

ABSTRACT

This paper deals with the dynamic problem of oscillation and damping on an industrial turbo generator connected to infinite networks. A set of equations that governs the turbo generator connected to infinite bus are written in characteristic form. The power system stabilizer PSS applied in order to solve the problem of damping internal angle and operating power systemsynchronization. The PSS model described is inspired from Heffron-Philips model is applied on real parameters simulation under Matlab simulink. The results obtained from practical application are advantageous which variations of amplitude and time mitigation oscillations magnitude of electrical and mechanical output variables. This numerical experiment permits to gain more simplicity compared with several methods applied in a real operating prototyping systems. The PSS that is used will improve the dynamic stability.