

Personal Profile



Prof. (Dr.) Sahin Ahmed
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Educational Profile

Ph.D. Gauhati University, Guwahati, Assam; 2005
Supervisor: Prof. N. Ahmed

M.Sc. University of Delhi, Maurice Nagar, Delhi; 1994
Subject: Mathematics
Specialization: Applied Mathematics

Professional Experience

Professor, Department of Mathematics, July, 2016 – till date
Rajiv Gandhi University, Arunachal Pradesh, India

Associate Professor, Department of Mathematics, Rajiv July, 2013 – July 2016
Gandhi University, Arunachal Pradesh, India

Assistant Professor, Department of Mathematics, November, 1997 – July
Gauhati University, Assam, India 2013

Administrative Experience

Dean, Faculty of Engineering & Technology, Rajiv January, 2021 – Till date
Gandhi University, Arunachal Pradesh, India

Head of Department, Department of Mathematics, July 2014 – August 2020
Rajiv Gandhi University , Arunachal Pradesh, India

Chairperson, BUGS, BPGS, PhD Viva-Voce July 2014 – August 2020
Committee, Rajiv Gandhi University, Arunachal
Pradesh, India

Chairperson, PhD Viva-Voce Committee, Rajiv January 2021 – Till date
Gandhi University, Arunachal Pradesh, India

Membership of Professional Bodies

- (i) Editorial Member of Advances in Nanoparticles, Scientific Research Publishing Inc, USA (2021 onwards).
- (ii) Life member of Indian Society of Theoretical and Applied Mechanics (ISTAM), Kharagpur, IIT, India (2007 onwards).
- (iii) Life member of Indian Mathematical Society (IMS), India (2009 onwards).
- (iv) Life member of AAM, Gauhati University, Assam, India (1998 onwards).
- (v) Adviser of Global Research journal on Mathematics and Science Education, India (2010 onwards).

Research Interests

- Magnetohydrodynamic Flow
- Heat and Mass Transport in Porous Media
- Micro-Polar Fluid
- Dusty Fluid Flow
- Nanofluid Flow
- Mathematics Education & Pedagogy Development

Research Publications

Articles over Fluid Mechanics Research –

1. Brownian motion and thermophoresis behavior on micro-polar nanofluid—A numerical outlook: Hazarika, S.; Ahmed, S.; *Mathematics and Computers in Simulation (MATCOM)* (Elsevier), **2022**, 192, 452 – 463 (Available online 24 September 2021).
2. Material behaviour in micropolar fluid of Brownian motion over a stretchable disk with application of thermophoretic forces and diffusion-thermo: Hazarika, S.; Ahmed, S.; *Journal of Naval Architecture and Marine Engineering*, **2021**, 18(1), 25–38.
3. Theoretical investigation of viscosity and thermal conductivity of a gas along a non-isothermal vertical surface in porous environment with dissipative heat: Numerical Technique: Hazarika, S.; Ahmed, S.; *Journal of Applied and Computational Mechanics*, **2021**, 1 – 10.
4. Investigation of Cu–water nanofluid of natural convection hydro-magnetic heat transport in a Darcian porous regime with diffusion-thermo: Hazarika, S.; Ahmed, S.; Shao Wen Yao; *Applied Nanoscience* (Springer), **2021**, 1 – 10.
5. Investigation of nanoparticles Cu, Ag and Fe_3O_4 on thermophoresis and viscous dissipation of MHD nanofluid over a stretching sheet in a porous regime: A Numerical Modelling: Hazarika, S.; Ahmed, S.; Chamkha, A.J.; *Mathematics and Computers in Simulation* (Elsevier), **2021**, 182, 819 – 837.
6. Analysis of platelet shape Al_2O_3 and TiO_2 on heat generative hydromagnetic nanofluids for the base fluid $C_2H_6O_2$ in a vertical channel of porous medium: Hazarika, S.; Ahmed, S.; Chamkha, A.J.; *Walailak Journal of Science and Technology*, **2021**, 18(14), 1 – 19.
7. Numerical investigation of endothermic/exothermic reaction in MHD natural convective nanofluid flow over a vertical cone with heat source/sink: Hazarika, S.; Ahmed, S.; *Walailak Journal of Science and Technology*, **2021**, 18(17), 1 – 18.
8. Study of carbon nanotubes with Casson fluid in a vertical channel of porous media for hydromagnetic drag force and diffusion-thermo: Hazarika, S.; Ahmed, S.; *Journal of Scientific Research*, **2021**, 13(1), 31 – 44.
9. Thermo–diffusive flow of chemically reacting fluid in a saturated porous medium for radiative heat flux: Hazarika, N.; Ahmed, S.; *Journal of Scientific Research*, **2021**, 13(2), 507 – 520.

