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Isa, S.S.P.M.[a b] , Azmi, H.M.[a] , Balakrishnan, N.[a] , Nazir, A.S.M.[b] , Ahmad, K.[c] , Ismail, N.S.[d] , Arifin, N.Md.[e] , Rosali, H.[e]

**The Soret-Dufour Effects on Three-Dimensional Magnetohydrodynamics Newtonian Fluid Flow over an Inclined Plane**

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[a] Institute for Mathematical Research, Universiti Putra Malaysia, UPM, Selangor Darul Ehsan, Serdang, 43400, Malaysia
[b] Centre of Foundation Studies for Agricultural Science, Universiti Putra Malaysia, UPM, Selangor Darul Ehsan, Serdang, 43400, Malaysia
[c] Department of Science in Engineering, Kulliyah of Engineering, International Islamic University Malaysia, Kuala Lumpur, Gombak, 50728, Malaysia
[d] Centre for Pre – University Studies, Universiti Malaysia Sarawak, Sarawak, Kota Samarahan, 94300, Malaysia
[e] Department of Mathematics, Faculty of Science, Universiti Putra Malaysia, UPM, , Selangor Darul Ehsan, Serdang, 43400, Malaysia

**Abstract**
The three-dimensional (3D) model of the fluid flow model with length, breadth, and height or depth is the advanced and precise version from the two-dimensional (2D) model which just lies on a flat surface. The heat transfer in the boundary layer flow have numerous applications in the production of polymer, plastic films, and paper production. Therefore, this paper solves 3D magnetohydrodynamics Newtonian fluid flow model with the effect of Soret-Dufour parameters. Compared with the previous report where the 3D model is without the inclination angle (all the axes are located at their fixed position), this paper considers the boundary xy-plane being projected by a certain angle from the z-axis. The initial partial differential equations (PDEs) are subsequently reduced to ordinary differential equations (ODEs). The MATLAB bvp4c program is chosen to solve the ODEs and the results velocity profile, temperature profile, concentration profile, skin friction coefficient, local Nusselt number, and local Sherwood number. It can be inferred that the magnetic parameter is responsible to the decrement of the velocity profile and skin frictions coefficient. The enhancement of the temperature and the local Sherwood number are caused by the Dufour number. Besides, concentration and the local Nusselt number are enhancing due to the increasing Soret number. 

**Author Keywords**
3D model; magnetohydrodynamics; Matlab bvp4c; Newtonian fluid; Soret-Dufour

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**Correspondence Address**
Isa S.S.P.M.; Institute for Mathematical Research, Selangor Darul Ehsan, Malaysia; email: ctsuzilliana@upm.edu.my

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