

Renewable Energy System Eolic-Photovoltaic for the Touristic Center La Tranca-Chordeleg in Ecuador

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Abstract : For this research work, hybrid wind-photovoltaic (SHEF) systems were considered as renewable energy sources that take advantage of wind energy and solar radiation to transform into electrical energy. In the present research work, the feasibility of a wind-photovoltaic hybrid generation system was analyzed for the La Tranca tourist viewpoint of the Chordeleg canton in Ecuador. The research process consisted of the collection of data on solar radiation, temperature, wind speed among others by means of a meteorological station. Simulations were carried out in MATLAB/Simulink based on a mathematical model. In the end, we compared the theoretical radiation-power curves and the measurements made at the site.

Keywords : hybrid system, wind turbine, modeling, simulation, validation, experimental data, panel, Ecuador

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