

## **FUZZY STATCOM CONTROL STRATEGIES FOR POWER SYSTEM STABILIZATION**

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### **ABSTRACT**

Fuzzy logic control of static synchronous compensators (STATCOM) to improve the damping of a power system is presented. The development of the fuzzy strategy starts through a simple single machine power system and then extended to a multi-machine system. The damping characteristics of the multimachine power system were also investigated with multiple STATCOMs in the system. Only variables local to each STATCOM were used as the input to the controllers. The proposed fuzzy strategy was found to damp the transients of the single machine as well as multi-machine systems effectively for wide ranges of operation.