BIODATA

GENERAL INFORMATION AND ACADEMIC BACKGROUND

1. Name (in Block Letters) : MAHESH KUMAR N
2. Father's Name/Mother's Name: C NANJAIAH
3. Nationality : Indian
4. Department : Department of Mathematics
5. Current Designation : Assistant Professor
6. Date of Last Appointment/Promotion: 18-04-2012
7. Address for Correspondence : Plot no 384
   Ramtheerth nagar, Belagavi
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8. Academic Qualifications:

Examination	Name of Exam	University	Year of Passing	Division/ Class/ Grade
Graduation	B.Sc	University of Mysore	2002	First class
Post-Graduation	M.Sc	University of Mysore	2004	First class with distinction
Others, if any	Ph.D	Rani Channamma University, Belagavi	2023	

14. Total period of teaching experience:
    P.G. Classes (in years): 13 years
    U.G. Classes (in years): 8 years
    PUC Classes (in years): 7 years

15. Courses taught at various levels (Name the course giving details):
(a) Undergraduate: Real Analysis, Calculus, differential equations, Numerical analysis, Algebra.
(b) Postgraduate: Group, Rings, Field, Vector spaces, Complex Analysis, Number theory and Cryptography, Measure theory, Statistics, Banach algebra, Mathematical Methods, Fluid dynamic.

Other information: Worked as Assistant Registrar in Evaluation in Rani Channamma University From 2021 to 2023.

RESEARCH AND ACADEMIC CONTRIBUTIONS

List of Publications or scholarly contributions of Mr Mahesh Kumar N

1. Mahabaleshwar U S, Makinde O D **and Maheshkumar N,** Non-Perturbative solution of hydromagnetic flow over a linearly stretching sheet, **Int.J. of Applied Mechanics and Engineering** (2013),18(3),935-945. **DOI: 10.2478/ijame-2013-0057**

2. Vishwanath B. Awati, **Mahesh Kumar N**. and Krishna B. Chavaraddi , Dirichlet series and approximate analytical solutions of MHD flow over a linearly stretching sheet, **International Journal of Industrial Mathematics (IJIM),** 7(4)(2015),343-350. (ISSN 2008-5621) **70(4)(2018), 599-611,** DOI 10.1108/ILT-12-2016-0314**.**

3. Vishwanath B Awati, Shankar Naik and **Mahesh Kumar N,** Multigrid method for the solution of EHL line contact with bio-based oils as lubricants, **Applied Mathematics and Nonlinear Sciences, 1(2) (2016) 359–368.** doi:10.21042/AMNS.2016.2.00031,ISSN 2444-8656.

4. Vishwanath B Awati, Ashwini Kengangutti and **Mahesh Kumar N.,** Multigrid method for the solution of combined effect of viscosity variation and surface roughness on the squeeze film lubrication of journal bearings, **"Journal of Mechanical Engineering", 46,2016**

5. Vishwanath B. Awati, N. N. Katagi and **Mahesh Kumar N**., Exponential series and approximate analytical method for the solution of MHD boundary layer flow over permeable shrinking surface, **International journal of Pure and Applied Mathematical Sciences (**IJPAMS**),** 10(1) (2017), 25-34.

6. Vishwanath B Awati, Shankar Naik and **Mahesh Kumar N,** Multigrid method for the solution of EHL point contact with bio-based oil as lubricants for smooth and rough asperity, **Industrial Lubrication and Tribology, 70(4)(2018), 599-611,** DOI 10.1108/ILT-12-2016-0314**.**

7. Vishwanth. B. Awati, **Mahesh Kumar N** and N. M. Bujurke., Numerical solution of thermal EHL line contact with bio-based oil as lubricant, **Australian Journal of Mechanical Engineering**, vol. no 20 (1), pp. 231-244, 2019.

8. Vishwanath B. Awati, **Mahesh Kumar N** and Wakif, Haar Wavelet Scrutinization of Heat and Mass Transfer Features During the Convective Boundary Layer Flow of a Nanofluid Moving over a

Nonlinearly Stretching Sheet, **Partial Differential Equations in Applied Mathematics, 4(2021),100192.**https://doi.org/10.1016/ j.padiff. 2021.100192.

9. Vishwanath B. Awati and **Mahesh Kumar N,** Analysis of forced convection boundary layer flow and heat transfer past a semi-infinite static and moving flat plate using nanofluids-by Haar wavelets, **Journal of Nanofluids, 10(1)(2021),106-117,** doi:10.1166/jon.2021,1771.

10. Vishwanth. B. Awati and **Mahesh Kumar N.,** Multigrid analysis of transient EHL line contact rolling/sliding problem with bio-based oil as lubricant, **IJAER**, vol. no 17(3), pp. 270-282, 2022.

