CURRICULUM VITAE

Dr. Nasreen Akter
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PERSONAL INFORMATION:

- **Present Address:** Flat-B1, House-81, Road-23, Banani, Dhaka-1213
- **Permanent Address:** House 21, Road 6, Sector 13, Uttara, Dhaka-1230
- **Nationality:** Bangladeshi
- **Date of Birth:** 16 November 1973

ACADEMIC BACKGROUND:

- **Degree:** Ph. D, 2010
  Institute: HyARC, Graduate School of Environmental Studies, Nagoya University, Japan
  Area of Specialization: Meteorology
  Title of the dissertation: Numerical study of an outer rainband and its convective cells associated with Cyclone Sidr

- **Degree:** Master of Philosophy, 2007
  Institute: Bangladesh University of Engineering & Technology, Dhaka
  Area of Specialization: Atmospheric Physics
  Title of the dissertation: Sensitivity test of different cumulus parameterizations in MM5 modelling for Bangledesh
  Achievment: A grade (GPA **3.92**)

- **Degree:** Master of Science in Physics, 1999 (held in 2001)
  Institute: University of Dhaka, Bangladesh
  Area of Specialization: Physics
  Title of the dissertation: Development of user-friendly software for acquisition of spirometric data
  Achievment: 1st Class (**1st** Position)

- **Degree:** Bachelor of Science in Physics, 1995 (held in 1997)
  Institute: University of Dhaka, Bangladesh
  Achievment: 1st Class (**2nd** Position)

EXPERIENCES:

- **Head,** Department of Physics, Bangladesh University of Engineering & Technology (BUET), Dhaka from January 2022 to January 2024.

- **Professor,** Department of Meteorology, University of Dhaka, Part-time faculty from January 2019 onwards

- **Visiting Professor**, ISEE, Nagoya University, Japan from 01 July 2018 to 30 September 2018

- **Professor**, Department of Oceanography, University of Dhaka, Part-time faculty from July 2016 to June 2018.

- **Professor**, Department of Physics, Bangladesh University of Engineering & Technology (BUET), Dhaka from August 2016 onwards.

- **Associate Professor**, Department of Oceanography, University of Dhaka, Part-time faculty from January 2015 to June 2016.

- **Associate Professor**, Department of Physics, Bangladesh University of Engineering & Technology (BUET), Dhaka from September 2013 to August 2016.

- **Assistant Professor**, Department of Physics, Bangladesh University of Engineering & Technology (BUET), Dhaka from August 2007 to September 2013.

- **Lecturer**, Department of Physics, Bangladesh University of Engineering & Technology (BUET), Dhaka from December 2004 to August 2007.

- **Lecturer**, Department of Mathematical and Natural Science, BRAC University, Dhaka from January 2003 to November 2004.

AWARDS/HONORS RECEIVED:

- **Visiting Professor**, ISEE, Nagoya University, Japan from 01 July 2018 to 30 September 2018

- **University Grant Commission (UGC) Award 2014** for the research paper titled "Role of Synoptic-Scale Forcing in Cyclogenesis over the Bay of Bengal"

- **Monbukagakusho Scholarship** for Ph.D program in Meteorology at Nagoya University, Japan, during the academic years 2007-2010

- **Dhaka University Merit Award** for being 1st position in Master of Science

MEMBERSHIP:

- Life member, South Asian Meteorological Association (SAMA)
- Life member, Bangladesh Physical Society (BPS)
- Life Member, National Oceanographic and Maritime Institute (NOAMI)
- Life Member, Japanese Universities Alumni Association in Bangladesh (JUAAB)
- Life Member, BUET Alumni Association
- Life Registered Graduate, University of Dhaka

- ❖ Student Member, Meteorological Society of Japan

RESEARCH INTEREST:

