

**ELECTROMAGNETIC POWER PLANT BASE ON  
PERENDEV THEORY**

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This Report Is Submitted In Partial Fulfillment of Requirements For The Degree Of  
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“I hereby declared that I have read through this report and found that it has comply  
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“Saya akui bahawa saya telah membaca karya ini pada pandangan saya karya ini adalah memadai dari skop dan kualiti untuk tujuan penganugerahan ijazah Sarjana Muda Kejuruteraan Elektrik (Kuasa Industri)

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“Saya akui laporan ini adalah hasil kerja saya sendiri kecuali ringasan dan petikan yang tiap-tiap satunya saya jelaskan sumbernya.”

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## **ABSTRACT**

Since the conventional system is facing many problems such as the incremental of global fuel price and give higher environmental impact. This project was proposed to overcome that problem by designing the system that can generate the electrical energy source without use any fuel or electricity to run it. The approach is base on Perendev concept known as PERENDEV MAGNETIC MOTOR. This motor used magnetic force in order to rotate the stator. Therefore, the arrangement of the magnet for stator and rotor must be in accurate position to make sure the magnets are not in 'stable' position and static. This PERENDEV MAGNETIC MOTOR is use as a turbine (in hydro power plant) and will connect to generator. Then, during rotating, the generator will produce electricity. A brief explanation about this project is given in the introduction of this report regarding the purpose, the problem statement and the scope of the project. The explanation of the work progress is given in the methodology section. Lastly, the analysis and discussion for the overall project will be done.



## **ABSTRAK**

Semenjak sistem janakuasa elektrik sedia ada berhadapan dengan pelbagai masalah seperti kenaikan harga minyak global, peningkatan harga barangan untuk penyelenggaraan sistem, dan sistem yang memberi kesan kepada alam sekitar. Projek ini telah dicadangkan untuk mengatasi masalah dengan mereka sistem yang lebih bersih dan boleh menjana sumber tenaga elektrik tanpa menggunakan apa-apa bahan api atau bekalan elektrik untuk digunakan. Pendekatan yang digunakan berteraskan konsep Perendev atau lebih dikenali sebagai PERENDEV MAGNETIC MOTOR. Penggunaan magnet adalah bertujuan untuk memutarakan motor. Oleh itu, susunan magnet untuk pemegun dan rotor mesti berada di dalam kedudukan yang tepat untuk memastikan magnet tidak berada dalam keadaan „stabil“.Penjelasan ringkas tentang projek ini telah dinyatakan dalam pengenalan laporan ini mengenai tujuan, pernyataan masalah dan skop projek tersebut. Penjelasan kemajuan kerja diberi dalam seksyen kaedah.Akhir sekali,, analisis dan perbincangan untuk projek yang menyeluruh akan dibuat bagi mendapatkan keputusan yang lebih baik.

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## LIST OF ABBREVIATIONS

LED	Light Emitting Diode
V	Voltage
A	Ampere
DC	Direct current
AC	Alternating current
PVC	Polyvinyl chloride

## CHAPTER 1

### INTRODUCTION

#### 1.1 Overview

Nowadays, electrical energy is the most important component to our life and it is used mostly in all system in this era such as industrial and residential. Since the conventional system is facing many problems such as the incremental of global fuel price. So for long term usage, the alternative ways have find to solve that problem. Many developers in the electrical industry has been pursuing more intentionally on designing and developing a new system that can solve the problem and one of the solutions is develop a system that use renewable energy as the main part to run that system.

Renewable energy is made from resources that Mother Nature will replace, like wind, water and sunshine. Now, the production and use of renewable fuels has grown more quickly in recent years due to higher prices for oil and natural gas. In this project, the renewable concept is involved to develop the new system for the future. The main purpose of this project is to develop a system that can be generating the electrical energy source without use any fuel or electricity to run it. Then, Magnet is choose as the main source to replace the conventional fuel like natural gas and oil to generate turbine.

## **1.2 Problems statement**

The conventional system has facing many problems and the existing problems are:

- i. Environmental pollution.
  - Traditional power generation method like oil generator can do harm to our environment. So with this system, it can protect our environment from the pollution.
  
- ii. Fuel resource.
  - The conventional power plants need fuel resources which not suitable to environmental friendly. Beside that, an incremental in fuel global price can be under by this alternative power plant
  - All oil generator need a fuel to generate electricity so why not use magnet power instate buying fuel
  
- iii. Fossil fuels
  - Fossil fuel that being use every day in the course of time it will finish, so the alternative is renewable energy.

## **1.3 Project objective**

To achieve the objective of this project, a few objectives have been set as guide line to finish the project, the objectives of this project are:

- i. This project is about to develop an electrical motor system by using Perendev magnetic motor theory and prove this system is function properly and can be commercialized to the consumer
- ii. To study how the magnet can perform with each other in Perendev Magnetic Motor theory.
- iii. To develop an electrical energy system that will not run out in future and create a clean source of energy that has much lower environmental impact.

