Abstract

In this paper, a fuzzy logic controller is proposed for an application of HVDC link to stabilize the frequency oscillation in a parallel AC – DC interconnected power systems. When an interconnected AC power system is subjected to a load disturbance, system frequency may be considerably disturbed and becomes oscillatory. By utilizing the system interconnections as the control channels of HVDC link, the tie line power modulation of HVDC link through interconnections is applicable for stabilizing the frequency oscillation of AC system. The conventional Integral controller does not yield adequate control performance. To overcome this problem Fuzzy Logic Controller (FLC) is employed with a set of control rules. The proposed control technique is studied for a two area non - reheat thermal power systems. From simulation results, the performance of the FLC is better during load disturbances.

Reference


Fuzzy Rule Based Load Frequency Control in a Parallel AC – DC Interconnected Power Systems Through HVDC Link


Index Terms

Power Electronics  Control Systems
Key words
AC – DC Interconnected System
High Voltage
Direct Current (HVDC) Link
Area Control Error
Load Frequency Control
Fuzzy Logic Control