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## MHD mixed convection from a horizontal cylinder in a porous medium

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**Abstract:** Mixed convection from a horizontal cylinder imbedded in saturated electrically conducting fluid is investigated using nonsimilarity boundary layer transformation. Variable wall temperature is assumed at the cylinder surface as the thermal boundary condition. The problem is solved numerically using the finite difference technique and double-checked using a local nonsimilarity solution. The effects of the magnetic field on the velocity and temperature profiles, wall shear stress, and Nusselt number are presented. The non Darcian flow model is adopted. The effects of the inertial and boundary parameters on the solution in the presence of a magnetic field are also presented. The problem is solved covering the entire regime of mixed convection.