CURRICULUM VITAE

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Personal Details:

- Date of Birth: 10th February, 1992
- Marital Status: Married
- Known Languages: English, Hindi, Bengali
- Gender: Male
- Nationality: Indian

Ph.D. Thesis: Linear Stability Analysis of Viscous and Nanofluid Flows in Horizontal/Vertical Channel.
Supervisor: Prof. D. Srinivasacharya, Dept. of Mathematics, NIT Warangal.

Research Interests: Computational Fluid Dynamics, Hydrodynamic Stability, Flow through Porous Medium, Convective Heat and Mass Transfer, Nanofluid Flows

Educational Background:

2021 **Ph.D.** (Mathematics),
National Institute of Technology Warangal (**NITW**), Telangana, India.

2015 **M.Sc.** (Mathematics),
Indian Institute of Technology Guwahati (**IITG**), Guwahati, India.

2013 **B.Sc**. (Mathematics (Honours)),
Dinhata College under **University of North Bengal**, West Bengal, India.

2010 **Higher Secondary** (Sciences),
from West Bengal Council of Higher Secondary Education, India.

2008 **Secondary**,
from West Bengal Board of Secondary Education, India.

Achievements:

2023-2025 Offered as an Institute Postdoc Fellow (**IPDF)** in the Dept. of Mathematics at **IIT Madras**

June 2018 Qualified **UGC NET (JRF)** organized by CSIR

June 2017 Qualified **UGC NET (JRF)** awarded by CSIR

Dec. 2016 Qualified **UGC NET (Lectureship)** awarded by CSIR

2015 Qualified **GATE** organized by **IIT Kanpur**

2013 Qualified **JAM**, AIR - 881, organized by IIT Delhi

2013-2015 Recipient of the Institute Merit-cum-Means/ SC-ST scholarship at **IIT Guwahati**, India

Refresher Coursework:

- I completed an online Swayam course "**A Refresher Course on Calculus**" organized by National Institute Technology Warangal and sponsored by **Ministry of Human Resource Development** (MHRD), Government of India, during December 2018 to February 2019.

- I completed an "O**nline Refresher Course in Mathematical Sciences**" under Malaviya Mission Teacher Training Programme (MM-TTP) of the University Grants Commission (UGC) organized by **MMTTC, Tezpur University** in collaboration with **Dept. of Mathematical Sciences, Tezpur University** from 11^{th} – 24^{th} December, 2024.

Publications appeared in refereed Journals:

Author(s)| Title| *Name of Journal*| Volume Page| Year| Indexing| IF| DOI

16. **Dipak Barman**, B. Barman & K. Vajravelu*, Stability analysis of thermosolutal convection in a Brinkman porous layer in the presence of viscous dissipation, ***Physics of Fluids*** (AIP), Accepted on 30th April, 2025 **(SCI)**, (**IF: 4.1**).

15. Pankaj Barman, D. Srinivasacharya & **Dipak Barman***, Influence of vertical throughflow on the linear and nonlinear stability analyses of Rayleigh-Bénard convection in a bi-viscous Bingham fluid saturating a porous medium, ***The European Physical Journal B*** (Springer), 98(2):32, 2025 **(SCI)**, (**IF: 1.6**), doi: 10.1140/epjb/s10051-025-00884-8.

14. Susmay Nandi***** & **Dipak Barman**, Unsteady MHD hybrid nano-fluid flow over a convectively heated nonlinear stretching cylinder with velocity slip: A comparative study, ***International Journal of Modern Physics B*** (World Scientific), 38(21): 2450284, 2024 **(SCI),** (**IF: 2.6**)**,** doi: 10.1142/S0217979224502849.

13. **Dipak Barman*** & D. Srinivasacharya, The effect of local thermal non-equilibrium on the stability analysis due to the presence of variable gravity field with throughflow, ***Chinese Journal of Physics*** (Elsevier), 86:332-343, 2023 **(SCI), (IF: 4.6)**, doi: 10.1016/j.cjph.2023.10.031.

