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Time-delayed control to suppress the nonlinear vibrations of a horizontally suspended Jeffcott-rotor system

N.A. Saeed , W.A. El-Ganaini

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Highlights

- The problem of a nonlinear time-delayed position-velocity feedback controller is discussed.
- Time-delays intervals at which the system response is stable are explored.
- Simple and concrete method is proposed to determine the optimal value of time-delays.
- Time-delays are harnessed to improve the controller efficiency in suppressing the system vibrations.

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