

Curriculum Vitae

Shams Forruque Ahmed, PhD

Associate Professor of Mathematics & Computational Science

Coordinator, Basic Science Faculty

Coordinator, Mathematics Minor

Science and Math Program, Asian University for Women

20/A M. M. Ali Road, Chattogram-4000, Bangladesh

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CAREER OBJECTIVES

A highly motivated and intuitive academician/researcher with excellent team building, strong academic background, good organizational and interpersonal skills, and the ability to build or participate in multi-disciplinary collaborations with other academic staff and students at each level in educational environments. I feel confident in applying my academic knowledge and research skills in an educational research-based institution. I am very enthusiastic about committing myself to apply my current experience and learning new skills so that I can demonstrate my technical and experimental skills to achieve my research and teaching goals.

EDUCATIONAL QUALIFICATIONS

- 06/2012-08/2015 Doctor of Philosophy (Ph.D.)
School of Engineering and Technology, Central Queensland University, Rockhampton, Australia
Thesis Title: Experimental & Numerical Study of Earth Pipe Cooling Performance in a Subtropical Climate.
- 01/2007-02/2009 Master of Philosophy (MPhil)
Department of Applied Mathematics, University of Rajshahi, Bangladesh
Thesis Title: Study on Fiber Motion in Turbulent Flow
- 03/2003-12/2004 Master of Science in Applied Mathematics
Department of Applied Mathematics, University of Rajshahi, Bangladesh
Thesis Title: Study on Vorticity and Motion of Fibers in Turbulent Flow
- 04/1999-01/2003 Bachelor of Science in Mathematics
Department of Mathematics, University of Rajshahi, Bangladesh

TEACHING AND RESEARCH EXPERIENCES

Total experiences: 12 years and 1 month

- 09/2019- Present Associate Prof. in Math. & Computational Science, Asian University for Women, Bangladesh
- 08/2017-08/2019 Assistant Prof. in Math. & Computational Science, Asian University for Women, Bangladesh
- 05/2016-08/2017 Assistant Prof. in Mathematics, North South University, Bangladesh
- 09/2015-03/2016 Research Fellow, School of Engineering, Deakin University, Australia
- 07/2011-09/2015 Senior Lecturer in Mathematics, Prime University, Bangladesh
- 03/2009-07/2011 Lecturer in Mathematics, Prime University, Bangladesh

Subjects taught (14 different courses):

- Linear algebra
- Differential equations/Engineering modeling
- Discrete mathematics
- Numerical analysis and computing
- Calculus-I/Single variable calculus
- Calculus-II/Multi-variable calculus
- Fundamentals of computers
- Engineering foundation mathematics
- Mathematical programming/Optimization techniques/Operations research

- Calculus and analytical geometry IV
- Probability & Statistics with R programming
- Advanced engineering mathematics
- Introduction to computing and programming (Python)
- Business Mathematics

TEACHING INTERESTS

Mathematics, Statistics, and Computer Science

RESEARCH INTERESTS

Thermofluid, Fluid Dynamics, Energy & Environment

PUBLICATION STATISTICS

- 1 book
- 5 book chapters published by Elsevier and by Springer
- Journal articles: published/accepted-38 (peer-reviewed and most of them are in ISI journals), Under review/Submitted- 10, In progress- 7
- 6 international conference proceedings
- Total Citations: 412 (Google Scholar)
- H-index: 10 (Google Scholar)
- Impact factor: 137.291

LIST OF PUBLICATIONS

Journal articles:

