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.

References

2. Ranjit Kumar Bindal, A Review of Benefits of FACTS Devices in Power System,
Controlling SSSC by Full Order State Feedback Controller


5. Images of SSSC [online] https://www.google.co.in/search?q=images+of+sssc&biw=1024&bih=657&source=lnms&tbnid=isch&sa=X&ved=0ahUKEwjvrf7q59TPAhXDRl8KHfLKDfUQ_AUICCgD


11. Mohammad Shahrokhi and AlirezaZomorrodi, Comparison of PID Controller Tuning Methods, Department of Chemical & Petroleum Engineering Sharif University of Technology.

12. NPTEL. A Project funded by MHRD, Govt. of India http://www.nptel.ac.in/


Index Terms

Computer Science  Circuits and Systems

Keywords
