

Curriculum Vitae

of

DR. SALMA PARVIN

Professor

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Academic qualifications:

- **Ph.D.**, Mathematics (Computational Fluid Dynamics); from Department of Mathematics, Bangladesh University of Engineering and Technology (BUET), Dhaka-1000, Bangladesh (Year: 2012).
- **M.Phil.**, Mathematics (Quantum Mechanics); from Department of Mathematics, Bangladesh University of Engineering and Technology (BUET), Dhaka-1000, Bangladesh (Year: 2005).
- **M.Sc.**, Applied Mathematics; from Department of Mathematics, University of Dhaka, Bangladesh (Year: 1994 held in 1997, Grade: First Class 2nd position with 71% marks)
- **B.Sc. (Hons.)**, Mathematics; from Department of Mathematics, University of Dhaka, Bangladesh (Year: 1993, held in 1995, Grade: First Class 12th position with 66.6% marks)
- **H.S.C. (Science Group)**; from Govt. Womens' College, Jessore, Bangladesh (Year: 1990, Grade: First Division with 77.7% marks)
- **S.S.C. (Science Group)**; from Noapara Pilot Girls' High School, Abhoynagar, Jessore, Bangladesh (Year: 1988, Grade: First Division with 73.5% marks)

Work experience

- Professor in the Department of Mathematics, Bangladesh University of Engineering and Technology, Dhaka – 1000, Bangladesh (3rd December 2016 to till date).
- Associate Professor in the Department of Mathematics, Bangladesh University of Engineering and Technology, Dhaka – 1000, Bangladesh (12th June 2013 to 2nd December 2016).
- Assistant Professor in the Department of Mathematics, Bangladesh University of Engineering and Technology, Dhaka – 1000, Bangladesh (6th April 2009 to 11th June 2013).
- Lecturer in the Department of Mathematics, Bangladesh University of Engineering and Technology, Dhaka – 1000, Bangladesh (1st December 2004 to 5th April 2009).

- Part time Teacher in the Department of Mathematics, Bangladesh University of Engineering and Technology, Dhaka – 1000, Bangladesh (From April-2002 to October-2004).
- Teaching Assistant in the Department of Mathematics, Bangladesh University of Engineering and Technology, Dhaka – 1000, Bangladesh (From October-2000 to September-2001).

Supervisor for Postgraduate research

- **Supervision of Completed Graduate Research Work:** **Four** Master of Philosophy (M. Phil.) students and **one** Master of Science (MS) student.
- **Supervision of On-going Graduate Research Work:** Currently supervising **12** postgraduate students (**Four** doctor of Philosophy (Ph.D), **Four** Master of Philosophy (M. Phil.) and **Four** Master of Science (MS) program).
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Project coordination

- Director of the research project titled " **Numerical Study of Heat Transfer and Entropy Generation through a Nanofluid-Based Direct Absorption Solar Collector** " financed by University Grants Commission, Agargaon, Dhaka, Bangladesh.(from 01-04-2015 to 31-03-2016)

Research Interest

- Computational Fluid Dynamics (CFD)
- Photovoltaic Thermal (PVT)
- Nanofluids Flow Modelling
- Transport in Porous Media
- Heat and Mass Transfer
- Bio-heat transfer
- Magnetohydrodynamics
- Numerical Analysis.
- Quantum Mechanics

Computer Expertise

Application software MS-WORD, MS-EXCELL, PAGE MAKER, programming software FORTRAN, MATLAB, COMSOL MULTIPHYSICS, SOLIDWORKS and graphing software TECHPLOT.

