

On the controllability of the dynamic behavior of a vibrating flexible shaft to n degree of freedom: Numerical methods approach

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In this study, we establish a linear control system for modeling the dynamic behavior of a vibrating Flexible shaft and approach some numerical methods for developing found solutions in the boundary conditions. We show for $S \in \Omega$ a solid body of the load P attached at a point M of a shaft of the length l where $\Gamma(S_1, \dots, S_n) = 0$ is the system of differential equations of second order with $1 < i < n$. The problem below corresponding to the Dynamic System of Rigid bodies, we evoke, in Combinatory mathematic theory, the Symmetric matrix purposed for the first time by Leonard Kabeya Mukeba in 2007^[1] where the problem of solid-solid and solid-air interfaces are open questions in fundamental and engineering sciences.

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