



Official Name : Prof. Hemanta Konwar
Qualifications : M.Sc., Ph.D.
Teaching Experience : 28yrs
Specialization/Area of interest : Ordinary Differential Equations, Partial Differential Equations, Fluid Dynamics, Boundary Layer Theory, Numerical Methods.
Institutional email : hemanta.konwar@kscj.ac.in

PUBLICATION IN REFERRED JOURNAL

- (i) Sharma, B.R. and **Konwar, H.** (2014). Effect of chemical reaction on mass distribution of a binary fluid mixture in unsteady MHD couette flow, *IJRSET*, ISSN: 2319-8753, Vol. 3(8), pp. 15545-15552.
- (ii) Sharma, B.R. and **Konwar, H.** (2014). Flow, heat and mass transfer due to indirect natural convection, *IJMCAR*, ISSN (P):2249-6955, ISSN (E):2249-8060, Vol. 4(4), pp. 111-118.
- (iii) Sharma, B.R. and **Konwar, H.** (2014). MHD flow, heat and mass transfer about a horizontal cylinder in porous medium, *IJRSET*, ISSN: 2319-8753, Vol. 3(10), pp. 16459-16469.
- (iv) Sharma, B.R. and **Konwar, H.** (2015). MHD flow, heat and mass transfer due to axially moving cylinder in presence of thermal diffusion, radiation and chemical reaction in a binary fluid mixture, *Int. J. Comp. Applications*, ISSN: 0975-8887, Vol. 110(15), pp. 52-59.
- (v) Sharma, B.R. and **Konwar, H.** (2015). Influence of chemical reaction and heat generation on heat and mass transfer due to a rotating heated sphere, *JAMFM*, ISSN: 0974-3170, Vol.7 (1), pp. 39-49.

- (vi) Sharma, B.R. and **Konwar, H.** (2015).Effect of chemical reaction on mass transfer due to a permeable rotating heated disk, *Int. J. Comp. Applications*, ISSN: 0975-8887, Vol.119 (21), pp. 5-9.
- (vii) Sharma, B.R. and **Konwar, H.** (2016).MHD Flow, heat and mass transfer about a permeable rotating vertical cone in presence of radiation, chemical reaction and heat generation or absorption effects, *Latin American Applied Research*(Scopus Indexed Journal Impact Factor: 0.8), ISSN: 0327-0793,Vol.46 (3), pp.109-114.
- (viii) **Konwar, H.** (2018). Radiation and chemical reaction effects on MHD free convection flow, heat and mass transfer past a permeable plate in porous medium,*IJRAT*(UGC Approved Journal), ISSN: 2321-9637, Vol.6 (8), pp.2227-2231.
- (ix) **Konwar, H.** (2018). MHD Flow, heat and mass transfer over a permeable stretching surface with variable wall temperature and concentration, *IJRAR*(UGC Approved Journal), ISSN: 2348-1269, Vol. 5(4), pp. 653-657.
- (x) **Konwar, H.**(2022). Flow, heat and mass transfer past a stretching sheet with temperature dependent fluid properties in porous medium, *JHMTR*(Scopus Indexed Journal), ISSN: 2383-3068, Vol.9, pp. 17-26.
- (xi) **Konwar H.**, Bendangwapang and Jamir, T. (2022). Mixed convection MHD boundary layer flow, heat, and mass transfer past an exponential stretching sheet in porous medium with temperature-dependent fluid properties, *Numerical Heat Transfer, Part A: Applications*(Scopus Indexed Journal Impact Factor: 2.569), ISSN: 1521-0634, Vol. 83(12), pp.1-19.
- (xii) Jamir,T. and **Konwar, H.**(2022). Effects of radiation absorption, sores and dufour on unsteady mhd mixed convective flow past a vertical permeable plate with slip condition and viscous dissipation, *JHMTR*(Scopus Indexed Journal), ISSN: 2383-3068, Vol.9(2), pp.155-168.
- (xiii) Jamir, T. and **Konwar,H.** (2023). Unsteady magneto-hydrodynamic slip flow, heat and mass transfer over a permeable stretching cylinder with sores and dufour effects in porous medium, *Defect and Diffusion Forum*(Scopus Indexed Journal), ISSN: 1662-9507, Vol. 424, pp. 143-154.

