CERTIFICATE

This is to certify that the thesis entitled **"MATHEMATICAL ANALYSIS OF MAGNETOHYDRODYNAMICS FLOW OF NON-NEWTONIAN FLUID"** submitted for the award of Ph. D. Degree in Mathematics by **Mr. Rahul Mehta** (Reg. No: FOS/2036, Date: 30/12/2016), incorporates the original research work carried out by him under my guidance and no part of this work has been previously submitted by him to any other universities or institutions for the same or any other degrees.

He has put in research for the requisite number of terms as required by the University.

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CERTIFICATE

This is to inform to all concerned that the following publications have arisen out of the research work carried out by my Ph. D. student Mr. Rahul P. Mehta who wishes to submit the thesis entitled "**MATHEMATICAL ANALYSIS OF MAGNETOHYDRODYNAMICS FLOW OF NON-NEWTONIAN FLUID**" to the Department of Mathematics, Faculty of Science, The Maharaja Sayajirao University of Baroda, Vadodara for the award of Ph. D. degree in Mathematics.

1   R. P. Mehta, H. R. Kataria, magnetic field and heat generation effects on second grade fluid flow past an oscillating vertical plate in porous medium, *International Journal of Scientific Research in Mathematical and Statistical Sciences,* 7 (1) (2020) 01-05, E-ISSN: 2348-4519, Impact factor: 1.021, UGC Journal List Number: 63061.

2   R. P. Mehta, H. R. Kataria, Study of Soret effect of MHD flow of Non-Newtonian fluid with radiation and chemical reaction, *International Journal of Advanced Science and Technology*, 29 (04) (2020) 7588 – 7602, **(Scopus Index),** ISSN:2005-4238.

3   R. P. Mehta, H. R. Kataria, Radiative Effect on Parabolic Motion of Casson Fluid Flow Past Over Vertical Plate Embedded in a Porous Medium, *Mathematics Today,*.34(A) (2018) 100-114, ISSN 0976-3228, e-ISSN 2455-9601, UGC Journal List Number: 47789.

4   R. P. Mehta, H. R. Kataria, Mathematical analysis of Soret effect on non-Newtonian fluid flow through porous medium in presence of magnetic field, *Journal of Emerging Technologies Engineering and Innovative Research*, 5 (7) (2018) 279 – 286, ISSN: 2349-5162, Impact factor:5.87, UGC Journal List Number: 63975.

5   R. P. Mehta, H. R. Kataria, Influence of Magnetic Field, Thermal Radiation and Brownian Motion on Water-Based Composite Nanofluid Flow Passing Through a Porous Medium, *International Journal of Applied and Computational Mathematics*, 7 (1) (2020) 1-24, (**Springer), (Scopus Index),** ISSN:2349-5103, Impact factor:1.24.

6 R. P. Mehta, H. R. Kataria, Cross diffusion effects on motion of three dimensional cassion fluid flow past between two horizontal plates in a porous medium. *Journal of Applied Science and Engineering,* 23 (2) (2020) 319-331, **(Scopus Index),** ISSN: 1560-6686, Impact factor: 0.6.

7 R. P. Mehta, H. R. Kataria, R. R. Darji, 2D Model of Casson Fluid Flow considering Soret and Dufour effects in presence of radiation, *Materials Today: Proceedings* https://doi.org/10.1016/j.matpr.2020.11.061, (2020) **(Elsevier), (Scopus Index),** ISSN: 2214-7853, Impact factor: 1.3.

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