11. Vishwanth. B. Awati and **Mahesh Kumar N.,** Newton-GMRES method for the solution of piezo-viscous line contact EHL problem with Daubechies wavelet as a preconditioner, **Journal of Modern Industry and Manufacturing**, vol. no 1(4), pp.1-8. 2022.

12. Vishwanath B. Awati, AkashGoravar, **Mahesh Kumar N,** Ali J. Chamkha, Scrutinization of Chebyshev collocation method for mass transfer on a continuous flat plate moving in parallel to a free stream in the presence of a chemical reaction, **International Journal of Ambient Energy**, vol. no 44(1) pp.390-398.**https://doi.org**/10.1080/01430750.2022.2127893, **2022**.

13. Vishwanath B. Awati, Parashuram M Obannavar, **Mahesh Kumar N,** Newton-GMRES Scrutinization of electric double layer and surface roughness on EHL line contact problem. **Journal of Mechanical Engineering and Science (JMES)** vol. no 17(1), pp 9370 – 9382, 2023. https://doi.org/10.15282/jmes.17.1.2023.7.0741.

14. Vishwanath B. Awati, **Mahesh Kumar N** and N. M. Bujurke, Numerical solution for thermal Elastohydrodynamic lubrication of line contact with couple stress fluid as lubricant. **Journal of Mechanical Materials and Mechanics Research,** vol. no 6(1), pp. 22-35. DOI: https://doi.org/10.30564/jmmmr.v6i1.5396.

15. Vishwanath B. Awati, Akash Goravar and Mahesh Kumar N. Semi-numerical investigation of boundary layer flow and heat transfer in presence of chemical reaction over a non-isothermal porous medium. **ASME Journal of Heat and Mass Transfer**, vol.no 145, pp 1-6, 2023 https://doi.org/10.1115/1.4062602.

16. Vishwanth B Awati, Parashuram M Obannavar, Mahesh Kumar N, Multigrid method for the solution of thermal elastohydrodynamic lubrication point contac problem with surface asperities,Mechanical engineering advances, vol.no 1(1) pp 1-24. Doi: 10.594400/mea.v1i1.94.

17. Vishwanath B. Awati, Akash Goravar and Mahesh Kumar N. Spectral and Haar wavelet collocation method for the solution of heat generation and viscous dissipation in micro-polar nanofluid for MHD stagnation point flow**. Mathematics and Computers in Simulation,** vol. no , pp **, 2023** https://doi.org/10.1016/j.matcom.2023.07.031.

18. **N Mahesh Kumar**, V. B. Awati, Parashuram Obannavar, Numerical solution of thermal non-Newtonian EHL line contact problem by using preconditioned Newton-GMRES, International Journal of Computational Engineering Research (IJCER), Vol.no 14(2), PP 49-59,2024.
19. Vishwanath B Awati and **Mahesh Kumar N,** Newton-GMRES Method for Thermal Elasto-hydrodynamic Lubrication of Line Contact Problems. Journal of the Institution of Engineers (India): Series C, Vol.no 105(3):PP 635-645, 2024.
20. Vishwanath B. Awati, Parashuram M. Obannavar, and **Mahesh Kumar N.** Scrutinization of Newton-GMRES Method For the Solution Of Thermal Elastohydrodynamic Lubrication Line Contact Problem With Grease A. Information Technology & Electrical Engineering (ITEE), Vol.no 13(1), PP 1-11, 2024.
21. Vishwanath B. Awati, Akash Goravar and **Mahesh Kumar N**. Stability Analysis of Mass Transfer on a Continuous Flat Plate Moving in Parallel or Reversely to a Free Stream in the Presence of Chemical Reaction by Haar Wavelets, Journal of Applied and Computational Mechanics, xx(x), 2024, 1–13. https://doi.org/10.22055/jacm.2024.45656.4396.
22. Vishwanath B Awati, AkashGoravar, **Mahesh Kumar N**, Gabriella Bognár. Stability Analysis of Magnetohydrodynamic Casson Fluid Flow and Heat Transfer past an Exponentially Shrinking Surface by Spectral Approach, Case Studies in Thermal Engineering, 60, 2024, 104810. https://doi.org/10.1016/j.csite.2024.104810.
23. Vishwanath B Awati, Sachin S. Muchandi**, Mahesh Kumar N**, Taseer Muhammad. M. Zaydan, A wakif and Rachid sehaqui. New insights into transport phenomena within steady MHD two-phase nanofluid flows over a permeable elastic sheet of an uneven thickness, Modern Physics letter B, 2-24. 2024. https://doi.org/10.1142/S0217984924504888.
24. **Mahesh Kumar N,** Vishwanath B Awati, Akash Goravar, Impact of chemical reaction on MHD boundary layer flow of nanofluids over a nonlinear strectching sheet with thermal radiation haar wavelet collocation method, Jurnal MediaMesin, 25(2), pp.100-115.2024