1. **S. F. Ahmed**, M. M. K. Khan, M. T. O. Amanullah, M. G. Rasul, and N. M. S. Hassan, "A parametric analysis of cooling performance of vertical earth-air heat exchanger in a subtropical climate", *Renewable Energy*, 172 (2021) 350-367.
2. **S. F. Ahmed**, M. G. Hafez, Yu-MingChu, M. Mofijur, "Energy motion for turbulent flow of fiber suspensions in a rotating frame," *Alexandria Engineering Journal*, 60(3) (2021) 3345-3352,
3. **S. F. Ahmed**, G. Liu, M. Mofijur, A. K. Azad, M. A. Hazrat, Yu-Ming Chu, "Physical and hybrid modelling techniques of earth-air heat exchangers in reducing building energy consumption: Performance, applications, progress, and challenges", *Solar Energy*, 2021 (216) 274-294.
4. W.Z. Te, K.N.M. Muhanin, Yu-M Chu, A. Selvarajoo, A. Singh, **S. F. Ahmed**, D-V.N.Vo, and P.L. Show, "Optimization of Pyrolysis Parameters for Production of Biochar From Banana Peels: Evaluation of Biochar Application on the Growth of Ipomoea aquatica", *Frontiers in Energy Research*, 8 (2021) 637846.
5. Abrar Inayat, Muhammad Shahbaz, Zakir Khan, Muddasser Inayat, Md Mofijur, **S. F. Ahmed**, Chaouki Ghenai, and Anis A Ahmad, "Heat Integration Modeling of Hydrogen Production from Date Seeds via Steam Gasification", *International Journal of Hydrogen Energy*, 46 (59) (2021) 30592-30605.
6. M. Mofijur, I. M. Rizwanul Fattah, Md Asrafal Alam, A. B. M. Saiful Islam, Hwai Chyuan Ong, S. M. Ashrafur Rahman, G. Najafi, **S. F. Ahmed**, Md. Alhaz Uddin, and T. M. I. Mahlia, "Impact of COVID-19 on the social, economic, environmental and energy domains: Lessons learnt from a global pandemic", *Sustainable Production and Consumption*, 26 (2021) 343-359.
7. **S. F. Ahmed**, M. Mofijur, Samiha Nuzhat, Anika Tasnim Chowdhury, Nazifa Rafa, Md. Alhaz Uddin, Abrar Inayat, T.M.I. Mahlia, Hwai Chyuan Ong, Wen Yi Chia, Pau Loke Show, "Recent developments in physical, biological, chemical, and hybrid treatment techniques for removing emerging contaminants from wastewater", *Journal of Hazardous Materials*, 416 (2021) 125912.
8. M. Mofijur, I.M. Rizwanul Fattah, P. Senthil Kumar, Sk. Yasir Arafat Siddiki, S.M. Ashrafur Rahman, **S. F. Ahmed**, Hwai Chyuan Ong, Su Shiung Lam, Irfan Anjum Badruddinh, T.M. Yunus Khan, T.M.I. Mahlia "Bioenergy recovery potential through the treatment of the meat processing industry waste in Australia", *Journal of Environmental Chemical Engineering*, 9(4) (2021) 105657.
9. Anh Tuan Hoang, Sandro Nižetić, Hwai Chyuan Ong, M. Mofijur, **S.F. Ahmed**, B. Ashok, Van The Vinh Bui, Minh Quang Chau, "Insight into the recent advances of microwave pretreatment technologies for the conversion of lignocellulosic biomass into sustainable biofuel", *Chemosphere*, 281 (2021) 130878.

