

CURRICULUM VITAE TEMPLATE



Position/Designation: Assistant Professor
 Department: Mathematical and Physical Sciences - Mathematics Section
 College: College of Arts Sciences
 University of Nizwa, Sultanate of Oman

Personal Information

Name: Dr. Md. Jashim Uddin
 Marital Status: Married
 Email Address: md.jashim@unizwa.edu.om
 Contact Numbers: (+968)254461121
 Extension: 1121
 Office: 11G-34

Academic Qualifications

Ph.D. in Applied Mathematics, Sultan Qaboos University, Sultanate of Oman, 2018
 Master of Science in Applied Mathematics, University of Dhaka, Bangladesh, 2005
 Bachelor of Science (Honours) in Mathematics, University of Dhaka, Bangladesh, 2003

Teaching Activities, Current/Previous Experience

- Calculus
- Linear Algebra
- Numerical Analysis
- Mathematics for Teacher
- Pre-Calculus
- Ordinary and Partial Differential Equations
- Statistical Quality Control
- Applied Mathematics for Engineering
- Complex Variables
- Business Mathematics

Research Activities

(includes but not limited to research interests, conference attendance, conference presentations and publications: refereed journal, articles, books, etc.)

Research Interests:

Nano-Fluidic and Micro-Fluidic Phenomena, Magneto-Rheological Fluids, Heat and Mass Transfer, Transport in Porous Media at Pore-Scale, Computational Methods in Geosystems

Conference/ Workshop Presentations:

1. M. J. Uddin "Nanofluids: the New Heat-transfer Fluids for the Industrial Age 4.0", BCSIR Congress2022, Theme: Integrated Approach for Adapting 4IR, Bangladesh Council of Scientific and Industrial Research, Ministry of Science and Technology, Dhaka , ONLINE, 1 – 3 December 2022.
2. M. J. Uddin "Modelling of Nanofluids Flow and Heat Transfer: Evolution, Application, and Prospects in Nanotechnology", The 4th Research and Innovation Conference- IMCO RIC-2022 , ONLINE via MS Teams, 29 March 2022.
3. M. J. Uddin "Nanofluid Flow and Heat Transfer in a Square Vessel with Two Wavy Surfaces", 5 th Sohar University Research Conference - SURC 2022 , ONLINE via MS Teams, 19 January 2022.
4. M. J. Uddin "Natural Convective Heat Transfer Flow of AL₂O₃ -Water Nanofluid Flow in a Square Vessel", 3rd International Conference on Graphene and Novel Nanomaterials (GNN 2021) , ONLINE via MS Teams, 16 – 19 August 2021.
5. M. J. Uddin "Analysis of Natural Convective Heat Transfer Utilizing Nanofluids: A Nonhomogeneous Dynamic Model", Seminar, Jagannath University, Dhaka, Bangladesh, 12 March 2018.
6. M. J. Uddin "Fundamentals of Nanofluids: Evolution, Applications and a New Model", Seminar, Daffodil International University, Dhaka, Bangladesh, 1 March 2018.
7. M. J. Uddin "Flow Dynamics of Nanofluids in a Horizontal Cylindrical Annulus by Nonhomogeneous Dynamic Model", International Conference on Thermal and Fluid Engineering , Phuket, Thailand,3–5 July 2017.(Best Presentation Award)
8. M. J. Uddin, M. M. Rahman "Natural Convective Heat Transfer in Nanofluids Filled Annulus", SQU in Society Events, Oman International Exhibition Center, Muscat, Sultanate of Oman,7–9 May 2017.
9. M. J. Uddin " Dynamics of Hydromagnetic Nanofluids Flow in Annulus", SQU-Cambridge Workshop on Mathematical Modeling , Department of Mathematics and Statistics, Sultan Qaboos University, Muscat,4 – 5 April 2017.
10. M. J. Uddin, M. M. Rahman " Numerical Experiment on Convective Flow of Nanofluids with an Oriented Magnetic Field in a Semicircular-Annulus using Nonhomogeneous Dynamic Model", The Fourth International Conference on Numerical Analysis and Optimization, Sultan Qaboos University, Muscat, January 2 – 5, 2017.
11. M. J. Uddin " Flow Dynamics of Nanofluids over a Symmetric Surface", Departmental Ph.D. presentation, Department of Mathematics and Statistics, Sultan Qaboos University, Muscat, December 2015.
12. M. J. Uddin, M. M. Rahman, N. Al-Salti: " A new mathematical model of nanofluids: applications and future prospective in nanotechnology", Conference of Nanotechnology for Water Treatment and Solar Energy Applications, Muscat, 15-16 December 2015.

