

**PHOTOVOLTAIC (PV) SYSTEM FOR GLOBAL ELECTRICITY**

**NURSHAHIDA BINTI ABDUL RAHMAN**

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## **ABSTRACT**

### **PHOTOVOLTAIC SYSTEM FOR GLOBAL ELECTRICITY**

Nowadays, the sustainable energy demand was highly among the society due to population growth, volatile crude oil price and vigorous climate changed. The consumption of non-renewable energy resource such as fossil fuel and natural gas has disruption to human live and environmental generally. Thus, the various efforts have been planned and considered the uses of renewable energy resources especially for solar energy or photovoltaic systems (PV). The sun or PV systems are safe, clean, sustainable, environmental friendly, affordable and some countries were exposed to the highest solar radiation or sunlight throughout the year. So, it is not surprising if the solar energy or PV system was preferred as the source of electrical generation in the future. The identification of the relevancy, potential and availability of PV system for the world's electricity requirements from the various aspects such as the economies, technologies, environment and location were significant to study. Besides, many aspects must be discussed in order to investigate the importance, obstruction, potential and the availability of the PV system for the global implementation. It is possible that the PV system can be the alternative in order to compliment the global electricity and energy demand. Moreover, the system, model and relevant programs conjunction to the issues and challenges in the implementation of global PV system also must be addresses clearly. In addition, the calculation of the cost of energy (COE) production kilowatt per hour (kWh) will be rectifying parallel to the COE or electricity produce by fossil fuel where the cost of energy (COE) generated by fossil fuel is about RM 4.09 in year 2014. From that, the questions of reliability of PV system for the recent and future implementation will be revealed.