12. **Dipak Barman*** & D. Srinivasacharya, Linear stability of longitudinal convective rolls in a non-Darcy porous layer filled with nanofluid due to viscous dissipation effect, ***Thermal Science and Engineering Progress*** (Elsevier), 43:101942, 2023 **(SCI), (IF: 5.1)**, doi: 10.1016/j.tsep.2023.101942.

11. **Dipak Barman***, Linear stability analysis of a high permeable vertical porous channel filled with nanofluid in the presence of internal heat source effect, ***Journal of Engineering Mathematics*** (Springer), 140:11, 2023 **(SCI),** (**IF: 1.4**), doi: 10.1007/s10665-023-10275-6.

10. **Dipak Barman*** & D. Srinivasacharya, Effect of variable gravity on the onset of convection in a Brinkman porous medium under convective boundary conditions, ***International Communications in Heat and Mass Transfer*** (Elsevier), 144:106777, 2023 **(SCI),** (**IF: 6.4**)**, doi:** 10.1016/j.icheatmasstransfer.2023.106777.

9. Pankaj Barman, D. Srinivasacharya & **Dipak Barman***, Linear and nonlinear stability analyses of double-diffusive convection in a porous layer due to magnetic field and throughflow effects, ***The European Physical Journal Plus*** (Springer), 138(3):277, 2023 **(SCI)**, (**IF: 2.8**), doi: 10.1140/epjp/s13360-023-03888-4.

8. D. Srinivasacharya* & **Dipak Barman**, The effect of local thermal non-equilibrium and magnetic field on the stability in a vertical channel filled with nanofluid, ***Special Topics & Reviews in Porous Media — An International Journal*** (Begell House), 14(1):29–48, 2023 **(SCIE) (IF: 1.4)**, doi: 10.1615/SpecialTopicsRevPorousMedia.2022039435.

7. D. Srinivasacharya* & **Dipak Barman**, Influence of magnetic field on the stability of double diffusive nanofluid convection in a vertical porous channel, ***Journal of Porous Media*** (Begell House), 25(9):1-16, 2022 (**SCIE**) (**IF: 2.5**).
doi: 10.1615/JPorMedia.2022039056.

6. D. Srinivasacharya* & **Dipak Barman**, Effect of local thermal non-equilibrium on the stability of the flow in a vertical channel filled with nanofluid saturated porous medium, ***Journal of Heat Transfer- Transactions of the ASME*** (ASME), 144(1):014501, 2022 (**SCI**) (**IF: 2.8**), doi: 10.1115/1.4052580.

5. D. Srinivasacharya* & **Dipak Barman**, The effect of changeable gravity field on the stability of convection in a porous layer filled with nanofluid: Brinkman model, ***Computational Thermal Sciences*: *An International Journal*** (Begell House) 13(6):1-17, 2021 (**SCIE**) **(IF: 1.3)**, doi: 10.1615/ComputThermalScien.2021038043.

4. **Dipak Barman** & D. Srinivasacharya***,*** The variable gravity field and viscous dissipation effects on the convective instability in a porous layer with throughflow: Brinkman Model, ***Journal of Porous Media*** (Begell House), 24(6):1-13, 2021, (**SCIE**) (**IF: 2.5**), doi: 10.1615/JPorMedia.2021036098.

3. D. Srinivasacharya* & **Dipak Barman,** Linear stability of convection in a vertical channel filled with nanofluid saturated porous medium, ***Heat Transfer*** (Wiley), 50(4):3220-3239, 2021 (**ESCI**), doi: 10.1002/htj.22025.

2. S. Darbhasayanam* & **Dipak Barman,** The variable gravity field and viscous dissipation effects on the double diffusive and Soret driven convective instability in a porous layer with throughflow, ***International Communications in Heat and Mass Transfer*** (Elsevier), 120:105050, 2021 (**SCI**) (**IF: 6.4**), doi: 10.1016/j.icheatmasstransfer.2020.105050.