Conference/ Workshop Attendance:

1. Academic Induction Programme organized by Academic Development Office, IMCO, 21 October 2021-17 November 2021
2. THE Teaching Excellence Summit in Partnership with Nankai University, China, 16-18 November 2021

3. The 3rd International Conference on Graphene and Novel Nanomaterials (GNN 2021), China, ONLINE via MS Teams, 16-19 August 2021
4. Workshop on Sustainable Socioeconomic Development through Excellence in Higher Education conducted by Bangladesh Accreditation Council, Dhaka, 20 January 2020
5. Tips and Techniques for Structuring Articles for Publication, Department of Development Studies, Daffodil International University, Dhaka, 7 August 2019
6. Workshop on Research Methodology of Cutting-edge Technology-Based Research on Fluid Flow, Department of General Educational Development, Daffodil International University, Dhaka, 15 January 2019
7. Academic Teaching and Research Development, Daffodil International University, Dhaka, Bangladesh, 12-14 August 2018
8. Academic Planning and Development, Daffodil International University, Dhaka, Bangladesh, 9 August 2018
9. International Conference on Thermal and Fluid Engineering, Phuket, Thailand, 3-5 July 2017
10. SQU in Society Events, Oman International Exhibition Center, Muscat, Sultanate of Oman, 7-9 May 2017.
11. SQU-Cambridge Workshop on Mathematical Modeling, Department of Mathematics and Statistics, Sultan Qaboos University, Muscat, 4-5 April 2017.
12. The 4th International Conference on Numerical Analysis and Optimization, Sultan Qaboos University, Muscat, 2-5 January 2017.
13. Conference of Nanotechnology for Water Treatment and Solar Energy Applications, Muscat, 15-16 December 2015.
14. Online Seminar on Engineering Mathematics with Mathematica, Wolfram Research, Inc., 14 February 2013
15. International Conference on Tertiary Education: Realities and Challenges, Daffodil International University (DIU), Dhaka, 19-21 January 2013

Publications (Articles):

1. M. J. Uddin, M. M. Hasan, Salah A. Faroughi: "Convective transport in a nanofluid-filled annulus with an eccentric hypocycloid within a square disk". International Journal of Thermofluids 22 100664 (2024)
2. Khamis Al Kalbani, M. J. Uddin : "Convective heat transfer of Cu – Al₂O₃ - water hybrid nanofluid flow in a cavity having vertical wavy sides ". Iraqi Journal of Science, accepted (2024)
3. Md. Mehedi Hasan, M. J. Uddin, R. Nasrin: "Exothermic Chemical Reaction of Magneto-Convective Nanofluid Flow in a Square Domain". International Journal of Thermofluids 16 100236 (2022)

