

ABSTRACT

An effective finite element scheme should be applicable to both static and buckling of shell behavior and the rate of convergence in either case should be optimal and independent of the shell thickness. Such a finite element scheme is difficult to achieve but it is important that existing procedures be analyzed and measured with due regard to these considerations. In the static analysis structure analysis with static loading with variable end boundary condition but boundary condition did not effect on forces but found effect in deformation shape and bending moments. In static analysis size of meshing found as important phenomena if number of meshing is increased so number of nodes increase also the number of value of nodal solution is increased

The buckling behavior also important phenomena of shell structure Buckling of cylindrical shells subject to axial compression is addressed for shells having foamed metal cores. Optimal face sheet thickness, core thickness and core density are obtained which minimize the weight of a geometrically perfect shell with a specified load carrying capacity. Constraints imposed by wrinkling and yielding of the face sheets and yielding of the core are all considered especially in light of the coincidence of elastic buckling and face sheet yielding in the optimally designed perfect shell. In buckling analysis edge beam found more carrying capacity as compare to short edge. It is found that analysis in program is more time taken solution but more accurate results. The buckling analysis give buckling load with different condition and also give acceptance behavior of engineering structure.