Awards

- Chebyshev grant to attend ICM 2022, July 6-14 in St. Petersburg, Russia (IMU transferred the event to a virtual event due to Russia-Ukraine war) (**International**).
- Basic Research Grant from BUET (July 2021 to June 2023) (**National**).
- Travel grant from IMU to attend the Conference on Global Approach to the Gender Gap in Mathematical, Computing and Natural Sciences: How to Measure It, How to Reduce It? November 04-08, 2019, Abdus Salam International Centre for Theoretical Physics (ICTP), Trieste, Italy (**International**).
- Travel grant to attend the annual conference of the Indian Women and Mathematics (IWM 2019), **June 10-12**, 2019, Indian Institute of Technology Bombay, Mumbai, India (**International**).
- Travel grant to attend (as a **Resource Person**) the International Conference on Mathematical Methods and Computation (ICOMAC 2019), 20th & 21st February 2019, PG & Research Department of Mathematics, Jamal Mohamed College (Autonomous), Tiruchirappalli, Tamil Nadu, India (**International**).
- Open Arms travel grant to attend ICM 2018 (August 1 – 9), Reo De Janeiro, Brazil (**International**).
- Travel grant to attend the annual conference of the Indian Women and Mathematics (IWM 2018), **June 21-23**, 2018 Shiv Nadar University NH91, Tehsil Dadri, Gautam Buddha Nagar, Greater Noida, Uttar Pradesh, India (**International**).
- Travel grant to attend the Symposium for South Asian Women in Mathematics, 12-15 October, 2017, Tribhuvan University, Kathmandu, Nepal (**International**).
- Travel grant From BUET to attend 19th International Conference on Mathematical, Computational Science and Engineering ICMCSE 2017, Toronto, Canada, June 15-16, 2017 (**National**).
- Research Grant from University Grants Commission of Bangladesh (01-04-2015 to 31-03-2016) (**National**).
- NANUM 2014 travel grant to attend both ICWM 2014 (August 12 and 14) and ICM 2014 (August 13 – 21), Seoul, Korea (**International**).
- Travel grant From BUET to attend 3rd CUTSE International Conference 2011, Curtin University, Miri, Sarawak, Malaysia, 08-09 November, 2011 (**International**).
- Best paper award for the paper titled “Double diffusive natural convection in a partially heated cavity using nanofluid” in *Global Engineering, Science & Technology Conference*, 28-29 December, 2012, BIAM, Bangladesh, Paper ID: 922 (**International**).
- Best paper award for the paper titled “Joule Heating Effect on MHD Combined Convection in a Lid-driven Cavity Heated from Wavy Bottom Surface” in *3rd CUTSE International Conference* 2011, 08-09 November, 2011, Curtin University, Sarawak Campus, Malaysia, pp. 011-017 (**International**).

- Fellowship award in recognition of contribution to the body of knowledge on 29 December 2012 by Global Institute of Science & Technology, 31 Blacke Street, Berwick 3806, Victoria, Australia (**International**).

Scholarships

- Dhaka University Merit Scholarship (1994-1994)
- Jessore Education Board's Scholarship award for H.S.C. result (1991-1993)
- Jessore Education Board's Scholarship award for S.S.C. result (1989-1990)
- Junior Education Scholarship award for 8th grade high school result (1986- 1988)
- Primary Education Scholarship award for 5th grade primary school result (1983-1985).

Contribution to the University Administration

- Post graduate advisor and tabulator, Department of Mathematics, BUET (March 2021 to till date).
- Member Secretary of the Board of Post Graduate Studies (BPGS), Department of Mathematics, BUET, (October 2013 to September 2018).
- Assistant Provost, Chattri Hall, BUET (22-01-2013 to 13-03-2018).
- Provost in charge, Chattri Hall, BUET (several times during June 2015 to March 2018).

Membership of the Different Organizations

1. Executive Member of BUET Teachers Association 2023.
2. President of the Association of Bangladeshi Women in Mathematics (March 2021 to till date)
3. Life Registered Graduate of University of Dhaka.
4. Life Member of Dhaka University Alumni Association.
5. Life Member of Dhaka University Mathematics Alumni Association.
6. Life Member of BUET Alumni Association.
7. Life Member of Bangladesh Mathematical Society.
8. Executive Member of Bangladesh Mathematical Society (2009-2011, 2013-2015).
9. Life Member of Bangladesh Academy of Science.
10. Life Member of BUET Graduate Club.
11. **IMU Committee for Women in Mathematics (CWM) Ambassador for Bangladesh**

http://www.mathunion.org/fileadmin/templates/wim/Other_Uploads/CWMAmbassadorslistposted2016.pdf

12. Member of the Board of Post Graduate Studies (BPGS), Department of mathematics, BUET.
13. Member of the Board of Undergraduate Studies (BUGS), Department of mathematics, BUET.
14. Member of the Faculty of Engineering, Bangladesh University of Engineering and Technology, Dhaka-1000, Bangladesh.
15. Member of the Academic Council, Bangladesh University of Engineering and Technology, Dhaka-1000, Bangladesh.

