MODEL FOLLOWING SLIDING MODE CONTROL BASED ON TDC AND UDE

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Abstract

This paper presents sliding mode (SM) approach for uncertain and disturbed linear system. Time delay control (TDC) and uncertainty and disturbance estimation (UDE) are the two approaches used for estimation of uncertainties and disturbances. UDE overcomes many limitations of TDC. The analysis for a system with uncertainties and disturbance is carried out with TDC and UDE. The comparison shows UDE significantly overcomes many drawbacks of TDC and gives better results. The conceptions presented in this paper will be of assistance in the existing applications as well as in the design of new installations.