عنوان مقاله:

Rayleigh Wave in an Incompressible Fibre-Reinforced Elastic Solid Half-Space

نویسنده:

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خلاصه مقاله:

In this paper, the equation of motion for an incompressible transversely isotropic fibre-reinforced elastic solid is derived in terms of a scalar function. The general solution of the equation of motion is obtained, which satisfies the required radiation condition. The appropriate traction free boundary conditions are also satisfied by the solution to obtain the required secular equation for the Rayleigh wave speed. Iteration method is used to compute the numerical values of non-dimensional speed of Rayleigh wave. The dependence of the non-dimensional wave speed on non-dimensional material parameter is illustrated graphically. Effect of transverse isotropy is observed on the Rayleigh wave speed.

کلمات کلیدی:

Rayleigh wave, Fibre-reinforced, Incompressibility, Transverse isotropy

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