FINAL YEAR PROJECT REPORT

WIND TURBINE YAW SYSTEM

In fulfillment of the requirement

For degree of

BEE (Electrical)

BY

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SUPERVISED

BY

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DECLARATION

We hereby declare that this project report is based on our original work except for citations and quotations which have been duly acknowledged. We also declare that it has not been previously and concurrently submitted for any other degree or award at Bahria University or other institutions.

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WIND TURBINE YAW-SYSTEM

ABSTRACT

The energy sector is one of the main factors of the country's economic growth. This is due to the high cost of fuel worldwide. Pakistan is strongly influenced to cut its dependence on fuel. Renewable energy is the best alternative. Pakistan meets 6% of its total needs through renewable energy. Wind Turbines says increasing solar and wind power capacity to at least 30 percent of total installed capacity by 2030 represents the least-cost development scenario, and $5 billion in fuel savings over 20 years is one of the best renewables available. Optimizing wind energy conversion efficiency has recently led to technological advances and scientific understanding of wind turbines. In this context, the deviation behaviour of wind turbines has become an important issue. Yaw control can really be used for optimization at the level of individual wind turbines and wind farms. We present a prototype wind turbine deflection system that is used to optimize output power along with parameters (speed, direction) of renewable energy sources.

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