

عنوان مقاله:

Thermoelastic Analysis of Rotating Thick Truncated Conical Shells Subjected to Non-Uniform Pressure

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خلاصه مقاله:

In the present work, a study of thermoelastic analysis of a rotating thick truncated conical shell subjected to the temperature gradient and non-uniform internal pressure is carried out. The formulation is based on first-order shear deformation theory (FSDT), which accounts for the transverse shear. The governing equations, derived using minimum total potential energy principle, are solved, using multi-layered method (MLM). The model has been verified with the results of finite element method (FEM) for several tapering angles of the truncated cone. The numerical results obtained are presented graphically and the effects of thermal and mechanical loading, tapering angle of truncated cone, and profile of internal pressure are studied in detail.

کلمات کلیدی:

Truncated conical shells, Thick shells, Thermoelastic analysis, Rotation, Non-uniform pressure

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