

Faculty Profile

Personal Information

- **Name:** Dr. Pavithra K M
- **Designation:** Assistant Professor
- **Department:** Applied Science and Humanities
- **Email:** pavithrakm.rvitm@rvei.edu.in
- **Phone:** 080 35095100(ext 158)

Google Scholar: <https://scholar.google.com/citations?user=xTJdDIIAAAAJ&hl=en>

ResearchGate: <https://www.researchgate.net/profile/Pavithra-K-M>

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Domain of Expertise

- Integral transforms
- Linear algebra
- Ordinary Differential Equations
- Partial Differential Equations
- Numerical Analysis
- Probability and Statistics
- Real Analysis

Research Focus

- Fluid Dynamics
- Heat and Mass Transfer
- Nanofluids
- Bio fluids

Academic Qualifications

- **Ph.D.:** [Mathematics], [REVA University], [2025]
- **B.Ed:** [PCM], [Dharwad University],[2013]
- **M.Sc.:** [Mathematics], [Kuvempu University],[2011]
- **B.Sc. :** [Physics, Mathematics, Computer Science], [Gulbarga University], [2009]

Professional Experience

Experience			
S.No	Institute/College/Industry	Job Title	Duration (From-To)
1.	RVITM	Assistant Professor	Aug 2025
2.	KSSEM	Assistant Professor	Mar 2025- July 2025
3.	REVA University	Regular Research Scholar	2021-2025
4.	KLE College, Rajajinagar	Lecturer	2016-2017
5.	Govt first-grade college	Lecturer	2014-2016
6.	Kottureshwara College	Lecturer	2011-2016

Publications & Patents

Journal Publications

- (i) **Pavithra, K. M.**, B. N. Hanumagowda, S. Suresh Kumar Raju, S. V. K. Varma, Nimer Murshid, Hasan Mulki and WaelAl-Kouz, "Thermal Radiation and Mass Transfer Analysis in an Inclined Channel Flow of a Clear Viscous Fluid and H₂O/EG-Based Nanofluids through a Porous Medium." **Sustainability** Vol 15, no. 5, pp 4342, 2023(28th Feb 2023), ISSN 2071 -1050, H index 136, **Impact factor 3.889, Q1**, Scopus, SCI.
- (ii) **Pavithra K M**, Hanumagowda B N, SVK Varma, N Ameer Ahammad, C.S. K. Raju, S. Noeiaghdam, "The Impacts of Shape Factors in a Chemically Reacting Two-Passage Vertical Channel Filled with Kerosene based Graphene Oxide and Mos₂ Mixture in a Porous Medium", **Results in engineering**, Vol 18, 101050, pp 1-18, 2023(27th March 2023), ISSN 2590-1230, H index 15, **Impact factor 4.059, Q2**, SCI, Scopus.
- (iii) **Pavithra, K. M.**, Srilatha, P., Hanumagowda, B. N., Varma, S. V. K., Amit Verma, Shalan Alkarni and Nehad Ali Shah, "A free convective two-phase flow of optically thick radiative ternary hybrid nanofluid in an inclined symmetrical channel through a

- porous medium”. *Symmetry*, Vol 15(8), 1615,2023(21st August 2023), ISSN 20738994.
- (iv) Malviya K, **Kalluhole Matada, P.**, Bannihalli Naganagowda, H., Varma, S. V. K., Chakravarthula S K Raju., RohitSharma (2024). Heat Transfer Analysis of MHD Oscillatory SWCNT/MWCNT-H₂O Hybrid Nanofluid Flow in a Channel. **ZAMM-Journal of Applied Mathematics and Mechanics/Zeitschrift für Angewandte Mathematik und Mechanik**, e202300366, ISSN 00442267, 15214001.
 - (v) Poojitha Sampath Kumar, Hanumagowda B N, **Pavithra K M**, S V K Varma, Dynamics of activation energy in natural convective radiative hybrid nanofluid flow through vertical porous channel with an aligned magnetic field, **The European Physical Journal Plus**.
 - (vi) M V Varsha, B N Hanumagowda, **K M Pavithra**, Yashwantsinh Jadeja, Ankur Kulshreshtha, S V K Varma, Chander Prakash, K Karthik, “Electromagnetic mixed convective flow of dusty hyperbolic tangent hybrid nanofluid over a stretching surface: A quadratic regression analysis using RSM”, **International Journal of Thermofluids**, 2024.
 - (vii) **Pavithra, K. M.**, B. N. Hanumagowda, S V K Varma, Magnetized Electroosmotic Drug Delivery of Au-SiO₂ Nanocarriers through Blood-based Jeffrey Hybrid Nanofluid in a Microchannel: Caputo Fabrizio Derivative Modeling, **Heliyon**.
 - (viii) Badiger, Ankita K., B. N. Hanumagowda, **K. M. Pavithra**, S. V. K. Varma, C. S. K. Raju, Samad Noeiaghdam, and Unai Fernandez-Gamiz. "Hybrid nanofluid flow over a vertical plate through porous medium in a conducting and chemically reacting field with radiation absorption and variable suction." *Results in Engineering* 24 (2024): 103070.
 - (ix) Kumar, P. S., Hanumagowda, B. N., **Pavithra, K. M.**, Varma, S. V. K., Mamatha, S. U., Raju, C. S. K., & Kumar, R. (2025). Impacts of Shape Factors on Conducting Field and oscillatory thermal variations into an Optically Thin Radiant Unsteady Hybrid Nanofluid in a Channel. *Journal of Porous Media*, 28(6).
 - (x) Preethi, K., Hanumagowda, B. N., **Pavithra, K. M.**, Varma, S. V. K., Mann, V. S., Singh, R., & Kattimani, P. (2025). Thermal scrutinization of MHD Darcy–Forchheimer flow of hybrid nanofluid over a stretching sheet with Richardson number and quadratic thermal radiation: hyperbolic tangent model. *Multiscale and Multidisciplinary Modeling, Experiments and Design*, 8(3), 171.
 - (xi) Sampath Kumar, Poojitha, N. Hanumagowda, K. M. Pavithra, S. V. K. Varma, and K. Hemanth. "Thermal and flow analysis of bi-viscosity hybrid nanofluid between rotating

disks under viscous dissipation and quadratic radiation effects: RSM approach." *International Journal of Ambient Energy* 46, no. 1 (2025): 2503285.

Student Supervision

- **Ph.D. Candidates:** 1(On going)

Professional Roles

Research:

PROFESSIONAL REVIEWER FOR:

- (i) Mechanics of Time-Dependent Materials (Springer Nature)
- (ii) Numerical Heat Transfer, Part A: Applications (Taylor and Francis)
- (iii) Journal of Advanced Research in Applied Sciences and Engineering Technology (Semarak Ilmu)
- (iv) Journal of Advanced Research in Fluid Mechanics and Thermal Sciences (Semarak Ilmu)
- (v) Multiscale and Multidisciplinary Modeling, Experiments and Design (Springer Nature)
- (vi) ZAMM
- (vii) Boundary Value problems(Springer)
- (viii) Discover Nano(Springer)
- (ix) Bagdad Science Journal

Teaching:

- Integral transforms
- Linear algebra
- Ordinary Differential Equations
- Partial Differential Equations
- Numerical Analysis
- Probability and Statistics
- Real Analysis

Responsibilities:

Member of

- Anti-Ragging Squad
- SC/ST/OBC and Minorities Committee