4. M. J. Uddin, Jawaher Al-Balushi, S.Mahatabuddin, M. M. Rahman: "Convective heat transport for copper oxide-water nanofluid in an isosceles triangular cavity with a rippled base wall in the presence of magnetic field". *International Journal of Thermofluids*, 16, 100195 (2022)
5. M. J. Uddin, S. K. Rasel, Jimoh K. Adewole, Khamis S. Al Kalbani: "Finite element simulation on the convective double diffusive water-based copper oxide nanofluid flow in a square cavity having vertical wavy surfaces in presence of hydromagnetic field". *Results in Engineering*, 13, 100364 (2022)
6. Latifa M. Balushi, M. J. Uddin, M. M. Rahman, Hakan F. Oztop, Ioan Pop : "Three-dimensional tilted hydromagnetic natural double-diffusive convection in a rectangular cuboid filled with nanofluids based on magnetic nanoparticles". *Journal of Heat Transfer (JHT)*, 1-31 (2021)
7. M. J. Uddin, M. Arifuzzaman : "Convective flow of alumina–water nanofluid in a square vessel in presence of the exothermic chemical reaction and hydromagnetic field". *Results in Engineering*, 10, 100226 (2021)
8. M. J. Uddin, M. Mosfiqur Rahman : "Magnetohydrodynamic boundary layer flow of nanofluid with variable chemical reaction in a radiative vertical plate". *Journal of Heat Transfer (JHT)*, 1-19 (2021)
9. M. J. Uddin, M. Arifuzzaman, M. M. Rahman: "Thermo-Hydromagnetic performance of wateralumina nanofluid in a trapezoidal vessel". *Journal of Thermophysics and Heat Transfer (JTHT)*, 36(1), 28-39 (2022)
10. M. J. Uddin, S. K. Rasel, M. M. Rahman, K. Vajravelu: "Natural convective heat transfer in a nanofluid-filled square vessel having a wavy upper surface in the presence of a magnetic field". *Thermal Science and Engineering Progress*, 19, 100660 (2020)
11. M. Hatami, M. J. Uddin, M. Hu, D. Jing, M. Javed: "Two-phase natural convection analysis and hybrid nanoparticle migration around micromixer blades". *Heat Transfer Asian Research*, 49(5),3044- 3065 (2020)
12. M. J. Uddin, M. M. Rahman: "Heat transportation in copper oxide-water nanofluid filled triangular cavities". *International Journal of Heat and Technology*, 38(1),106-124 (2020)
13. Latifa M. Balushi, M. J. Uddin, M. M. Rahman: "Natural convective heat transfer in a square enclosure utilizing magnetic nanoparticles". *Propulsion and Power Research (The Journal of the National Laboratory for Aeronautics and Astronautics)*, 8(3), 194–209 (2019)
14. M. J. Uddin, S. K. Rasel: "Numerical analysis of natural convective heat transport of copper-water nanofluid flow inside a quadrilateral vessel". *Heliyon*, 5(5), e01757 (2019)
15. M. J. Uddin, M. M. Rahman: "The thermal instability analysis for the natural convective heat transport within a horizontal nanofluid layer using non-homogeneous dynamic model". *Journal of Engineering Thermophysics*, 30, 476-493 (2021)
16. M. J. Uddin, A. F. Hoque, M. M. Rahman, K. Vajravelu: "Numerical simulation of convective heat transport within the nanofluid filled vertical tube of plain and uneven side walls". *International Journal of Thermofluid Science and Technology*, 6(1), 1-24 (2019)
17. M. J. Uddin, M. A. Halim, M. Mohiuddin, Salahuddin: "Copper oxide-water nanofluid flow within an annulus shaped cavity: A numerical study on natural convective heat transfer". *Annales de Chimie Science des Matériaux* 41/3-4-2017 239-260 (2018)

18. M. J. Uddin: "Numerical simulation on free convective heat transfer in a copper-water nanofluid filled semi-circular annulus with the magnetic field". *Italian Journal of Engineering Science: Technica Italiana*, 62(2), 119-129 (2018)
19. M. J. Uddin, A. F. Hoque: "Convective heat transfer flow of nanofluid in an isosceles triangular-shaped enclosure with an uneven bottom wall". *Chemical Engineering Transactions*, 66, 403-408 (2018)
20. M. J. Uddin, M. M. Rahman: "Finite Element Computational Procedure for Convective Flow of Nanofluids in an Annulus". *Thermal Science and Engineering Progress* 6 251–267 (2018)
21. M. J. Uddin, M. M. Rahman: "Numerical computation of natural convective heat transport within nanofluids filled semi-circular shaped enclosure using non-homogeneous dynamic model". *Thermal Science and Engineering Progress*, 1, 25–38 (2017)
22. M. J. Uddin, M. M. Rahman, M. S. Alam: " Analysis of natural convective heat transport in homocentric annuli containing nanofluids with an oriented magnetic field using nonhomogeneous dynamic model". *Neural Computing and Applications*, 30(10), 3189-3208 (2017)
23. M. J. Uddin, M. S. Alam, M. M. Rahman: "Natural Convective Heat Transfer Flow of Nanofluids Inside a Quarter-Circular Enclosure Using Nonhomogeneous Dynamic Model". *Arabian Journal for Science and Engineering*, 42(5), 1883-1901 (2016)
24. M. J. Uddin, M. S. Alam, N. Al-Salti, M. M. Rahman: "Investigations of Natural Convection Heat Transfer in Nanofluids Filled Horizontal Semicircular-Annulus Using Nonhomogeneous Dynamic Model". *American Journal of Heat and Mass Transfer*, 3(6), 425-452 (2016)
25. M. J. Uddin, K. S. Al Kalbani, M. M. Rahman, M. S. Alam, N. Al-Salti, I. A. Eltayeb, "Fundamentals of Nanofluids: Evolution, Applications and New theory". *International Journal of Biomathematics and Systems Biology*, 2(1), 1-32 (2016)
26. ATM M. Rahman, M. S. Alam, M. J. Uddin: "Influence of magnetic field and thermophoresis on transient forced convective heat and mass transfer flow along a porous wedge with variable thermal conductivity and variable Prandtl number". *International Journal of Advances in Applied Mathematics and Mechanics*, 3(4), 49-64 (2016)
27. M. S. Alam, M. M. Haque, M. J. Uddin: "Convective flow of nanofluid along a permeable stretching/shrinking wedge with second order slip using Buongiorno's mathematical model". *International Journal of Advances in Applied Mathematics and Mechanics*, 3(3), 79-91 (2016)
28. M. S. Alam, T. Islam, M. J. Uddin: "Mathematical Modelling for Heat Transfer of a Micropolar Fluid along a Permeable Stretching/Shrinking Wedge with Heat Generation/Absorption". *Mathematical Modelling and Engineering Problems*, 3(1), 1-9 (2016)
29. M. S. Alam, M. Mahbubur Rahman, M. M. Rahman, M. J. Uddin, K. Vajravelu: "Numerical experiments on transient hydromagnetic forced convective slip flow over a porous rotating disk with thermophoresis". *Journal of Nonlinear Evolution Equations and Applications*, 1, 1-23 (2016)
30. M. S. Alam, Farhana Sarower, M. M. Rahman, M. J. Uddin, " Effects of thermophoresis and Brownian motion on unsteady forced convective flow of a nanofluid along a porous wedge with variable suction". *Bulletin of Calcutta Mathematical Society*, 107(5), 393–410 (2015)
31. M. S. Alam, M. M. Haque, M. J. Uddin: "Unsteady MHD free convective heat transfer flow along a vertical porous flat plate with internal heat generation". *International Journal of Advances in Applied Mathematics and Mechanics*, 2(2), 52-61 (2014)

