عنوان مقاله:

NARMA-L2 Controller for Three-area Load Frequency Control

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خلاصه مقاله:

This paper investigates the load-frequency control (LFC) based on neural network for improving power system dynamic performance. The objectives of this control action are regulation of the frequency at area and minimization the deviation of interchange power between control areas. The controller is adaptive and is based on a nonlinear autoregressive moving average (NARMA-L2) algorithm. The controller was implemented using MATLAB/Simulink on threearea load frequency power systems. A comparative study between proposed controller and PI controller tuned by real coded genetic algorithm (GA) will be presented and the advantages of this controller on a wide range of operating conditions will be shown

کلمات کلیدی:

Area Control Error (ACE), Artificial Neural Network (ANN), Genetic Algorithm (GA), Load Frequency Control (LFC