Numerical and Expiremental Investigation of an Elliptical Paraboloid Shell Model

Authors: D. Hamadi, M. Mellas and R. Chebili.

Abstract

For practical engineering purpose, a new flat shell element baptized (ACM_Q4SBE1) is presented in this paper. The formulated element can be used for the analysis of thin shell structures; no matter how the geometrical shape might be. Tests on standard problems have been examined. Since, the analysis of thin shell structures has generally been purely carried out on a theoretical basis; it is of importance to present some experimental results of an elliptical paraboloid under uniformly distributed load pressure. The results obtained from both numerical and experimental work are presented.

Link http://www.davidpublishing.com/DownLoad/?id=1067