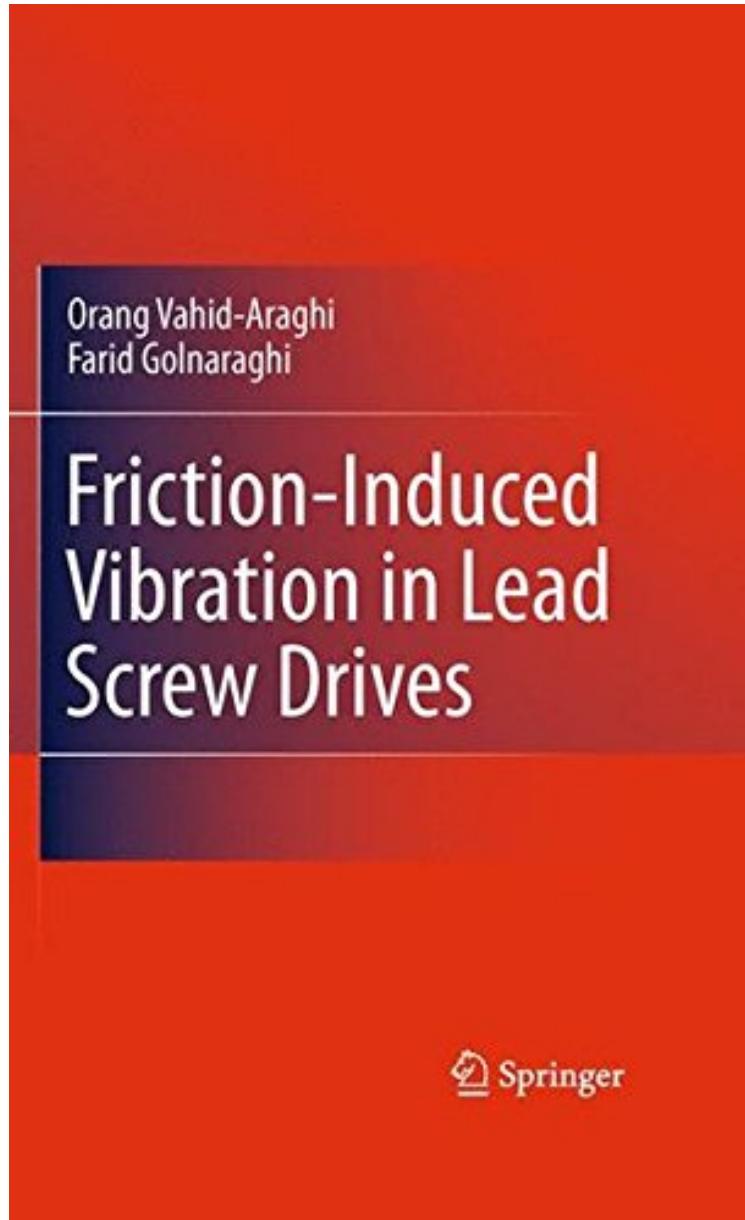


(Mobile book) Friction-Induced Vibration in Lead Screw Drives

Friction-Induced Vibration in Lead Screw Drives

Orang Vahid-Araghi, Farid Golnaraghi
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Orang Vahid-Araghi, Farid Golnaraghi : Friction-Induced Vibration in Lead Screw Drives before purchasing it in order to gage whether or not it would be worth my time, and all praised Friction-Induced Vibration in Lead Screw Drives:

0 of 0 people found the following review helpful. Not what I expected.By PattyI was looking for more information on

what I could look for when taking vibration on lead screws. A lot of the math information is useless to me. Maybe used a handful of pages out of the entire book.

Friction-Induced Vibration in Lead Screw Drives covers the dynamics of lead screw drives with an emphasis on the role of friction. Friction-induced vibration in lead screws can be the cause of unacceptably high levels of audible noise as well as loss of operation accuracy and shortened life. Although lead screw drives have a long history and their mechanical design and manufacturing aspects are very well understood, the role of friction in their dynamical behavior has not been comprehensively treated. The book draws on the vast body of work on the subject of dynamical systems with friction (such as disk brake systems) and offers said treatment, along with: Unique coverage of modeling of multi-DOF lead screw systems with friction Detailed analysis of negative damping, mode coupling, and kinematic constraint instability mechanisms in lead screws drives A practical parameter identification approach for the velocity dependent coefficient of friction in lead screw drives Friction-Induced Vibration in Lead Screw Drives serves as the definitive text on the friction-induced vibration of lead screws, and includes a practical case study where the developed methods are used to study the excessive noise problem of a lead screw drive system and to put forward design modifications that eliminate the friction-induced vibrations.

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