

Abstract Details

Title: Implementation of FACTS Devices for Power System Stability Improvement

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Abstract: This paper presents the introduction of various FACTS controllers such as Static Var Compensator (SVC), Thyristor Controlled Series Capacitor (TCSC), Static Synchronous Compensator (STATCOM), Static Synchronous Series Compensator (SSSC), and Unified Power Flow Controller (UPFC) for solving various power system steady state control problem. Flexible AC transmission system devices allow the flexible and dynamic control of power system. The aim of this paper is to examine the ability of FACTS devices for power flow control in a power system. A power flow control strategy is based on linearization of active and reactive power flows around an operating point. The comparison of performance of various FACTS controllers has been discussed. Application of FACTS devices to power system studies have also been discussed.

Keywords: AC, FACTS, IPFC, SVC, STATCOM, SSSC, TCSC, UPFC.