

VOLTAGE PROFILE ENHANCEMENT IN A POWER SYSTEM BASED ON SVC CONTROL STRATEGY USING PSIM SOFTWARE

K. S. RAMANJANEYULU¹ & K. PADMA²

¹M.E. Scholar, Department of EEE, Andhra University, Visakhapatnam, Andhra Pradesh, India

²Assistant Professor, Department of EEE, Andhra University, Visakhapatnam, Andhra Pradesh, India

ABSTRACT

The objective of this paper is to keep the power system to remain in voltage stable condition when it experiences a load change and contingency, also deals with the simulation of various FACTS controllers using simulation with PSIM simple circuit model of SVC Control Strategy system was simulated. This paper explains about the simulation and implementation of thyristor controlled reactor and thyristor switched capacitor of SVC. An SVC can control the voltage magnitude at the end of power transmission line under the conditions of load changing at the end of transmission line and changing in voltage magnitude at the voltage source at the other end of the line. The SVC system is simulated using PSIM and the simulation results are presented graphically. The power and control circuits are simulated. The current drawn by the SVC varies with the variation in the firing angle. The experimental results are given with the simulation results.

KEYWORDS: Static VAR Compensator, Thyristor Controlled Reactor, Thyristor Switched Capacitor, PSIM Software