- Tropical Cyclone Meteorology
    - Recurving of TC formed in the Bay of Bengal (BoB)
    - Cyclogenesis over the Bay of Bengal
    - Rainband formation process
    - Convective cells' characteristics in the rainband of TC
    - Vertical structure of bimodal cyclones over the BoB
    - Environmental effect on cyclone intensity
- Aerosol over South Asia including North Indian Ocean
- Dryline characteristics and formation during Pre-monsoon season
- Seasonal variability of thunderstorm and lightning activities
- Lightning activities in and around Bangladesh

COURSES BEING TAUGHT:

- **For undergraduate students (BUET)**: Physics (Electricity and Magnetism, Waves and Oscillations, Optics, Heat and thermodynamics, Properties of Matter, Modern Physics)
- **For Postgraduate students (BUET)**: Atmospheric Physics, Climatology, Monsoon Meteorology, Tropical Meteorology, Dynamic Meteorology, Atmospheric Modeling and data assimilation.
- **For undergraduate students (Oceanography Dept., Dhaka University)**: Basic Atmospheric Science, Marine Meteorology.
- **For Undergraduate and Postgraduate students (Meteorology Dept., Dhaka University)**: General circulation of Atmosphere, Synoptic and Mesoscale Meteorology

POST GRADUATE STUDENTS SUPERVISION:

- ➢ **Thesis supervision completed:** 09 M. Sc, 01 M. Phil
- ➢ **Ongoing supervision:** 06 M. Sc and 03 Ph. D

PUBLICATIONS:

Peer-reviewed Journals:

1. A. T. M. S. Azam, Nasreen Akter, Ashraf Dewan, Mohammad Al-Masum Molla, and M. Rafiuddin, "Role of pollutants on the bimodal lightning distribution in Bangladesh", Earth Systems and Environment, 2025 . https://doi.org/10.1007/s41748-025-00627-w
2. **Nasreen Akter** and M. Rafiuddin, 2023: Outbreak of a Tornado with Tropical Cyclone Yaas (2021) Formed over the Bay of Bengal. Asia-Pac J Atmos Sci 59, 59–67.

3. **Nasreen Akter**, 2022: Tropical cyclogenesis associated with premonsoon climatological dryline over the Bay of Bengal. Nat Hazards, Vol 112, 2625-2647.

4. **Nasreen Akter** and Kazuhisa Tsuboki, 2021: Recurvature and movement processes of tropical cyclones over the Bay of Bengal. Quarterly Journal of the Royal Meteorological Society, Vol 147, 36811-3702.

5. **Nasreen Akter** and K. Tsuboki 2017**:** Climatology of the premonsoon Indian dryline, *International Journal of Climatology*, 37, 3991-3998.

6. N. Naher and **Nasreen Akter**, 2017: Variability of Low-Level Moisture Flux and Its Relation with Precipitation. *The Atmosphere*, 7(1), 39-46.

7. **Nasreen Akter**, 2017: An overview of tropical cyclone formation over the Bay of Bengal. *Bangladesh Maritime Journal*, 1, 99-111.

8. M. A. Amin and **Nasreen Akter**, 2016: The variation of sea salt aerosol over North Indian Ocean including Bangladesh and its impact, *The Atmosphere*, 6(1), 84-89.

9. M. Paul and **Nasreen Akter**, 2016: The effect of atmospheric variables on soil moisture over Bangladesh, *The Atmosphere*, 6(1), 58-63.

10. **Nasreen Akter**, 2015: Mesoscale convection and bimodal cyclogenesis over the Bay of Bengal. *Monthly Weather Review*, 143, 3495-3517.

11. **Nasreen Akter** and K. Tsuboki, 2014: Role of synoptic-scale forcing in cyclogenesis over the Bay of Bengal. *Climate Dynamics*, 43, 2651-2662.

12. **Nasreen Akter** and K. Tsuboki 2012: Numerical simulation of cyclone Sidr using cloud resolving model: characteristics and formation process of an outer rainband, *Monthly Weather Review*, 140, 789-810.

