

عنوان مقاله:

FLATNESS BASED DAMPING of POWER SYSTEM OSCILLATIONS WITH UNIFIED POWER FLOW CONTROLLER

محل انتشار:

کنفرانس بین المللی پژوهش در علوم و تکنولوژی (سال: 1394)

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نویسندگان:

Mohsen Radan - *Young Researchers and Elite Club, Najafabad Branch, Islamic Azad University, Najafabad, Isfahan, Iran*

Iman Asghari - *Student of Islamic Azad University, Ashtyan Branch*

Behzad Fayyaz Dastjerdy - *Student of Islamic Azad University, Najafabad Branch*

خلاصه مقاله:

A comprehensive approach to the design of UPFC controllers (power-flow controller, DC-voltage regulator and damping controller) is presented. Studies reveal that damping is adversely affected by the incorporation of a DC-voltage regulator. Investigations were carried out to understand the relative effectiveness of modulation of the UPFC control signals u_E and on damping of the system oscillations, using a controllability index. A dual damping controller based on simultaneous modulation of UPFC control signals u_E and u_D is proposed. Investigations reveal that alternative damping controllers (damping controller u_E , damping controller u_D and dual damping controller) provide robust dynamic performance under wide variations in loading condition and system parameters. This conditions improve under controller based flatness on trajectory generation and trajectory tracking of output flat

کلمات کلیدی:

flatness; damping; oscillations; feedback linearization

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