

CHAPTER1

INTRODUCTION

1.1 PROJECT SYNOPSIS

Final year project is one subjects of this semester. This subject carries four hour credits. In this subject, a project needs to fulfill by the student. The current project is to fabricate, design and experimented Development hydrogen gas generator for dual fuel engine using Yull Brown method. Final year project are guided by the instructor, one student is required to accomplishing this project. The student must have hardworking and high discipline attitude. He/she must also willingly to learn and self-motivated. This project involves electrolysis experimented to produce hydrogen. This experiment testing were performed in engine performance laboratory to investigate the efficiency of the product.

1.2 PROBLEM STATEMENT

Today, the price of the petrol is increases. They have to buy the 1(one) liter petrol for RM1.90. It becomes problem for those who want to have a long journey. Due to this there is a heavy demand for the fuels, which is the basic for the many industry, factories and automobile. If this problem continues, consequently it will raised up their spending or budget for the fuel for the example budget for a fuel for this week.

1.3 PROJECT OBJECTIVE

The objective of this project are:

- To design and fabricate the fuel saving with electrolysis system by using the aluminium rod electrode base.
- To minimize the fuel usage by supplying the hydrogen gas produce.
- To investigate that the usage of the device can be decrease the usage of gasoline fuel or not.

1.4 PROJECT SCOPE

The main scope of the project is to design and fabricate the fuel saving systemized with the electrolysis system by using aluminium rod electrode base on gasoline fuel car. The purpose of the project is to minimize the fuel usage by supplying the hydrogen gas produce by the aluminium rod which is done through the electrolysis process. Then channeled into the intake manifold to be used for combustion engine.

1.5 PROJECT PLANNING

According to Gantt chart from Table 1 (appendix 1), the project briefing started followed by the collecting literature review. These include a research project title and gathering some raw data from internet, book, and other source. The planning process is process is from week 1 until week 3.

After that this project was continued with identify scope, objective and problem statement from week 3 until week 4. Then, started for sketching 4 type of fuel saving device concept and then indentifies the best concept based on concept generation and evaluation. Next, design the fuel saving device that was choosen using solid work software with actual dimension.

The fabrication process was started at week 9 after the pre presentation. This week also report writing started. The manufacturing process determined from the literature review.

Evaluation stage has been implementing after the fabrication stage. The experiments were performed at engine laboratory to investigate the efficiency the product.

The final stage is writing the final report and prepare for the final presentation. The report writing guided by University Malaysia Pahang Thesis Writing guide and project supervisor. The entire task scheduled to take about fourteen weeks to overall.

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