ROTATION VECTORS FOR MULTI DEGREE OF FREEDOM VIBRATIONI

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ABSTRACT

This paper introduces the description of Multi-Degree-of-Freedom vibration with a traditional method: rotating vectors. The translational model of the vibrating systems consists of springs, masses and dampers with linear characteristics, excited on the first, main mass. The description starts with the basis relations of Two-Degree-of-Freedom, then it is extended first to parallel, then to serial, after that to mixed attached components. At the end the paper shows a description of a Five-Degree-of Freedom mixed system.

Keywords: vibration, rotating vectors, metamaterial