1. **Dipak Barman** & D. Srinivasacharya***,*** Stability of nanofluid flow in a vertical porous channel, ***Special Topics & Reviews in Porous Media — An International Journal*** (Begell House), 11(5):477–491, 2020 (**SCIE**) **(IF: 1.4)**,
doi: 10.1615/SpecialTopicsRevPorousMedia.2020032568.

Research articles currently under review:

1. Thermosolutal convection of a bi-viscous Bingham fluid saturating a porous medium due to transverse magnetic field, Elsevier.

FIP/FDP/STTPs/GAINs/Workshops/Webinars attended:

- Attended and completed a one-week (Hybrid Mode) Faculty Development Programme on "**Significance of Vedic Gyan Parampara in Modern Era**" organized by UGC Malaviya Mission-Teacher Training Centre (MMTTC) Aryabhatta College in collaboration with Ramanujan College, University of Delhi, India, during 14th – 20th November, 2024.
- Attended one-week workshop (Hybrid Mode) on "**Advances in Fluid Mechanics and its Applications**" organized by the Dept. of Mathematics, NIT Uttarakhand, Uttarakhand, India, during 21st – 25th October, 2024.

- Attended and completed a one-month online **Faculty Induction Programme (FIP)** organized by Teaching Learning Centre, Tezpur University during 2^{nd} – 31^{st} August, 2023 under PMMMNMTT Scheme of Ministry of Education, Government of India.
- Participated in the two-week online GAIN course on "**Linear and Non-linear Hydrodynamic Stability: Theory and Computation**" organized by the Dept. of Mathematics, NIT Warangal, Telangana, India, during 10^{th} – 23^{rd} April, 2022.
- Participated a one day online National Symposium on "**Mathematical Modelling of Industrial Problems**" on the Eve of International Mathematics Day organized by the Dept. of Mathematics, NIT Warangal, Telangana, India, 14^{th} March, 2022.
- Participated in a one-week online collaborative Faculty Development Program on "**Role of Basic Sciences in Emerging Technologies (RBSET - 2022)**" organized jointly National Institute of Technology Mizoram and GRM Institute of Technology, Rajam, Andhra Pradesh from 9^{th} – 14^{th} March, 2022.
- Participated in the International Webinar Series on "**Bio-Mathematical Modelling of Epidemics: Focus on Covid-19**" organized by the Dept. of Mathematics, Brahmananda Keshab Chandra College, Barasat, West Bengal, India, during 25^{th} – 26^{th} June, 2020.
- Participated in the National Webinar on "**Fluid Dynamics**" organized by the Dept. of Mathematics and Statistics, School of Basic Science, Manipal University, Jaipur, India, on 23^{rd} June, 2020.
- Participated in the one-week Workshop on "**Teaching and Learning of Engineering Mathematics using Python through Hands-On Experience**" organized by the Dept. of Mathematics in association with the Teaching Learning Centre, NIT Warangal, India, during 5^{th} – 10^{th} March, 2019.
- Participated in the one-week STTP Programme on "**Mathematical Modeling & Numerical Techniques in Engineering and Science**" organized by the Dept. of Mathematics, NIT Warangal, Telangana, India, during 9^{th} – 13^{th} October, 2018.
- Participated in the two-week GAIN course on "**Separation and Instabilities in High-Speed Flows**" organized by the Dept. of Mathematics, NIT Warangal, Telangana, India, during 6^{th} – 17^{th} August, 2018.