13. **Nasreen Akter** and K. Tsuboki, 2010: Characteristics of supercells in the rainband of numerically simulated cyclone Sidr. *Scientific Online Letters on the Atmosphere (SOLA)*, 6A, 25-28.

14. **Nasreen Akter** and M. N. Islam, 2009: Employment of MM5 in simulating MCSs developed in and around Bangladesh. *Mausam*, 60(2), 137-146.

15. **Nasreen Akter** and M. N. Islam, 2007: Use of MM5 model for weather forecasting over Bangladesh region. *BRAC University Journal*, IV(1), 75-79.

16. **Nasreen Akter**, M. N. Islam, T. Terao and T. Hayashi, 2007: Selection of parameterization in MM5 for the estimation of rainfall in Bangladesh. *Bangladesh Journal of Physics*, 3, 75-83.

17. **Nasreen Akter,** M. N. Islam and M. Rafiuddin, 2007: Retrieval of rain rate from the rain status of BMD radar. *The Atmosphere*, 3, 24-30.

18. **Nasreen Akter** and K S Rabbani, 2004: Interfacing Arrangement and Software Development for Acquisition and Analysis of Respiratory Data, *BRAC University Journal*, 1, 99-107

Conference Proceedings / Presentation:

1. Sourav Bhowmik, **Nasreen Akter**, M. Rafiuddin, "Climatology of Environmental Criteria for Bimodal Tropical Cyclogenesis over the Bay of Bengal", The 2nd International Workshop of the Typhoon Science and Technology Research Center, Organized by Typhoon Science and Technology Research Center, Institute for Multidisciplinary Sciences, Yokohama National University, 27th – 28th November, 2024.

2. **Nasreen Akter**, K. Tsuboki and M. Rafiuddin, 2024: The Bay of Bengal Environment: Co-existence of Mesovortices and Tornadoes with Tropical Cyclones, 9th GEWEX Open Science Conference, 7–12 July, 2024, Sapporo, Japan.

3. M. Rafiuddin, **Nasreen Akter**, K. Tsuboki, R L Holle and A Dewan, 2024: Lightning in Bangladesh: Hydrometeors Assessment of Active and Inactive Lightning Days, 9th GEWEX Open Science Conference, 7–12 July, 2024, Sapporo, Japan.

4. M. Rafiuddin, **Nasreen Akter** and Toru Terao, 2024: Assessment of Global Satellite Mapping of Precipitation Data for Rainfall Measurement in Bangladesh, 11th Workshop of the International Precipitation Working Group (IPWG), 15-18 July, 2024, Tokyo, Japan

5. Sourav Bhowmik and **Nasreen Akter**, 2023: A comprehensive analysis of environment parameters threshold value for tropical cyclogenesis over the Bay of Bengal throughout 1990-2019", International Conference on Meteorology and Climate Science (ICMCS), 09-10 December 2023, Department of Meteorology, Faculty of Earth and Environmental Sciences, University of Dhaka, Dhaka.

6. Jannatul Ferdous Flora and **Nasreen Akter**, 2023: Effect of Vertical Wind Shear on the Intensity of Tropical Cyclones over the Bay of Bengal during 2015-2021, 1st National Conference on Advances in Science and Technology, 7-8 December 2023, Organized by Faculty of Science, BUET, Dhaka.

7. Sourav Bhowmik and **Nasreen Akter**, 2023: "Environmental threshold for tropical cyclogenesis over the Bay of Bengal During 1990-2019, 1st National Conference on Advances in Science and Technology, NCAST-2023, Faculty of Science, 07 - 08 December 2023, BUET, Dhaka.

8. **Nasreen Akter**, 2022: Effect of Surrounding Environment on the Movement of Tropical Cyclones over the Bay of Bengal, Invited talk, Ist international conference on frontier in Sciences, 11-12 November 2022, Faculty of Science, BUET, Dhaka.

9. S. Mahbub and **Nasreen Akter,** 2022: A Comparative Study on Monsoon Depressions and Tropical Depressions over the Bay of Bengal from the year 2000 to 2018, Ist international conference on Frontier in Sciences, 11-12 November 2022, Faculty of Science, BUET, Dhaka.

