عنوان مقاله:

Stability of Functionally Graded Cylindrical Shells under Combined Loading

محل انتشار:

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خلاصه مقاله:

This paper investigates an analysis for buckling of functionally graded cylindrical shells subjected to combined loading. The shell properties are assumed to be given by a simple power law distribution. The formulation is based on the Donnell's shell theory. The stability equations are derived by the principle of virtual work and analytical solution is obtained by the adjacent equilibrium criterion method. The influences of the material constitution, geometry ratio and load parameter on the critical buckling loads are examined. Comparison study with homogeneous cylindrical shell formula is given for accuracy.

کلمات کلیدی:

Buckling, Functionally graded cylindrical shell-Combined loading Donnell's shell theory

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