عنوان مقاله:

Application of Wavelet and PSO to Price Forecasting in a Deregulated Market

محل انتشار:

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خلاصه مقاله:

As a consequence of revolution in electricity trading in recent years and moving the world towards a competition electricity framework, awareness of accurate future prices is necessary for market participants. Hour ahead price forecasting can help production companies to match their generation and bidding in order to face less risk and improve their profit. Many methodologies have been applied to this aim in recent years. In this literature a method based on wavelet networks and Particle Swarm Optimization (PSO) is employed to predict the electricity prices in short term. Three approaches is considered in implementation. The applied approaches are wavenet trained with PSO, wavenwt trained with back propagation and Multi Layer Percepteron. The Canada market information is used for approving that the proposed method is enough exploited. The results exhibit an acceptable correlation between predicted prices and actual data and show the method is robust enough. The results of mentioned methods are compared at the results and discussion part. The results show that the proposed method has better forecasting error(MAPE) in contrast with two other implemented methods.

کلمات کلیدی:

price forecasting, wavelet networks, PSO method, electricity market load forecasting

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