CURRICULUM VITAE

Dr. Kamal Debnath
M.Sc. (Maths), B.Ed.,Ph.D.
Associate Professor &HoD,
Department of Mathematics
The Assam Royal Global University, Guwahati
Mobile: 7035263679
Email: debnathtura@gmail.com

Career Objective:

Building a career that would allow me to find satisfaction in what I do; and, to help myself, my organization and society to improve; by fully using my capabilities in a challenging, productive and intellectually stimulating environment, along with other like-minded and dedicated people; by using and finding new uses for the technologies and resources at our disposal.

Educational Qualifications:

SSLC from Tura Town High School, Tura under MBOSE in 1994 with 65.82%

PU (Sc.) from Don Bosco College, Tura under NEHU in 1996 with 71.67%

B.Sc. (Maths) from Arya Vidyapeeth College, Guwahati under GU in 2000 with 60.33%

M.Sc. (Maths) from University Classes, Guwahati under GU in 2003 with 78.56%

Ph.D. from Gauhati University, September, 2012.

Other Qualifications:

- Completed Bachelor of Education (**B.Ed.**) from PGTT College, Dhubri, Assam, India.
- Completed Diploma in Computer Application (**DCA**) from Zed CA, Tura.
- Completed Certificate Course in Computer Programming using **C++** from NIIT, Guwahati.

Work Experience:

- **Associate Professor &HoD**, Department of Mathematics, Royal School of Applied & Pure Sciences, The Assam Royal Global University, Guwahati**[January, 2022-till date].**
- **Assistant Professor&HoD,**Department of Mathematics, Royal School of Applied & Pure Sciences, The Assam Royal Global University,Guwahati December**[March 2021 to December 2022].**
- **Assistant Professor**, Department of Mathematics, Royal School of Applied & Pure Sciences, The Assam Royal Global University, Guwahati**[July 2012 to February 2021].**
- **Assistant Professor,** Don Bosco College of Teacher's Education, Tura, West Garo Hills Meghalaya **[September 2006 to August 2008].**
- **Lecturer,** Department of Mathematics, Don Bosco College, Tura, West Garo Hills, Meghalaya **[July 2003 to August 2006].**

    Total teaching experience:RGU-11 years 1 months **&Other Institute:** 5 years 1 month

Research Experience:
- Department of Mathematics, Royal School of Applied & Pure Sciences, The Assam Royal Global University, Guwahati. **[October 2012 to February 2023]**

Workshops Attended:

- 5-days workshop on "Research, Academic Writing and Latex" organized by Department of Mathematics, The Assam royal Global University, Guwahati during February 20-24, 2023.
- Two weeks international workshop on "Effective Research Paper Writing & Publishing Aspects" organized by Department of Civil Engineering, FET, Manav Rachna International Institute of Research and Studies, July 6-17, 2020.
- "Publishing Connect Workshop" conducted by Elsevier in association with Gauhati University at Gopinath Bordoloi Nagar, Guwahati, Assam, on 5th March, 2016.
- "Mathematical Analysis and its Applications to Engineering" conducted under the Technical Education Quality Improvement Programme sponsored by the Ministry of Human Resource Development, Government of India, organized by Centre for Education Technology, IIT Guwahati held on January 02-04, 2016.

- "Enhancing Professionalism: Discover, Learn, Grow" organized by Department of Basic Sciences & Humanities, Royal School of Engineering & Technology, Royal Group of Institutions, Guwahati during June 5-6, 2014 at Royal Group of Institutions, Guwahati.
- Advanced Workshop & Symposium on "Stability Analysis of Differential Equations with Applications to Fluid Flow Problems(SADEAFFP-2014)" under National Program on Differential Equations: Theory, Computation & Applications (NPDE-TCA), IIT Bombay (Sponsored by DST, Govt. of India) hosted by IIT Kanpur during March 20-24, 2014.
- "Use and Deployment of NPTEL Courses" organized by Indian Institute of Technology, Guwahati in association with Royal Group of Institutions, Guwahati on 29th and 30thApril 2013 at Royal Group of Institutions, Guwahati.
- "Development of Self – Instructional Material for Distance Education" organized by PGCS, GU on January 22 – 24, 2007 at Gauhati University, Guwahati.
- "Workshop on Mathematics", organized by NEHU on 29th March to 2nd April, 2005 at NEHU, Tura Campus.

Short Term Course Attended:

- STC on "Numerical Solutions of Differential Equations" conducted by Dr. B. R. Ambedkar NIT, Jalandhar, Panjab in September 16-20, 2020.
- QIP-STC on "Differential Equations: Solution Techniques and Applications" conducted by the Department of Mathematics, IIT Guwahati in September7-12, 2020.
- QIP-STC on "Aspects of Modern Optimizations Techniques in Science and Engineering (AMOTSE)" conducted byNIT, Arunachal Pradesh and Govt. College of Technology Coimbatore, Tamil Nadu in August17-21, 2020.
- STTP on "Mathematical and Technical Writing using LaTex" conducted by National Institute of Technical Teachers' Training and Research (NITTTR), Kolkata in December 26-30, 2016.
- QIP-STC on "Mathematical Computations Using Software Tools" conducted by the Department of Mathematics, IIT Roorkee in July 1-5, 2013.
- QIP-STC on "Role of Numerical Analysis in Scientific Computing" conducted by the Department of Mathematics, IIT Guwahati in May 20-24, 2013.

