1. Hazem Ali Attia, Waleed Abd El-Meged, W. Abbas, and Mostafa A. M. Abdeen, "Unsteady flow in a porous medium between parallel plates in the presence of uniform suction and injection with heat transfer", International Journal of Civil Engineering, Iran University of Science and Technology, to be published in Vol. 12, No. 0, 2014

Abstract:

The unsteady flow in porous medium of a viscous incompressible fluid bounded by two parallel porous plates is studied with heat transfer. A uniform and constant pressure gradient is applied in the axial direction whereas a uniform suction and injection are applied in the direction normal to the plates. The two plates are kept at constant and different temperatures and the viscous dissipation is not ignored in the energy equation. The effect of the porosity of the medium and the uniform suction and injection velocity on both the velocity and temperature distributions are investigated.