National/ International Conferences/Seminars attended:

- Effect of throughflow in a horizontal porous layer filled with Casson fluid: Linear and non-linear stability analyses, International Seminar on Topology, Algebra and Applications **ISTAA-2024**, March 12-14, 2024, organized by the Dept. of Mathematics, University of North Bengal, West Bengal, India.
- Linear stability of double diffusion convection in a vertical channel filled with nanofluid saturated porous medium with magnetic effect, 2^{nd} International Conference on Numerical Heat Transfer and Fluid Flow **NHTFF-2020**, Jan. 17-19, 2020, NIT Warangal, Telangana, India.
- Linear stability of mixed convection in a vertical channel filled with nanofluid saturated porous medium, International Conference of 64^{th} congress on **ISTAM-2019**, Dec. 9-12, 2019, IIT Bhubaneswar, Odisha, India.
- Linear stability of mixed convection in a vertical channel filled with nanofluid saturated porous medium: Brinkman Model, International Conference on Applied Mathematics and Computational Sciences **ICAMCS-2019**, Oct. 17-19, 2019, DIT University, Dehradun, Uttarakhand, India.

- Stability of nanofluid in a horizontal channel filled with porous medium using Brinkman model, National Conference on Computational Modeling of Fluid Dynamics Problem **CMFDP-2019**, Jan. 18-20, 2019, NIT Warangal, Warangal, Telangana, India.
- Participated National Conference on Mathematical Analysis and Mathematical Modelling **MAMM-2018**, Dec. 7-8, 2018, The Calcutta Mathematical Society, Kolkata, India.

Major Additional Responsibilities:

- **Co-Convenor**, One Day National Seminar on **Recent Advances in Mathematical and Computational Sciences**, April 29, 2024, Rajiv Gandhi University, Arunachal Pradesh, India.
- **Co-Convenor**, a National Webinar on **Differential Equations and Applications**, Sept. 27, 2023, Rajiv Gandhi University, Arunachal Pradesh, India.
- **Organizing committee member**, 2^{nd} International Conference on Numerical Heat Transfer and Fluid Flow **NHTFF-2020**, Jan. 17-19, 2020, NIT Warangal, Telangana, India.
- **Organizing committee member**, National Conference on Computational Modeling of Fluid Dynamics Problem **CMFDP-2019**, Jan. 18-20, 2019, NIT Warangal, Warangal, Telangana, India.

Teaching: I (am) taught (teaching) the following courses:

- MAT – 101 – DE – 52130: Differential Equations (All Units) (J - 2025)
- MAT – 001 – CC – 2240: Statics (All Units) (J - 2025)
- MAT – 001 – CC – 1210: Higher Algebra (Unit - I) (J - 2025)
- MTH – 539: Introduction to Fundamentals of Computer Mathematics (All Units) (D - 2024)
- MAT – 001 – CC – 2110: Elementary Differential Equations (All Units) (D - 2024)
- MAT – 001 – SE – 0010: Fundamentals of Computers (Units – I & II) (D - 2024)
- UGS – 112: Elementary Mathematics (All Units) (D - 2024)
- MTH – 521: Complex Analysis (Units - III & IV) (J - 2024)
- MTH – 523: Differential Equations (All Units) (J - 2024)
- MAT – 001 – MC – 1210: Ordinary Differential Equations (Units - I & II) (J - 2024)
- MAT – 001 – SE – 0010: Fundamentals of Computers (All Units) (D - 2023)
- MTH – 511: Number Theory (Unit - III) (D - 2023)
- MTH – 513: Algebra (Unit - IV) (D - 2023)
- MTH – 514: Mechanics (Unit - IV) (D - 2023)
- MTH – 534: Mathematical Programming (Units - I, II & III) (D - 2023)
- MTH – 539: Introduction to Fundamentals of Computer Mathematics (Units - I) (D - 2023)

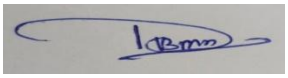
Other Academic Responsibilities: I have served as referee for research articles for the following journals:

- Physics of Fluids
- Physica Scripta
- Numerical Heat Transfer, Part A: Applications
- Numerical Heat Transfer, Part B: Fundamentals
- Chinese Journal of Physics
- Proceedings of the Institution of Mechanical Engineers, Part N
- International Journal of Modern Physics C
- International Journal of Ambient Energy
- World Journal of Engineering

Administrative Experience:

Declaration

I hereby declare that the information finished above is true to the best of my knowledge.



Date: 04.06.2025 Signature

References:

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