Faculty Development ProgrammeAttended

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- FDP on "Mathematics in Real, Applied and Computational Domains" organized by School of Science and Humanities, Department of Mathematics, Sathyabama Institute of Science and Technology,Chennai, from July 3-8, 2023.

- FDP on "Research Awareness:Publication Database and Journal Selection" organized by Career Development Cell (CDC) Gokul Global University, Siddhpur, Gujarat, Indiafrom June 24-30, 2023.

- FDP on "Mathematics and its Application" organized by Basic Science & Humanities Department, J D College of Engineering and Management, Nagpur, India during June 1-5, 2023.

- FDP on "Mathematics and its applications in Technology & Science" organized by Department of Mathematics Madanapalle Institute of Technology & Science (UGC-Autonomous Institution), Madanapalle-517325, Annamayya District, Andhra Pradesh during June 5-9, 2023.

- FDP on "Advances on Research Methodology" organized by Royal School of Pharmacy, The Assam royal Global University, Guwahati during May 22-26, 2023.

- FDP on "Scientific Language" organized by Department of Mathematics, School of Basic Sciences, The Assam Kaziranga University, Jorhat, Assam during April 26-May 2, 2023.

- FDP on "Mathematical Modelling of Biosystems with special Focus on Epidemiology" organized by Mizoram University, Mizoram, August22-27, 2022.

- FDP on "Research Perspectives inMathematics and its Applications" organized by the Department of Mathematics,Sathyabama Institute of Science and Technology,Chennai, from July 4-16, 2022.

- FDP on "Basic Science and Research Methodology" organized by the School of Fundamental and Applied Science, Assam Don Bosco University, Guwahati February 2-7, 2022.

- FDP on "Research Advances in Mathematics and its Applications" organized by the Department of Mathematics, Sathyabama Institute of Science and Technology,Chennai, from August 2-14, 2021.

- FDP on "Implementation of NEP 2020 in Higher Education" organized by RKDF University, Bhopal (MP), February 17-22, 2022.

- FDP on "Effective Teaching Learning Paradigms through Pedagogical Innovations"organized by the Department of Mathematics, Sathyabama Institute of Science and Technology,Chennai, from Feb7 to Feb 12, 2022.
- FDP on "Research advances in Mathematics and its Application" organized by Department of Mathematics, Sathyabama Institute of Science and Technology,Chennai, from August 2 to August 14, 2021
- FDP on "Mathematics and Statistics in Emerging Field" organized by Department of Mathematics, KPR Institute of Engineering and Technology, Arasur, Coimbatore, India during July 05-10, 2021.
- FDP on "New Narrative of NAAC" organized by RR Institute of Advanced Studies, Bangalore during August 1-7, 2020.
- FDP on "Emerging Prospects of Stem Education in Engineering and Technology" organized by Royal School of Engineering & Life Technology, The Assam royal Global University, Guwahati during July 21-28, 2020.
- FDP on "Moodle Learning Management System" organized by organized by Internal Quality Assurance Cell(IQAC), Jagannath Barooah College (Autonomous), Jorhat, Assam in association with SpokenTutorial, IIT Bombay (an initiative of the National Mission of Education through ICT, MHRD,Govt. of India)during June 25 to July 1, 2020.
- FDP on "Importance of Cross-Disciplinary Research in the Post COVID-19 Scenario: Social Perspectives" organized by Department of Social Work, Royal School of Biosciences and Life Sciences, The Assam royal Global University, Guwahati during June 16-23, 2020.
- FDP on "Entrepreneurship: A Journey to the Concept" organized by Royal Group of Institutions, Guwahati sponsored by Entrepreneurship Development Institute, Guwahati during February 16-27, 2015 at Royal Group of Institutions, Guwahati.

Refresher course attended:
- UGC-Sponsored Refresher Course on Mathematics & Statistics from 19 December 2018 to 08 January 2019 at University Grants Commission, Human Resource Development Centre, Gauhati University, Guwahati, Assam.

Participated National Seminars / Conferences:

- International Symposium on Recent Advances in Mathematics & Application organized by the Department of Mathematics, Assam Don Bosco University, Guwahati, Assam, India on 28th October 2021.

- National Seminar on Science and Technology for Human Welfare (62nd Annual Technical Session of Assam Science Society, 2017) on 27th February, 2017 organized by Institute of Advanced Study in Science and Technology (IASST) (An autonomous R & D Institute under Department ofScience and Technology, Govt. of India) at IASST, Guwahati, Assam, India.

