1154-76-645   **Z M Mbugua*** (`mburum46@gmail.com`), p.o.box private bag X01, scotsville, pietermaritzburg, Johannesburg, kzn 3209, South Africa, **P - Sibanda** (`sibandap@ukzn.ac.za`), p.o.box private bag X01, Scotsville, Pietermaritzburg, Johannesburg, 3209, South Africa, and **S - Mondal** (`sabya.mondal.2007@gmail.com`), p.o.box 700135, Newtown, India, Bengal, 700052, India. *A Numerical Study of Entropy Generation in Nanofluid Flow Over an Inclined Cylinder.*

In this study we present a numerical investigation of entropy generation, heat and mass transfer in an unsteady nanofluid flow over an inclined cylinder using Buongiorno's model. A numerical scheme with overlapping grids and bivariate spectral collocation is used to solve the highly non-linear partial differential equations that model the flow. We compute the entropy generation rate and determine the influence of the flow parameters on entropy generation and the fluid properties. The results are presented in both qualitative and quantitative forms. An analysis of the convergence of the numerical method is presented to show the accuracy and stability of the new numerical scheme.