

## Effects of Variable Viscosity on Radiative MHD Flow in a Porous Medium Between Two vertical Wavy Walls

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**Abstract :** This study was conducted to investigate two dimensional heat transfer of a free convective-radiative MHD (Magneto-hydrodynamics) flow with temperature dependent viscosity and heat source of a viscous incompressible fluid in a porous medium between two vertical wavy walls. The fluid viscosity is assumed to vary as an exponential function of temperature. The flow is assumed to consist of a mean part and a perturbed part. The perturbed quantities were expressed in terms of complex exponential series of plane wave equation. The resultant differential equations were solved by Differential Transform Method (DTM). The numerical computations were presented graphically to show the salient features of the fluid flow and heat transfer characteristics. The skin friction and Nusselt number were also analyzed for various governing parameters.

**Keywords :** differential transform method, MHD free convection, porous medium, two dimensional radiation, two wavy walls

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