10. **Nasreen Akter** and Kazuhisa Tsuboki, 2021: Steering Mechanism of Bimodal Tropical Cyclones over the Bay of Bengal, International Conference on Meteorology and Climate Science 2021, 10-11 December 2021, University of Dhaka, Dhaka.

11. S. Mahbub and **Nasreen Akter,** 2021: A Comparative Study on Monsoon Depressions and Tropical Depressions over the Bay of Bengal, International Conference on Meteorology and Climate Science 2021, 10-11 December 2021, University of Dhaka, Dhaka.

12. **Nasreen Akter** and Kazuhisa Tsuboki, 2020: Dryline induced Cyclone Track over the Bay of Bengal , International Conference on Earth and Environmental Sciences & Technology for Sustainable Development (ICEEST), 25-30 Jan 2020, Dhaka, Bangladesh.

13. A. T. M. Shafiul Azam, M Rafiuddin, **Nasreen Akter** and Ashraf Dewan, 2020: Influence of Meteorological Parameters on Lightning Flash in Bangladesh, International Conference on Earth and Environmental Sciences & Technology for Sustainable Development (ICEEST) , 25-30 Jan 2020, Dhaka, Bangladesh.

14. M. R. Rari and **Nasreen Akter**, 2019: Numerical study of mesoscale convective systems for recurving cyclone Madi and non-curving cyclone Phailin formed over the Bay of Bengal in 2013 using WRF model, International (SAARC) Youth Scientific Conference (IYSC), 5-6 June 2019, Tribhuvan University, Kathmandu, Nepal.

15. S. Sultana and **Nasreen Akter**, 2019: Concentrations of black carbon and sulphateaerosols and their warming and cooling effects in and around Bangladesh, National Conference on Physics, Bangladesh Physical Society, 7-9 February 2019, Department of Physics, University of Dhaka, Dhaka.

16. M.S. Sudha and **Nasreen Akter**, 2019: The environment for non-developing tropical cyclones over the Bay of Bengal, National Conference on Physics, Bangladesh Physical Society, 7-9 February 2019, Department of Physics, University of Dhaka, Dhaka.

17. A. T. M. Shafiul Azam, M Rafiuddin, **Nasreen Akter** and Ashraf Dewan, 2019: Relation between lightning flash and atmospheric aerosol over Bangladesh, National Conference on Physics, Bangladesh Physical Society, 7-9 February 2019, Department of Physics, University of Dhaka, Dhaka.

18. A. T. M. S. Azam, M. Rafiuddin, **Nasreen Akter** and A. Dewan, Effect of Aerosol on Lightning Flash over Bangladesh, International Conference on Thunderstorm & Lightning in Tropics, Siksha 'O' Anusandhan, Bhubaneswar, Odisha, India, 17-19 January, 2019.

19. M. R. Rari and **Nasreen Akter**, 2019: Numerical study of mesoscale convective systems for recurving cyclone Madi and non-curving cyclone Phailin formed over the Bay of Bengal in 2013 using WRF model, International (SAARC) Youth Scientific Conference (IYSC), 5-6 June 2019, Tribhuvan University, Kathmandu, Nepal.

20. S. Sultana and **Nasreen Akter**, 2019: Concentrations of black carbon and sulphateaerosols and their warming and cooling effects in and around Bangladesh, National Conference on Physics, Bangladesh Physical Society, 7-9 February 2019, Department of Physics, University of Dhaka, Dhaka.

21. M. S. Sudha and **Nasreen Akter**, 2019: The environment for non-developing tropical cyclones over the Bay of Bengal, National Conference on Physics, Bangladesh Physical Society, 7-9 February 2019, Department of Physics, University of Dhaka, Dhaka.

