VISCOUS DISSIPATION EFFECT ON THE MIXED CONVECTION MHD FLOW TOWARDS A STAGNATION POINT WITH CONVECTIVE BOUNDARY CONDITION IN A POROUS MEDIA

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ABSTRACT

An analysis of the viscous dissipation effect of the mixed convection MHD flow towards a stagnation point with convective boundary condition embedded in a porous media has been the subject of this research work. The nonlinear partial differential equations arising from the flow modeling were transformed into coupled nonlinear ordinary differential equations and subsequently solved using the Runge-Kutta shooting method. Effect of the relevant thermo-physical parameters has also been numerically investigated and visualized.

Keywords: viscous dissipation, convective boundary, stagnation point, MHD.