10. SK. Yasir Arafat Siddiki, M.N. Uddin, M. Mofijur, I.M. Rizwanul Fattah, Hwai Chyuan Ong, Su Shiung Lam, P. Senthil Kumar, and **S. F. Ahmed**, "Theoretical calculation of biogas production and greenhouse gas emission reduction potential of livestock, poultry and slaughterhouse waste in Bangladesh", *Journal of Environmental Chemical Engineering*, 9(3) (2021) 105204.
11. M. A. Hazrat, M.G. Rasul, M. M. K. Khan, M. Mofijur, **S. F. Ahmed**, Hwai Chyuan Ong, Dai-Viet N. Vo, and Pau Loke Show, "Techniques to improve the stability of biodiesel: A review", *Environmental Chemistry Letters*, (2021) 1-28.
12. M. Mofijur, **S. F. Ahmed**, S.M. Ashrafur Rahman, SK. Yasir Arafat Siddiki, A.B.M. Saiful Islam, M. Shahabuddin, Hwai Chyuan Ong, T.M. Indra Mahlia, F. Djavanroodi, and Pau Loke Show, "Source, distribution and emerging threat of micro- and nanoplastics to marine organism and human health: Socio-economic impact and management strategies", *Environmental Research*, 195 (2021) 110857.
13. M.N. Uddin, M. Mofijur, Sk. Yasir Arafat Siddiki, F. Djavanroodi, M.A. Hazrat, Pau Loke Show, **S.F. Ahmed**, Yu-Ming Chu, "Prospects of bioenergy production from organic waste using anaerobic digestion technology: A mini review", *Frontiers in Energy Research*, 9 (2021) 627093.
14. M. Shahabuddin, M. A. Alim, Tanvir Alam, M. Mofijur, **S. F. Ahmed**, Greg Perkins, "A critical review on the development and challenges of concentrated solar power technologies", *Sustainable Energy Technologies and Assessments*, 47 (2021)101434.
15. **S. F. Ahmed**, M. Mofijur, Tahlil Ahmed Parisa, Nafisa Islam, F. Kusumo, Abrar Inayat, Van Giang Le, I.A. Badruddin, T.M.Y. Khan, Hwai Chyuan Ong, "Progress and challenges of contaminate removal from wastewater using microalgae biomass", *Chemosphere*, 286 (2022), 131656.
16. **S. F. Ahmed**, Suvash C. Saha, J.C. Debnath, G. Liu, M. Mofijur, Ali Baniyounes, S.M.E.K. Chowdhury, Dai-Viet N. Vo "Modelling techniques for earth-air heat exchangers to reduce energy consumption in buildings. A review", *Environmental Chemistry Letters*, Springer (Accepted).
17. Sk. Yasir Arafat Siddiki, M. Mofijur, P. Senthil Kumar, **S. F. Ahmed**, A. Inayat, F. Kusumo, I.A. Badruddin, T.M. Yunus Khan, L.D. Nghiem, Hwai Chyuan Ong, T. M. I. Mahlia, "Microalgae biomass: A sustainable source for biofuel, chemical and biobased products", *Fuel* (Accepted).
18. **S. F. Ahmed**, M. Mofijur, Karishma Tarannum, Anika Tasnim Chowdhury, Nazifa Rafa, Samiha Nuzhat, P. Senthil Kumar, Dai-Viet N. Vo, Eric Lichtfouse, T.M.I. Mahlia, "Biogas upgrading, economy and utilization: a review", *Environmental Chemistry Letters*, Springer (Accepted).
19. **S. F. Ahmed**, M. G. Hafez, and Yu-Ming Chu, "Conversion of energy equation for fiber suspensions in dusty fluid turbulent flow," *Results in Physics*, 19 (2020) 103341.
20. M. G. Hafez, Sudhir Singh, R. Sakthivel, and **S. F. Ahmed**, "Dust ion acoustic multi-shock wave excitations in the weakly relativistic plasmas with nonthermal nonextensive electrons and positrons," *AIP Advances*, 10 (6) (2020) 065234.
21. **S. F. Ahmed**, M. T. O. Amanullah, M. M. K. Khan, M. G. Rasul, and N. M. S. Hassan, "Parametric study on thermal performance of horizontal earth pipe cooling system in summer," *Energy Conversion and Management*, 114 (2016) 324-337.
22. **S. F. Ahmed**, M. M. K. Khan, M. T. O. Amanullah, M. G. Rasul, and N. M. S. Hassan, "Performance assessment of earth pipe cooling system for low energy buildings in a subtropical climate," *Energy Conversion and Management*, 106 (2015) 815-825.
23. **S. F. Ahmed**, M. M. K. Khan, M. T. O. Amanullah, and M. G. Rasul, "Selection of suitable passive cooling strategy for a subtropical climate," *International Journal of Mechanical and Materials Engineering*, 9 (1) (2014) 1-11.
24. **S. F. Ahmed**, M. M. K. Khan, M. G. Rasul, M. T. O. Amanullah, and N. M. S. Hassan, "Comparison of Earth Pipe Cooling Performance Between two Different Piping Systems," *Energy Procedia*, 61 (2014) 1897-1901.
25. **S. F. Ahmed** and M. S. A. Sarker, "Derivation of turbulent energy of fiber suspensions," *Journal of Computational and Applied Research in Mechanical Engineering*, 4 (2015) 155-163.
26. **S. F. Ahmed**, "Derivation of turbulent energy in a rotating system," *Journal of Computational and Applied Research in Mechanical Engineering*, 3 (2013) 75-83.
27. **S. F. Ahmed** and M. S. A. Sarker, "Fibre Suspensions in Turbulent flow with Two-Point Correlation," *Bangladesh Journal of Scientific and Industrial Research*, 46 (2011) 265-270.
28. T. Ahasan, **S. F. Ahmed**, M. G. Rasul, M. M. K. Khan, and A. K. Azad, "Performance Evaluation of Hybrid Green Roof System in a Subtropical Climate Using Fluent," *Journal of Power and Energy Engineering*, 2 (2014) 113.

