



University of Pavia

Ph.D. School of Electrical and Electronics Engineering and Computer Science

SEMINAR

Energy prediction system for a photovoltaic generation array

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Abstract: Renewable energy systems, as photovoltaic systems, have a variable response that depends on the environment conditions (irradiance, temperature, humidity, rain rate, pressure, wind speed and wind direction), this implies a variability in the solar cell power response and of course into a photovoltaic array. Knowing in advance the behaviour of the energy generated by a photovoltaic system in a period of time, would allow the user to generate medium and short-term strategies to determine the amount of energy that must be selected from another source, what load elements must turn off, or the convenience between grid injecting or storing.

The designed system is able to make a prediction for knowing the amount of energy that a photovoltaic system will generate in a certain period of time (selected by user) under climatic variable conditions, in addition, it determines what action the generation system must perform to take advantage of the generated energy in a better way.

Bio: Francisco Eraso Checa received the bachelor's degree of electronic engineering from the Pontificia Universidad Javeriana in Cali, Colombia and the master's degree of engineering with focus in Industrial engineering from Universidad del Valle in Colombia. He has worked in the Colombian industrial field and right now is developing different researches in the photovoltaic generation area.

Organizers

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Seminar in English

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