Free vibration analysis of uniform and stepped combined paraboloidal, cylindrical and spherical shells with arbitrary boundary conditions

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Highlights

- The free vibration of uniform and stepped combined paraboloidal, cylindrical and spherical shellsisinvestigated by using asemi-analytical methodwith arbitraryboundary conditions.
- This paper presentsa generalized and unified Jacobi-Ritz formulation to investigate the free vibration of uniform and stepped combinedstructures.
- The papergeneralizesthe selection of the admissible displacement functions by using the Jacobi polynomial.