- National seminar on "Green Energy-Prospects and Challenges" organized by Assam Science and Technology University on April 26-27, 2016 at NEDFi House, Dispur, Guwahati-7810006.

- National Conference on Emerging Trends in Engineering: Opportunities in North-East organized by Department of Mechanical Engineering on April 28-29, 2016 in Royal School of Engineering and Technology, Royal Group of Institutions, Guwahati.

- One day seminar on "Non-Conventional Sources of Energy: Prospects and Challenges" on 30th January, 2016 organized by Department of Basic Sciences and Humanities, RSET, Royal Group of Institutions, Guwahati.

- National Conference on Mathematics Commemorating Birth Anniversary of Srinivasa Ramanujan organized by Department of Mathematics on 23rd December, 2013 at Girijananda Chowdhury Institute of Management and Technology (GIMT), Guwahati-781017, Assam, India.

- Seminar on "Frontiers in Nanotechnology" (FNT) organized by Department of Basic Sciences and Humanities on 16th November, 2013 in Royal School of Engineering and Technology, Royal Group of Institutions, Guwahati.

- One day symposium organized by Department of Mathematical Science on 22nd September, 2012 in Gauhati University, Guwahati, Assam.

- 96th Indian Science Congress organized by The Indian Science Congress Association, Kolkata on January 3-7, 2009 in NEHU, Shillong, Meghalaya.

- National Conference on Recent Trends in Mathematics and Its Applications ((NCRTMA – 09) organized by Assam Science Society & Department of Mathematics, GU on September 12-13, 2009 in Gauhati University, Guwahati, Assam.

Papers presented at National Seminars / Conferences:

- Prune Puree Flow Through a Cylindrical Pipe by Herschel-Bulkley Fluid Model for Processing Applications presented in the National Conference on New Approaches of Basic Sciences Towards the Development of Engineering and Technology-2023 during February 24-25, 2023 organized byDepartment of Basic Sciences& Department of Electronics and Communication Engineering, Assam Don Bosco University, Azara, Assam, India

- Non-Newtonian Fluid Flow and Heat Transport of Pummelo Juice over a Stretching Surface for Processing Application presented in the NSCB 2022 at NEHU, Tura during September 2-3, 2022 conducted under the aegis of Biotech Kisan Hub, NEHU Tura campus funded by DBT, New Delhi.

- Hydromagnetic Power Law Fluid Flow past a Porous Vertical Plate with Soret and Dufour effects presented in National Conference on Advances in Mathematical Sciences during December 22-23, 2016 organized by Department of Mathematics, GUin Gauhati University, Guwahati, Assam, India.

- Stratified Visco-elastic Fluid Flow in a Slip Flow Regime Past a Porous Surface in Presence of Heat Source /Sink is presented in the 80th Annual Conferences of The Mathematical Society during December 27-30, 2014 organized by Department of Applied Mathematics, Indian School of Mines, Dhanbad.

- Non-Newtonian effects on MHD unsteady free convective flow past an inclined permeable plate fluid is presented in national Seminar on recent Trends of research in Science and technology (59th Annual Technical Session of Assam Science Society) held on 29th March 2014 at Cotton College, Cotton College State University, Guwahati, Assam.

- Hydromagnetic divergent channel flow of a visco-elastic electrically conducting fluid with slip velocity is presented in National Conference on Pure and Applied Mathematics (NCPAM, 2013) organized by Department of Mathematics, Royal School of Engineering & Technology, Gyan Sagar Foundation Group of Institutions, Guwahati on 9-10 May, 2013, in Royal Group of Institutions, Guwahati.

- Oscillatory MHD Flow of a Visco-Elastic Fluid Past a Porous Vertical Plate with Periodic Suction is presented in 125th Birth Day Celebration of Srinivasa Ramanujan organized by the Assam Academy of Mathematics and Gauhati University on 22nd December, 2012 in Gauhati University, Guwahati, Assam.

- Hydromagnetic divergent channel flow of a visco-elastic electrically conducting fluid is presented in 57th Annual Technical Session of the Assam Science Society, Khanapara, Guwahati held on 16th March, 2012 at Gauhati University.

- Mixed Convective MHD Transient Flow of a Visco-elastic Fluid over an Infinite Porous Surface in an Oscillating Free Stream is presented in UGC Sponsored National Seminar on Recent Advances in the Application of Mathematical Sciences and Computational Techniques in Applied Sciences, organized by Department of Mathematics, Siliguri College in collaboration with Von Karman Society, Jalpaiguri on December 2-4, 2011.

- Visco-elastic free convective flow and mass transfer along a porous vertical plate is presented in National Conference on Frontiers in Mathematics-2011, (NCFM 2011), organized by Department of Mathematics, GU on September 29-30, 2011 in Gauhati University, Guwahati.

- Effects of Visco-Elastic MHD Unsteady Free Convection Flow Past a Porous Plate is presented in North East Regional Conference of Mathematics – II (NERCOM – II), 2011 organized by the Assam Academy of Mathematics on 16th July, 2011 in Gauhati University, Guwahati, Assam.