10. Steady MHD micropolar Casson fluid of Brownian motion over a solid sphere with thermophoretic and buoyancy forces: Numerical Analysis: Hazarika, S.; Ahmed, S.; *Journal of Nanofluids*, **2020**, 9(4), 336 – 345.
11. Study of heat generation/absorption on radiating fluid with Soret effect for hydromagnetic flow through porous medium: Ahmed, K.K.; Ahmed, S.; *J P Journal of Heat and Mass Transfer*, **2021**, 23(1), 95 – 111.
12. Investigation of variable viscosity and thermal conductivity on MHD mass transfer flow problem over a moving non-isothermal vertical plate: Ahmed, S.; Gogoi, G.; *Journal of Naval Architecture and Marine Engineering*, **2020**, 17, 183 – 197.
13. Applications of cnts in a vertical channel of porous medium for human blood flow: a rheological model: Kalita, D.; Hazarika, S.; Ahmed, S.; *JP Journal of Heat and Mass Transfer*, **2020**, 20 (2), 105 – 120.
14. MHD drag force on water based cylindrical shaped ZnO nanoparticle in a chemically reacting nano-fluid through channel: A theoretical investigation: Kalita, D.; Hazarika, S.; Ahmed, S.; *Annals of Faculty Engineering Hunedoara – International Journal of Engineering*, **2020**, 18(2), 23-32.
15. Effect of variable viscosity and thermal conductivity on unsteady free convective flow of a micropolar fluid past a vertical cone: Hazarika, G.C.; Phukan, B.; Ahmed, S.; *J. Eng. Physics and Thermophysics* (Springer), **2020**, 93(1), 178-185.
16. 2-D unsteady free convective heat and mass transfer Newtonian Hartmann flow with thermal diffusion and Soret effects: Network model and finite differences: Zueco, J.; Ahmed, S.; López-González, L.M.; *Int. Journal of Heat and Mass Transfer* (Elsevier), **2017**, 110, 467–475
17. Numerical and analytical solutions for magneto-hydrodynamic 3D flow through two parallel porous plates: **Ahmed, S.**; Zueco, J.; López-González, L.M.; *Int. Journal of Heat and Mass Transfer* (Elsevier), **2017**, 108, 322–331.
18. Effects of chemical reaction, heat and mass transfer and viscous dissipation over a MHD flow in a vertical porous wall using Perturbation method: **Ahmed, S.**; Zueco, J.; López-González, L.M.; *Int. Journal of Heat and Mass Transfer* (Elsevier), **2017**, 104, 409–418.
19. Steady-state transport phenomena on induced magnetic field modeling for convective chemically reacting fluid with viscous dissipative heat: **Ahmed, S.**; Anwar, O.B.; *Heat Transfer Research*, **2017**.
20. Rosseland Diffusion Flux Approximation along a Variable Temperature/Concentration Plate with Viscous Dissipative Heat: A Darcian Model: Hazarika, N.J.; Ahmed, S.; *FEJAM*, **2017**, 96(5), 279–295.
21. Laplace transformation for optically thick gray gas in a vertical channel with magnetic body force: A Rosseland Approximation: Kalita, K.; **Ahmed, S.**; *J. of Engineering Physics and Thermophysics* (Springer), **2017**, 90(4), 918 – 931.
22. Mathematical Analysis for Optically Thin Radiating/ Chemically Reacting Fluid in a Darcian Porous Regime: Hazarika, N.J.; Ahmed, S.; *Global J. Pure & Appl. Math.*, **2017**, 13(6), 1777 – 1798.
23. Laplace analysis of periodic heat and mass transport on a parabolic started surface immersed in Darcian porous regime: Khatun, H.; **Ahmed, S.**; *Int. J. Eng. Res. & Appl.*, **2017**, 07(04), 09 – 17.
24. Unsteady free convective periodic heat transport modeling in a saturated porous medium for a rotating system: Ahmed, S.; *Annals of the Faculty of Engineering Hunedoara – Int. J. Engineering*, **2016**, 14(3), 181 – 188.
25. Analytical study of Darcian drag forced and heat absorption on a periodic heat and mass transport along a vertical surface in presence of magnetic field: Hazarika, N.J.; Ahmed, S.; *Annals of the Faculty of Engineering Hunedoara – Int. J. Engineering*, **2016**, 14(4), 247 – 254.
26. Analytical study of unsteady magnetohydrodynamic chemically reacting fluid over a vertical porous plate in a darcian porous regime: A rotating system: Hazarika, N.J.; **Ahmed, S.**; *IOSR-JAP*, **2016**, 8(1).

