Abstract

In this paper, a fuzzy C-means controller proposed to the generation of optimal fuzzy rule base by Fuzzy C - Means clustering technique (FCM) for load frequency control in deregulated environment. The phase-plane plot of the inputs of the fuzzy controller is utilized to obtain the rule-base in the linguistic form. The proposed method is tested on a two-area power system with different contracted scenarios under various operating conditions. The results of the proposed controller are compared with the fuzzy PID controller and conventional PID controller to illustrate its robust performance. These comparisons demonstrate the superiority and robustness of the proposed controller.

References

Load Frequency Control in Deregulated Power System using Fuzzy C-Means


Index Terms

Computer Science
Control Systems

Keywords
LFC Fuzzy PID Controller Fuzzy C-means Controller Deregulated Environment
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