Title: Short-term electricity prices forecasting in a competitive market by a hybrid PSO-ANFIS approach

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Abstract: In this paper, a novel hybrid approach is proposed for electricity prices forecasting in a competitive market, considering a time horizon of 1 week. The proposed approach is based on the combination of particle swarm optimization and adaptive-network based fuzzy inference system. Results from a case study based on the electricity market of mainland Spain are presented. A thorough comparison is carried out, taking into account the results of previous publications, to demonstrate its effectiveness regarding forecasting accuracy and computation time. Finally, conclusions are duly drawn.

Author Keywords: Electricity Market; Price Forecasting; Swarm Optimization; Neural Networks; Fuzzy Logic

KeyWords Plus: Neural-Network; ARIMA Models; System

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