

عنوان مقاله:

Partial Winkler Foundation Effects on the Natural Frequency of the Uniform Timoshenko Beam

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خلاصه مقاله:

Natural frequencies are important dynamic characteristics of a beam where they are required for the forced vibration analysis and solution of resonant response. In this paper, the effect on the partial Winkler foundation on the natural frequency of the uniform Timoshenko beam is presented. The applied method for modeling uniform Timoshenko beam on the partial Winkler foundation is based on the Green Function. In this paper, the effect of the elastic coefficient of Winkler foundation, as well as, the length and location of elastic Winkler foundation and other parameters are assessed. Finally, some numerical examples are shown to present the efficiency and simplicity of the Green Function Method in the new formulation.

کلمات کلیدی:

Natural frequency, Timoshenko beam, Winkler foundation, Green Function Method

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