27. Laplace transform solutions for magneto-hydrodynamic boundary layer flow and heat transfer in a porous medium with thermal radiation effect: Ahmed, S.; *Acta Technica Corviniensis – Bulletin of Engineering*, **2016**, 9(1), 79 – 84.
28. Free convective heat transport in a porous media bounded by an isothermal vertical plate with thermal radiation and magnetohydrodynamic effects: An Exact Solution: Khatun, H.; **Ahmed, S.**; *IOSR-JAP*, **2015**, 7(3), 9 – 17.
29. Numerical/Laplace transform Analysis for MHD radiating heat/mass transport in a Darcian porous regime bounded by an oscillating vertical surface: **Ahmed, S.**; Batin, A.; Chamkha, A.J.; *AEJ-Alexandria Engineering Journal (Elsevier)*, **2015**, 54, 45 – 54.
30. Analytical solution for transient MHD flow through a Darcian porous regime in rotating system: Khatun, H.; **Ahmed, S.**; *Int. J. Eng. Sci. Inven.*, **2015**, 4(10), 33–42.
31. Unsteady MHD chemically reacting fluid through a porous medium bounded by a non-isothermal impulsively started vertical plate: A numerical technique: Ahmed, S.; Kalita, K.; *Journal of Naval Architecture and Marine Engineering*, **2014**, 11, 39 – 54.
32. A Couple Stress Fluid Modeling on Free Convection Oscillatory Hydromagnetic Flow in an inclined rotating channel: Ahmed, S.; Bég, O.A.; Ghosh, S. K.; *Ain Shams Engineering journal (Elsevier)*, **2014**, 5, 1249 – 1265.
33. Analytical and numerical solution of three-dimensional channel flow in presence of sinusoidal fluid injection and a chemical reaction: Ahmed, S.; Kalita, K.; Chamkha, A.J.; *Ain Shams Engineering journal (Elsevier)*, **2014**, 5, 1249 – 1265.
34. Non-linear magnetohydrodynamic Radiating flow over an impulsively started vertical plate in a saturated porous regime: Laplace and Numerical approach: Ahmed, S.; Kalita, K.; Zueco, J.; *J. of Engineering Physics and Thermophysics (Springer)*, **2014**, 87(5), 1219–1232.
35. Magnetohydrodynamic heat and mass transfer flow with induced magnetic field and viscous dissipative effects: Ahmed, S.; Batin, A.; *Latin American Applied Research*, **2014**, 44 (1) 9 – 17.
36. Mathematical modeling for porous media transport in Newtonian radiating/chemically reacting fluid over an impulsively started vertical plane: A Finite Difference approach: Ahmed, S.; Kalita, K.; *Latin American Applied Research*, **2014**, 44(1), 71-80, 2014.
37. Finite difference approach in porous media transport modeling for magnetohydrodynamic unsteady flow over a vertical plate: Darcian Model: Ahmed, S.; Batin, A.; Chamkha, A.J.; *Int. J. of Numerical Methods for Heat and Fluid Flow*, **2014**, 24 (5), 1204 – 1223.
38. Magneto-micropolar flow over a stretching surface embedded in a Darcian porous medium: Zueco, J.; Ahmed, S.; López-Ochoa, L.M.; *Arabian Journal for Science and Engineering (Springer)*, **2014**, 39(5), 5141–5151.
39. Numerical analysis for magnetohydrodynamic chemically reacting and radiating fluid past a non-isothermal impulsively started vertical surface adjacent to a porous regime: Ahmed, S.; *Ain Shams Engineering journal (Elsevier)*, **2014**, 5, 923–933.
40. Numerical Modeling of MHD Convective Heat and Mass Transfer in presence of first order Chemical Reaction and Thermal Radiation: **Ahmed, S.**; Zueco, J.; López-Ochoa, L.M.; *Chemical Engineering Communications (Taylor & Francis Inc)*, **2014**, 201, 419–436.
41. Hartmann Newtonian radiating MHD flow for a rotating vertical porous channel immersed in a darcian porous regime: An exact solution: Ahmed, S.; Chamkha, A.J.; *Int. J. of Numerical Methods for Heat and Fluid Flow*, **2014**, 24 (7), 1454 – 1470.
42. Study of thermal radiation and Ohmic heating for steady magnetohydrodynamic natural convection boundary layer flow in saturated porous regime: Ahmed, S.; *Int. J. on Recent and Inn. Trends in Computing and Comm.*, **2014**, 2(9), 2796 – 2801.
43. Magnetohydrodynamic transient flow through a porous medium bounded by a hot vertical plate in presence of radiation: A theoretical analysis: Ahmed, S.; Kalita, K.; *Journal of Engineering Physics and Thermophysics (Springer)*, **2013**, 86 (1), 30 – 39.

