

Variable Structure Load Frequency Controller Using Particle Swarm Optimization Technique

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Summary

In this paper, selection of the variable structure controller feedback gains by Particle Swarm Optimization (PSO) technique is presented contrary to the trial and error selection of the variable structure feedback gains reported in literature. The proposed design has been applied to the load frequency problem of a single area power system. The system performance against a step load variations has been simulated and compared to some previous methods. Simulation results show that not only dynamic system performance has been improved, but also the control effort is reduced. The results show the reliability of the proposed technique.

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