#### **1.4 Project scope**

In generally, every project has their scope project as a guide line to run the project smoothly according to the project planning expectation. The scope of this project is:

- i. To develop a system for consumers that can saves cost and generate a clean source of energy. It can be used at homes or industrial applications such as home appliances on the small scale, machines and automobile on the medium scale, and power stations on the large scale.
- ii. Manage to build this system until success without any problem occurs and hope the system will produce at least a few volts. Although the system only produces a small amount of energy, it it's fair enough to show that the theory of the system is right and this system can be developed in larger scale form.

## **CHAPTER 2**

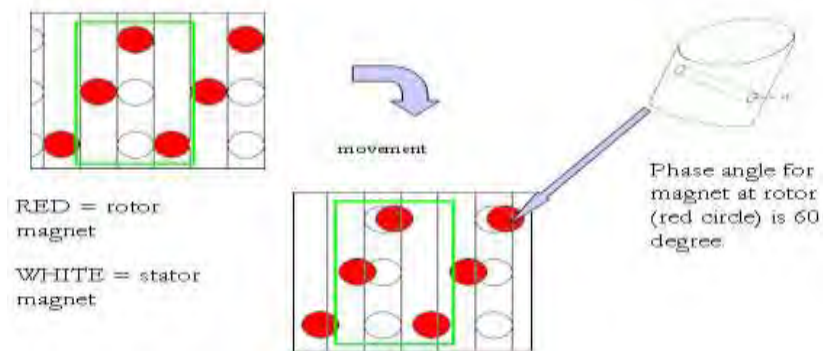
### **LITERATURE REVIEWS**

This chapter has the explanation and research of the related project that currently being done. Besides that, in this chapter also has include the theory of the component that will be used to develop

#### **2.1 Perendev movement concept**

The principle is simply using same poles magnets in opposition, when the same pole of the magnet is face with each other, it will pushing with one another with the large amount of power. With this simple electromagnetic concept, it will be used as the main idea to rotate a motor system.

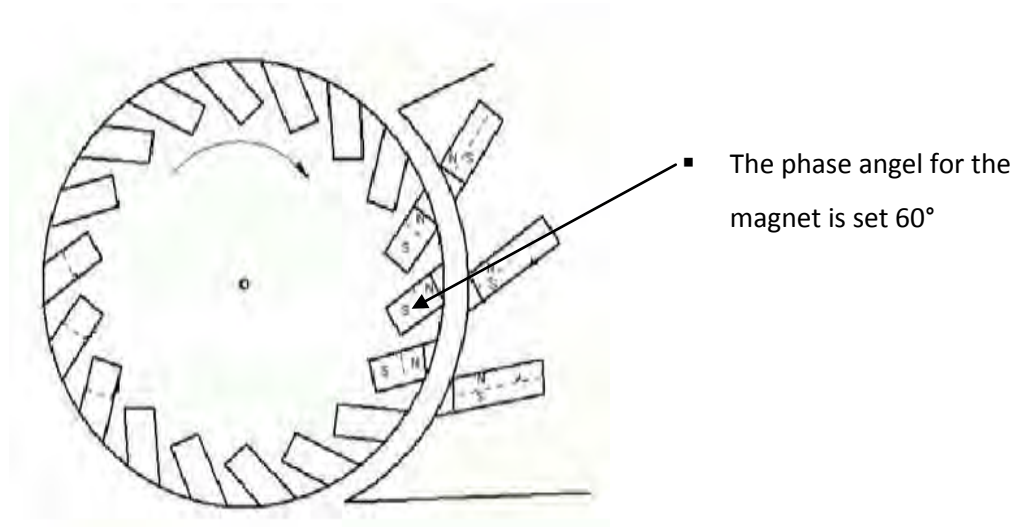
The figure 2.1 shows the different arrangement between the rotor and the stator magnet of the system. The red circle is represented as rotor magnet and the white circle is represented as stator magnet. It shows the magnet at the rotor is being off-set to make the system produce the rotation for the motor. As the stators become engaged, the rotors with off-set magnet alignment begin to spin. This motor designed to run a generator and convert it into useable electric energy.



**Figure 2.1: The magnets on the rotor being off-set to produce rotation**

## 2.2 Magnet position in Perendev motor (side view)

Figure 2.2 show that the magnet of this system is set  $60^\circ$  to make the system produce the rotation.



**Figure 2.2 Side view**

### 2.2.1 Main parts of Perendev Motor

Figure 2.3 shows the three main parts of the Perendev Magnetic Motor to produce a rotation. Rotor is the rotating part for this system and the other two parts is stator that is the stationary part of the rotor systems.