32. M. J. Uddin, "Effect of Variable Electric Conductivity on Radiative Heat Transfer Flow along a Vertical Plate of Micropolar Fluid with Variable Heat Flux and Uniform Source (or Sink) in a Porous Media". *Daffodil International University Journal of Science and Technology*, 8(2), 51-60 (2013)
33. M. J. Uddin, M. E. Karim, "Effects of Dufour and Modified Forchhemier for Hydromagnetic Free Convective Heat and Mass Transfer Flow along a Permeable Inclined porous Plate with Heat Generation and Thermophoresis". *Research Journal of Applied Sciences, Engineering, and Technology*, 6(4), 668- 680 (2013)
34. M. E. Karim, M. J. Uddin, M. E. Karim, "Steady Radiative Free Convective Flow along a Vertical Flat Plate in the presence of Magnetic Field". *Daffodil International University Journal of Science and Technology*, 6(2), 55-62 (2011)
35. M. J. Uddin, "Convective Flow of Micropolar Fluids along an Inclined Flat Plate with Variable Electric Conductivity and Uniform Surface Heat Flux". *Daffodil International University Journal of Science and Technology*, 6(1), 69-79 (2011)
36. M. M. Rahman, M. J. Uddin, A. Aziz "Convective flow of micropolar fluid in a porous medium with variable electric conductivity, surface heat flux and non-uniform heat source (or sink)". *International Journal of Energy & Technology*, 2(25), 1–18 (2010)
37. M. M. Rahman, M. J. Uddin, A. Aziz "Effects of variable electric conductivity and non-uniform heat source (or sink) on convective micropolar fluid flow along an inclined flat plate with surface heat flux". *International Journal of Thermal Sciences*, 48, 2331-2340 (2009)

Faculty Administrative Experience

Sep 2022- Nov 2023, Member, Curriculum Committee (Mathematics), Department of Engineering, International Maritime College, Suhar, Sultanate of Oman.

Sep 2022- Nov 2023, Final Year Project Coordinator of Group W4, Department of Engineering, International Maritime College, Suhar, Sultanate of Oman.

April 2019 - Sep 2021, Additional Director of IQAC, Daffodil International University, Dhaka, Bangladesh.

July 6, 2021, Symposium Co-Chair, International Symposium on the Significance of Regional Cooperation to Ensure the Quality Assurance in Higher Education 2021 (ISSRC 2021), Organized by IQAC, Daffodil International University, Dhaka.

July 10-20, 2019, Director (In-Charge), Student Affairs, Daffodil International University. July 10-20, 2019 Head (In-Charge), Department of General Educational Development , Faculty of Science and Information Technology, Daffodil International University.

