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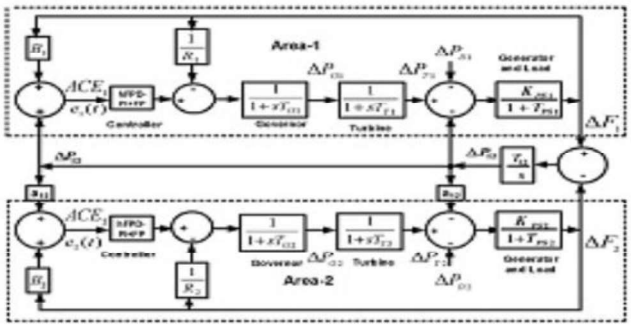
(57) Abstract :
For the dependable, safe, and stable operation of electric systems, frequency should be regulated continuously employing appropriate intelligent controllers. Hence, this paper proposes a hybrid Fuzzy PD-PI plus Fuzzy P (hFPD-PI+FP) controller for frequency regulation of power system. The objective of this paper is to investigate the effectiveness of proposed hFPD-PI+FP controller in a standard power system and compare its performance with some established frequency control approaches available in literature. For this, a non-reheat type two-area thermal system is taken and the improvement of the suggested approach over the Bacteria Foraging Optimization Algorithm (BFOA), Teaching Learning Based Optimization (TLBO), Jaya Algorithm (JA), Genetic Algorithm (GA) and Hybrid BFOA and Particle Swarm Optimization Algorithm (hBFOA-PSO) for the identical test system has been demonstrated.

Figure 1: Two area system under study



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