

**UNSTEADY MHD FLOW, HEAT AND MASS TRANSFER ALONG AN
ACCELERATED VERTICAL POROUS PLATE IN THE INFLUENCE OF VISCOUS
DISSIPATION, HEAT SOURCE AND VARIABLE SUCTION**

RACHNA KHANDELWAL

Jaipur Institute of Technology ,Group of Institutions,Rajasthan Technical
University,Jaipur,Rajasthan,India

ABSTRACT

The unsteady free convective flow, heat and mass transfer boundary layer flow past an accelerated infinite vertical porous heated plate with variable suction and heat source in presence of magnetic field is investigated. The plate accelerates in its own plane. The governing equations are solved both analytically and numerically using Runge kutta forth order method with shooting technique. The velocity, temperature and concentration distributions, skin-friction, rate of heat transfer are derived, discussed numerically and shown through graphs and tables for different values of physical parameters.

KEYWORDS: Unsteady, Free Convection, MHD, Mass Transfer, Accelerated Plate, Porosity, Skin Friction, Nusselt Number