- Visco-elastic flow through a compliant annulus with naturally permeable boundary is presented in First National Conference on Mathematical Sciences (ICAMS 2011) co-organized by SMIT, Sikkim and Von Karman Society, Jalpaiguri on March 11-13, 2011 in SMIT, Majitar, Sikkim.

- Visco-elastic MHD free convective flow past a porous plate is presented in National Conference on Advances in Mathematics (NCAM – 2008) organized by Department of Mathematics, GU on September 4-7, 2008 in Gauhati University, Guwahati.

Papers presented at International Seminars / Conferences:

- Flow of Strawberry Puree through a Circular Tube by Herschel-Bulkley Fluid Model for Processing Applications in the 2nd International Conference on Recent Trends in Applied Sciences and Computing Engineering (RTASCE-2023) organized by VIT Bhopal University in association with NIT, Warangal (NITW), Indiaon July 7-9, 2023.

- Flow Behavioural Study of Guava Puree by Power-Law Fluid Model for Food Processing Industries presented in the International Conference on Nonlinear Analysis and Applications-2022 (ICNAA-2022) (Hybrid mode), organized by Department of Mathematics, School of Fundamental and Applied Sciences, Assam Don Bosco University, Tapesia Garden, Sonapur-782402, Assam, Indiaon November22-23, 2022.

- Non-Newtonian flow of shear-thinning pineapple juice over a moving permeable sheet with slip presented in the 4th International Conference on Global Efforts on Agriculture,

Forestry, Environment and Food Security (GAFEF-2022) organized by Institute of Forestry, Tribhuvan University, Pokhra campus, Pokhara, Nepal September 17-19, 2022.

- Unsteady Hydromagnetic Viscoelastic Fluid Flow and Heat Transfer due to Heat Flux and Thermal Radiation over a Stretching Permeable Sheet in Porous medium presented in the 87th Annual Conference of The Indian Mathematical Society (An International Meet, IMS 2021)organized by Department of Applied Sciences, JNEC, MGM University, Aurangabad during December 4-7, 2021.

- A Comparative Study of Heat and Partial Slip Impact on Boundary Layer Newtonian and Non-Newtonian Fluids Past a FlatPermeable Plate presented in the 3rd International Conference on Mathematical Modelling, Applied Analysis and Computation-2021 (ICMMAAC-21) organized by JECRC University, Jaipur during August 5-7, 2021.

- Reactive Mass Diffusion in Elastico-viscous Boundary Layer Flow Past an Exponentially Stretching Sheet with Variation in Wall Concentration is presented 65th Congress of the Indian Society for Theoretical and Applied Mechanics (ISTAM 2020) (An International Conference) organized by GITAM University, Hyderabad during December 9-11, 2020.

- Unsteady Elastico-viscous Fluid Flow over a Stretching Surface with Chemical Reaction is presented in the International Seminar on Recent Advances in Science and Technology (ISRAST) organized by NEAST, Mizoram University, Aizawl during November 16-18, 2020.

- Heat Transfer for Elastico-viscous Stagnation Point Flow over a Shrinking Surface with Thermal Radiation presented in the 3rd International Conference on Mathematical Modelling, Applied Analysis and Computation-2020 (ICMMAAC-2020) organized by JECRC University, Jaipur during August 7-9, 2020.

- Elastico-viscous Boundary Layer Fluid Flow over a Flat Permeable Plate with Variation in Surface Concentration is presented in the International Web Conference on Recent Advances in Science (IWCRAS 2020) organized by Department of Physics, Don Bosco College, Tura during July 30-31, 2020.

- Heat and Mass Transport for Elastico-viscous Fluid Flow with Partial Slip Boundary over a Flat Permeable Plate is presented in the International Web Conference on Advance Research in Science, Humanities and Social Science (IWCARSHSS 2020) organized by the department of Applied Mathematics, MBB University, Agartala, Tripura during July 09-10. 2020.

- Mixed Convective Slip Flow and Heat Transfer of Visco-elastic Boundary Layer Flow over a vertical Plate is presented in the International Conference onMathematical

Modelling in Applied Mathematics (ICMMAS 2020) organized by the department of Mathematics, Dibrugarh University, Assam, India during June 28-30, 2020.

- Slip Effects on Hydromagnetic Boundary Layer Flow of non-Newtonian Fluid over an Exponentially Stretching Sheet with Suction or Blowing is presented in the 13th International Conference on "Mathematical Sciences for Advancement of Sciences and Technology" on December 21-23, 2019 organized by Institute for Mathematics, Bioinformatics, Information Technology and Computer Science (IMBIC) at Salt Lake sector V, Kolkata.

- MHD Boundary Layer Flow of Non-Newtonian Fluid [Waters Liquid (Model B/)] over a Permeable Sheet with Suction/Blowing is presented in the 21st International Mathematics Conference 2019 organized by the Department of Applied Mathematics, University of Dhaka, Bangladesh during December06-08, 2019.