44. Analytical and Numerical Study for MHD Radiating Flow over an Infinite Vertical Surface Bounded by a Porous Medium in presence of Chemical Reaction: Ahmed, S.; Kalita, K.; *Journal of Applied Fluid Mechanics*, **2013**, 6(4), 597 – 607.
45. A Sinusoidal fluid injection/suction on MHD three-dimensional Couette flow through a porous medium in the presence of thermal radiation: Ahmed, S.; Kalita, K.; *Journal of Energy, Heat and Mass Transfer* (IIT, Madras), **2013**, 35, 41 – 67.
46. Modelling of Newtonian Hartmann Flow through Darcian Porous Medium Adjacent to an Accelerated Vertical Plate in a Rotating System: Ahmed, S.; *Proceedings of Indian National Science Academy*, 79 (4), Spl. Issue, Part B, **2013**, 909 – 919.
47. Modelling of rotational fluid with an accelerated vertical plate embedded in a Darcian porous regime: Ahmed, S.; *Annals of Faculty Engineering Hunedoara – int. J. Engineering*, **2013**, 11(3), pp. 69 – 76.
48. Magnetohydrodynamic oscillatory flow in a planer porous channel with suction and injection: Ahmed, S.; Khatun, H.; *Int. J. of Eng. Res. & Tech.*, **2013**, 2(11), 1024 – 1029.
49. Convective laminar radiating flow over an accelerated vertical plate embedded in a porous medium with an external magnetic field: Ahmed, S.; Batin, A.; *Int. J. Eng. and Tech.*, **2013**, 3(1), 66 – 72.
50. Mathematical modeling of oscillatory magneto-convection of a couple-stress biofluid in an inclined rotating channel: Bég, O.A.; Ghosh, S. K.; **Ahmed, S**; Tasveer Bég, T.; *Journal of Mechanics in Medicine and Biology* (Hong Kong, World Scientific), **2012**, 12(1), 1 – 35.
51. Laplace technique on Magnetohydrodynamic radiating and chemically reacting fluid over an infinite vertical surface: Ahmed, S.; Kalita, D.; *Int. J. Eng. and Tech.*, 2 (4), 684–693.
52. Mathematical model of induced magnetic field with viscous/magnetic dissipation bounded by a porous vertical plate in presence of radiation: Ahmed, S.; *Int. J. Applied Mathematics and Mechanics*, **2012**, 8(1), 86-104.
53. Perturbation analysis of dissipation and thermal radiation effects on hydromagnetic transient mixed convective heat and mass transfer with transpiration: Ahmed, Beg, O.A.; *Fundamental Journal of Thermal Science and Engineering*, **2012**, 2(1), 13–36.
54. A study of induced magnetic field with chemically reacting and radiating fluid over a porous vertical plate: Ahmed, S.; *Journal of Engineering Physics and Thermophysics* (Springer), **2011**, 84(6), 1360 – 1368.
55. Modelling of heat and mass transfer in a rotating vertical porous channel with hall current: Ahmed, S.; Zueco, J.; *Chemical Engineering Communications*, **2011**, 198 (10), 1294 – 1308.
56. Free and forced convective MHD oscillatory flows over an infinite porous surface in an oscillating free stream: Ahmed, S.; *Latin American Applied Research*, **2010**, 40 (2), 167 – 173.
57. Mixed Convection MHD Transient Flow over an infinite surface: Ahmed, S.; *Journal of Energy, Heat and Mass Transfer* (IIT, Madras), **2010**, 32, 71 – 92.
58. Influence of Chemical Reaction on Transient MHD Free Convective Flow over a vertical plate in Slip-Flow Regime: Ahmed, S.; *Emirates Journal for Engineering Research*, **2010**, 15(1), 25 – 34.
59. Oscillatory three-dimensional flow and heat and mass transfer through a porous medium in presence of periodic suction: Ahmed, S.; *Emirates Journal for Engineering Research*, 15(2), 49 – 61, 2010.
60. Transient free convective MHD flow and Chemical Reaction over a vertical plate in slip-flow regime: Ahmed, S.; *Bulletin of Calcutta Mathematical Society*, **2010**, 102(4), 333 – 342.
61. Combined heat and mass transfer by mixed convection MHD flow along a porous plate with chemical reaction in presence of heat source: Zueco, J.; Ahmed, S.; *Applied Mathematics and Mechanics* (Springer-Verlag, Engl. Ed.), **2010**, 31 (10), 1217 – 1230.
62. Thermal radiation and magnetohydrodynamic effects on heat and mass transfer chemically reacting fluid with periodic suction: Ahmed, S.; Kalita, T.K.; *Int. Journal of Applied Mathematics*, **2010**, 23(5), 779-789.

