

## عنوان مقاله:

Uncoupled Thermopiezoelasticity of Functionally Graded Beams with Piezoelectric Actuators

## محل انتشار:

هجدهمین کنفرانس سالانه مهندسی مکانیک (سال: 1389)

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## خلاصه مقاله:

In this paper, uncoupled thermopiezoelastic analysis of functionally graded beams with piezoelectric actuators subjected to electric field and thermal loading is studied using a higher order theory in conjunction with the variational approach. The material property of functionally graded core is assumed to vary according to the volume fraction of constituents given by exponential function. Linear temperature rise across the thickness is considered. The electromagnetic potential is assumed to be a piecewise linear across the each piezoelectric layer. The transverse displacement distribution across the thickness direction and the effect of geometry of beam on deflection is discussed in detail.

## کلمات کلیدی:

functionally graded material; higher order theory, uncoupled thermopiezoelastic, piezoelectric actuator

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/95744>

