

Vagif D. GADJIEV, Natig S. RZAYEV

OSCILLATIONS OF A NONHOMOGENEOUS
DIFFERENT MODULUS BEAM WITH A LOAD
MOVING ON IT SITUATED ON
NONHOMOGENEOUS VISCOELASTIC
FOUNDATION

Abstract

In the paper it is supposed that the material of the beam is inhomogeneous in height and length of the beam. The equation of motion is a fourth order differentiable equation with variable coefficients.

Influence of environment created by a non-homogeneous viscoelastic foundation is simulated by the viscoelastic variant of the Winkler scheme. The solution is constructed on the base of combination of approximate analytic methods. The numerical analysis is conducted for concrete values of typical parameters.