

Conclusion and future scope

The work presented in this thesis is confined to theoretical models of unsteady free convective boundary layer MHD flow with different types of Non-Newtonian fluids. The problems discussed are one dimensional and give rise to system of partial differential equations. Analytical solutions of such linear systems are obtained using Laplace transform technique. So, convergence of the solutions is assured unlike Numerical solutions.

This research can be extended to higher dimensions. The challenge with such models is that the resulting system of partial differential equations is non-linear and mostly analytical methods are not applicable. So, either semi analytic methods such as Homotopy Analysis Method or Numerical methods can be applied. This work can also be extended by including study of various effects like Dufour effect, induced magnetic field effect etc.