GOVERNMENT GENERAL DEGREE COLLEGE, RANIBANDH

FACULTY PROFILE

DEPARTMENT OF MATHEMATICS

Dr. Anirban Chattopadhyay

Designation	Assistant Professor (W.B.E.S)
Address	Suri, Sajanopally, P.S.-Suri, P.O.-Barabagan, Dist-Birbhum, Pin- 731103, West-Bengal, India
Mobile No.	9732082380
Email Address	animath81@rediffmail.com, animath81@gmail.com

Educational Qualification

Degree	Institution	Year
Ph.D.	Visva-Bharati	2017
P.G.	Burdwan University	2004
U.G.	Burdwan University	2002

Any other Qualification	1. Qualified in GATE 2. Qualified in CSIR-UGC NET 3. Knowledge of 'C', 'FORTRAN' and 'BASIC' programming languages

Research Areas

Computational Fluid Dynamics, Numerical methods for PDEs, Nanofluids, Nano Technology.

Areas of Interest/ Specialization

Advanced general topology, Measure and integration, Numerical methods, Computational Fluid Dynamics, Nanofluids, Nano Technology.

Career Profile

Served as Assistant Teacher at Kusumi High School from 20th March, 2006 to 11th November, 2018.

Serving as Assistant Professor of Mathematics at Government General Degree College at Ranibandh from 12th November, 2018.

Topics Taught in the Previous Academic Year

Linear Algebra, Real Analysis, Vector Analysis, Complex Analysis.

Publication

INTERNATIONAL JOURNALS

1. "Higher order compact computations of transient natural convection in a deep cavity with porous medium", Swapan K Pandit, **Anirban Chattopadhyay**, International Journal of Heat and Mass Transfer 75 (2014) 624–636.
2. "A peclet number based analysis of mixed convection for lid-driven porous trapezoidal enclosure", **Anirban Chattopadhyay**, Swapan K Pandit, International Journal of Procedia Engineering 127 (2015) 628 – 635.
3. "A fourth order compact scheme for heat transfer problem in porous media", Swapan K. Pandit, **Anirban Chattopadhyay**, Hakan F. Oztop, Computers and Mathematics with Applications 71 (2016) 805–832.
4. "Mixed convection in a double lid-driven sinusoidally heated porous cavity", **Anirban Chattopadhyay**, Swapan K Pandit, Sreejata Sen Sarma, I. Pop, International Journal of Heat and Mass Transfer 93 (2016) 361–378.
5. "Mixed convection and entropy generation in a porous deep cavity: Effect of uniform and nonuniform heated walls", **Anirban Chattopadhyay**, Swapan K. Pandit, Journal of Porous Media 19 (6) (2016) 471–495.
6. "A robust higher order compact scheme for incompressible viscous flows on nonorthogonal curvilinear meshes", Swapan K Pandit, **Anirban Chattopadhyay**, Computers and Mathematics with Applications 24 (2017) 805–832.
7. "An analysis of thermal performance and entropy generation in a wavy enclosure with moving walls" **Anirban Chattopadhyay**, Swapan K. Pandit, Hakan F. Oztop, European Journal of Mechanics-B 79 (2020) 12-26.
8. "Brownian motion of magnetonanofluid flow in an undulated partially heated enclosure", Krishno D Goswami, **Anirban Chattopadhyay**, Swapan K Pandit, Mikhail A Sheremet International Journal of Mechanical Sciences 198 (2021) 106346.
9. On the analysis of magnetohydrodynamics and magnetic field-dependent viscosity effects on thermogravitational convection of hybrid nanofluid in an enclosure with curved walls, Swapan K Pandit, Krishno D Goswami, **Anirban Chattopadhyay**, Hakan F Öztop, Physics of Fluids 33 (10) (2021).

10. Thermal performance in transient MHD thermogravitational convection of nanofluid with various heating effects, **Anirban Chattopadhyay**, Krishno D Goswami, Swapan K Pandit, Mikhail A Sheremet, Journal of Thermal Analysis and Calorimetry 146 (3) (2021) 1255-1281.