- (xiv) Jamir, T. and **Konwar, H.** (2024). Dufour and Soret effects on unsteady MHD mixed convective flow across a stretching curved surface with thermal and velocity slip: A numerical study, 2024, *Journal of Thermal Engineering* (Scopus Indexed Journal Impact Factor 1.4), ISSN: 2148-7847, Vol.10(3), pp. 572-584.
- (xv) Jamir, T. and **Konwar, H.** (2024). Effect of nonlinear radiative unsteady mixed convection flow over a curved stretching surface with Soret and Dufour effects: a numerical study, *Defect and Diffusion Forum* (Scopus Indexed Journal), ISSN: 1662-9507, Vol.430, pp.133-147.
- (xvi) Jamir, T. and **Konwar, H.** (2024). Soret and Dufour effects on an unsteady MHD flow about a permeable rotating vertical cone with variable fluid properties, *Archives of Thermodynamics* (Scopus Indexed Journal), ISSN:1231-0956(P), 2083-6023(E), Vol.45(1), pp.75-86.
- (xvii) Jamir, T., **Konwar, H.** and Tzudir, B. (2024). Soret and Dufour effects on unsteady non-linear mixed convection flow past a stretching sheet influenced by non-linear thermal radiation, *Numerical Heat Transfer, Part A: Applications* (Scopus Indexed Journal Impact Factor 2.569), ISSN: 1521-0634, Vol. 85(8), pp.1-19.
- (xviii) Tzudir, B, Jamir, T. and **Konwar, H.** (2024). Soret and Dufour effects on MHD mixed convective unsteady flow over stretching sheet with variable fluid properties and convective boundary condition, *Latin American Applied Research* (Scopus Indexed Journal Impact Factor 0.8), ISSN: 0327-0793, Vol.54 (4), pp.507-513.
- (xix) Jamir, T., **Konwar, H.**, & Tzudir, B. (2025). Numerical analysis of the Soret and Dufour effects on boundary layer flow past a curved stretching surface in porous media with thermal slip and variable magnetic field. *Archives of Thermodynamics*, 46(3), 77–87.

PARTICIPATION IN CONFERENCE/ SEMINAR/ WORKSHOP

- (i) Presented a paper entitled “MHD Flow, heat and mass transfer about a vertical flat plate in the presence of radiation and chemical reaction with temperature dependent viscosity” in National Seminar (I) on Mathematical Modelling with Fluid and Plasma, organized by Dept. of Mathematics, Dibrugarh University, Assam sponsored by UGC under SAP held on 19th -20th March, 2015.
- (ii) Presented a paper entitled “Chemical reaction, Soret and Dufour effects on flow, heat and mass transfer over a stretching surface in presence of uniform magnetic field” in a National Seminar sponsored by UGC on Interdisciplinary

Research in Chemical Sciences at Kohima Science College, Jotsoma held on 28th - 29th Sept, 2016.

MINOR PROJECT

- (i) Study of flow, heat and mass transfer over an exponentially stretching sheet embedded in porous medium under variable conditions. (Minor Research Project-Completed in 2023).
- (ii) Numerical study of boundary layer flow, heat and mass transfer over a curved stretching surface. (Minor Research Project-Ongoing).

RESEARCH SUPERVISION

Ph.D. SCHOLARS

Sl.No	Name of Scholar	Reg. No	Title
1	Dr. Temjennaro Jamir (Awarded)	PHD/MAT/194001	A numerical study of the sores effect on some unsteady flow problems of viscous fluids
2	Bendangwapang (Awarded)	PHD/MAT/194002	A numerical study of viscous fluid flow with thermal diffusion and diffusion thermo effects
3	Nourhevinuo Victoria Angami	DPMA-24/0004	Numerical investigation of micropolar fluid flow problems with heat and mass transfer
4	Aokumba Longchar	DPMA-24/0006	Numerical investigation of boundary layer flow, heat and mass transfer problems in nanofluids
5	Hosal Khieya	DPMA-24/0007	Some aspects of boundary layer flow, heat and mass transfer problems in hybrid nanofluids

MEMBERSHIP IN PROFESSIONAL/ACADEMIC BODIES

- i. Chairman, Board of Studies, Dept.of Mathematics, Kohima Science College Jotsoma.
- ii. Life Member of the *Journal of Progressive Science*, ISSN: 0976-4933.