Abstract

The power system network is becoming more complex nowadays so maintaining the stability of the power system is very difficult. So we have designed a 12-pulse based Static Synchronous Series Compensator (SSSC) which is operated with and without integration of Superconducting Magnetic Energy Storage (SMES) for enhancing the voltage stability and power oscillation damping in multi area system. Control scheme for the chopper circuit of SMES coil is designed. The model of power system is designed in MATLAB / SIMULINK environment and tested for
various conditions. Model is tested SSSC with and without SMES is analyzed for various
transient disturbances.

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Index Terms

Computer Science

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Keywords

Static Synchronous Series Compensator (sssc)  Superconducting Magnetic Energy Device (smes)