This paper proposes a design of Artificial Bee Colony (ABC) algorithm based Proportional plus Integral controller using Area Requirement (AR) Criterion for the Load Frequency Control of a two area multi unit interconnected thermal reheat power system without and with Gas Turbine unit. The system was simulated and the output responses of the frequency deviations, tie-line power deviation and control input deviations for 1% step load disturbance in area 1 were obtained. The simulations results reveals that the two area multi unit interconnected thermal reheat power system incorporated with Gas Turbine unit ensure a better transient response and smaller settling time.

References

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pp. 346-347.


Index Terms

Computer Science
Power Systems
Keywords
Artificial Bee Colony  Proportional – Integral controller  Area Requirement criterion
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