

عنوان مقاله:

The Comparison of Two Control Methods of Power Swing Reduction in Power System with UPFC Compensator

محل انتشار:

بیستمین کنفرانس مهندسی برق ایران (سال: 1391)

تعداد صفحات اصل مقاله: 6

نویسندگان:

Hassan Gharibpour - *University of Tehran*

Hassan Monsef

Mohammad Ghanaatian - *K. N. Toosi University of Technology*

خلاصه مقاله:

In this paper it is tried to damp the power swings by using UPFC. The presented control methods in this paper are very simple and fast. The first control algorithm is based on energy and equivalent energy criterion that works only at the presence of disturbance. The second one is adding an active damper to the system and affecting on the system damping. In this algorithm in order to increase the damping of a system a function is defined according to the feedback of electrical angle of the machine. This function is used to determine the angle in which a proper damping is added to the system. This angle can be set as the reference and by using the angle compensation mode, the voltage injection is done in that angle. In this algorithm by using an angle feedback it doesn't need to exchange a lot of information which is used in other algorithms. Finally the power swing is observed in the simulation by selecting a power flow model for UPFC. These results are compared with a situation in which the UPFC is placed in the power system by applying the suggested control algorithms on it. The comparison shows that the damping of power swing while using the second algorithm is much more and much effective on system damping.

کلمات کلیدی:

Power swings, UPFC, system damping coefficient

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/154393>

