

Rishav Aich



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Employment History

- Jan, 2025 – ... **Senior Research Fellow (SRF)**, National Institute of Technology, Warangal, India.
- Jan, 2023 – ... **Teaching Assistant (TA)**, National Institute of Technology, Warangal, India.
- Jan, 2023 – Dec, 2024 **Junior Research Fellow (JRF)**, National Institute of Technology, Warangal, India.

Education

- Jan, 2023 – ... **Ph.D., Applied Mathematics, GGPA: 8.2**
National Institute of Technology, Warangal, India
Thesis Title: *Multi-Physics Modeling of Anisotropic Porous Media Using Physics-Informed Neural Networks*
- Sep, 2020 – June, 2022 **M.Sc., Applied Mathematics, GGPA: 7.61**
National Institute of Technology, Warangal, India
Coursework: *Advanced Numerical Methods, Advanced Statistical Modeling, Computational Fluid Dynamics, Operations Research*
Thesis Title: *Inventory Model with Dynamic Holding Cost and Stock Dependent Demand Rate*
- July, 2017 – Sep, 2020 **B.Sc., Mathematics (Hons.), GGPA: 8.78**
A.B.N. Seal College, Cooch Behar Panchanan Barma University
Coursework: *Probability and Statistics, Linear Algebra, Real Analysis, Mathematical Modeling, Modern Algebra, Python & C Programming, Ordinary & Partial Differential Equations, Dynamical Systems, Numerical Methods*
- 2017 **Higher Secondary (12th), Percentage: 85.40%**
West Bengal Council of Higher Secondary Education
- 2015 **Secondary (10th), Percentage: 89.54%**
West Bengal Board of Secondary Education

Publications

Journal Articles

- 1 R. Aich, D. Bhargavi, and A. C. Benim, "Effect of hydrodynamic and thermal anisotropy on convective heat transfer in a fluid saturated porous duct: A finite volume approach," *Numerical Heat Transfer, Part A: Applications*, pp. 1–22, 2025. DOI: 10.1080/10407782.2025.2527971.
- 2 R. Aich, D. Bhargavi, and O. Makinde, "Impact of heat transfer in a duct composed of anisotropic porous material: A non-linear brinkman-forchheimer extended darcy's model: A computational study," *International Communications in Heat and Mass Transfer*, vol. 159, p. 108111, 2024. DOI: 10.1016/j.icheatmasstransfer.2024.108111.
- 3 D. Bhargavi, R. Aich, and N. Gupta, "Thermal enhancement of couple stress fluid flow through anisotropic porous media," *Physics of Fluids*, vol. 36, no. 4, 2024. DOI: 10.1063/5.0200187.

Conference Presentations

- 1 R. Aich and D. Bhargavi, "The influence of anisotropy and viscous dissipation on the flow dynamics and thermal transfer within a fluid-saturated porous medium in the developing region," in *10th Thermal and Fluids Engineering Conference (TFEC)*, George Washington University, Washington DC, USA, 2025.
- 2 R. Aich and D. Bhargavi, "Characteristics of non-linear flow heat transfer in a hydrodynamically anisotropic porous medium," in *International Conference on Recent Advances in Mathematics and Data Science (ICRAMDS)*, MANIT, Bhopal, India, Jun. 2024.

Scholarly Profile

	Metric	Value
Google Scholar Metrics	Total Citations	14
	h-index	2
	iio-index	1
Google Scholar Profile	SEFC_PoAAAAJ	
Researchgate Profile	Rishav-Aich	
ORCID Profile	0009-0000-5525-1016	
Scopus Profile	58787780700	

Teaching Experience

Teaching Assistant	<p>National Institute of Technology, Warangal, India.</p> <p>Courses Assisted (Theory):</p> <ul style="list-style-type: none"> MA16028 <i>Complex Analysis</i> (M.Sc. Applied Mathematics) MA26021 <i>Numerical Linear Algebra</i> (M.Sc. Mathematics & Scientific Computing)
Lab Assistant	<p>National Institute of Technology, Warangal, India.</p> <p>Labs Assisted (Practical):</p> <ul style="list-style-type: none"> MA26005 <i>CPDS with Python Lab</i> (M.Sc. Mathematics & Scientific Computing) MA16008 <i>Probability and Statistics with R Lab</i> (M.Sc. Applied Mathematics) MA164 <i>Data Structures Lab</i> (B.Tech. Mathematics & Computing)

Skills




Research Interests	Scientific Machine Learning (SciML), Computational Fluid Dynamics (CFD), Numerical Heat Transfer, Deep Learning, Artificial Neural Networks (ANN)
Languages	English, Bengali, Hindi
Coding	Python, R, Matlab, Fortran, \LaTeX
Misc.	Academic research, teaching, training, Personal Finance, Excel, consultation, \LaTeX typesetting and publishing.

Miscellaneous Experience




Awards and Achievements

- 2025 **Awarded** CSIR Travel Grant (Ref. No. TG/13184/25-HRD) for attending FFHMT 2025, Imperial College London, UK (Not Availed).


Miscellaneous Experience (continued)

- 2022  **Qualified** Graduate Aptitude Test in Engineering (GATE) in Mathematics with AIR 511.
- 2017–2020  **Merit Award**, Swami Vivekananda Merit Cum Means (SVMCM) Scholarship, Government of West Bengal.
- 2015–2017  **Merit Award**, Financial Assistance for Education, Chief Minister's Discretionary Fund, West Bengal.

Certification

- 2018  **Diploma in Information Technology and Applications**, Awarded by National Youth Computer Training Center.
- 2021  **Python for Everybody**, Offered by University of Michigan.
-  **MATLAB Onramp**, Offered by Mathworks Inc.

Peer Review

- 2024–...  Reviewer for *Physics of Fluids* (Impact Factor: 4.6), AIP Publishing House.

References

Available on Request