

A Robust PID Load Frequency Controller of Interconnected Power System Using SDO Software

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Abstract : The response of the load frequency control problem in an multi-area interconnected electrical power system is much more complex with increasing size, changing structure and increasing load. This paper deals with Load Frequency Control of three area interconnected Power system incorporating Reheat, Non-reheat and Reheat turbines in all areas respectively. The response of the load frequency control problem in an multi-area interconnected power system is improved by designing PID controller using different tuning techniques and proved that the PID controller which was designed by Simulink Design Optimization (SDO) Software gives the superior performance than other controllers for step perturbations. Finally the robustness of controller was checked against system parameter variations

Keywords : load frequency control, pid controller tuning, step load perturbations, inter connected power system

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