29. A. K. Azad, M. G. Rasul, M. M. K. Khan, T. Ahasan, and **S. F. Ahmed**, "Energy Scenario: Production, Consumption and Prospect of Renewable Energy in Australia," *Journal of Power and Energy Engineering*, 2 (2014) 19.
30. S. T. A. Siddique, **S. F. Ahmed**, and M. H. Islam, "Earth Pipe Cooling Strategy in Buildings: A Sustainable Approach", *Journal of Natural Sciences Research*, 8 (2018) 36-43.
31. **S. F. Ahmed**, "Derivation of energy equation for turbulent flow with two-point correlation," *Pure and Applied Mathematics Journal*, 2 (2013) 197-200.
32. **S. F. Ahmed**, "Derivation of turbulent energy in presence of dust particles," *American Journal of Applied Mathematics*, 1 (2013) 71-77.
33. **S. F. Ahmed**, "Turbulent Energy for Dusty Fluid in a Rotating System," *International Journal of Applied Mathematics and Mechanics*, 9 (2012) 50-61.
34. **S. F. Ahmed** and M. S. A. Sarker, "Fiber Motion in Dusty Fluid Turbulent Flow in a Rotating System," *International Journal of Applied Mathematics and Mechanics*, 10 (2014) 92-109.
35. **S. F. Ahmed**, "Conversion of energy equation for turbulent motion and its applications," *Applied and Computational Mathematics*, 3 (2014) 110-116.
36. **S. F. Ahmed** and M. S. A. Sarker, "Fibre motion in dusty fluid turbulent flow with two-point correlation," *Journal of Scientific Research*, 3 (2011) 283-290.
37. M. S. A. Sarker and **S. F. Ahmed**, "Motion of fibres in turbulent flow in a rotating system," *Rajshahi University Studies, Part-B, Journal of Science*, 37 (2009) 107-117.
38. S. Ahmed, A. M. Hall, and **S. F. Ahmed**, "Comparative Biodegradability Assessment of Different Types of paper", *Journal of Natural Sciences Research*, 8 (2018) 9-20.

Book:

39. **S. F. Ahmed**. 2011. *Fibre Motion in Turbulent Flow: A Mathematical study of fibre suspensions in turbulent flow*. Lambert Academic Publishing Limited, Germany, ISBN: 978-3846548660.

