

UNIVERSITI TEKNOLOGI MARA
KAMPUS BUKIT MERTAJAM
2002

FINAL REPORT OF DIPLOMA PROJECT

FACULTY OF ELECTRICAL ENGINEERING



HAND CLAP ELECTRONIC
CONTROL

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ABSTRACT

Our KEU 380 project is called “ Hand Clap Electronic Control”. We choose this project because it makes our life easy. With this project we don't have to walk around just to open the switch, we just only have to clap!

Circuit operation is as follows. A single handclap will be picked up by the electric microphone, which is coupled through C1 into the op amp IC1. The output of IC1 triggers the 555 IC timers IC2 that is configured as a monostable multivibrator. The trigger pulse is stretched by IC2 and gives an output pulse to IC3 (D flip flop). Because of the three state counter arrangement of IC3, two sharp claps are required before IC3 give a high output to Q1, which will turn on K1 relay and any device connected to K1's. Two more claps will give a clock to IC3 again and will turn off Q1 and any device connected to the K1's.

ACKNOWLEDGEMENTS

ALHAMDULILLAH....

Firstly, thanks to Allah for blessing us to finish this KEU 380 project. This book could not have emerged in its present form without the helpful suggestions made by many people during its preparation. We would like to express our sincere gratitude to supervisor Cik Linda for her lecture and insightful explanations about this subject, also for her immeasurable contributions to this project.

In a project of this size, there are many people who have done their part to shape result. Some have done so directly, others indirectly, and still others without know that they did anything at all. First, we'd like to thank our family and friends for being such "good eggs" about the project, even if it did mean that we disappeared for hours on end in order to work on it. For their encouragement and assistance, we thank my fellow faculty members and students. For turning our ideas into reality, We thank the folks at University Technology of Mara Penang, especially Puan Irni, Tuan Haji Mohd Noor, Alyzah, Raja Azizi, Awal, Jat, and to all members for their comment and helps. Also, We'd like to thanks to the various IC and equipment manufacturers for providing pertinent data sheet schematics, and photographs.

Sincerely by us;

FARID SYAZILI BIN OTHMAN

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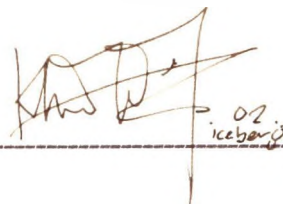
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CONTENTS

NO	Descriptions	Page number
1.	Scope Of Work	1
2.	Objective	2
3.	Introduction	3
4.	Operation of IC's	4
4.1	- IC 741 Op-Amp	5
4.2	- 555 Timer	7
4.3	- IC 4013 Dual D Flip-Flop	9
5.	Circuit Design (original)	12
6.	Block Diagram of Circuit Operation	13
7.	Circuit Operation	14
8.	Circuit Simulation	16
9.	Gantt Chart	17
9.1	- For project 1	17
9.2	- For project 2	18
9.3	- Implementation for project 2	19
10.	Result	20
11.	Application and Recommendation	21
12.	Conclusion	22
13.	Reference	23
14.	Appendix	24
14.1	- Data Sheet	24

OBJECTIVES

- To understand and add more knowledge about electrical and electronic.
- To satisfy a condition to get a Diploma in Electrical Engineering and to fulfill the desired subject KEU380 (3 credit hour).
- To practice what we have learning in our course since parts one until now and apply all the application that we learn in our course.
- To understand and learn how to analyze the circuit that we used.
- To come up with an idea that can give benefit to people to used.
- To give a benefit for everyone with their application.
- We also know how to design PCB layout, to install the component correctly in the place.
- Analyze and makes troubleshooting for the problems that facing when try to run the project.