- Hydromagnetic Electrically Conducting Non-Newtonian Fluid Flow in a Convergent Channel is presented in the International Conference on Recent Trends in Mathematical Sciences organized by the Department of Applied Mathematics, Maharaja Bir Bikram University and Tripura Mathematical Society, Agartala, Tripura, India in the University Campus during March 24-25, 2018.

- Elastico-Viscous MHD Free Convective Flow Past an Infinite Vertical Porous Plate with Variable Suction and Soret Effect is presented in the 60th Congress of Indian Society of Theoretical and Applied Mechanics (ISTAM 2015) An International Conference organized by Mechanical Engineering Department, Malaviya National Institute of Technology Jaipur, India during 16-19 December, 2015.

- Elastico-Viscous MHD Unsteady Free Convective Flow Past an Inclined Permeable Plate with Dofour Effects in Presence of Chemical Reaction is presented in the 8th International Conference on "Mathematical Sciences for Advancement of Sciences and Technology" on December 21-23, 2014 organized by Institute for Mathematics, Bioinformatics, Information Technology and Computer Science (IMBIC) at Salt Lake sector V, Kolkata.

- Divergent Channel Flow of a Visco-Elastic Hydromagnetic Electrically Conducting Fluid with Slip Velocity is presented in the 58th Congress of Indian Society of Theoretical and Applied Mechanics (ISTAM) on December 18-21, 2013 at Bengal Engineering and Science University, Shibpur, Howrah-711103, West Bengal, India.

- Elastico-Viscous Effects on Mixed Convective Fluid Flow with Mass Transfer from a Porous Plate in Presence of Induced magnetic Field is presented in International Conference on Recent Advances in Mathematical Statistics and Its Applications in

Applied Sciences, organized by Department of Statistics, Gauhati University in collaboration with Indian Statistical Institute, Kolkata on December 31, 2012, January 1-2, 2013 in Gauhati University, Guwahati, Assam, India.

- Heat transfer in three dimensional MHD visco-elastic flow past a porous plate is presented in 55th Congress of Indian Society of Theoretical and Applied Mechanics (ISTAM -2010) organized by NIT, Hamirpur on December 18-21, 2010 in NIT, Hamirpur, Himachal Pradesh.

Publications (International Journal):

- Visco-elastic MHD free convective flow past a porous plate, Far East J. of Mech. Engg. &Phy. Vol.1(1), 63 – 78 (2010). ISSN: 2229 – 4511. (Peer-reviewed Journal)

- Flow and heat transfer in three dimensional MHD visco-elastic flow past a porous plate, Ultra Scientist of Phy. Sci. (UGC approved), Vol.23(1)M, 29 – 38 (2011). ISSN: 0970 – 9150.(Peer-reviewed Journal)

- Visco-elastic free convective flow and mass transfer along a porous vertical plate, International J. of Math. Sci. &Engg. Appls.,Vol.5(V), 445 – 456 (2011). ISSN: 0973 - 9424.(Peer-reviewed Journal)

- Hydromagnetic divergent channel flow of a visco-elastic electrically conducting fluid, International J. of Engg. & Tech., Vol.3 No. 10 October, 7556 – 7561 (2011). ISSN: 0975 – 5462.(Peer-reviewed Journal)

- Mixed Convective MHD Transient Flow of a Visco-elastic Fluid over an Infinite Porous Surface in an Oscillating Free Stream, International J. Apld. Engg. Res., Vol. 19, November, 2297 – 2308 (2011). ISSN: 0973 – 4562.(Peer-reviewed Journal)

- Effects of Visco-elastic MHD Unsteady Free Convective Flow Past a Porous Plate, International J. of Math. Sci. &Engg. Appls.(UGC approved), Vol. 6 No. I,January, 71 – 81 (2012). ISSN: 0973 -9424.(Peer-reviewed Journal)

- Unsteady Oscillatory MHD Flow of a Visco-Elastic Fluid Past a Porous Vertical Plate with Periodic Suction, International Journal of Mathematical Archive, 3(5), 2012, 1764-1771. ISSN: 2229-5046. (Peer-reviewed Journal)

- Visco-elastic flow through a compliant annulus with naturally permeable boundary, International Journal of Applied Mathematics and Mechanics, China, 9(4), 2013, 66-79, ISSN: 0973-0184.(Peer-reviewed Journal)

- Elastico-Viscous MHD Free Convective Flow Past an Inclined Permeable Plate with Dufour Effects in Presence of Chemical Reaction, International Journal of Engineering and Technical Research (IJETR) ISSN: 2321-0869, Volume-3, Issue-8, August 2015. (Peer-reviewed Journal)

- Stratified Visco-Elastic Fluid Flow in a Slip Flow Regime Past a Porous Surface in Presence of Heat Source/Sink, International Journal of Scientific & Engineering Research (IJSER) (UGC approved), ISSN 2229-5518, Volume 6, Issue 9, September-2015.(Peer-reviewed Journal)