Book Chapters:

40. **S.F. Ahmed**, M.M.K. Khan, M.T.O. Amanullah, M.G. Rasul and N.M.S. Hassan. 2015. Numerical Modelling of Vertical Earth Pipe Cooling System for Hot and Humid Subtropical Climate, In: *Progress in Clean Energy, Volume II: Novel Systems and Applications*, Springer, ISBN: 978-3-319-17030-5. DOI: [10.1007/978-3-319-17031-2_21](https://doi.org/10.1007/978-3-319-17031-2_21)
41. **S.F. Ahmed**, M.M.K. Khan, M.T.O. Amanullah, M.G. Rasul and N.M.S. Hassan. 2015. Performance evaluation of hybrid earth pipe cooling with horizontal piping system, In: *Thermofluid Modeling for Energy Efficiency Applications*, Elsevier, ISBN: 9780128025895. DOI: [10.1016/B978-0-12-802397-6.00001-4](https://doi.org/10.1016/B978-0-12-802397-6.00001-4)
42. **S. F. Ahmed**, M. M. K. Khan, M. T. O. Amanullah, M. G. Rasul, and N. M. S. Hassan. 2018. Integrated model of horizontal earth pipe cooling system for a hot humid climate, In: *Exergy for a Better Environment and Improved Sustainability 1*, Springer, pp. 911-929. ISBN: 978-3-319-62571-3. DOI: [10.1007/978-3-319-62572-0_59](https://doi.org/10.1007/978-3-319-62572-0_59)
43. A. K. Azad, M. G. Rasul, B. Giannangelo, and **S. F. Ahmed**. 2018. Diesel engine performance and emission study using soybean biodiesel blends with fossil diesel, In: *Exergy for a Better Environment and Improved Sustainability 2*, Springer, pp. 137-155. ISBN: 978-3-319-62574-4. DOI: [10.1007/978-3-319-62575-1_10](https://doi.org/10.1007/978-3-319-62575-1_10)
44. A. K. Azad, M. G. Rasul, Rubayat Islam, and **S. F. Ahmed**. 2018. A study on energy and environmental management techniques used in petroleum process industries. In: *Exergy for a Better Environment and Improved Sustainability 2*, Springer, pp. 219-230. ISBN: 978-3-319-62574-4. DOI: [10.1007/978-3-319-62575-1_16](https://doi.org/10.1007/978-3-319-62575-1_16)

Conference papers:

45. **S. F. Ahmed**, M. M. K. Khan, M. T. O. Amanullah, M. G. Rasul, and N. M. S. Hassan, "Performance Analysis of Vertical Earth Pipe Cooling System for Subtropical Climate," in *International Conference on Clean Energy*, Istanbul, Turkey 2014, pp. 691-700.
46. **S. F. Ahmed**, M. M. K. Khan, M. T. O. Amanullah, M. G. Rasul, and N. M. S. Hassan, "Numerical Modelling of Hybrid Vertical Earth Pipe Cooling System," in *The 19th Australasian Fluid Mechanics Conference*, Melbourne, Australia 2014.
47. **S. F. Ahmed**, M. M. K. Khan, M. T. O. Amanullah, M. G. Rasul, and N. M. S. Hassan, "Thermal performance analysis of earth pipe cooling system for subtropical climate," in *12th International Conference on Sustainable Energy Technologies*, Hong Kong, 2013, pp. 1795-1803.

48. **S. F. Ahmed** and M. S. A. Sarker, "Fibre Suspensions in turbulent flow," in 5th Asian mathematical conference (AMC), June 22–26, 2009, Kuala Lumpur, Malaysia. Vol. II: Applied Mathematics.
49. Abu Naser Sarker, M. Jalal Ahammad, and **S. F. Ahmed**, "A Numerical Study of the Non-Steady Diffusion Equation using Krylov Subspace Methods", in 5th International Conference on Natural sciences and Technology, Chittagong, Bangladesh, 2018, pp. 39-44.
50. S. Ahmed, A. M. Hall, and **S. F. Ahmed**, "Biodegradation of Different Types of Paper in a Compost Environment", in 5th International Conference on Natural sciences and Technology, Chittagong, Bangladesh, 2018, pp. 26-30.