Professional Work at National and International Levels

External examiner experience and others

- Served as external examiner of M.Sc, M.Phil and Ph.D examination in home and abroad
- Served as paper setter, moderator and examiner at Bangladesh Public Service Commission
- Involvement in the undergraduate program including the course offering, recruiting students to the undergraduate programs and serving on examination committees for undergraduate students.
- Contribution in the graduate programs in the department of Mathematics including the advanced course offering, recruiting students to the Ph.D, M.phil and M.Sc. programs, serving on examination and thesis evaluation committees for graduate students.

Reviewer

Served as reviewer of many articles of more than 30 different international journals/Conference Proceedings

Member of the Organizing committee of

- 13 th Dhaka South Regional Undergraduate Mathematics Olympiad 2022
- 1st International Conference on Frontier in Sciences (ICFS-2022)
- 22nd International Mathematics Conference 2021 (TPC)
- 8th National Undergraduate Mathematics Olympiad 2016 (Final Round)

- 7th National Undergraduate Mathematics Olympiad 2015 (Dhaka South Region)
- 5th National Undergraduate Mathematics Olympiad 2013 (Dhaka Region)
- Inter University Mathematical Olympiad 2009
- 16th International Mathematics Conference 2009

Invited Talk

- **“Bibliometric analysis of photovoltaic thermal (PV/T) system: From citation mapping to research agenda”** in *1st International Conference on Frontier in Sciences (ICFS-2022)* organized by Faculty of Science, Bangladesh University of Engineering and Technology (BUET), Dhaka, Bangladesh, 11-12 November 2022.
- **“Reducing the Gender Difference in Mathematics Education: The Role of Networking”** in *To Constitute a Network of Women Mathematicians in South Asian and Middle Eastern Region* organized by University of Technology and Applied Sciences-Sohar, Oman in collaboration with CWM –IMU, October 4-5, 2022 (virtual).
- **“Mathematical Modelling and Simulation of Blood Flow Considering Shear Rate Dependent Viscosity through Arterial Stenosis in Presence of Magnetic Field”** in *International Conference on Mathematical Methods and Computation (ICOMAC 2019)* organized by the PG & Research Department of Mathematics, Jamal Mohamed College(Autonomous), Tiruchirappalli, Tamil Nadu, India, February 20-21, 2019.
- **“A Numerical Study of Heat Transfer and Entropy Generation through a Nanofluid-Based Direct Absorption Solar Collector”** in *Symposium for South Asian Women in Mathematics* organized by Women of Nepal in Mathematical sciences, Tribhuvan university, Kathmandu, Nepal, 12-15 October 2017

Resource Person

- “Benefit To Learn Mathematics” in *Webinar Series on Mathematics is Everywhere*, organized by E-Math Info Ltd., Webinar Episode 030, March 8 2022, Bangladesh.
- “Benefit To Learn Mathematics” in *Webinar Series on Mathematics is Everywhere*, organized by E-Math Info Ltd., Webinar Episode 014, March 8 2021, Bangladesh.
- “Benefit To Learn Mathematics” in *Webinar Series on Mathematics is Everywhere*, organized by E-Math Info Ltd., Webinar Episode 003, September 30 2020, Bangladesh.
- “Mathematical Modelling and Simulation of Blood Flow Considering Shear Rate Dependent Viscosity through Arterial Stenosis in Presence of Magnetic Field” in *International Conference on Mathematical Methods and Computation (ICOMAC 2019)*,

organized by the PG & Research Department of Mathematics, Jamal Mohamed College(Autonomous), Tiruchirappalli, Tamil Nadu, India, February 20-21, 2019.

List of Publications

a) **Journal publication** (*recognized and refereed journals/proceedings*):