63. Heat and mass transfer transient free convective flow over a vertical plate in presence of chemical reaction: Ahmed, S.; Kalita, T.K.; *JP Journal of Heat and Mass Transfer*, **2010**, 4 (1), 81 – 93.
64. The effect of Viscous Dissipative Heat on Three-dimensional Oscillatory Flow with Periodic Suction Velocity: Ahmed, S.; *Indian Journal of Science and Technology*, **2010**, 3 (3), 276 – 283.
65. Effects of viscous dissipation and chemical reaction on transient free convective MHD flow over a vertical porous plate: Ahmed, S.; *Journal of Energy, Heat and Mass Transfer* (IIT, Madras), **2010**, 32, 347 – 374.
66. Induced Magnetic field with radiating fluid over a porous vertical plate: Analytical Study Ahmed, S.; *Journal of Naval Architecture and Marine Engineering*, **2010**, 7, 83 – 94.
67. Steady Mixed Convective Magnetohydrodynamic Mass Transfer Flow with Induced Magnetic field and Heat Generation effects: Ahmed, S.; *Journal of Energy, Heat and Mass Transfer* (IIT, Madras), **2010**, 33, 27 – 53.
68. Effects of chemical reaction, heat and mass transfer and radiation on MHD flow along a vertical porous wall in the presence of induced magnetic field: Ahmed, S.; Chamkha, A.J.; *International Journal of Industrial Mathematics* (Iran), **2010**, 2(4), 245 – 261.
69. Mixed convective transient three-dimensional heat and mass transfer flow with transversely periodic suction velocity: Ahmed, S.; Liu, I.C.; *Int. J. of Appl. Math and Mech.*, **2010**, 6(1), 58–73.
70. Analytical model of MHD mixed convective radiating fluid with viscous dissipative heat: Ahmed, S.; Batin, A.; *Int. J. Eng. Sci. and Tech.*, **2010**, 2(9), 4902 – 4911.
71. Free convective transient three-dimensional flow through a porous medium oscillating with time in presence of periodic suction velocity: Ahmed, S.; *Int. J. of Applied Math and Mech.*, **2010**, 6(11), 1 – 16.
72. The study of heat and mass transfer on free convective three-dimensional unsteady flows over a porous vertical plate: Ahmed, S.; *Journal of Energy, Heat and Mass Transfer* (IIT, Madras), **2009**, 31, 89 – 110.
73. Three-dimensional Channel flow through a porous medium: Ahmed, S.; *Bulletin of Calcutta Mathematical Society*, **2009**, 101(5), 503 – 514.
74. Free and forced convective three-dimensional flow with heat and mass transfer: Ahmed, S.; *Int. J. Applied Math. and Mech.*, **2009**, 5(1), 26 – 38.
75. Magnetic field effect on a transient free and forced convective flow through a porous medium bounded by an impulsively fixed infinite vertical plate: Ahmed, N.; Sarmah, H.K.; Ahmed, S.; *Int. J. Theore. and Appl. Mech.*, **2009**, 4(1), 73 – 87.
76. Free convective flow in a vertical channel through a porous medium with heat transfer: Ahmed, S.; Deka, H.; *Int. J. Appl. Math.*, **2008**, 21(4), 671 – 684.
77. Oscillatory three-dimensional flow through a porous medium with viscous dissipative heat: Ahmed, S.; Ahmed, N.; *Int. J. Appl. Math.*, **2008**, 21(3), 419 – 435.
78. Effects of applied magnetic field on free convective flow in a vertical channel with heat transfer: Ahmed, S.; *Bulletin of Calcutta Math. Society*, **2008**, 100(4), 349 – 358.
79. Transient three-dimensional flow through a porous medium with transverse permeability oscillating with time: Ahmed, S.; *Emirates Journal for Engineering Research*, **2008**, 13(3), 11–17.
80. Effects of unsteady free convective MHD flow through a porous medium bounded by an infinite vertical porous plate: **2007**; *Bulletin of Calcutta Mathematical Society*, **2007**, 99(5), 511 – 522.
81. Steady free convective MHD flow and heat transfer through a porous medium bounded by a uniformly moving porous vertical plate: Ahmed, S.; *J. Ultra Sci. Phy. Sci.*, **2007**, 19(3) M, 585 – 590.
82. The two-dimensional MHD Oscillatory flow along a uniformly moving infinite vertical plate in a porous medium: Ahmed, S.; Ahmed, N.; *J. Rajasthan Academy of Physical Sciences*, 3(2), 75 – 84.

