ANIL KUMAR

Email: anilmlpsrj@gmail.com Mob: +91-9756665354

CURRENT AFFILIATION

Department of mathematics and computing IIT(ISM) Dhanbad-826004, Jharkhand, India.

RESEARCH INTERESTS

Heat and Mass Transfer, Computational Fluid Dynamics, Magnetohydrodynamics, Porous Medium.

EDUCATION

Ph.D. in Applied Mathematics (Thesis Submitted) from IIT(ISM) Dhanbad, Jharkhand, India. *2016-Present*

Thesis Title: *Study of heat transfer problem of nanofluid over a linear/nonlinear stretching sheet.* *(Advisor: Dr. Pentyala Srinivasa Rao)*

NET (National Eligibility Test) Joint CSIR-UGC test for JRF & eligibility for lectureship qualified held on ***21-12-2014***.

Master of science(M.Sc.) in Mathematics (*First division*)

Dr. Bhimrao Ambedkar University Agra Uttar Pradesh. 2009-2011.

Bachelor of science(B.Sc.) in Mathematics (*First division*)

Dr. Bhimrao Ambedkar University Agra Uttar Pradesh. 2006-2009.

Senior Secondary (12th) in Mathematics (*First division*)

Board of High school & Intermediate Education Uttar Pradesh. 2004-2006.

Secondary (10th) in Mathematics (*First division*)

Board of High school & Intermediate Education Uttar Pradesh. 2003-2004.

NGO (KARMA JYOTI), DHANBAD

Successfully completed 3 years giving scheduled lectures to secondary (10^{th}) & Senior Secondary (12^{th}) class students. 2016-2019.

LIST OF PUBLICATIONS

- Rao, P.S. and **Kumar, A**., 2019. Numerical study of stretchable partially heated enclosure filled with nanofluid. *Journal of nanofluids*, 8, pp.1485-1495. **[Indexed: ESCI].** ***Doi***: https://doi.org/10.1166/jon.2019.1708.
- Rao, P.S. and **Kumar, A**., 2021. Effect of heat generation and thermal radiation on heat transfer in porous enclosure having t-shape inner geometry. *Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering*, *235*(2), pp.643-649. **[Indexed: SCIE].** ***Doi***: https://doi.org/10.1177/0954408920973118.
- Rao, P.S. and **Kumar, A**., 2021. Unsteady MHD free convection flow past a vertical permeable flat plate in a rotating frame of reference with constant heat source and variable thermal boundary condition in a nanofluid**.** *International Journal of Nonlinear Sciences and Numerical Simulation***. [Indexed: SCI].** ***Doi***: https://doi.org/10.1515/ijnsns-2018-0028.
- **Kumar, A.** and Rao, P.S., 2022. Effect of moving stretching sheets on natural convection in partially heated square cavity filled with nanofluid. *International Journal of Nonlinear Sciences and Numerical Simulation*. **[Indexed: SCI].** ***Doi:*** https://doi.org/10.1515/ijnsns-2018-0230

SUBMITTED TO JOURNAL

- Numerical study of periodically heated wall effect on natural convection in an enclosure. (First Revision Submitted).
- Natural convection field of nanofluid under magnetic inside an H-shape hollow enclosure. (Under Review).

AWARD & SCHOLARSHIP

Junior Research Fellowship Feb 2016-Feb 2018.

Senior Research Fellowship Feb 2018-Feb 2021.

CONFERENCES/WORKSHOP

- Presented paper on “Numerical study of heat flow in inclined stretchable partially heated enclosure filled with nanofluid” **in the National conference on Modeling, Analysis and Simulation (MAS-2019)** organized by department of mathematics, IIT(ISM) Dhanbad, Jharkhand, India. Dec 16-18, 2019.
- Participated in the **“Workshop on Concept of Fluid Dynamics and Applications"** organized by Department of Mathematics, IIT (ISM) Dhanbad, Jharkhand, India. Jun 25-July 06, 2018.
- Participated in the **“Workshop on Numerical and Computational Methods for Fluid-Solid Interaction Problems"** organized by Department of Mathematics, IIT (ISM) Dhanbad, Jharkhand, India. Sept 27-28, 2018.
- Participated in the “**CIMPA: Summer School on Multi-scale Computational Methods and Error Control**" organized by Department of Mathematics and Statistics, IIT Kanpur, Uttar Pradesh, India. Jun 26-July 21, 2017.

HARDWORK & SHOFTWARE SKILL

Computer Programming: Mathematica, Matlab, C, C++, and other.
Operating System: Linux, Window.
Typing: Latex, Ms Office, and other.

PERSONAL SKILL

Strength:

- Positive Attitude
- Ability to work under pressure.
- Ability to work individually as well as in a team.
- Excellent logical, analytical and computational skills.

TEACHING INTEREST

- Engineering Mathematics.
- Differential Equations (Ordinary and Partial).
- Numerical Analysis.
- Real Analysis.
- Complex Analysis.
- Linear Algebra.
- Abstract Algebra.
- Topology.
- Integral Equation.

REFERENCES

Dr. Pentyala Srinivasa Rao E-mail: psrao@iitism.ac.in
Associate Professor Phone: 0326223-5766
Dept. of Mathematics & Computing Indian Institute of Technology (ISM) Dhanbad-826004, Jharkhand, India.

Dr. Badam Singh Kushvah E-mail: bskush@iitism.ac.in
Associate Professor Phone: 0326223-5765
Dept. of Mathematics & Computing Indian Institute of Technology (ISM) Dhanbad-826004, Jharkhand, India.

Dr. Rajat Tripathi E-mail: rtripathi.math@nitjsr.ac.in
Assistant Professor
Dept. of Mathematics, National Institute of Technology Jamshedpur-831014, Jharkhand, India.