22. A. T. M. S. Azam, M. Rafiuddin, **Nasreen Akter** and A. Dewan, 2019: Relation between lightning flash and atmospheric aerosol over Bangladesh, National Conference on Physics, Bangladesh Physical Society, 7-9 February 2019, Department of Physics, University of Dhaka, Dhaka.

23. A. T. M. S. Azam, M. Rafiuddin, **Nasreen Akter** and A. Dewan, Effect of Aerosol on Lightning Flash over Bangladesh, International Conference on Thunderstorm & Lightning

in Tropics, Siksha 'O' Anusandhan, Bhubaneswar, Odisha, India, 17-19 January, 2019.

24. **Nasreen Akter** and K. Tsuboki, 2018: Mesovortex formation for dryline-related cyclogenesis over the Bay of Bengal during premonsoon, International workshop on Extreme Severe Storms and Disaster Mitigation Strategy, 24-26 Dec 2018, Department of Atmospheric Science, Central University of Rajasthan, India.

25. **Nasreen Akter**, 2018: Cyclogenesis and its unique characteristics over the Bay of Bengal, invited talk, International Conference on Physics, Bangladesh Physical Society, 8-10 March 2018, University of Dhaka, Dhaka.

26. M. R. Rari and **Nasreen Akter**, 2018: Investigation of Mesoscale Convective Systems for Cyclone Madi Formed over the Bay of Bengal in 2013, International Conference on Physics, Bangladesh Physical Society, 8-10 March 2018, University of Dhaka, Dhaka.

27. **Nasreen Akter**, 2017: Bimodal cyclogenesis and associated convection over the Bay of Bengal, workshop on Marine Disaster Forecasting, 18 September 2017, CARS, University of Dhaka.

28. **Nasreen Akter**, 2017: Climatology of Indian dryline and its effect on cyclogenesis over the Bay of Bengal, International workshop for climate variability and related studies over North East Indian subcontinent, 21-22 February 2017, Nagoya University, Japan.

29. **Nasreen Akter**, 2017: Variability of Sea Salt Aerosol over the North Indian Ocean and Its Impact on atmosphere, Seminar for Current research on atmospheric phenomena and climate associated with disasters in South Asia, 20 February 2017, Wind Engineering - Joint Usage Research Center (WE-JURC), Tokyo, Japan.

30. D. Banik and **Nasreen Akter**, 2017: Spatio-temporal variability of dust aerosol in and around Bangladesh, International Conference on Physics, Bangladesh Physical Society, 5-7 January 2017, Atomic Energy Centre, Dhaka.

31. S.Y. Hima and **Nasreen Akter**, 2017: Recurving of tropical cyclones over the Bay of Bengal, International Conference on Physics, Bangladesh Physical Society, 5-7 January 2017, Atomic Energy Centre, Dhaka.

32. N. Naher and **Nasreen Akter**, 2016: Transport of Low Level Moisture in South Asia. International Conference on Physics, Bangladesh Physical Society, 10-12 March 2016, Atomic Energy Centre, Dhaka.

33. M. A. Amin and **Nasreen Akter**, 2016: Seasonal Variability of Sea-Salt Aerosol over North Indian Ocean. International Conference on Physics, Bangladesh Physical Society, 10-12 March 2016, Atomic Energy Centre, Dhaka.

34. M. Paul and **Nasreen Akter**, 2016: Long-Term Variability of Soil Moisture over Bangladesh. International Conference on Physics, Bangladesh Physical Society, 10-12 March 2016, Atomic Energy Centre, Dhaka.

35. **Nasreen Akter,** 2015: Characteristics of Seasonal Dryline along the East Coast of India. AOGS2015 - 12th Annual Meeting and APHW conference, 2-7 August 2015, Suntec, Singapore.

36. **Nasreen Akter,** 2015: Characteristics of Mesoscale Convective Systems for Pre-monsoon Cyclones in the Bay of Bengal. AOGS2015 - 12th Annual Meeting and APHW conference,

2-7 August 2015, Suntec, Singapore.

