عنوان مقاله:

Balancing of Flexible Rotors with Optimization Methods

محل انتشار:

اولین کنفرانس بین المللی و سومین کنفرانس ملی سد و نیروگاههای برق آبی (سال: 1390)

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خلاصه مقاله:

The vibration control has become an important issue with increasing the speed of rotating machinery, and the requirement for working in a specified rang of vibration.In this paper, the flexible rotor balancing problem based on the influence coefficient method and holospectrum technique is formulated as a minimax optimization problem.This formulation can solve the minimax high-speed rotating machinery's balancing problem under practical balancing constraints effectively while ensuring thebalancing machinery runs up safely. (GA) method is employed to solve the minimaxbalancing problem. An experimental and a real world balancing example are given todemonstrate the effect of this formulation. The performance of GA is compared with other established approaches; some conclusions are derived.

کلمات کلیدی:

GA, SQP, Holospectrum, Multi-objective optimization, balancing

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