XI CONGRESO LATINOAMERICANO DE CONTROL AUTOMATICO

AUT103

# CONTROL DESIGN FOR MULTI-MACHINE POWER SYSTEMS USING A CONTINUOUS SLIDING MODE APPROACH

J. de León-Morales, D.Georges, O. Huerta-Guevara
Contacto: drjleon@hotmail.com.
Universidad Autónoma de Nuevo León, Laboratoire d'Automatique de Grenoble
México, Francia

Resumen:

This paper is concerned with the control of multimachine power systems. We propose a continuous slidingmode control design. The designed controller is smooth: in that sense, it di ers from classical sliding mode controllers subject to chattering phenomena. Two versions of the sliding-mode controller are then applied to the control of a multi-machine power system. The practical implementation of these two controllers leads to a fully decentralized control schemes. Simulations results demonstrate better performances of these two controllers compared to a Hamiltonian passive controller.

keywords
Multi-machine power systems, large-scale decentralized nonlinear control, continuous sliding mode control.