83. Two-dimensional MHD Oscillatory flow along a uniformly moving infinite vertical porous plate bounded by porous medium: Ahmed, S.; Ahmed, N.; *Indian J. Pure and Applied mathematics* (Springer), **2004**, 35(12), 1309 – 1319.
84. Magnetic Effects on free convective and heat transfer flow through porous medium: Ahmed, S.; Ahmed, N.; *Bulletin Allahabad Mathematical Society*, **2004**, 19, 73 – 86.
85. Unsteady free convective MHD flow and heat transfer through a porous medium: Ahmed, S.; Ahmed, N.; *Far East J. Appl. Math.*, 12(2), 93 – 104.
86. The free convective MHD flow and heat transfer through a porous medium bounded by a moving infinite vertical porous plate with constant heat flux: Ahmed, S.; Ahmed, N.; *J. Ultra Sci. Phy. Sci.*, **2003**, 15(3), 261 – 266.
87. MHD effects on the free convective and heat transfer flow through porous medium between a long vertical wavy wall and a parallel flat wall: Ahmed, S.; Ahmed, N.; *J. Ultra Sci. Phy. Sci.*, **2003**, 15(1) M, 33 – 44.
88. Free convective heat transfer in a viscous incompressible fluid between a uniformly moving long vertical wavy wall and a parallel flat wall: Ahmed, S.; Ahmed, N.; *Far East J. Appl. Math.*, **2002**, 8(2), PP. 125 – 142.
89. Steady free convective MHD flow along a uniformly moving porous vertical plate in presence of heat source / sink: Ahmed, S.; Ahmed, N.; *J. Ultra Sci. Phy. Sci.*, **2000**, 12(3), 262 – 271.
90. Oscillatory MHD flow of an incompressible fluid past a uniformly moving plate: Ahmed, S.; Ahmed, N.; *Far East J. Appl. Math.*, **2000**, 4(2), 171 – 186.

Articles over Mathematics Education Research –

91. Mathematical Modeling: An Important Tool For Mathematics Teaching: Bora, A.; **Ahmed, S.**; *Int. J. Res. Analytical Reviews*, **2019**, 6(2), 252 – 256, 2019.
92. Secondary school mathematics Teachers' perceptions on technological modern teaching approaches: Bora, A.; **Ahmed, S.**; *Int. J. Scien. Tech. Res.*, **2020**, 9(1), 2418 – 2423.
93. An investigation on Mathematics Teachers' Technological Pedagogical Content Knowledge (TPACK) in Secondary School setting in Assam: Bora, A.; **Ahmed, S.**; *Int. J. Tech. Innov. Modern Engin. & Sci.*, **2019**, 5(5), 530 – 536.
94. Mathematical Modeling: An Important Tool for Mathematics Teaching: Bora, A.; **Ahmed, S.**; *Int. J. Res. & Analy. Rev.*, **2019**, 6(2), 252 – 256.
95. Effects of Parental Involvement on Secondary School Students' Mathematics achievement in Assam: Bora, A.; **Ahmed, S.**; *Res. Rev. Int. J. Mult.*, **2018**, 3(7), 275 – 281.
96. Evaluation of leadership qualities of the Heads of Schools and Students' Mathematics Achievements in Secondary Schools: Bora, A.; **Ahmed, S.**; *IOSR J. Hum. & Social Sci.*, **2018**, 23(3), 11 – 14.
97. Teachers' Choices on Environmental Principles of Learning Effective Mathematics in Secondary Schools: Bora, A.; **Ahmed, S.**; *Int. J. Adv. Sci. Res. & Manag.*, **2018**, 3(11), 27 – 31.
98. Parents' Socio-economic status and Pupils' Mathematics Achievement: Stepwise Multiple Regression Analysis Approach: Bora, A.; **Ahmed, S.**; *Int. J. Tech. Innov. Mod. Eng. & Sci.*, **2018**, 4(11), 316 – 322.
99. Secondary School Students' Attitude Towards Their Learning Geometry: A Survey of Diphu Town Secondary Schools: Bora, A.; **Ahmed, S.**; *Int. J. Res. & Analy. Rev.*, **2018**, 5(3), 265 – 267.
100. Fusion of ICT In Mathematics Learning to improve Secondary School Students' Academic Achievement: Bora, A.; **Ahmed, S.**; *Int. J. Sci. Res. & Rev.*, **2018**, 7(4), 96 – 111.
101. An investigation on the interrelation between Teachers' viewpoint on Mathematics and Learners' Mathematics accomplishment in high and higher secondary schools in hilly district of Assam: Bora, A.; **Ahmed, S.**; *Int. J. Inn. Know. Con.*, **2018**, 6(12), 143 – 158.

102. The Impact of Mathematical Belief, Gender Orientation and Classroom setting on School Students' Accomplishment: Bora, A.; **Ahmed, S.**; *Int. J. Res. & Ana. Rev.*, **2018**, 5(4), 1607 – 1610.
103. Problems related to Participation in Mathematics in 10 + 2 Standard of Arts and Science Streams: A Comparative Study in Goalpara District of Assam: Abdul, W.; **Ahmed, S.**; *Int. J. Res. Ana. & Eva.*, **2013**, 4(41).
104. Students' different study approaches and its effect on the under achievement in Mathematics: Abdul, W.; **Ahmed, S.**; *IOSR J. Hum. & Soc. Sci.*, **2017**, 22(8), Ver. IV, 49 – 52.
105. Gender differences and achievements in mathematics among the students in high school examination in Diphu Town of Karbi Anglong District of Assam, India: Bora, A.; **Ahmed, S.**; *Int. J. Math. Edu.*, **2011**, 1(1), 57 – 62.