- Mixed convective elastico-viscous fluid flow past a porous plate in presenceof induced magnetic field and energy dissipations, Research J. Science and Tech.ISSN 2349-2987(3): July- September, *2015, 165-175*.(Peer-reviewed Journal)

- Thermophoresis and Diffusion Thermo Effects on Shear Thickenning and Shear Thinning cases of Fluid Motion Past a Permeable Surface, Journal of Mechanics of Continua and Mathematical Sciences, ISSN (Online) 2454 -7190, 15(5), May 2020, 68-81.(Peer-reviewed Journal)

- Impact of Suction or Blowing on Elastico-Viscous Hydromagnetic Fluid Flow Past a Stretching Permeable Sheet,Advances in Mathematics: Scientific Journal 10 (2021), no.1, 211–221, ISSN: 1857-8365

- Solution of non-Newtonian Boundary Layer Flow in a Convergent Channel using Homotopy Perturbation Method, Published in Transient, A Journal of Natural Sciences and Allied Subjects, ISSN: 2250-0650, Vol. VIII, 2020, 28, Peer Reviewed Journal

- Mixed Convective Slip Flow and Heat Transport for Visco-elastic Fluid Past a Vertical Plate, Mathematical Forum, UGC care listed journal, Vol.28, 2020, ISSN: 0972-9852.

- Heat and Partial Slip Impact on Elastico-viscous Fluid Flow Past a Flat Permeable Plate Mathematical Forum, Vol. 29, 2022, UGC care listed journal, ISSN: 0972-9852.

- Heat and Mass Transport for Elastico-Viscous Fluid with Partial Slip Boundary over a Flat Permeable Plate, Latin American Applied Research, Scopus indexed journal, Vol 53 No. 2 (2023) ISSN: 1851-8796.

- Reactive Solute Diffusion in Elastico- Viscous Fluid Past a Flat Permeable Plate, High Technology Letters, Volume 29, Issue 7, 2023, ISSN NO: 1006-6748.

Publications (Proceedings):

- Divergent Channel Flow of a Visco-Elastic Hydromagnetic Electrically Conducting Fluid with Slip Velocity, Proceedings of 58th Congress of Indian Society of Theoretical and Applied Mechanics (ISTAM), 2013, 58-istam-fm-fp-12.

- Non-Newtonian effects on MHD unsteady free convective flow past an inclined permeable plate,Proceedings of59[th] Annual Technical Session of Assam Science Society, Vol. 15, 2014, ISBN: 13-978-81-930041-2-8.

- Elastico-Viscous MHD Free Convective Flow Past an Infinite Vertical Porous Plate with Variable Suction and Soret Effect, Proceedings of 60th Congress of ISTAM (http://istam.iitkgp.ac.in), MNIT, Jaipur-302017, Rajasthan, India, Dec. 16-19, 2015 (mnit.ac.in).

- Mathematical Study of Shear-thinning Nature of Peach Puree Flow Through a Circular Pipe by Herschel-Bulkley Fluid Model, e-proceedings of 16th International Conference of MSAST 2022, December 21-23, 2022, Kolkata, India, Vol 11 (2022), 161, ISBN 978-81-925832-8-0.

- Behavioural Study of Carrot Juice Exhibiting Shear-thickening Nature of Flow Past a Cylindrical Pipe by Power-Law Fluid Model, e-proceedings of 16th International Conference of MSAST 2022, December 21-23, 2022, Kolkata, India, Vol 11 (2022), 241, ISBN 978-81-925832-8-0.

Publication (Books):

- Flow Behaviour of Non-Newtonian Fluid, Lambert Academic Publishing, Germany, 2014, ISBN: 978-3-659-59035-1.

- A text book of Laplace Transforms, Research India Publications, India, 2014, ISBN: 978-93-84144-78-4.

Publication (Book Chapters)

- Slip Impact on Fluid Flow and Heat Transport in the Boundary Layer over a FlatPermeable Plate- A Comparative Study, Futuristic Trends in Physical Sciences, IIP Series.

- Hydromagnetic Visco-elastic Boundary Layer Flow Past an Exponentially Stretching Sheet with Suction or Blowing published inEmerging Technologies in Data Mining and Information Security, Vol. 1, ISBN 978-981-15-9927-9, 533-541, June 2021, Springer edited book Series.

- Hydromagnetic Visco-elastic Boundary Layer Slip Flow and Heat Transfer over a Flat Platepublished inEmerging Technologies in Data Mining and Information Security, Vol. 1, ISBN 978-981-15-9927-9, 483-492, June 2021, Springer edited book Series.
- Reactive Mass Diffusion in Viscoelastic Fluid Past a Stretchable Exponential Sheet Due to Variation in Wall Concentration,Emerging Technologies in Data Mining and Information Security, Springer Nature, 107, ISBN 978-981-19-4193-1, September 2022, Springer edited book Series.
- Slip Flow and Heat Transition for Hydromagnetic Elastico-viscous Fluid past a Flat Moving Plate Emerging Technologies in Data Mining and Information Security, Springer Nature, 131, ISBN 978-981-19-4193-1, September 2022, Springer edited book Series.
- Slip Impact on Fluid Flow and Heat Transport in the Boundary Layer over a Flat Permeable Plate- A Comparative Study, Futuristic Trends in Physical Sciences, Vol 2, 2023IIP Proceedings.

