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Electric Load Forecasting Based on Artificial Neural Network for Iraqi Power System

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Abstract : Load Forecast required prediction accuracy based on optimal operation and maintenance. A good accuracy is the basis of economic dispatch, unit commitment, and system reliability. A good load forecasting system fulfilled fast speed, automatic bad data detection, and ability to access the system automatically to get the needed data. In this paper, the formulation of the load forecasting is discussed and the solution is obtained by using artificial neural network method. A MATLAB environment has been used to solve the load forecasting schedule of Iraqi super grid network considering the daily load for three years. The obtained results showed a good accuracy in predicting the forecasted load.

Keywords : load forecasting, neural network, back-propagation algorithm, Iraqi power system