International Journal of Mathematics and Computer Applications Research (IJMCAR)
ISSN(P): 2249-6955; ISSN(E): 2249-8060
Vol. 5, Issue 1, Feb 2015, 13-28

RADIATION AND HEAT GENERATION EFFECTS ON UNSTEADY MHD FLOW OVER A STRETCHING SURFACE WITH POROUS MEDIUM AND SLIP CONDITIONS

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ABSTRACT

The object of the present paper is to analyze the slip flow effects on unsteady hydromagnetic flow over a stretching surface with thermal radiation in presence of heat generation and porous medium. The governing partial differential equations are reduced to a system of self-similar equations using the similarity transformations. The resultant equations are then solved numerically using the Runge- Kutta fourth order technique along with shooting method. The effects of governing physical parameters on the velocity and temperature as well as skin friction coefficient and Nusselt number are computed and presented in graphical and tabular forms.

KEYWORDS: Slip Effect, MHD, Unsteady Flow, Porous Medium, Radiation and Heat Generation