Department of Electrical and Computer Engineering
North South University

Senior Design Project

Designing an Electrical Energy Storage System for Commercial and Residential Use by Using Solar Energy

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Summer, 2020

Declaration

This is to declare that no part of this report or the project has been previously submitted elsewhere for the fulfilment of any other degree or program. Proper acknowledgement has been provided for any material that has been taken from previously published sources in the bibliography section of this report.

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The Senior Design Project entitled **"Designing an Electrical Energy Storage System for Commercial and Residential Use by Using Solar Energy"** by KASHFIA MAHMOOD (ID#1610376043), JAHIDUL ISLAM (ID#1610441043), MD. AL – AMIN BHUIYAN (ID# 1610458043) and MD. IFTAKHAR HOSSAIN (ID#1611865043) has been accepted as satisfactory and approved for partial fulfilment of the requirement of BS in EEE degree program on October, 2020.

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Abstract

Electrification is one important goal for any developing country like Bangladesh for bringing about social and economic developments. But unfortunately, there is no supply or insufficient supply of electricity in many remote areas of Bangladesh which protract the developments of whose areas. As a result, both government and nongovernmental organizations are trying to introduce solar power system in those areas. However, for being expensive, donor driven and fragile the expected results haven't seen. On the other hand, many people are using diesel or petrol generators which produce sound and emit Carbon dioxide in the air, consequently pollute the environment. Therefore, this research focuses the way to solve these problems and produce a new environmentally friendly power system to provide electricity in those areas. In this system using concave mirrors to concentrate the rays of sunlight to evaporate water then using the steam, turbine will be rotated to generate electricity and stored in battery as power to supply to the load when needed.