MHD BOUNDARY LAYER FLOW DUE TO AN EXPONENTIALLY STRETCHING SHEET WITH RADIATION EFFECT IN POROUS MEDIUM

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DECLARATION BY CANDIDATE

I certify that this report and the project to which it refers is the product of my own work and that any idea or quotation from the work of other people, published or otherwise are fully acknowledged in accordance with the standard referring practices of the discipline.

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ABSTRACT

Studies on magnetohydrodynamic (MHD) boundary layer flow and heat transfer due to a stretching surface plays important role in many engineering process and industries. It is proved that the rate of heat transfer influenced the quality of the final product in engineering process. This research investigates about MHD flow and heat transfer over an exponentially stretching sheet with radiation effect in porous medium. The governing partial differential equation is transformed into the system of ordinary differential equation by applying similarity transformation. Then, the transformed boundary layer equations are solved numerically by using the finite difference scheme known as Keller-box method in MATLAB for some values of parameters. It was found that the local heat transfer rate decrease with the increasing values of permeability parameter, *D*.

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