

## Article Abstract

<b>Title:</b>	<b>Propagation of S-waves in a non-homogeneous anisotropic incompressible and initially stressed medium</b>
<b>Author(s):</b>	S. Gupta <sup>1*</sup> , S. Kundu <sup>1</sup> , A.K. Verma <sup>2</sup> and R. Verma <sup>3</sup>
<b>Address(es):</b>	<sup>1</sup> *Department of Applied Mathematics, I.S.M. Dhanbad, INDIA <sup>2</sup> Department of Mathematics, Hampton University, Hampton, VA, USA <sup>3</sup> Department of Mathematics, Norfolk State University, Norfolk, VA, USA *Corresponding Author: e-mail: shishir_ism@yahoo.com, Tel +91-326-2235464
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<b>Abstract:</b>	In this paper we have studied the propagation of shear waves in a non-homogeneous anisotropic incompressible and initially stressed medium. Analytical analysis reveals that the velocities of the shear waves depend upon the direction of propagation, the anisotropy, the non-homogeneity of the medium and the initial stress. Numerical computation shows that the presence of initial compressive stress in the medium reduces the velocity of propagation whereas, the tensile stress increases it. It is found that the variation in parameters associated with anisotropy and non-homogeneity of the medium directly affects the velocity of the wave. The velocity of wave also depends on the inclination of the direction of its propagation. An increase in the inclination angle decreases the velocity in the beginning and takes a minimum value before increasing.
<b>Keywords:</b>	Shear waves; anisotropic; stress; non-homogeneity; half-spaces.