Abstract

In this Paper a new approach to design a Full Order State Feedback Controller of Voltage Source Converter (VSC) based SSSC is proposed for improving transient stability of the system. Here Full Order State Feedback Controller is designed by using Pole Placement method. This paper also presents a conventional PI-controller for SSSC where the PI-controller parameters are tuned using Ziegler-Nichols Closed Loop Damped Oscillation method. A detailed comparative analysis is done on the basis of system performance between proposed controller and conventional PI Controller. Simulations have been carried out in MATLAB/SIMULINK Environment.

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**Index Terms**

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