Book/Book Chapter published

1. Batin, A.; Ahmed, S.: Analytical solution of unsteady MHD Free convective flow in a rotating system with mass transfer: Darcian Regime, *Recent Trends of Mathematics*, Rahman, S. EBH Publisher, Assam, 2017, pp. 45 – 62.
2. Khatun, H., Ahmed, S.: Roseland Approximation for Heat generation/absorption on free convective radiating fluid with Soret effect, *Recent Trends of Mathematics*, Rahman, S. EBH Publisher, Assam, 2017, pp. 77 – 95.
3. Wahed, A., Ahmed, S.: Math Anxiety in Secondary School: An Experimental Study in Dhupdhara Locality of Goalpara District, Assam *Recent Trends of Mathematics*, Rahman, S. EBH Publisher, Assam, 2017, pp. 210 – 217.
4. Kalita, K., Ahmed, S.: *Recent Trends of Mathematics & its Applications'*, EBH Publishers (India), Assam, 2014.
5. Kalita, K., Ahmed, S.: *Different Models of Laminar MHD Flow in a Porous Media, Numerical and Analytical Approach*, Lambert Academic Publishing, UK, 2016.
6. Batin, A., Ahmed, S.: *Magnetohydrodynamic Flows in Porous Media – Analytical / Numerical study*, Lambert Academic Publishing, UK, 2017.
7. Hazarika, N.J., Ahmed, S.: *MHD Heat / Mass Transport in Fluid Flow*, Lambert Academic Publishing, UK, 2020.

Research guidance

Ph.D. Scholar

Ongoing PhD Scholars		
Full name of the Scholar	Topic of research	Year of PhD degree
Miss. Karishma Karam Ahmed	Mathematical Modelling Of Blood Flow Through An Artery / Non-Artery In The Presence Of MHD Convective Flow	Ongoing
Mr. Myzul Alom Hussain	Study of Hydromagnetic Micropolar Fluid Flow Over the Surfaces of Different Shapes	Ongoing
Mrs. M. Abhilasha	Mathematics Achievement Amongst Meitei Pangal Secondary School Students: An Analytical Study In Thoubal District Of Manipur	Ongoing

PhD Awarded Scholars

Full name of the Scholar	Title of the thesis	Year of PhD degree	Present occupation
Dr. Silpi Hazarika	Investigation of Different Hydromagnetic Micropolar Nanofluid Models for Heat Transport in Porous Media	September 2021	---
Dr. Ashim Bora	Factors Responsible for Academic Achievement of Secondary School Students in Mathematics: An Analytic Study in Karbi Anglong District of Assam	2019	Associate Professor
Dr. Abdul Wahed	Status of Higher Secondary Mathematics in relation to Participation, Achievement and Curricula Aspect: A Case Study in Goalpara District of Assam	2018	Assistant Professor
Dr. Nava Jyoti Hazarika	Study of Mathematical Modelling for Magnetohydrodynamic Free and Forced Convective flow with Heat Transport	2018	Assistant Professor
Dr. Hamida Khatun	Some flow problems on MHD free convective heat transfer flow	2017	Assistant Professor
Dr. Abdul Batin	Analytical / Numerical Study of Some Radiative Heat Transfer Flows through Porous Medium in presence of Magnetohydrodynamic effects	2016	Assistant Professor
Dr. Karabi Kalita	Numerical and Analytical Investigation on Different Models of Laminar MHD Flow in a Porous Media	2016	Assistant Professor

Course/Conference/Workshop organized

Conference/Workshop	Department/Institute	Duration	Role
International Conference on ICAMST – 2020	Mathematics, RGU, Arunachal Pradesh, India	1 – 3 September, 2020	Convener
National Conference on MSASET – 19	Mathematics, RGU, Arunachal Pradesh, India	25 – 26 April, 2019	Convener
Workshop on Teachers Training Programme on Elementary Mathematics	Mathematics, RGU, Arunachal Pradesh, India	November, 2016	Convener
NE-Workshop in collaboration with ISI Bangalore, India	Mathematics, RGU, Arunachal Pradesh, India	31 st May to 4 June, 2016	Local Organizer
National Conference, RTMA – 15	Mathematics, RGU, Arunachal Pradesh, India	6-7 November, 2015	Convener
Workshop on Financial and Industrial Mathematics	Mathematics, RGU, Arunachal Pradesh, India	10 th November, 2014	Convener
National Conference, RTMA – 14	Mathematics, RGU, Arunachal Pradesh, India	26 – 27 May, 2014	Treasurer

