

UNIVERSITI TEKNOLOGI MARA
KAMPUS BUKIT MERTAJAM
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FINAL REPORT OF DIPLOMA PROJECT

FACULTY OF ELECTRICAL ENGINEERING



AUTOMATIC SPEED CONTROLLER
FOR FAN

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ABSTRACT

Final project is a part of a course structure for student in their final year. They have to manage their time and submit the project due to the dateline. The project is compulsory to me as a final year student and it is important component for diploma in electrical engineering course. It must be completed in two semesters. The purposes of doing this project are to produce a student with a high skill and able to handle a responsibility next time such as make a project. In the way to produce this project I also had been taught how to trace a suitable solution for every problems and how to present the project. As an electrical engineering student I should be well prepared and produce creative ideas with a good interpersonal image to my future job.

By doing this project, it will force me to know about knowledge, such as capability, creativity and skills to propose create and trouble shoot problem of the project. All this components of the theory and skills will be useful in the future.

INTRODUCTION

My project is called an “Automatic Speed Controller For Fan”. It is a simple electronic project. It is very useful during the summer nights because the temperature is initially quite high. As time passes, the temperature start dropping, after the person start asleep, the metabolic rate of one’s body decreases. Thus, initially the fan needs to be run at the full speed. As time passes, some one needs to wake up in the middle of night again and again to adjust the speed of the fan. The device presented here makes the fan runs at the full speed for a predetermined time. The speed is decrease to medium after sometime, and to slow later on. After the period of about eight hours, the fan will be switch off.

Actually, this circuit is focus on adjustable timer. It can be implemented in many types of project. Nowadays this type of circuit is applied to the traffic lights system because the time can be set as needed. But for my project, I try to implement this circuit into fan. We think it is useful to our daily life especially during at night. Most of us have to wake up in the middle of the night just because the fan is too fast so it can ruin our sweet dream.

OBJECTIVE

1. This project gave me knowledge about an electronic circuit (theoretically) and exposes me to an electronic circuit.
2. I can get more information about components especially IC's including its function, characteristic and internal structures.
3. To increase my knowledge in designing a circuit using computers.
4. As a lesson in overcome project and to handle any problems properly.
5. Teach me how to be patient in working.
6. I can gain knowledge about electronics especially in digital part.
7. I can improve my computer knowledge.

THE ADVANTAGES OF THIS PROJECT

1. The circuit is simple and it can be constructed easily by everybody who interested in electronic devices.
2. The circuit is cheap and easy to find at the market.
3. It is precise in term of timing period. As an example, if I set at 20 seconds, it will stop exactly at the desired load after 20 seconds.
4. This project can prevent the waste of current.