11. Impact of moving walls on combined convection flow and thermal performance in a wavy chamber, **Anirban Chattopadhyay**, Hemanta Karmakar, Swapan K Pandit, Ali J Chamkha, Journal of Thermal Analysis and Calorimetry 147 (5) (2022) 3731-3752.

12. Transient thermogravitational convection for magneto hybrid nanofluid in a deep cavity with multiple isothermal source-sink pairs, Krishno D Goswami, **Anirban Chattopadhyay**, Swapan K Pandit, Mikhail A Sheremet, International Journal of Thermal Sciences 173 (2022) 107376.

13. Magneto-thermogravitational convection for hybrid nanofluid in a novel shaped enclosure, Krishno D Goswami, **Anirban Chattopadhyay**, Swapan K Pandit, International Journal of Mechanical Sciences 234 (2022) 107674.

14. Simulation of magneto mixed convective flow and thermal behavior of hybrid nanofluid in a partially heated wavy cavity, **Anirban Chattopadhyay**, Rupchand Malo, Hakan F Öztop, Swapan K Pandit, Krishno D Goswami, Journal of Magnetism and Magnetic Materials 575 (2023) 170713.

15. Magneto-thermogravitational convective flow and thermal behavior of hybrid nanoliquid in a novel T-shaped wavy chamber considering various shapes of nanoparticles, **Anirban Chattopadhyay**, Journal of Thermal Analysis and Calorimetry 148 (20) (2023) 11229-11253.

16. Thermogravitational Convection in a Multiple Baffled Enclosure Filled with Magneto-Hybrid Nanofluid Subjected to Magnetic Field Dependent Viscosity, Swapan K Pandit, **Anirban Chattopadhyay**, Rupchand Malo, Krishno D Goswami, Journal of Nanofluids 12 (7) (2023) 1698-1719.

17. Hydrothermal characteristics of ferrofluid in a wavy chamber with magnetic field-dependent viscosity: Effects of moving walls, **Anirban Chattopadhyay**, Krishno D Goswami, Swapan K Pandit, Samrat Hansda, Journal of Magnetism and Magnetic Materials 591 (2024) 171655.

18. Optimizing thermosolutal and hydrothermal performance of radiative hybrid ferrofluid and entropy generation in a wavy porous enclosure, Samrat Hansda, **Anirban Chattopadhyay**, Swapan K Pandit, Journal of Magnetism and Magnetic Materials 592 (2024) 171774.

19. Analysis of thermsolutal performance and entropy generation for ternary hybrid nanofluid in a partially heated wavy porous cabinet, Samrat Hansda, **Anirban Chattopadhyay**, Swapan K Pandit, International Journal of Numerical Methods for Heat & Fluid Flow 34 (2) (2024) 709-740.

Research Paper Presentation in Conferences

1. An International Conference on Mathematical Modeling And Computer Simulation with Applications. " Numerical Simulations of Mixed Convection in a Porous Double Lid Driven Cavity ", IIT Kanpur, 2014, India.

2. Sixth international conference on theoretical, applied, computational and experimental mechanics (ICTACEM-2014)"Investigation on mixed convective heat transfer in a porous cavity with nanofluids ", IIT Kharagpur 2014, India.

3. International Conference on Computational Heat and Mass Transfer – 2015 "A Peclet number based analysis of mixed convection for lid-driven porous trapezoidal enclosure", Department of Mathematics, NIT Warangal 2015, India .

4. Sixth International Congress on Computational Mechanics and Simulation (ICCMS 2016) "Numerical Simulation of Mixed Convection in Complicated Porous Enclosure", IIT Bombay, 2016, India.
5. Fifth International Conference on Computational Methods for Thermal Problems THERMACOMP2018, "A fourth order compact ADI scheme for N-S equations on non-uniform grids" , Indian Institute of Science, Bangalore 2018, India.
6. International Conference on Applied and Computational Mathematics-2018 (ICACM-2018), "A fourth order compact ADI scheme for incompressible viscous flows on non-uniform grids," IIT Kharagpur 2018, India.

Awards and Distinction

Got National Scholarship during the Studies of PG Course (2002-2004)

Other Activities

<optional>

Visions