UNIVERSITI TEKNOLOGI MARA
KAMPUS BUKIT MERTAJAM
2002

FINAL REPORT OF DIPLOMA PROJECT

FACULTY OF ELECTRICAL ENGINEERING

DARKNESS CONTROLLED LIGHT SWITCH

NORDI YANTI MOHD ZUKI

NOORAINI SHAARI

ABSTRACT

Darkness control light switch is a circuit that used to ON and OFF the switch automatically depend on the light. Generally, this circuit is used in the streetlight, at the house lamp and also in the light at the garden where it can ON and OFF automatically. Today we known several people are unwilling to work. So according o this time, include the modern technology used, we tried to create this project to make it very easier in a lifetime. This project is an automatically function and is very useful if we connected to the house lamp.

This is because the concept that we used now is wasting time and electricity. So, to make this problem does not happen again in the future, we can apply this project. The consumer can use it at their home. This project is applicable to the consumer who is work in early day and went home late. If we use it, it will make our home save from thieves or any bad people. This is because if the light switch ON automatically it can make that house look like there are someone in the house but truthfully there is no one in there. These project circuits use a basic electronic device such as integrated circuit, light dependent resistance, relay, transistors, diodes and resistor. This circuit need to be connecting to lamp A. C supply to the lighting load is thus connected via the contact of the relay.

The main future of this project is to switch ON and OFF the streetlight automatically without human control. So we can save time and electricity by using the application of this project. As a result, darkness controlled light switch is useful for the future application such as control street light, building light or others equipment.

ACKNOWLEDGEMENT

In the name of ALLAH s.w.t the most gracious and merciful. Thanks to ALLAH s.w.t for giving us opportunity to complete this project 2 paper (KEU 380).

We would like to express our deep sense of gratitude appreciation to our project supervisor Pn. Tuan Shahirah binti Tuan Yaacob for consistent advice and guidance as well as provision of their valuable time, encouragement and patience during the period of completing this project.

We are also want to express our thanks to the entire lecturer that helping us to complete this project. We are also grateful to all staff members of the computer laboratory for their support and technical expertise.

We are very grateful to our advisor and we will never forget everything, especially for her co-operation for us and we appreciate a lot.

Finally, we would like to express our deepest gratitude to our family and friends for their unlimited encouragement. They have all been a constant source of strength and inspiration to us.

Thanks, wassalam.

CONTENTS

CONTENTS	PAGES
❖ ABSTRACT	1
❖ ACKNOWLEDGEMENT	2
❖ CONTENTS	3
❖ OBJECTIVES	4
❖ LIST OF COMPONENT	5
❖ FUNCTION OF COMPONENT	6
❖ BUDGET	8
❖ CIRCUIT DESCRIPTION	9
❖ SIMULATION	12
❖ DISCUSSION	15
❖ CONCLUSION	16
❖ WORK PROCESS	17
❖ REFERENCE	18
❖ APPENDIX	19

OBJECTIVES

This project KEU 280 is one of the subjects to complete our diploma. This project is wanted to make us to be familiar with the electronic circuit. It teaches students to analysis the circuit and makes the student understand and know about the circuit.

The main objective of this "Darkness Controlled Light Switch" is for the safety of us. It is because this circuit will make the lamp will switch OFF and ON automatically. So that, if we are not at home we can switch this device to make the lamp will be switch ON automatically. It also can be apply to company for the safety of their company.

This circuit also can be applying to streetlight. It is because it will make the lamp to switch ON and OFF automatically. It do not need human to make it operate. It will operate by itself.

In this project we also have to learn how to make the circuit. We have to make it operate or run it. In doing this we have to apply what we have learned before. So we have achieved the main objectives of this project.