1. Rahman, Md Khalilur and **Parvin, Salma** and Khan, Md. Abdul Hakim, ANALYSIS OF TWO-PHASE FLOW IN THE POROUS MEDIUM THROUGH A RECTANGULAR CURVED DUCT (April 5, 2023). Available at SSRN: <https://ssrn.com/abstract=4410218> or <http://dx.doi.org/10.2139/ssrn.4410218>
2. **S. Parvin** and A. K. Azad, "Photovoltaic Thermal (PVT) System Performance Analysis in Dhaka, Bangladesh for Different Flow Regimes Using Kerosene Oil-Based CNT Nanofluid," 2023 IEEE Conference on Power Electronics and Renewable Energy (CPERE), Luxor, Egypt, 2023, pp. 1-7, doi: 10.1109/CPERE56564.2023.10119533.
3. Md. Khalilur Rahman, **Salma Parvin**, Md. Abdul Hakim Khan, Thermal Behaviour Analysis on Two-Phase Flow in the porous medium through a Rectangular Curved Duct, International Journal of Multiphase Flow (**Submitted 2023**).
4. A. K. Azad, **Salma Parvin**, Performance Analysis of Nanofluid Based Photovoltaic Thermal (PVT) System in Dhaka, Bangladesh, Results in Engineering, (**Submitted 2023**).
5. Akter, Afroza and Sutradhar, Sujon and Hossain, A. B. M. Shahadat and **Parvin, Salma**, A Numerical Study of Different Convenient Methods for Pricing Put Option. (submitted) Available at SSRN: <https://ssrn.com/abstract=4301272> or <http://dx.doi.org/10.2139/ssrn.4301272>
6. A. K. Azad, **Salma Parvin**, Photovoltaic thermal (PV/T) performance analysis for different flow regimes: A comparative numerical study, International Journal of Thermofluids, Volume 18, 2023, 100319, ISSN 2666-2027, <https://doi.org/10.1016/j.ijft.2023.100319>.
7. Md. Khalilur Rahman, **Salma Parvin**, Md. Abdul Hakim Khan, Analysis of two-phase flow through in the porous medium through a rectangular curved duct, Experimental and Computational Multiphase Flow, (Accepted 2023).
8. Afroza Nahar, **Salma Parvin**, M. Hasanuzzaman, Second Law Analysis for Free Convection in an L-Shaped Cavity Filled with Nanofluid, AIUB Journal of Science and Engineering [AJSE], (Accepted 2022).
9. **Salma Parvin**, Ayesha Siddiqua and Md. Hasanuzzaman, Numerical Simulation for Nanofluid Flow in a Wall Driven Cavity with Solid Hindrance: Impact of Thermal

- Conductivity Ratio and Heat Generation, *Journal of Nanofluids*, Vol. 11, pp. 262–273, (2022). DOI: <https://doi.org/10.1166/jon.2022.1839>.
10. Afroza Nahar, **Salma Parvin**, M. Hasanuzzaman, N.A. Rahim, Thermo-fluid Physiognomies of a Photovoltaic Thermal Collector: A Comparative Study with Different Flow Channel Materials, *ASME. J. Sol. Energy Eng.* (May 26, 2022) doi: <https://doi.org/10.1115/1.4054661>.
 11. A. K. Azad, **Salma Parvin**, Bibliometric analysis of photovoltaic thermal (PV/T) system: from citation mapping to research agenda, *Energy Reports*, Vol. 8, pp. 2699–2711, (2022). <https://doi.org/10.1016/j.egyr.2022.01.182>.
 12. **Salma Parvin**, Abrar Islam and Afroza Nahar, Performance Analysis of a Direct Absorption Solar Collector using Different Nanofluids: Effect of Physical Parameters, *GANIT: Journal of Bangladesh Mathematical Society*, 41(2), 18–33 (2022). <https://doi.org/10.3329/ganit.v41i2.57574>.
 13. Fayz-Al-Asad, Md.; Al-Rumman, Md.; Alam, Md. Nur; **Parvin, Salma**; and Tung, Cemil (R1496) Impact of Electronic States of Conical Shape of Indium Arsenide/Gallium Arsenide Semiconductor Quantum Dots, *Applications and Applied Mathematics: An International Journal (AAM)*, Vol. 16, Iss. 2, Article 14, pp. 1029 – 1037, 2021. <https://digitalcommons.pvamu.edu/aam/vol16/iss2/14> .
 14. Ammar I. Alsabery, **Salma Parvin**, Mohammad Ghalambaz, Ali J. Chamkha and Ishak Hashim, Convection Heat Transfer in 3D Wavy Direct Absorber Solar Collector Based on Two-Phase Nanofluid Approach, *Appl. Sci.* 2020, 10, 7265, pp. 1-22; <https://doi.org/10.3390/app10207265>.
 15. A Nahar, M Hasanuzzaman, **S Parvin**, Computational Modeling for Photovoltaic Thermal System, *ICCA 2020: Proceedings of the International Conference on Computing Advancements*, January 2020, Article No.: 51, Pages 1–7; <https://doi.org/10.1145/3377049.3377129>.
 16. A. K. Azad, M.M. Rahman, **Salma Parvin** , Mahtab Uddin and M. R. Islam, (2020) Effect of Joule Parameter on Mhd Mixed Convection in an Open Channel with Semi-Circular Heater on the Bottom Wall; *ARNP Journal of Engineering and Applied Sciences*, 15(1), (2020) 113 – 121.
 17. Ayesha Siddiqua and **Salma Parvin**, Heatline analysis for mixed convection flow of nanofluid in a two sided lid-driven cavity with a heat generating block: effect of Reynolds number, *AIP Conference Proceedings* 2121, 070010 (2019); <https://doi.org/10.1063/1.5115917>.
 18. Tanzia Zerine Khan and **Salma Parvin**, Effects of Lewis Number on Two Phase Natural Convection Flow of Nanofluid inside a Square Cavity with an Adiabatic Obstacle, *AIP Conference Proceedings* 2121, 070007 (2019); <https://doi.org/10.1063/1.5115914>.
 19. Abdul Karim, Md. Motahar Hossain, **Salma Parvin**, and Md. Abdul Hakim Khan, Hemodynamic Blood Flow through a Section of Human Artery under the Effect of Applied Magnetic Field, *AIP Conference Proceedings* 2121, 050010 (2019);