37. **Nasreen Akter,** 2015: Cyclogenesis during Pre- and Post-monsoon Seasons over the Bay of Bengal. Technical Program, 23 March 2015, Bangladesh Abhawa Karmokarta Parishad (BAKP), BMD, Dhaka.

38. **Nasreen Akter** 2015: Verify the monsoon forecast during onset/withdrawal phases based on the data provided (21st May IC and 05 Sep IC). Devise criteria for monsoon onset based on tropospheric temperature, Targeted Training Activity (TTA): Modelling and Prediction of Asian Monsoons: Improving Physical Processes, 9-20 March 2015, ICTP-IITM-COLA, Pune, India.

39. **Nasreen Akter** and K. Tsuboki, 2013: Cyclogenesis During Pre- and Post-monsoon Seasons Over the Bay of Bengal. AOGS2013 – 10th Annual Meeting and Geosciences World Community Exhibition 24 – 28 June 2013, Brisbane, Australia.

40. Sk. Md. A. Abdullah and **Nasreen Akter**, 2013: Variations of AOD in and Around Bangladesh Using MACC Reanalysis Data. AOGS2013 – 10th Annual Meeting and Geosciences World Community Exhibition 24 – 28 June 2013, Brisbane, Australia.

41. Sk. Md. A. Abdullah, **Nasreen Akter** and M. M. Rahman, 2013: Variations in Aerosol Distributions in and Around Bangladesh. *Fifth Symposium on Aerosol-Cloud-Climate Interactions*, AMS 93rd Annual Meeting, 6-10 January 2013 in Austin, TX.

42. M. M. Rahman and **Nasreen Akter**, 2013: Variations in aerosol distributions over SAARC regions by using RegCM. *Nucleation and Atmospheric Aerosols*, AIP Conf. Proc. 1527, 683-687 (2013); doi: 10.1063/1.4803363.

43. **Nasreen Akter** , M. M. Rahman, Asfaq and Ismail, 2012: Sensitivity of Aerosols Over the South Asia. Project presentation, 6th ICTP workshop on the theory and use of REGional Climate Model, 7-18 May 2012, ICTP, Italy.

44. **Nasreen Akter** and K. Tsuboki, 2009: High Resolution Numerical Simulation of Convective Cells in the Rainband of Cyclone Sidr. *Fourth Japan-China-Korea Joint Conference on Meteorology*, 8-10 November 2009, Tsukuba, Japan, pp 148.

45. **Nasreen Akter** and R. kabir, 2007: Statistical downscaling and validation of general circulation model for Bangladesh region. Project presentation**,** Targeted Training Activity: Seasonal Prediction of South Asian Monsoons, 6-10 August 2007, ICTP, Italy.

45. **Nasreen Akter** and K. Tsuboki, 2008: Numerical Study on Rainband of Cyclone Sidr Using a Cloud Resolving Model. *Preventing Typhoon Disasters- Building Bridges Across Meteorology, Wind Enginnering, Civil Engineering, and Disaster Informatics*, 17-18 December 2008, Disaster Preventation Research Institute, Kyoto University, Japan, 74-77.

46. **Nasreen Akter** and K. Tsuboki, 2008: Simulation of Cyclone Sidr and Analysis of the Rainband Formation Using CReSS. *Autumn Meeting of the Meteorological Society of Japan*, 19-21 November 2008, Sendai, Japan, pp 115.

47. **Nasreen Akter** and Islam M. Nazrul, 2007: MM5 modelling to simulate pre-monsoon convective systems developed over Bangladesh. Annual Conference, Bangladesh Physical Society, 05-06 May 2007, BUET, Dhaka.

48. Islam M. Nazrul, **Nasreen Akter**, A. U Ahmed and T. Hayashi, 2007: A method to use RCM generated climate scenarios in application to water related issues in Bangladesh.

AOGS07, 31 July-04 August 2007, Bangkok, Thailand.

49. **Nasreen Akter** and Islam M. Nazrul, 2007: MM5 modelling to simulate pre-monsoon convective systems developed over Bangladesh. Annual Conference, Bangladesh Physical Society, 05-06 May 2007, BUET, Dhaka.

