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**#ModalAnalysis power system stabilizer ppt**

**Multi-machine system and power system stabilizer (PSS)**

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**Fundamentals of Stability Analysis Webinar on Simulation of Power system, Renewable Energy, Smart Grids by NEPLAN Software 20/10/2020**

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## ***POWER SYSTEM STABILIZER : ANALYSIS & SIMULATIONS Technical ...***

***Power System Stabilizer Power systems can be simulated fairly accurately on personal computers with appropriate software. Such simulations can predict large area-wide power outages caused by resonant swinging power flow in agreement with actual historical***

**outages.**

### **Power System Stabilizer**

**In our simulation, we take the transfer function model of this filter as  $Tor(s) =$**

**$(1/1+0.06s+0.0017s^2)$  [1]. 6. PSS: - This is the main part of our design problem. The power system stabilizer takes input from the filter outputs of the rotor speed variables and gives a stable output to the voltage regulator.**

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**following a contingency the power system returns to a steady-state operating point - Goal is to solve a set of differential and algebraic equations, •  $d x /dt = f (x, y)$  [y variables are bus voltage and angle] •  $g (x, y) = 0$  [x variables are dynamic state variables] - Starts in steady -state, and hopefully returns to a new steady-state.**

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