- <https://doi.org/10.1063/1.5115897>.
20. Afroza Akter and **Salma Parvin**, Numerical analysis of a blood flow model for arterial stenosis in presence of external magnetic field, AIP Conference Proceedings 2121, 100001 (2019); <https://doi.org/10.1063/1.5115932>.
 21. **Salma Parvin** and Afroza Akter, Mathematical modelling and simulation of blood flow considering shear rate dependent viscosity through arterial stenosis in presence of magnetic field, American International Journal of Research in Science, Technology, Engineering & Mathematics, Special Issue of 5th International Conference on Mathematical Methods and Computation (ICOMAC -2019), February 20-21, 2019, pp. 373-379.
 22. Afroza Nahar , M. Hasanuzzaman, N.A. Rahim, **S. Parvin**, Numerical investigation on the effect of different parameters in enhancing heat transfer performance of photovoltaic thermal systems, Renewable Energy, Vol. 132, pp. 284-295, (2019). <https://doi.org/10.1016/j.renene.2018.08.094>
 23. M. A. H. Khan, **S. Parvin** and A. Sultana, A Numerical Study on Acoustic Streaming and Tissue Heating During Magnetic Resonance guided High Intensity Focused Ultrasound Through Blood Vessel with an Obstacle, Proceedings of 3rd Thermal and Fluids Engineering Conference (TFEC), TFEC-2018-21810, pp. 129-141, (2018). <http://dx.doi.org/10.1615/TFEC2018.cfd.021810>
 24. Afroza Akter and **Salma Parvin**, Numerical Analysis of Heat Generation Effect on MHD natural convection flow in a L Shaped cavity, Journal of Engineering Mathematics and Statistics, Volume 2 Issue 1, pp. 1-8, (2018).
 25. A. Akter, **S. Parvin**, Analysis of Natural convection Flow in a Trapezoidal cavity Containing a Rectangular Heated Body in Presence of External Oriented magnetic Field, *Journal of Scientific Research*, Vol. 10, No.1, pp. 11-23, (2018)..
 26. **Salma Parvin**, Ayesha Siddiqua and Md. Elias, Effect of Reynold's Number for Mixed Convection Flow of Nanofluid in a Double Lid Driven Cavity with Heat Generating Obstacle, Heat and Mass Transfer Research Journal Vol. 1, No. 1, pp. 79-87, 2017.
 27. Afroza Akter and **Salma Parvin**, Numerical Analysis of Heat Generation Effect on Natural Convection Flow in a Trapezoidal Cavity Containing a Rectangular Heated Body, Journal of Engineering Mathematics and Statistics, Volume 1 Issue 2&3, pp. 1-15, (2017).
 28. **Salma Parvin**, Aysha Sultana, A Computational Study for Investigating Acoustic Streaming and Heating during High Intensity Focused Ultrasound through Blood Vessel with an Obstacle, AIP Conference Proceedings 1851, 020054 (2017); doi: 10.1063/1.4984683.
 29. A.K. Azad, **Salma Parvin**, and Md. Mustafa Kamal Chowdhury, Effects of Hartmann Number on Combined Convection in a Channel with Cavity Using Cu-

