



UiTM SWIMMING POOL WATER HEATING SYSTEM

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“In the name of Allah that the most Beneficiate, the Most Merciful”

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- Bukhari bin Manshoor -

ABSTRACT

The total primary energy demand in Malaysia projected to increase at an annual growth rate of 7% by the year 2020. This growth rate means Malaysian energy industries will be on average 5.4 times larger than that in 1995. The electricity generation, transmission and distribution sector will be six times larger than it will today. Thus, it is necessary to tap alternative renewable energy sources to fulfil the energy demand in the future. To overcome the energy demand in Malaysia, the alternative energy that can be chosen is solar energy. In this project, that is to study and propose the system that can control water temperature for UiTM swimming pool, the authors chose to use a solar water heating system. Beside the using of the solar energy as an alternative energy in water heating system, the author also want to realise this system in UiTM as one of the teaching materials or aids especially for subjects that involve directly in the area of fluid and heat transfer.

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CHAPTER I

INTRODUCTION

1.1 Introduction

Swimming pool is a place that people can make assorted activities. They can do activities such as swimming, diving and so on. Beside that, swimming pool also becomes a place that people can bring their family as part of their social life with family. Therefore, they like the swimming pool that can give comfortable and 'relaxing atmosphere' to them. They are usually looking for cleanliness of the water, the suitable temperature of water, cleanliness of surrounding and the location of the swimming pool itself.

The water temperature is important for people doing activity in the swimming pool. If the water of the swimming pool is too cool or too hot, they will not go down into the pool and doing their activities. With the suitable water temperature condition may will spend more time in the water and reduced energy consuming due to heat transfer from the body to the water. Since the swimming pool at the UiTM is used for training, swimming competition and recreation, it needs the water temperature of swimming pool at the suitable level. At the moment, the UiTM swimming pool does not have any device or mechanism to control the water temperature.