THERMAL POST-BUCKLING RESPONSE OF SANDWICH FUNCTIONALLY GRADED MATERIALS (FGM) PLATES RESTING ON THE PASTERNAK FOUNDATION

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A thermal post-buckling behaviour of imperfect a three-layered sandwich plates consist of two FG face sheets and a homogeneous core resting on the Pasternak elastic foundation subjected to uniform and non-uniform tent-like temperature loading is presented. Material properties of the core and FGM layers will follow a power law distribution across the thickness. The effect of foundation interaction beyond the plate are accounted for in the present formulation. To avoid the locking phenomena a new 16-noded Mindlin plate lagrangian elements using Gauss or Lobatto full integration rules will be used. Numerical examples are provided to illustrate the advantages of the method proposed.

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