UNIVERSITI TEKNOLOGI MARA KAMPUS BUKIT MERTAJAM APRIL 2000

FINAL REPORT OF DIPLOMA PROJECT

FACULTY OF ELECTRICAL ENGINEERING



DIGITAL SWITCHING SYSTEM

KAMARUNIZAM HASHIM

WAN MOHD. FAIZUL ISMAIL

ABSTRACT

The main features of this project are actually based on the needs of some peoples nowadays to figure out obstacles in daily life. This project offers the use of only three push-to-on switches to control any one out of 16 device.

Digital Switching System used simple electronic devices such as integrated circuit, relay, transistor, resistor and etc. the function of the circuit will be explained detail in this project. This circuit needs to connect to load, which can be any electric devices such as lamp, radio, rice cooker and etc.

The circuit comprises three switches that are used to switch on the electrical equipment in up, down sequence and reset mode.

TANIZA BINTI TAJUDDIN





ACKNOWLEDGEMENTS

In the name of ALLAH s.w.t the most gracious and merciful. Syukur Alhamdulillah, thank to ALLAH s.w.t that give us the energy and the strength also the oppurnity to complete this final year project,

"DIGITAL SWITCHING SYSTEM" on the given time although we have some problem to complete it of successfully.

We would like to express our deep sense of gratitude, appreciation and million thanks to our project supervisor, Miss Taniza Bt. Tajuddin for his consistent advise, sharing in valuable knowledge and guidance as well as provision of their valuable time, encouragement and patience during the period of completing this project. We would also like to express our greatest grateful to our coordinator Department of Electrical Engineering, Puan Nooritawati Bt. Md Tahir for his sincere help and advises.

Thank also to my project partner for his cooperation and good teamwork. We are very grateful to our supervisor and we will never forget everything especially his cooperation for us and we appreciate it a lot.

Lastly, very special thanks to our classmate, housemate and all our friends who has help directly or indirectly in making this final year thesis project an interesting and valuable experience. They have all been a constant source of strength and inspiration to us.

Kamarunizam Hashim.

Dip. In Electrical Engineering (Electronic)

Faculty of Electrical Engineering

Mara University Of Technology.

Wan Mohd. Faizul Ismail

Dip. In Electrical Engineering (Electronic)
Faculty of Electrical Engineering

Mara University Of Technology.

CONTENTS	PAGES
ABSTRACT	1
ACKNOWLEDGEMENTS	II
CONTENTS	III
INTRODUCTION	1
1.0 LIST OF COMPONENTS	2
2.0 SYSTEM DESIGN CONSIDERATION	3
2.1 Resistor	. 4
2.2 Relay	7
2.3 Light Emitting Diode (L.E.D)	8
2.4 Diodes	ğ
2.5 Transistor	10
3.0 BUDGET OF PROJECT	11
4.0 CIRCUIT DISCRIPTIONS	12
5.0 WORK PLAN	13
5.1 Work Plan For KEU 380	14
5.2 Weekly progress report KUE 280	lő
6.0 TROUBLE SHOOTING	18
7.0 RECOMMENDATION	19
8.0 FUTURE APPLICATION	20
9.0 DISCUSSION	21
10.0 CONCLUSION	22
REFERENCES	23
APPENDIXS	4-1



1.0 INTRODUCTION.

This project book has been organised to provide student and others with an introduction to many important of project workout. It has been organised intro part. The first part,

' System Design Consideration', cover important thing that need to be concern on while designing the projects. Here we discuss about physical and Devices Consideration of the project so as to full fill the specification.

Second part 'Circuit Description 'its includes the description consist of the specification sheets of certain ICs used. It is usefulness a reference of all component and their characteristic that a project designer has to look for.

Third part, 'full simulation operation of circuit maker'. This part is so important because we want to know the simulation result of the circuit at particular selected point. Fourth part, 'work plant or features'. This section will be our plan for this semester progress. So as implement the circuit on PCB board.