RESEARCH COLLABORATIONS

- College of Engineering and Aviation, Central Queensland University, Australia
- School of Engineering, Deakin University, Geelong, Victoria-3220, Australia
- School of Built Environment, University of New South Wales, NSW, Australia
- School of Information Systems and Modelling, Faculty of Engineering and Information Technology, University of Technology, Sydney, NSW, 2007, Australia
- Polytechnic University Hauts-de-France, INSA Hauts-de-France, Valenciennes, France
- Department of Mathematics, Huzhou University, Huzhou 313000, China
- Dept. of Industrial Engineering and Engineering Management, University of Sharjah, UAE
- Department of Chemical and Environmental Engineering, Faculty of Science and Engineering, University of Nottingham Malaysia, Selangor Darul Ehsan, Malaysia
- Pyrolysis Technology Research Group, Institute of Tropical Aquaculture and Fisheries (Akuatrop), Universiti Malaysia Terengganu, Terengganu, Malaysia
- Department of Chemical Engineering, Sri Sivasubramaniya Nadar College of Engineering, Chennai 603110, India
- Aix-Marseille Univ, CNRS, IRD, INRAE, Coll France, CEREGE, Avenue Louis Philibert, Aix en Provence 13100, France
- School of Energy Science and Engineering, Central South University, Changsha, Hunan, China
- Center of Excellence for Green Energy and Environmental Nanomaterials (CE@GrEEN), Nguyen Tat Thanh University, Ho Chi Minh City 755414, Vietnam
- School of Mechanical and Mechatronic Engineering, University of Technology Sydney, Ultimo, New South Wales 2007, Australia
- Department of Electrical Engineering, Applied Science Private University, Jordan
- Department of Civil Engineering, College of Engineering, Jouf University, Sakaka, Saudi Arabia
- Mechanical Engineering Department, Prince Mohammad Bin Fahd University, Al Khobar 31952, Saudi Arabia
- Department of Sustainable and Renewable Energy Engineering, University of Sharjah, Sharjah, 27272, United Arab Emirates

AWARDS

- May 2016 Thesis Academic Excellence Award – 2016, Central Queensland University, Australia- AUD 250
- Mar 2012 International Postgraduate Research Award (IPRA), Central Queensland University, Australia for three years – AUD 139,000
- Jan 2007 Postgraduate Research Scholarship, University of Rajshahi, Bangladesh for 2 years- BDT 36,000
- Mar 2000 University Grants, University of Rajshahi, Bangladesh for 4 years- BDT 5800

RESEARCH FUNDING

- (Awarded) North South University Research Grant. Project title: Cooling and heating performance of earth pipe cooling system (2016-2017). Named investigators: Ahmed et al. Role in the project: Lead Chief Investigator. Amount: BDT 400,000
- (Awarded) Ergon Energy, Australia. Project title: Passive air cooling (2012-2015). Named investigators: Than Oo et al. Role in the project: Researcher. Amount: AUD 57,000
- (Awarded) CQU Research Support Grant. Project title: Experimental and numerical study of earth pipe cooling performance in a subtropical climate (2012-2015). Named investigators: Ahmed et al. Role in the project: Lead Chief Investigator. Amount: AUD 12,000.

- (Awarded) CQU Travel Support Grant. Project title: Experimental and numerical study of earth pipe cooling performance in a subtropical climate (2012-2015). Named investigators: Ahmed et al. Role in the project: Lead Chief Investigator. Amount: AUD 10,000
- (Awarded) CQU Thesis Support Grant. Project title: Experimental and numerical study of earth pipe cooling performance in a subtropical climate (2012-2015). Named investigators: Ahmed et al. Role in the project: Lead Chief Investigator. Amount: AUD 2,000

TRAVEL GRANTS

- Travel grant to present the paper titled “Integrated model of horizontal earth pipe cooling system for a hot humid climate” in the 7th International Exergy, Energy and Environment Symposium (IEEES-7), 27-30 April 2014, Valenciennes, France (\$5500).
- Grant for travelling to present the paper titled “Numerical Modelling of Hybrid Vertical Earth Pipe Cooling System” in The 19th Australasian Fluid Mechanics Conference, 8-11 December 2014, Melbourne, Australia (\$2300)

