عنوان مقاله:

Fault Detection Using Unknown Input Observer for Network Control Systems

محل انتشار:

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خلاصه مقاله:

In this research, fault detection for network control systems (NCSs) using unknown input observer (UIO) is proposed. The considered system have multiple communication delays and time-varying uncertainty. First, the residual signal is obtained via a UIO, and then residual evaluation function is computed. The Lyapunov approach is exploited to ensure the stability of the observer. Moreover, H∞ index is used to reduce the effect of perturbation in the residual signal. The result of observer design is formulated as linear matrix inequalities (LMIs). Finally, the effectiveness of the proposed method is shown by a numerical example

کلمات کلیدی:

(fault detection, network control systems, linear matrix inequality (LMI), unknown input observer (UIO

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