- Water Nanofluid, AIP Conference Proceedings 1851, 020081 (2017); doi: 10.1063/1.4984710.
30. **Salma Parvin**, Md. Sajid Ahmed, Raju Chowdhury, Effect of Solar Irradiation and Mass Flow Rate on Forced Convective Heat Transfer through a Nanofluid-Based Direct Absorption Solar Collector, AIP Conference Proceedings 1851, 020067 (2017); doi: 10.1063/1.4984696.
 31. Raju Chowdhury, **Salma Parvin**, Md. Abdul Hakim Khan, Double-diffusive Natural Convection of Cu-Water Nanofluid in a Window Shaped Cavity Containing Multiple Obstacles with a Heater on Bottom Wall, AIP Conference Proceedings 1851, 020027 (2017); doi: 10.1063/1.4984656.
 32. **Salma Parvin** and Afroza Akter, Effect of Magnetic Field on Natural Convection flow in a Prism Shaped Cavity Filled with Nanofluid, *Procedia Engineering* Vol. 194C pp. 421-427, 2017.
 33. Raju Chowdhury, **Salma Parvin**, Md. Abdul Hakim Khan, Numerical Study of Double-diffusive Natural Convection in a Window Shaped Cavity Containing Multiple Obstacles Filled with Nanofluid, *Procedia Engineering*, Vol. 194C pp. 471 – 478, 2017.
 34. **Salma Parvin** and M.A. Alim, Influence of Mass Flow Rate on Forced Convective Heat Transfer through a Nanofluid Filled Direct Absorption Solar Collector, *International Journal of Mechanical and Mechatronics Engineering*, Vol:11, No:6, pp. 1107-1111, 2017.
 35. **Salma Parvin**, Raju Chowdhury, M.A.H Khan and M.A. Alim, Performance Of Nanofluid In Free Convective Heat Transfer Inside A Cavity With Non-Isothermal Boundary Conditions, *Mechanical Engineering Research Journal*, Vol. 10, pp. 01-06, 2016.
 36. **Salma Parvin**, Rehana Nasrin and M.A. Alim, Effect of Solid Volume Fraction on Forced Convective Flow of Nanofluid through Direct Absorption Solar Collector, *Applications and Applied Mathematics: An International Journal*, Special Issue No. 2, pp. 9-21, 2016. <https://digitalcommons.pvamu.edu/aam/vol11/iss3/2/>
 37. Rehana Nasrin , **Salma Parvin** and M.A. Alim, Prandtl number effect on assisted convective heat transfer through a solar collector, *Applications and Applied Mathematics: An International Journal*, Special Issue No. 2, pp. 22-36, 2016. <https://digitalcommons.pvamu.edu/aam/vol11/iss3/3>
 38. R. Chowdhury, **S. Parvin**, M. A. H. Khan, Finite Element Analysis of Double-diffusive Natural Convection in a Porous Triangular Enclosure Filled with Al₂O₃-water Nanofluid in Presence of Heat Generation, *Heliyon*, Vol. 2 (8) e00140, pp. 1-20, 2016. <https://doi.org/10.1016/j.heliyon.2016.e00140>
 39. **Salma Parvin**, and Ayesha Siddiqua, Heat Line Analysis for MHD Mixed Convection Flow of Nanofluid within a Driven Cavity Containing Heat Generating Block, *AIP Conference Proceedings*, 1754, 050001; doi: 10.1063/1.4958392, 2016.
 40. Raju Chowdhury, **Salma Parvin**, and Md. Abdul Hakim Khan, Natural convective

