

عنوان مقاله:

A Novel Speed-Variant Balancing Method for Rotary Machines Based on Acoustical Response

محل انتشار:

دهمین کنفرانس بین‌المللی آکوستیک و ارتعاشات (سال: 1399)

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خلاصه مقاله:

Imbalance is a common problem in flexible rotating machinery which can lead to extreme vi-bration and noise levels. This is one of the major reasons for studying various balancing methods applied to the vibration response of rotating machines. By considering the acoustic and vibration responses of a machine between its critical speeds, this research presents a nov-el speed-variant balancing method based on the original three-point method, named as "Peak to Peak of different Critical Speeds (PPCS)". Experimental results show that the PPCS meth-od can be implemented for speed-variant and flexible rotary machines during shut-down tran-sient processes based on acoustic and vibration measurements. As a phase-less and a contact-less method, the PPCS can be employed as an innovative method for condition monitoring in the future

کلمات کلیدی:

Rotating Machinery; Speed-Variant Balancing Method; Acoustic Feedback

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