Article Abstract

Title:	Application of artificial intelligence in load frequency control of interconnected power system
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Abstract:	This paper presents the use of artificial intelligence to study the load frequency control of interconnected power system. In the proposed scheme, a control methodology is developed using Artificial Neural Network (ANN) and Fuzzy Logic controller (FLC) for interconnected hydro-thermal power system. The control strategies guarantees that the steady state error of frequencies and inadvertent interchange of tie-lines power are maintained in a given tolerance limitations. The performances of the controllers are simulated using MATLAB/SIMULINK package. A comparison of Fuzzy controller and ANN controller based approaches shows the superiority of proposed ANN based approach over Fuzzy one for different loading conditions (1% and 2% step load variations). The simulation results also tabulated as a comparative performance in view of settling time and peak over shoot.
Keywords:	Load Frequency Control(LFC), Fuzzy Logic Controller, ANN Controller, Area Control error(ACE), Tie-line, MATLAB / SIMULINK.