- heat and mass transfer in a porous triangular enclosure filled with nanofluid in presence of heat generation, *AIP Conference Proceedings*, 1754, 050004; doi: 10.1063/1.4958395, 2016.
41. M. M. Rahman, M. S. Alam, **S. Parvin** and K. Vajravelu, Finite Element Simulation for Heatline Visualization of Natural Convective Flow and Heat Transfer inside a Prismatic Enclosure, *International Journal of Heat and Technology*, Vol. 34, No. 3, pp. 391-400, 2016. DOI: <https://doi.org/10.18280/ijht.340307>
 42. **Salma Parvin**, M.A. Alim And N.F. Hossain, Heat and Mass Transfer due to Double Diffusive Mixed Convection in a Parallel Plate Reactor with Chemical Reaction and Heat Generation, *International Journal of Chemical and Process Engineering Research*, Vol. 2, No. 2, pp. 17-29, 2015. <https://doi.org/10.18488/journal.65/2015.2.2/65.2.17.29>
 43. **Salma Parvin**, Finite Element Analysis of Convective Heat and Mass Transfer through a Parallel Plate Reactor with Heat of Reaction Effect, *International Journal of Modern Physics and Applications (IJMPA)*, Vol. 1 (4), pp. 152-158, 2015.
 44. K. F. U. Ahmed, **S. Parvin** and A.J. Chamkha, Numerical Analysis Based on Heatline Approach for Natural Convection Flows within Prismatic Enclosures, *International Journal of Energy & Technology*, Vol. 7, No. 2, pp. 19-29, 2015.
 45. R. Chowdhury, **S. Parvin**, M. A. H. Khan, Ali J. Chamkha, Effect of magnetic field and heat generation on free convection in a porous media filled equilateral triangular cavity, *International Journal of Energy & Technology*, Vol. 7, No. 1, pp. 49-61, 2015.
 46. Rehana Nasrin, **Salma Parvin** and M.A. Alim, Heat transfer and collector efficiency through direct absorption solar collector with radiative heat flux effect, *Numerical Heat Transfer, Part A: Application*, 2015, Vol. 68 (4), pp. 887-907, 2015.
 47. R. Chowdhury, **S. Parvin**, M. A. H. Khan, Ali J. Chamkha, MHD natural convection in a porous equilateral triangular enclosure with a heated square body in presence of heat generation, *Special Topics & Reviews in Porous Media*, Vol. 6 Issue 4, pages 353-365, 2015.
 48. Afroza Akter, Prof. Dr. Showkat Ali, Dr. **Salma Parvin**, A Theorem on Riemannian Curvature Generalizes Gaussian Curvature, *Global Journal of Mathematics*, Vol. 2, No. 1, pp. 108-114, 2015.
 49. **Salma Parvin**, Rehana Nasrin and M. A. Alim, Heat Transfer and Entropy Generation through Nanofluid Filled Direct Absorption Solar Collector, *International Journal of Heat and Mass transfer*, Vol. 71C. pp. 386-395, 2014.
 50. **Salma Parvin** and A.J. Chamkha, An Analysis on Free Convection Flow, Heat Transfer and Entropy Generation in an Odd-shaped Cavity filled with Nanofluid, *International communications in Heat and Mass transfer*, Vol. 54C, pp. 8-17, 2014.
 51. **Salma Parvin**, Rehana Nasrin, MA Alim, Heat Transfer Performance of Nanofluid in a Complicated Cavity Due to Prandtl Number Variation, *Procedia Engineering*, Vol. 90, pp. 377-382, 2014.

