

عنوان مقاله:

State Estimation of Nonlinear Systems Using Modal Series

محل انتشار:

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خلاصه مقاله:

Modal series is a new approach for modelling and analysis of nonlinear systems. This paper provides application of modal series to state estimation of nonlinear systems and introduces a new state estimation approach for nonlinear systems. We use classical Kalman filter to estimate each terms of modal series. The proposed state estimation method has been used to improve LQG (Linear Quadratic Gaussian) controller response of a nonlinear system. To validate the proposed approach, results of simulation of LQG control of a cart and pole using proposed approach has been compared with the classical LQG control.

کلمات کلیدی:

Nonlinear Systems, Modal Series, State Estimation, LQG Control

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