عنوان مقاله:

Design of Direct Exponential Observers for Fault Detection of Nonlinear MEMS Tunable Capacitor

محل انتشار:

ماهنامه بين المللي مهندسي, دوره 28, شماره 4 (سال: 1394)

تعداد صفحات اصل مقاله: 8

نویسندگان: h Mobki - Department of Mechanical Engineering, University of Tabriz, Tabriz, Iran

m.h sadeghi - Department of Mechanical Engineering, University of Tabriz, Tabriz, Iran

g Rezazadeh - Department of Mechanical Engineering, Urmia University, Urmia, Iran

خلاصه مقاله:

In this paper a novel method for construction of an exponential observer for nonlinear system is proposed. The method is based on direct solution of dynamic error without any linearizing of nonlinear terms. Necessary and sufficient conditions for construction of direct observer are presented. Stability ofthe observer is checked using Lyapunov theorem. Also, the ability of this observer is checked by implementing the observer for fault detection of micro tunable capacitor subjected to nonlinear electrostatic force

کلمات کلیدی:

Nonlinear Observer, Exponential Observer, Lyapunov Theorem, Micro Tunable Capacitor

لینک ثابت مقاله در پایگاه سیویلیکا:

https://civilica.com/doc/406336

