Curriculum Vitae

Srimanta Maji, (Ph.D)

Assistant Professor (Temporary) in Mathematics
Institute of Chemical Technology,
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Education

2014 – 2020 **Ph.D in Mathematics**, Institute of Chemical Technology (ICT), Mumbai, India.
Thesis Topic: Numerical Simulation of Laminar and Turbulent Flows in Newtonian Nanofluids for some Practical Problems.
Supervisor: Prof. Akshaya K Sahu (Retd.)

2007 – 2009 **M.Sc** in Mathematics from Utkal University, Odisha, India.

2004 – 2007 **B.Sc** in Mathematics Honours with Second Class from Midnapore College, West Bengal, India.

2002 – 2004 **HSC** (12^{th}) with Second Class from Khukurdaha.I.C.M.M. High School, West Bengal, India.

2002 **SSC** (10^{th}) with Second Class from Khukurdaha.I.C.M.M. High School, West Bengal, India.

Area of Research Interest

- Numerical simulation of ODE and PDEs, Computational Fluid Dynamics, Turbulent Flow Modeling, Finite Volume Method, Convective Heat Transfer, Solution of ODE and PDEs using Machine Learning and Deep Learning algorithms, Mathematical ecology, Nonlinear dynamics

Publications

1. Srimanta. Maji* and Akshaya.K.Sahu, Numerical investigation of dual solutions in mixed convection boundary layer flow over a vertical flat plate for nanofluids under quasilinearization technique. SN Applied Sciences, Springer Nature, Volume-3, Issue-11, 1-13 Sep, 2021.
2. Srimanta. Maji* and Akshaya K. Sahu, Turbulent flow simulation of stirred tank using Partially-Averaged Navier-Stokes $k_u - \epsilon_u$ model. SN Applied Sciences, Springer Nature, Volume-3, Issue-5, May, 1-16 2021.. https://doi.org/10.1007/s42452-021-04488-6
3. Srimanta. Maji and Akshaya K. Sahu, Effect of viscous dissipation on finding dual solutions for mixed convection boundary layer flow for nanofluid. Heat Transfer-Asian Research, Volume-48, Issue-6, 2557-2576, Sep, 2019. https://doi.org/10.1002/htj.21512
4. Srimanta. Maji* and Akshaya K. Sahu, Numerical Solution of Boundary Layer Flow Over a Vertical Flat Plate For Al2O3-Water Nanofluid. International Journal of Management and Applied Science, ISSN: 2394-7926 Volume-2, Issue-11, Nov, 2016.
5. Akshaya K. Sahu, Srimanta. Maji and khusboo S. Yadav, Local similarity solution of mixed convection boundary layer flow over a vertical flat plate for nanofluids. Proceedings in International Journal of Innovative Research in Science and Engineering, vol:2,Issue 8, August 20, 2016.
6. Srimanta. Maji and Akshaya K.Sahu, Turbulent flow simulation and mixing time calculation in stirred vessel for axial flow impeller using PANS model and RANS SST $k-\omega$ model for nanofluids. (Communicated)

Employments History

May 2021 – Contd..	Working as an Assistant Professor of Mathematics at Institute of Chemical Technology, Jalna, Maharashtra, India. **Teaching:** Engineering Mathematics, using Python and Numerical methods using python (Computer Lab) and Basic Statistical simulation using R (Computer Lab) for I.M.Tech students of Chemical engineering. **Home project:** "Numerical solution of ordinary and partial differential equations using tridiagonal matrix algorithm". (02 students IMTech students of Chemical Engineering (September-November, 2021))
March 2021 – May, 2021	Worked as an Assistant Professor of Mathematics at Thakur College of Engineering and Technology, Kandivali(E) Mumbai, Maharashtra.
Aug 2018 – Dec 2019	Worked as a visiting faculty in the Department of Polymer Science at K J Somaiya College of Science and Commerce, Mumbai, India. I taught the course of "Mathematical Methods (18PS1PO05)" for M.Sc. Polymer Science Semester-I only for even semester.
Aug 2019 – Dec 2019	Worked as an Guest faculty in the Department of Mathematics at Veermata Jijabai Technological Institute, Mumbai, India. I taught B.Tech Engineering mathematics for Mechanical and Textile branches for Sem-III and Sem-V for Computer Science branch during the period.
March 2013 – Feb 2014	Worked as a JRF under UGC-BSR fellowship at Utkal University, Bhubaneswar, India.
April 2010 – March 2013	Worked as a Lecturer in Department of Mathematics at Gandhi Institute for Education & Technology (GIET), Bhubaneswar, India. I taught B.Tech Engineering mathematics for all the branch from Sem-I to Sem-IV during the period
July 2009– March 2010	Worked experience in Indian's No.1 IES Academy, New Delhi, India. I wrote a GATE Engineering Mathematics Book for the IES Academy along with the last 15 years GATE questions and answers for all branches.

