dan pembaziran masa dapat dikurangkan. Litar penerima dan litar pemancar di rekabentuk dalam system ini. Litar ini dikatakan sebagai litar kawalan radio. Litar ini diprogramkan untuk berfungsi secara automatik dalam keadaan tertentu. Komponen TX2C dan RX2C digunakan dalam litar ini untuk berkomunikasi antara satu sama lain. Pada akhir kajian ini, sistem perkakas rumah ini dapat memenuhi beberapa objektif. Antaranya ialah, litar penerima dan litar pemancar dapat berkomunikasi antara satu sama lain. Signal yang dipancarkan oleh litar pemancar dapat diterima oleh litar penerima. Kedua ialah, sistem ini dapat berfungsi sendiri dalam keadaan tertentu apabila diprogramkan. Lampu dan kipas mampu berfungsi secara automatik apabila diprogramkan. Objektif terakhir ialah, sistem ini boleh menjadi sistem keselamatan rumah apabila tiada orang dalam rumah. Kajian ini dapat menjadi langkah permulaan kepada teknologi bertahap tinggi dalam Negara kita.