Course/Conference/Workshop etc. attended

Papers presented in Conferences / Seminars :

Sl. No.	Title of the paper presented	Title of Conference/ Seminar	Date with Year	Organized by	Whether international/ national/state/ regional/ college or university level
1	Gender Balance Education in Science, Technology and Mathematics in Goalpara District-A Sustainable Overview	UGC Sponsored National Seminar on Social Equity and Sustainable Development	26-27 June, 2013	Sonapur College, Assam	National Seminar
2	Dynamic Ecosystem Models: Ecosystem Modelling and Analysis	UGC Sponsored National Seminar on Eco-criticism	9-10, February, 2012	Department of Mathematics, Diphu Govt. College	National Seminar
3	National Workshop on NACC	Quality Enhancement, Reaccreditation and the role of IQAC	28-29 May, 2010	West Goalpara College, Ambari, Assam.	National Workshop
4	Thermal Radiation and Magnetohydrodynamic Effects on Heat and MassPeriodic Suction	54 th Congress of Indian Society of Theoretical and Applied Mechanics	18-21, December, 2009	Netaji Subhas Institute of Technology, Dwarka, New Delhi	International Conference.
5	Effects Porous Plate	Recent Trends in Mathematics and its applications, National Conference	12-13, September 2009	Department of Mathematics, Gauhati University, Guwahati	National Conference
6	The Effect of Chemical reaction and Magnetic Field on transient Free Convective Flow over a Vertical Plate in Slip-flow Regime	Indian Mathematical Society	27-30, December 2008	Department of Mathematics, Allahabad University, Allahabad	74 th Annual Conference
7	Free and Forced convective MHD Flow and Heat Transfer through a porous medium Bounded by an Infinite Vertical Porous Plate in Presence of a Constant Heat Flux and Heat Source	Indian Society of Theoretical and Applied Mechanics	14-17, December 2007	Department of Mathematics, B. N. M. Institute of Technology, Bangalore.	International Conference.
8	Free Convective Three Dimensional flow through a Porous Medium	Indian Society of Theoretical and Applied Mechanics	14-17, December 2007	Department of Mathematics, B. N. M. Institute of Technology, Bangalore.	International Conference.
9	Steady Free Convective MHD flow and heat transfer through a porous medium bounded by a uniformly moving vertical plate	Indian Society of Theoretical and Applied Mechanics	18-21, December 2006	Mechanical Engineering Department, Andhra University, Vishakhapatnam	International Conference

Workshop Attended :

Sl. No.	Workshop/SS/WS	Title of the Workshop	Date with Year	Organized by	Whether international/national/state/regional/college or university level
1	Advanced Workshop and Symposium	Stability Analysis of Differential Equations and its Applications in Fluid Flow Problems (SADEASSP)	20 - 24, March 2014	Kanpur IIT	Workshop
2	National Workshop of UG Syllabus	Review and Reformulation of Undergraduate Mathematics Syllabus of Gauhati University	10 - 11, April 2012	Dept. of Mathematics, Gauhati University	National Workshop
3	Winter School on Computer Programming (WS)	Programming in C	March 10-19, 2003	Computer & Statistical Service Centre (ISI) of the Institute at Gauhati University	National

Invited Talk :

Sl. No.	Title of the Talk	Name of the Conference / Workshop	Date with Year	Organized by
1	Keynote Speaker cum Chairperson "Mathematics and Its Applications in Present Context"	National Conference on CRDSSA-2020	14 th & 15 th March 2020	Diphu Govt. College, Assam
2	Elementary Mathematics for TET Teachers	Workshop on Diploma in Elementary Education	20 June 2014	Habraghat Mahavidyalaya, Study Centre, Assam
3	Elementary Mathematics for TET Teachers	Diploma in Elementary Education Programme	12 - 24 January 2013	Goalpara College, Study Centre, Assam
4	Elementary Mathematics for TET Teachers	Workshop on Diploma in Elementary Education	15 July 2012	Habraghat Mahavidyalaya, Study Centre, Assam

Sponsored Project

Title of the project	Funding agency	Year of sanction	Role
Transient Flows with Heat and Mass Transfer Applications, No. F.5/108/2010-11/5546	UGC	2010	PI
A Critical Study on Transient Flows with Heat and Mass Transfer Applications, F. 5-292/2009-10 (MRP/NERO)/5866	UGC	2009	PI
Three-Dimensional Couette Flows through Porous Medium in presence of Magnetic Field, F. 5-48/2006-07 (MRP/NERO)/ 5271	UGC	2006	PI

Flows through Porous Medium, F. 5-11/2003-04 (MRP/NERO)/ 1999	UGC	2003	PI
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