Conference Presentations

1. 7^{th} International Fluid Mechanics and Fluid Power Conference (FMFP 2018), IIT Bombay, Mumbai, with oral presentation, title –Partially-Averaged Navier – Stokes(PANS) Model for Turbulent Flow Simulation in Stirred Tank " on 10th -12th December, 2018

2. 32^{nd} National Convention Of Aerospace Engineers (NCAE 2018) BIT Mesra, Ranchi, with oral presentation, title-Turbulent flow simulation in stirred vessel for axial flow impeller using Partially-Averaged Navier–Stokes (PANS) model on 27th – 28th October, 2018.

3. International Conference on Advances in Biological Systems and Materials Science in Nano World (ABSMSNW-2017), IIT BHU, Varanasi, India with poster presentation, title "Numerical simulation of boundary layer flow over vertical flat plate for nanofluids under mixed convection" on 19th – 23rd February , 2017.

4. ISER-12^{th} International Conference on Heat Transfer and Fluid Flow (ICHTFF) , Chennai, India, with oral presentation, titled– Numerical Solution of Boundary Layer Flow Over a Vertical Flat Plate For Al2O3-Water Nanofluid on 7th – 8th September, 2016.

5. 6^{th} International Conference on recent innovations in Science, Engineering and Management (ICRISEM-16),IIMT College of Engineering, Greater Noida, (India) with oral presentation, titled "Local similarity solution of mixed convection boundary layer flow over a vertical flat plate for nanofluids" on 20th August, 2016.

Webinar Attended

1. International webinar on Mathematical Modelling in the Context of Covid-19 and the Global Crises organised by the Department of Mathematics and IEEE student branch, NIT Agartala, Tripura, India on October 12-14 , 2020.
2. National webinar on Covid 19: Challenges in Mathematical Modelling organized by Department of Mathematics, N. R. Swamy College of Commerce and Economics Smt. Thirumalai College of Science, Mumbai, India on June 8, 2020.

Workshops Attended

1. Workshop on Statistical Methods and R Programming for Biologists organized by Agriculture and Ecological Research Unit, Indian Statistical Institute (ISI), Kolkata on March 7 - 13, 2018.
2. OpenFoam Basic Training Workshop jointly organized by the ICT-DAE Center for Chemical Engineering Education and Research & Department of Chemical Engineering on 22th -27th May 2017.
3. Workshop on Machine Learning Using R organized by the Department of Mathematics, Institute of Chemical Technology(ICT), Mumbai on 30th September – 1st October, 2016.
4. Workshop on Computational Mathematics with Sage organized by the Department of Mathematics, Institute of Chemical Technology(ICT), Mumbai on 23^{th}–24^{th} September , 2016.
5. National Seminar on Computational and Mathematical Biology organized by the Department of Mathematics, Institute of Chemical Technology(ICT), Mumbai on 10^{th}–11^{th} September, 2016.
6. Workshop on Nanomaterials: Emerging trends organized by the Department of Physics, Institute of Chemical Technology (ICT), Mumbai on 16^{th}–17^{th} September, 2016.
7. Workshop on Statistical Data Analysis using R, organized by the Department of Mathematics, Institute of Chemical Technology(ICT), Mumbai on 13^{th}–14^{th} August, 2016.
8. 3^{rd} National Workshop on Statistical Methods and R Programming, jointly organized by the Agricultural and Ecological Research Unit, Indian Statistical Institute (ISI), Kolkata and Department of Mathematics, Institute of Chemical Technology(ICT), Mumbai on 10^{th}–15^{th} February 2016.
9. Short Term Training Programme on Modeling, Computing, Simulation in Science Engineering (MCSSE – 2015), organized by the Department of Mathematics, Visvesvaraya National Institute of Technology (VNIT), Nagpur, 6^{th}–10^{th} July, 2015

Teaching Area

Ordinary Differential Equations, Partial Differential Equations, Numerical Analysis, Computational Fluid Dynamics, Real and Complex Analysis, Operations Research, C, Python, R.

Skills

Coding Languages	C, Python, R and MATLAB.
Computational Software	Fluent, OpenFoam. (Both introductory knowledge)
Operating System	Linux and Windows
For Writing	Latex and Microsoft Word

Personal Information

Date of Birth: 10.09.1986,
Gender: Male
Category: General
Marital Status: Married
Nationality: Indian

References

Dr. Akshaya K. Sahu, (Retd.)
Professor,
Department Department of Mathematics,
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Declaration

I hereby declare that the above mentioned information is correct to the best of my knowledge and belief.

Date: 15/05/2022 Srimanta Maji