Membership:
- Life member of Tripura Mathematical Society, Tripura, Agartala.
- Life member of Assam Academy of Mathematics (AAM), Guwahati, Assam, India.
- Life member of Indian Society of Technical Education (ISTE), India.
- Life member of Indian Mathematical Society (IMS), India.
- Life member of Indian Society of Theoretical and Applied Mechanics (ISTAM), India.
- Life member of Indian Science Congress Association (Membership No. L36654)
- Appointed as member of Academic Subcommittee by Assam Academy of Mathematics (Regd. Under Society Registration Act.XXI of 1860, Regd.No. 4097 of 1900-91) on 13.03.2016.

Organizing Member:

- National Conference on Pure and Applied Mathematics (NCPAM, 2013) organized by Royal School of Engineering & technology, Gyan Sagar Group of Institutions, Betkuchi, Opp. Balaji Temple,Guwahati-781035, Assam, India.
- Workshop on "Mathematics for Engineering Aspirants, 2015" organized by Department of Basic Sciences and Humanities, Royal Group of Institutions and Assam Science and Technology University during June 5-6, 2015.

- Lecture Series-I (RSAPSLS-I, 2018), 24-25 January, 2018 organized by Royal School of Applied & Pure Sciences, The Assam Royal Global University, Guwahati,Assam, India.
- National Level Workshop on Artificial Intelligence and Machine Learning organized by Royal School of Applied & Pure Sciences, The Assam Royal Global University, Guwahati,Assam, India during March 7-11, 2021.
- National Mathematics Day Celebration to mark the birth anniversary of the great Indian Mathematician, Srinivasa Ramanujan on December 22, 2022organised by Department of Mathematics, The Assam Royal Global University in association with Assam Academy of Mathematics (AAM).
- 5 Days Workshop on Research, Academic Writing and Latex during February 20-24, 2023 organized by Department of Mathematics, The Assam Royal Global University, Guwahati.
- 7 Days FDP on Data Analysis using Machine Learning Software April 26 -May 04, 2023organized by Department of Mathematics, The Assam Royal Global University, Guwahati.

Convener:
- Science Conclave (RSAPSSC-2018), 15-16 November, 2018, organized by Royal School of Applied & Pure Sciences, The Assam Royal Global University, Guwahati,Assam, India.
- International Conference on Emerging Areas in Science & Technology (EAST 2021), 1-2 June 2021, organized by Royal School of Applied & Pure Sciences, The Assam Royal Global University, Guwahati,Assam, India.

M.Sc. Project Guided:
- Six students of Department of Mathematics, RSAPS completed their M.Sc. project under my guidance:
    i. Analytical Solution of Hydro Magnetic Electrically Conducting Newtonian Fluid Flow in a Convergent Channel by Homotopy Perturbation Technique**(Mr. Anisur Rahman of M.Sc. Mathematics 2017-2019 batch)**
    ii. Heat and Mass Transfer in Visco-Elastic Boundary Layer Slip Flow Past a Flat Permeable Plate**(Mr. Mousin Akter Wahiduzzaman of M.Sc. Mathematics 2018-2020 batch)**

iii. Non-Newtonian Flow of Shear-Thinning Pineapple Juice over a Moving Permeable Sheet with Slip and Heat Generation **(Mr. Jiaur Rahman of M.Sc. Mathematics 2020-2022 batch)**

iv. Non-Newtonian Shear-Thinning Flow and Heat Transport of Pummelo Juice over a Stretching Surface by Power-Law Fluid Model**(Ms. Pratiksha Borah of M.Sc. Mathematics 2020-2022 batch)**

v. A Mathematical Study of Shear-thinning Nature of Peach Puree Flow through a Circular Pipe by Herschel-Bulkley Fluid Model**(Ms. Suman Bhuyan of M.Sc. Mathematics 2021-2023 batch)**

vi. Behavioural Study of Carrot Juice Exhibiting Shear-thickening Nature of Flow Past a Cylindrical Pipe by Power-law Fluid Model**(Ms. Pompi Das of M.Sc. Mathematics 2021-2023 batch)**

Ph.D. Guideship:

- Recognized asPh.D. guide/supervisor in the field of Mathematics under Assam Science and Technology University, Guwahati**[February, 2016to July 2018].**
- Recognized as Ph.D. guide/supervisor in the field of Mathematics under The Assam Royal Global University, Guwahati **[July 2017-till date].**

List ofresearch scholarpursuing Ph.D:

