Abstract

This paper presents a new method of controlling chaos in the nonlinear Van Der Pol oscillator with uncertainties. The proposed method is based on a nonlinear observer to estimate unmeasured velocity signal coupled to a control law. The observer ensures, firstly, an asymptotic convergence of the velocity estimation error. Then, the control law, which is based on the estimated variables, forces the output system to track a desired trajectory despite presence of uncertainties (external forces) on the system dynamics. Simulation results are provided to show the effectiveness of the proposed control strategy.

References

- Xu Y. L., W. L. Qu, B. Chen. 2003. Active/robust moment controllers for seismic response control of a large span building on top of ship lift towers. Journal of Sound and


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