Abstract

This paper presents a computational methodology to design a steam turbine governor based on pole placement technique to control the turbine speed. The effectiveness of the proposed control action is demonstrated through some computer simulations on a Single-Machine Infinite-Bus (SMIB) power system. To accommodate stability requirements, a mathematical model for the turbine was derived based on state space formulation. Results obtained shows that adopting such a controller enhanced the steady state and transient stability.

References

Steam Turbine Governor Design based on Pole Placement Technique


Index Terms

Computer Science
Applied Sciences

Keywords
Steam turbine governor modeling pole placement.