EDITORIAL ROLE

Administration:

- August 2021-Present Guest Editor, Special issue on ‘Waste Biorefineries’ in “Energies” Journal, MDPI (IF: 3.004)
- Apr 2018- Oct 2018 Guest Editor, Special issue/topic on ‘Natural Science and Technology’ in “Journal of Natural Sciences Research”
- Mar 2018- Nov 2018 Guest Editor, proceedings of the 5th International Conference on Natural Science and Technology (ICNST’18)

RECOGNIZED REVIEWER

- Renewable & Sustainable Energy Reviews, Publisher: Elsevier
- Energy and Buildings, Publisher: Elsevier
- Renewable Energy, Publisher: Elsevier
- Solar Energy, Publisher: Elsevier
- Ocean Engineering, Publisher: Elsevier

CONFERENCE SERVICE: PRESENTATION, ORGANIZATION, SCIENTIFIC COMMITTEE MEMBERSHIP AND REVIEW

- Co-chair, the 5th International Conference on Natural Science and Technology (ICNST’18), 30-31 March 2018, Chattogram, Bangladesh
- Organizing Committee member, the 6th International Conference on Natural Science and Technology (ICNST’19), 29-30 March 2019, Chattogram, Bangladesh
- The 7th International Exergy, Energy and Environment Symposium (IEEES-7), 27-30 April 2014, Valenciennes, France
- The 19th Australasian Fluid Mechanics Conference, 8-11 December 2014, Melbourne, Australia
- The 12th International Conference on Sustainable Energy Technologies (SET2013), 26-29 August 2013, Hong Kong
- The 5th Asian mathematical conference (AMC), 22-26 June 2009, Kuala Lumpur, Malaysia
- The 13th International Conference on Clean Energy (ICCE-2014), 8-12 June 2014, Istanbul, Turkey

PARTICIPATION AND TRAINING

- Webinar on New Energy Systems - Adapting to Opportunities and Challenges. 19 November 2020. Organized by Engineers Australia with Deakin University Centre for Smart Power and Energy Research
- Specialized training program on “CFD analysis in ANSYS Fluent”, 23 Sep-30 Sep 2014. Organized by Central Queensland University, Australia
- Teaching training program on “Training of the teachers for tomorrow”, 24 August-22 October 2009. Organized by Prime University, Bangladesh
- A computer course on “VISUAL BASIC & Internet”, 7 July 2005-12 December 2005. Organized by Computer Center, University of Rajshahi, Bangladesh

PROFESSIONAL SKILLS

- Programming language: R, Python, FORTRAN, C, C++, VISUAL BASIC, MATLAB
- Modelling language: ANSYS Fluent
- Design software: ANSYS Design Modeler
- Writing software: MS Word (advanced), MS Excel (advanced), MS PowerPoint (advanced), MS Access (intermediate), and MS Operating System (intermediate)
- Utilities: Bitdefender Internet Security, Kaspersky Internet Security, Norton, and Sophos Anti-Virus
- Language: English (fluent), Bengali (native), Arab (read-only)
- Others: Independent research, Group-based research and Interdisciplinary research

ADMINISTRATIVE EXPERIENCE

- Coordinator, Basic Science Faculty, Asian University for Women, Chattogram, Bangladesh (Aug 2020 - To date)
- Coordinator, Mathematics Minor, Asian University for Women, Chattogram, Bangladesh (Aug 2018 - To date)
- Faculty recruitment board member, North South University (Aug 2016 – Aug 2017)
- Multi-faith reference group member, Central Queensland University, Australia (May 2014 – Aug 2015)
- Proctor, Prime University, Bangladesh (Jan 2011 – Jan 2012)
- Secretary, Disciplinary Committee, Prime University, Bangladesh (Jan 2011 – Jan 2012)
- Secretary, Examination Committee, Prime University, Bangladesh (Mar 2010 – Mar 2012)