Abstract

In this works, we use the approach based on observers such as the Luenberger observer and the sliding mode observer in order to introduce the diagnosis of nonlinear systems. The robustness of the proposed observers is tested through a physical example. The obtained results show that for non linear systems the performances of sliding mode observer observer is better than using a classic kind of observer. The synthesis of nonlinear observers will be used for actuator fault detection and isolation using residual generation. Finally, a comparison of observers' performances will be interesting for judging the effectiveness of this approach.

References


**Index Terms**

Computer Science

Control Systems
Keywords
Observers  Nonlinear Systems  Luenberger Observer  Sliding Mode Observer  Fault Detection And Isolation  Residual Generation