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A Problem on Homogeneous Isotropic Microstretch Thermoelastic Half Space with Mass Diffusion Medium under Different Theories

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Abstract : The present investigation deals with generalized model of the equations for a homogeneous isotropic microstretch thermoelastic half space with mass diffusion medium. Theories of generalized thermoelasticity Lord-Shulman (LS) Green-Lindsay (GL) and Coupled Theory (CT) theories are applied to investigate the problem. The stresses in the considered medium have been studied due to normal force and tangential force. The normal mode analysis technique is used to calculate the normal stress, shear stress, couple stresses and microstress. A numerical computation has been performed on the resulting quantity. The computed numerical results are shown graphically.

Keywords : microstretch, thermoelastic, normal mode analysis, normal and tangential force, microstress force
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