# EFFECT OF SLIP CONDITION ON UNSTEADY MHD OSCILLATORY FLOW IN A CHANNEL FILLED WITH POROUS MEDIUM WITH HEAT RADIATION AND MASS TRANSFER

## NITYANANDA SENAPATI[1] & RAJENDRA KUMAR DHAL[2]

[1]Department of Mathematics, Ravenshaw University, Cuttack, Orissa, India

[2]J. N. V. Paralakhemundi, Gajapati, Orissa, India

## ABSTRACT

The effect of slip condition on unsteady flow of an electrically conducting fluid trough a channel filled with saturated porous medium in the presence of transverse magnetic field and radiative heat transfer and mass transfer is studied. The dimensionless governing equations are solved using oscillatory flow conditions. The results are obtained for velocity, Sherwood Number and shearing stress for different parameters like Schmidt number, time, magnetic parameter, Darcy number, Renold number, Peclet number, rarefaction parameter etc. The flow characteristics are discussed and shown by means of graphs and tables.

**KEYWORDS:** Heat Transfer, Mass Transfer, MHD, Oscillatory Flow, Porous Medium and Slip Condition