- Six research scholars in the Department of Mathematics, RSAPS, The Assam Royal Global University are pursuing Ph.D. under my guidance:

  I. Behavioural Study of Visco-Elastic Fluid Flow Characterized by Walters Liquid (Model B') (**Mr. Bikash Koli Saha, July, 2018 Batch**)

  II. Some Aspects of Fluid Flow Problems with Emphasis on Visco-Elasticity (**Mr. Sankar Singha, July 2018 Batch**)

  III. Non-Newtonian Fluid Flows of Some Fruit and Vegetable Products in Food Processing Industries obeying Power-Law Fluid Model (**Mr. Ruhul Kuddus Ahmed, January, 2020 Batch**)

  IV. **Ms. Punam Das** pursuing Ph.D. Course Work. (**July, 2022 Batch**)

  V. **Mr. Mardor WanriSynrem** pursuing Ph.D. Course Work. (**January, 2023 Batch**)

  VI. **Ms. Pompi Das** pursuing Ph.D. Course Work. (**July, 2023 Batch**)

Journal Reviewer

- Mathematical Forum, ISSN: 0972-9852, 2022, UGC care listed journal.
- Latin America Applied Research ISSN: 1851-8796, Scopus indexed journal.

Involvement in Departmental/Institutional administrative activities from joining till date:

- Member of odd mid semester examination committee (July-December, 2012), Gauhati University.
- Core committee member of NPTEL workshop, 2013
- Member of disciplinary committee (Joint Proctor), 2013
- Member of organizing committee NCPAM 2013
- Member of BE admission counseling committee 2013
- Teaching member of GATE coaching team (Mathematics)
- Co-ordinator of technical session NCPAM 2013.
- Assistant Exam in charge of B.E. Compartmental Examination, February-March, 2014.
- Member of BE admission counseling committee 2014
- Paper Examiner and scrutinizer of Gauhati University, Gawahati, Assam.
- Paper Examiner and scrutinizer of ASTU, Guwahati, Assam.
- Examination In-charge B.Tech. (Mid-Sem) 2nd and 4th Semester, March, 2015 under ASTU.
- Dy. Centre In-charge B.Tech.2nd and 4th End Semester Examination, May-June, 2015 under ASTU.
- Dy. Centre In-charge B.Tech.1st Semester (Special)Examination, June, 2015 under ASTU.
- Assistant Observer, APDCL Examination, 2015.
- Co-ordinator of Budget Committee, River Talks, 2016.
- Co-ordinator of Budget Committee, Consensio, 2017.
- In charge of RGU JEE 2017 question paper (compile and edit).
- Member of Board of Studies, RSAPS, RGU from 2017.
- Co-ordinator of Budget Committee, Consensio, 2018.
- Controller of Examination, Ph.D. Entrance RGU from 2018.
- Convener Science Conclave November 2018.
- Advisor of Budget Committee, Consensio, 2018.
- Advisor of Budget Committee, Consensio, 2019.
- Coordinator of Registration, Karmotsav, 2019

- Controller of Examination, Ph.D. Entrance RGU, August, 2020.
- Examination Co-ordinator, Ph.D. Entrance RGU, January, 2020.
- Member of HRDC, RGU from 2020-2021
- Group Coordinator, Faculty Colloquium, 2021
- Chairperson, DRC, Department of Mathematics, 2021-till date.
- External member, DRC, Department of Physics, 2021
- UG Pre-orientation Committee member, 2021
- MoU coordinator for Aniruddhadeva Sports University, Dibrugarh from 2021.
- Team Head, Sub-venue, RGU First Convocation, 2022.
- Examination Co-ordinator, Ph.D. Entrance RGU, January, 2022.
- Special invitee of Academic council, RGU, 2022
- Team Head, Sub-venue, RGU Second Convocation, 2022.
- Departmental IQAC Head, January 2022
- Examination Co-ordinator, Ph.D. Entrance RGU, July, 2022.
- Examination Co-ordinator, Ph.D. Entrance RGU, December, 2022.
- Committee memberfor applying to PURSE, DST Government of India, 2023.
- Examination Co-ordinator, Ph.D. Entrance RGU, July, 2023.
- Head of the Department of Mathematics, RGU from March 2021 till date.
- Member of Time Table committee, RGU Aug 2023.

Personal Details:

Father's Name: Mr. Amar Debnath
Mother's Name: Mrs. Milan Debnath
Spouse Name: Ms. Upasana Deb
Date of Birth: 19th December, 1977
Nationality: Indian

Religion: Hinduism

Marital status: Married

Caste: Other Backward Class (OBC)

Mother Tongue: Bengali

Languages Known: Bengali, Hindi, Assamese, English.

Contact Address: Ajanta Path, Bye lane-3,

                    Kanaklata path, H.No.13,

                    Survey, Beltola,

                    Guwahati-781028,

Assam, India.

Declaration

I certify that all the above information is correct and complete to the best of my knowledge.

Date: 24/08/2023   *Signature:*