

ABSTRACT

Title : Solar-Powered Diaphragm Water Pump

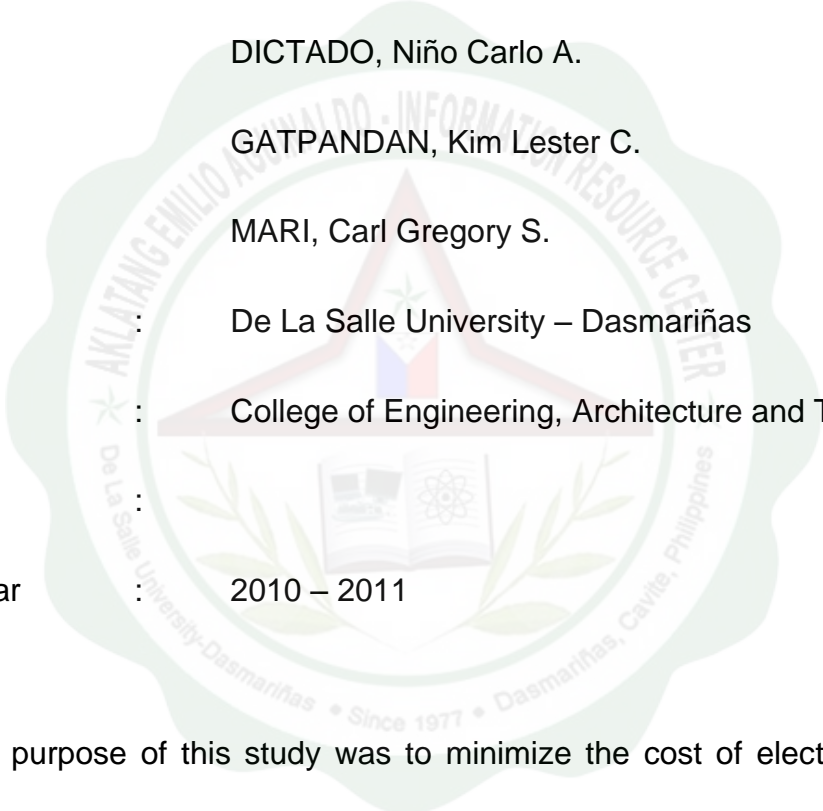
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The purpose of this study was to minimize the cost of electric charge and the feasibility of using Photovoltaic solar power to assist the motor in water pumping. This project examines available solar equipment and technologies coupled with requirements for operation, installation and maintenance. The project begins with an analysis of the current and voltage state of the motor required for the system, and the size of the tank for Solar PV water pump installation. It provides an example of how solar power can be used in a motor water pump system. Next, the project addresses commercially

available solar equipment and other electronic technologies that enhance the performance of solar PV systems while reducing the overall cost. The project also provides details on the installation, operation, maintenance, and durability of PV systems. Finally, the project addresses the financial cost of using solar PV systems in the installation of water pump system. Test data are gathered and analysed to determine the potential benefits of emerging solar technologies. At the conclusion of the project, information is available for the decision makers if the solar PV water pump system is feasible at some level of implementation to minimize the electric charge cost.

