

**PERFORMANCE COMPARISON OF LFC OF TWO AREA INTERCONNECTED
POWER SYSTEM FOR THE PERFORMANCE INDICES ISE AND ITAE WITH
OPTIMUM INTEGRAL CONTROLLER GAIN DESIGNED USING GENETIC
ALGORITHM**

R. KRISHNA KUMAR

Asst. Professor(Sr. Grade), Department of EEE, PSG College of Technology, Coimbatore-4. :
([rkk @eee.psgtech.ac.in](mailto:rkk@eee.psgtech.ac.in))

ABSTRACT

In this paper, a Genetic Algorithm for optimization of conventional integral controller gain for Load Frequency Control (LFC) of two area interconnected power system has been proposed. The performance indices ISE (Integral Square Error) and ITAE (Integral of Time Absolute Error) are being considered for optimization. The optimum gain obtained to minimize these performance indices were used for simulation. Simulation result indicates that the performance index ITAE gives the better dynamic performance than ISE.

KEYWORDS: Load Frequency Control, Genetic Algorithm (GA), population, generation, mutation, performance indices.