



**PRELIMINARY DESIGN OF LOWER POWER GAINED SOLAR ENERGY
SYSTEM IN MALAYSIA**

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“I declared that this thesis is the result of my own work except the ideas and summaries which I clarified their sources. The thesis has not been accepted for any degree and is not concurrently submitted in candidature of any degree.”

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ABSTRACT

Humankind is facing a great global environmental problems. The factor of the problems are caused primarily by massive consumption of fossil fuels such as coal and oil. The key to resolving these problems lies in the development of clean energies. Solar cells are the key technology toward the conquest of global environmental problems which convert sunlight directly into electricity. In this aspect of safety and availability, solar energy is the ideal form of energy because it is clean, inexhaustible, and approximately 95% parts of the world.

A solar photovoltaic (PV) represents a very important part of the technology revolution in the last few decades. With application solar photovoltaic on the satellites, humankind can communicate to each other. The application of solar photovoltaic (PV) is not widely used in Malaysia even there is a need in the rural areas where no electricity is available. The objectives of this project to study and design of lower gained solar system in Malaysia for small office or house (less than 10kW). Besides, detail explanation about how conversion from solar energy into energy generation, consideration about related components solar system development at Malaysia. Several of preliminary design has been develop with respect to the required output and input. The signification of these results of this paper will be used for future understanding about solar energy system. In orders words, the results can gives some ideas contribution to solar energy system in Malaysia. The results of research to give preliminary design of lower gained solar energy system in Malaysia. Besides, the results can give information about the best material can used, method for solar energy system and input parameter for system.

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