# UNIVERSITI TEKNOLOGI MARA KAMPUS BUKIT MERTAJAM 2004

FINAL REPORT OF DIPLOMA PROJECT

## FACULTY OF ELECTRICAL ENGINEERING

# WHISTLE ON WHISTLE OFF

#### **PROFILE**

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#### **ACKNOWLEDGEMENT**

ALHAMDULLILAH, First, we would like thanks to Allah S.W.T because allow us to complete our project in the time given, even though it is not perfectly.

The title of our project is WHISTLE ON WHISTLE OFF, and we are successfully completed, although we facing some of the problems.

I would like to thank my supervisor, Tuan Haji Mohd Noor bin Tajuddin for his kindness, support and concern. Without you how we can start our project if we do not know what we must do. A lot of thank for his never ending patience dealing with every single problem had by us and his generosity for sacrificing his previous time in order to give us guidance and advice. As our supervisor, you have given us a lot of information and method for doing the proposal and for finding the title of our project.

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Finally we would like to show our gratitude once again to all ho had been involve in making this technical report a success by saying thank you very much to all of you from the bottom of my heart and may God bless in you.

## **ABSTRACT**

This project is about a switch that will function to the sound .The basic idea is to help the user in using their electrical appliances. Now we already has the remote control that always been used in many appliances such as to remote our television, radio, VCD and others .So, here we are trying to introduce the other way that of using or controlling the electrical appliance.

The sound as a switch now has been using in many future technologies. The scientists have tried to use the sound especially the human voice to use in technology . We can see this in the mobile phone technologies . Now we have the mobile phone that can dialed just by said the name that we want . We can get basic idea of the technologies through this project. From this project, we will know the basic concept and operation that voice now use to control the electrical appliances.

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## **CHAPTER 1**

# INTRODUCTION 1.1 BACKGROUND

Project II (KEU 380) is a project that should be done by student part 6. This project is continuation from Project I (KEU 280) which is a basic project for student part 5 before they continue with project II. Both of the two projects are compulsory for the student in Faculty Electrical Engineering.

The title of this project is Whistle on Whistle Off. This is an extension of the CMOS toggle flip-flop circuit shown in the "Circuit controlling relays" section with the addition of two bandpass filters and condenser microphone, so the relay can be toggled by whistling at it. The condenser mic is used is a PC board mount #270- 090C. The filters are tuned to about 1700 Hz, or the third Abs above middle C on a piano keyboard wish is an easy note for me to whistle. We choose this project because we are going to show how a whistle on - whistle off are use for or how this circuit operates.