عنوان مقاله:

Static analysis of sandwich beams with functionally graded core using first order shear deformation beam theory

محل انتشار:

کنفرانس بین المللی پژوهش در علوم و تکنولوژی (سال: 1394)

تعداد صفحات اصل مقاله: 8

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خلاصه مقاله:

In this paper, an analytical approach for static analysis of sandwich beam with functionally graded (FG) core is presented. The material properties of the functionally graded layer are assumed to vary according to power law distribution of the volume fraction of the constituents. Based on the present shear deformation beam theory (FBT), the equations of motion are derived from Hamilton's principle. Analytical solutions for static analysis are obtained. The method is validated by comparing numerical results with the results obtained in the literature. The effects of the volume fraction index on the static behavior of sandwich beam with FG core are discussed

کلمات کلیدی:

FBT, FG, Static

لینک ثابت مقاله در پایگاه سیویلیکا:

https://civilica.com/doc/446545