

The Convection of Unsteady Casson Fluid Over an Infinite Inclined Isothermal Plate

H.I.Osman^{1}, N. F. M. Omar¹, D. Vieru² and Z. Ismail^{1*}*

¹Centre for Mathematical Sciences, College of Computing Applied Sciences, Universiti Malaysia Pahang, 26300 Gambang, Pahang, Malaysia

²Department of Theoretical Mechanics (MT), Georgia Asachi Technical University of Iasi TU Iasi, Romania.

*Corresponding authors: ¹husnaizzatii@yahoo.com, zulkhibri@ump.edu.my

Abstract

An analytical solution of chemical reaction on unsteady Casson fluid over an infinite inclined isothermal plate has been presented in this article. Laplace transform technique has been used in this study to obtain the results of velocity, temperature and concentration. The analytical solution for governing equations are solved by using this method. The effects of various embedded solution on velocity, temperature and concentration such as chemical reaction, magnetic parameter and radiation has been discussed graphically with numerical results.

Keywords: Casson; Magnetohydrodynamic; Inclined plate.