52. Rehana Nasrin, **Salma Parvin**, M.A. Alim, Heat Transfer by Nanofluids Through a Flat Plate Solar Collector, *Procedia Engineering*, Vol. 90, pp. 364–370, 2014.
53. Rehana Nasrin, **Salma Parvin** and M.A. Alim, Entropy generation inside a narrow channel with thermal radiation, *International Journal of Energy & Technology*, Vol. 6, No. 27, pp. 1-9, 2014.
54. **Salma Parvin**, Rehana Nasrin, M. A. Alim and N. F. Hossain, Double Diffusive Natural Convection in a Partially Heated Cavity Using Nanofluid: An Analysis, *Global Science and Technology Journal*, Vol. 1. No. 1, pp.123-134, 2013.
55. Rehana Nasrin, **Salma Parvin** and M.A. Alim, Buoyant flow of nanofluid for heat-mass transfer through a thin layer, *Mechanical Engineering Research Journal*, Vol.9, pp.7-12, 2013.
56. **Salma Parvin**, Rehana Nasrin, M. A. Alim and N. F. Hossain, Double diffusive natural convective flow characteristics in a cavity, *Procedia Engineering*, Vol. 56, pp. 480-488, 2013.
57. Rehana Nasrin, **Salma Parvin** and M. A. Alim, Effect of Prandtl number on free convection in a solar collector filled with nanofluid, *Procedia Engineering*, Vol. 56, pp.54-62, 2013.
58. **Salma Parvin**, Rehana Nasrin, M.A. Alim and N.F. Hossain, Effect of Prandtl number on forced convection in a two sided open enclosure using nanofluid, *Journal of Scientific Research*, Vol. 5 No.1, pp. 67-75, 2013.
59. M. M. Rahman, **S. Parvin**, M. Hasanuzzaman, R. Saidur and N.A. Rahim, Effect of heat-generating solid body on mixed convection flow in a ventilated cavity, *Heat Transfer Engineering*, 34 (15) pp. 1-13, 2013.
60. **Salma Parvin** and N.F. Hossain, Effect of Temperature Dependent Thermal Conductivity on Buoyant Convection in an Enclosure with a Heated Obstacle, *Antarctica Journal of Mathematics*, 9 (1), pp. 75-84, 2012.
61. **Salma Parvin** and Rehana Nasrin, Effects of Reynolds and Prandtl number on mixed convection in an octagonal channel with a heat-generating hollow cylinder, *Journal of Scientific Research*, 4 (2), pp. 337-348, 2012.
62. M. M. Rahman, **S. Parvin**, N.A. Rahim, M.R. Islam, R. Saidur, and M. Hasanuzzaman, Effects of Reynolds and Prandtl number on Mixed Convection in a Ventilated Cavity with a Heat-Generating Solid Circular Block. *Applied Mathematical Modelling*, **36** (5) pp. 2056-2066, 2012.
63. Rehana Nasrin and **Salma Parvin**, Flow behavior for combined convection in a vertical channel controlled by a heat-generating tube, *International Journal of Energy & Technology*, Vol. 4, No. 1, pp. 1-7, 2012.
64. **Salma Parvin**, K.F.U. Ahmed, M.A. Alim and N.F. Hossain, (2012), Heat transfer enhancement in an enclosure including nanofluid with a heat source, *International Journal of Mechanical and Materials Engineering (IJMME)*, Vol.7 No. 2, pp. 128-135, 2012.
65. **Salma Parvin** and N. F. Hossain, Finite Element Simulation of MHD Combined

- Convection through a Triangular Wavy Channel, *International Communications in Heat and Mass Transfer*, 39 (6), 811–817, 2012.
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Proceedings and presentations

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2. Afroza Akter, A B M Shahadat Hossain, **Salma Parvin**, “Application of Black Scholes Merton Option Pricing Model in the DSE of Bangladesh”, 1st International Dhaka Science Conference For Women-2023, 15-16 February 2023, Dhaka 1000, Bangladesh (Presentation).
3. Afroza Akter, A B M Shahadat Hossain, **Salma Parvin**, “A Numerical Study of Implementing Options: Bangladeshi Perspective”, A F Mujibur Rahman-Bangladesh

- Mathematical Society National Mathematics conference-2022, 13-14 January 2023, Dhaka, Bangladesh, Article No-BMS-NC22-CT065,pp-156 (Presentation).
4. A K Azad, **Salma Parvin**, Parametric Analysis on Performance of Nanofluid Based Photovoltaic Thermal (PVT) System in Dhaka, Bangladesh, *INTERNATIONAL CONFERENCE ON MARINE TECHNOLOGY (MARTEC 2022)* · 21-22 December 2022, BUET, Dhaka, Bangladesh.
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 6. A K Azad, **Salma Parvin**, Photovoltaic Thermal (PV/T) Performance Analysis for Different Flow Regimes: A Comparative Numerical Study, *1st International Conference on Frontier in Sciences (ICFS-2022)*, organized by Faculty of Science, Bangladesh University of Engineering and Technology (BUET), Dhaka, Bangladesh, 11-12 November 2022 (Presentation).
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 11. **Salma Parvin**, Mathematical Modelling and Numerical Simulation of Blood Flow through a Stenosed Artery in Presence of External Oriented Magnetic Field, Annual Conference of Indian Women and Mathematics (IWM), 2019, 10th June-12th June, 2019 in the Indian Institute of Technology Bombay, Mumbai, India(Presentation).
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(ICOMAC 2019), on 20th & 21st February 2019, organized by the PG & Research Department of Mathematics, Jamal Mohamed College(Autonomous), Tiruchirappalli, Tamil Nadu, India.

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