July 2018-Aug 2018, Director (In-Charge), Student Affairs, Daffodil International University. July 2018-Aug 2018 Head (In-Charge), Department of General Educational Development , Faculty of Science and Information Technology, Daffodil International University.

Sep 2018-Sep 2019m, Research Coordinator, Department of General Educational Development , Faculty of Science and Information Technology, Daffodil International University.

Mar 2018-Sep 2019, Chairman, Examination Committee, Department of General Educational Development , Faculty of Science and Information Technology, Daffodil International University.

Mar 2018-Sep 2021, Problem Setter and Examiner of Lecturer Recruitment Test of Mathematics, Department of General Educational Development , Daffodil International University, Dhaka.

Mar 2018-Sep 2021, Coordinator and Invigilator of Lecturer Recruitment Test of Different Discipline, (Physics, Mathematics, Statistics, Chemistry and Art of Living), General Educational Development , Daffodil International University.

May 2014, Convener of the Inter-Departmental Math Olympiad, Daffodil International University.

Jan 2013- Dec 2014, Member, Representing the Department of CSE for gaining IEB Accreditation, Daffodil International University.

May 2013, Convener of the Inter-Departmental Math Olympiad, Daffodil International University.

Jan 2012 – May 2013, Coordinator of the Examination, Faculty of Science and Information Technology, Daffodil International University.

Dec 2012, Coordinator of the Bangladesh Academy of Science Math Olympiad, Organized by Daffodil International University

Community Services

Reviewr of national and international journals

Consultancy/Academic Experiences

Sep 2024 - To date: Assistant Professor, Department of Mathematical Sciences, University of Nizwa, Nizwa, Sultanate of Oman

Nov 2023 - Sep 2024: Postdoctoral Research Associate, College of Science and Engineering, Ingram School of Engineering, Texas State University. San Marcos, Texas, USA

Sep 2021 - Nov 2023: Assistant Professor-Mathematics, Department of Process Engineering, International Maritime College Oman (IMCO), National University of Science and Technology, Sohar, Sultanate of Oman

July 2018 - Sep 2021: Associate Professor, Department of General Educational Development, Daffodil International University, Dhaka, Bangladesh

Feb 2020 - June 2020: Visiting Faculty, Department of Mathematics, Sultan Qaboos University, Sultanate of Oman

Sep 2019 - Jan 2020: Visiting Faculty, Department of Mathematics, Sultan Qaboos University, Sultanate of Oman

Sep 2013 - June 2018: Assistant Professor, Department of General Educational Development, Daffodil International University, Dhaka, Bangladesh

Apr 2011 - Oct 2013: Senior Lecturer, Department of Computer Science & Engineering, Daffodil International University, Dhaka, Bangladesh

Jan 2009 - Mar 2011: Lecturer, Department of Computer Science & Engineering, Daffodil International University, Dhaka, Bangladesh

Jan 2008 - Jan 2009: Lecturer, Department of Computer Science & Engineering, IUBAT-International University of Business Agriculture and Technology, Dhaka, Bangladesh

Membership in Professional Bodies

- Life Time Member of Bangladesh Mathematical Society, Bangladesh
- Life Time Member of Mathematics Alumni, University of Dhaka, Bangladesh

Awards and Recognitions

- International Innovative Researcher of the Year, Research Leadership Award 2020, Rula Awards, January 2020.
- Certificate of Achievement, Outstanding Contribution in Research for Scholarly Scopus Publication in 2018 , Daffodil International University, Dhaka, December 2019.
- Certificate of Achievement, Outstanding Contribution in Research for Scholarly Scopus Publication in 2018 , Daffodil International University, Dhaka, December 2018.
- Honour of Achievement, Outstanding Contribution for the Development of Daffodil International University, Daffodil Family Day, Daffodil International University, Dhaka.
- Scholarship for the Doctoral study, Department of Mathematics and Statistics, Sultan Qaboos University, Funded by The Research Council of Oman (TRC), 2015-2018.
- Token of Appreciation, In recognition of contribution in gaining IEB accreditation for CSE program at DIU, Daffodil International University, Dhaka, 2014.
- Honour of Achievement, Daffodil Inter-University Computer Programming Contest, Daffodil International University, Dhaka, 2012.
- Certificate of Achievement, System Committee Member, Daffodil Inter-University Computer Programming Contest, Daffodil International University, Dhaka, 2010.
- Honour of Certificate, Amar Ekushey Hall, The University of Dhaka, 2006.