<u>Title of the Paper:</u> Unsteady Slow Motion of a Thermo-Viscous Fluid between Two Parallel Plates

Abstract: In this paper we examined the problem of unsteady slow motion of a thermo-viscous fluid between two parallel plates in the absence of viscous dissipation. The effects of material parameters like strain thermal conductivity coefficient and time parameter on the flow field have been discussed with the help of illustrations. The illustrations are generated with help of MATLAB Code. It is noticed from the illustrations that the velocity profiles drifted towards the origin. This effect is due to the strain thermal conductivity of the fluid.

Keywords: Prandtle number, strain thermal conductivity coefficient, thermo-viscous flows, thermo-mechanical stress coefficient.