

Abstract

In this thesis we study the natural convection boundary layer flow over a semi infinite heated plate with arbitrary inclination. Existing solutions of similar models can be recovered as the limiting cases of vertical plate from our generalized problem. Moreover, porous effects and the influence of transverse magnetic field fixed to the fluid or plate are accounted. Furthermore, the contribution of the system parameters to the fluid motion in question has been depicted graphically. The novelty of the present study is to analyze the effect of angle of inclination of the plate and the case when the magnetic field is fixed relative to the fluid or the plate on the fluid motion.