

LOAD FREQUENCY CONTROLLER FOR TWO - AREA NON REHEAT THERMAL POWER SYSTEMS USING REAL CODED GENETIC ALGORITHM

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Abstract

Power system load frequency controller for two-area non-reheat by Real coded Genetic Algorithm is proposed in this paper. In electric power generation, Power engineers have the responsibility to deliver economically adequate and quality power to the consumers. In order to achieve this, the power system must be maintained at the desired operating level by suitable modern control strategies. The controlling of power system is becoming increasingly more complex due to large interconnections. The load frequency control is very important in power system operation and control for supplying sufficient and reliable electric power with good quality. Among various types of load frequency control, Proportional plus Integral controller is most widely applied to speed- governor system for Load Frequency Control scheme. Floating point representation has been used since it is more consistent, more precise and leads to faster convergence. The simulation results confirm the designed control performance of the proposed controller.

Keywords: Load frequency control, Controller Design, Genetic Algorithm