



AUTOMOBILE AIR-CONDITIONING USING SOLAR ENERGY

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ABSTRACT

Renewable energy has become important today, since the world is shortage of oil for the main source of energy. Government and Private organizations seriously do many research and development activity towards the new energy sources from solar, biomass, hydro and wind energy. As solar energy is concern, it has many advantages. Some of the advantages are it has high reliability, low operating cost, environmental friendly, modularity and low construction cost. In this project report, the development of the application of solar energy systems using photovoltaic module in car air-conditioning system was carried out. The use of solar system in vapor-compression cycle for air-conditioning system is an alternative way to reduce fuel consumptions. Sizing the system effectively is the utmost important because consideration as photovoltaic system itself does not provide a precise voltage. To overcome this problem a complimentary system such as battery, inverter and charge controller is necessary. These systems allow the photovoltaic system to deliver the proper quality of power. At the initial installation, the expenses may be high and most people are either unable or unwilling to purchase them. The system to be developed should produce power of a sufficient quality and at the same time economically feasible.

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