50. **Nasreen Akter** and K S Rabbani, 2004: Computerisation of a Wedged Bellows Spirometer for the Acquisition and Analysis of Respiratory Data, International Conference on Physics for Understanding and Applications held from 22-24 February 2004.

51. Islam M. Nazrul, **Nasreen Akter**, T. Hayashi, T. Terao and J. Matsumoto, 2006: Precipitation systems in and around Bangladesh: Some preliminary results and Problems to solve, IMSSC meeting, 19-20 October 2006, Bangkok, Thailand.

52. Islam M. Nazrul and **Nasreen Akter**, 2006: Mesoscale Model to Simulate Convective Systems in Bangladesh. Observance of SAARC Charter Day, 8 December 2006, SMRC Bhaban, Dhaka.

TRAINING/WORKSHOPS:

- **Training Workshop on Quality Assurance in Outcome Based Education**, Institutional Quality Assurance Cell (IQAC), BUET, 18 August 2016.
- **ICTP-IITM-COLA Targeted Training Activity:** Modelling and Prediction of Asian Monsoons: Improving Physical Processes, IITM, Pune, Indian, 9 – 20 February, 2015.
- **6th ICTP Workshop on the theory and use of Regional climate models**, ICTP -Trieste, Italy, 7-18 May, 2012.
- **Numerical Prediction of High-Impact Weather Systems**, Organized by Water Science Unit of UNESCO Office Jakarta and the Institute of Hydrospheric Atmospheric Sciences of Nagoya University, 2-15 December 2007, Nagoya, Japan.
- **Targeted Training Activity: Seasonal Prediction of South Asian Monsoons**, ICTP -Trieste, Italy, 6 -10 August, 2007.
- **Use of Linux in Everyday life,** workshop organized by Department of CSE, Bangladesh University of Engineering & Technology (BUET) , 7-9 April 2007.
- **Teachers` Appreciation Workshop**, Organized by Directorate of Continuing Education, Bangladesh University of Engineering & Technology (BUET) , 18-19 March 2006, Dhaka, Bangladesh.
- **Computer Application Course** (FOXPRO PROGRMING) Organized by Computer Centre, Bangladesh University of Engineering & Technology (BUET), 23 August -23 October 1997, Dhaka, Bangladesh.

RESEARCH COLLABORATIONS:

- Collaboration with Typhoon Science and Technology Research Center (TRC), Yokohama National University, Japan since 2023

- Collaboration with Kagawa University, Japan since 2018

- Collaboration for observation on Lightning Detection in Bangladesh and surrounding regions with Shonan Institute of Technology, Department of Electrical and Electronic Engineering, Japan since 2017

- Collaboration with Kochi University, Japan since 2017

- Collaboration with the Institute for Space-Earth Environmental Research (ISEE), Nagoya University, Japan since 2010

RESEARCH GRANTS:

- UGC Research Project (2015-16) for the research titled 'Recurvature of tropical cyclones over the Bay of Bengal and its effect on intensity'

- CASR, BUET Research Project (2017-18) for the research titled 'Effects of dryline on tropical cyclone over the Bay of Bengal during premonsoon season'

- BANBEIS, Ministry of Education, Research Project (2018-2021) for the research titled 'Study on Characteristics of Lightning Flash and Associated Hydrometeors'

- MINISTRY OF SCIENCE AND TECHNOLOGY Research Project (2020-2021) for the research titled "Study on Tropical Cyclone-Spawned Tornadoes over the Bay of Bengal"

JOURNAL REVIEW:

Review of international articles for the following journals:

1. PLOS ONE - Public Library of Science, USA
2. Earth Interactions – American Meteorological Society
3. Climate Dynamics – Springer
4. Earth system and environment – Springer
5. Pure and Applied Geophysics – Springer
6. Atmospheric Research- Elsevier
7. Natural Hazards-– Springer