Curriculum Vitae of Dr. Mohammad Kamruzzaman

Profession and Position
Senior Scientific Officer (Grade 5)
Farm Machinery and Postharvest Technology Division
Bangladesh Rice Research Institute (BRRI), Gazipur-1701, Bangladesh
Email: milonbrri@gmail.com | Phone: +880 177 642 2808
Google Scholar | ResearchGate | LinkedIn

And

Part-time Faculty, Dept. of Meteorology, University of Dhaka (https://www.du.ac.bd/)

Adjunct Faculty, Dept. of Agrometeorology
Bangabandhu Sheikh Mujibur Rahman Agricultural University (https://bsmrau.edu.bd/)

Academic Council member
Kurigram Agricultural University, Kurigram (https://kuriau.edu.bd/)

ACADEMIC CREDENTIALS

Academic Degree	Year	Results	Awarding	Institute
PhD in Engineering	2020	CGPA	[1]GNU	[1]GNU
MSc in Mechanical	2011	CGPA	[2]IUT	[2]IUT
BSc in Agricultural	1998	Second Class	[3]BAU	[3]BAU
Higher Secondary Certificate	1994	First Class	Dhaka Board	Govt. Rajendara College, Faridpur
Secondary School Certificate	1992	First Class	Dhaka Board	Shibchar Nanda Kumar Institution, Madaripur

[1]Gyeongsang National University, Rep of Korea, https://eng.gnu.ac.kr/main/

[2]Islamic University of Technology (IUT), Gazipur, Bangladesh, http://www.iutoic-dhaka.edu/

[3]Bangladesh Agricultural University, Mymensingh, http://www.bau.edu.bd/

Research Interests

- Climate change impact assessment and adaptation
- Development of climate-smart agricultural technologies
- Greenhouse gas modeling and mitigation

PROFESIONAL EXPERIENCES

Dates	Position	Main activities and responsibilities	Employer
24 June 2004 to 25 Dec. 2012	Scientific Officer	Propose, plan, execute and manage research projects, report preparation, and presentation of findings.	[4]BRRI
26 Dec. 2012 to dates	Senior Scientific Officer		BRRI

[4]Bangladesh Rice Research Institute, Gazipur-1701, Bangladesh, http://www.brri.gov.bd/

SKILL:

- Advanced proficiency in **R** and **Python**
- Expertise in GIS, remote sensing, and hydrological modeling
- Project management and cross-functional team leadership

EXPERIENCE IN PROJECTS HANDLING:

- **Deputy Project Director:** Farm Machinery Development and Dissemination (2012–2015)

  -Led government-funded research on farm machinery innovation and adoption.

- **Project Director: Dissemination of Prilled Urea Applicator**

  -Enhanced nitrogen use efficiency and reduced GHG emissions in rice cultivation.

- **Focal Point: Public-Private Blended Finance Facility for Climate-Resilient Rice Landscapes ((**GCP/RAS/906/LDF and GCP/RAS/906/SCF)-FAO funded Project on going

  -By fulfilling these responsibilities, the focal point will contribute to the successful implementation of the project, aiming to improve fertilizer use efficiency, increase crop yields, reduce GHG emissions, and promote sustainable, climate-resilient rice production practices in Bangladesh.

- Project Scientist in **Cropping system intensification in the salt-affected coastal zones of Bangladesh and West Bengal, India (project ID LWR/2014/073)** funded by the Australian Center for International Agricultural Research (ACIAR) and Indian Council of Agricultural Research (ICAR).
- **Working scientist in the** PARTNER Project (**World Bank funded project) on Precision agriculture through 4th Industrial Revolution (IOT, Robotics, Big data management) Activity**
- **Experience in the World Bank-Funded Climate Innovation Challenge Project**

  -I had the privilege to contribute to the World Bank-funded Climate Innovation Challenge (CIC) project titled "Integrated Pest Management Using Seamless Climate Information." This project, implemented by Seoul National University in collaboration with key stakeholders such as the Bangladesh Rice Research Institute (BRRI) and IWMI, aimed to develop and validate Integrated Pest Management (IPM) strategies tailored to the local context of Bangladesh.

PUBLICATIONS

Published full paper as principal author and Co-author (ISI index journal):

1. Talukder, A., Shaid, S., Hwang, S., Alam, E., Islam, K., & **Kamruzzaman, M. (2025)**. Optimizing the multi-model ensemble of CMIP6 GCMs for climate simulation over Bangladesh. *Scientific Reports*, *15*(1), 11343.. https://doi.org/10.1038/s41598-025-96446-0

2. Rifat Ara Mishu, Javed Mallick, Mst Yeasmin Akter, Md. Abdul Fattah**, Mohammad Kamruzzaman**, Mohammed Abdus Salam, Subodh Chandra Pal, Abu Reza Md. Towfiqul Islam; Spatial and temporal variability of future extreme precipitation in Bangladesh using CMIP6 models. *Journal of Water and Climate Change* 2025; jwc2025415. doi: https://doi.org/10.2166/wcc.2025.415

3. Khan, N**., Kamruzzaman, M.** and Shahid, S. (2025), Diurnal Pattern of Heat Stress Over South Asia: A Wet Bulb Globe Temperature-Based Analysis From 1984 to 2023. Int J Climatol e8797. https://doi.org/10.1002/joc.8797

4. Mandal, U.K., Karim, F., Yu, Y., Ghosh, A., Zahan, T., Mallick, S., **Kamruzzaman, M.,** Paul, P.L.C. and Mainuddin, M., 2025. Assessing vulnerability and climate risk to agriculture for developing resilient farming strategies in the Ganges Delta. *Climate Risk Management*, p.100690.

5. Rahman, M., **Kamruzzaman, M.,** Deb, L., & Islam, H. T. (2024). Flood mapping, damage assessment, and susceptibility zonation in northeastern Bangladesh in 2022 using geospatial datasets. *Progress in Disaster Science*, 100402.

6. **Kamruzzaman, M.,** Shozib, H. B., Kader, M. A., Iftekharuddaula, K. M., Rahman, M. A., Lipi, L. F., ... & Kabir, M. S. (2024). Progress of healthier rice development in Bangladesh: A review. *Journal of Food Composition and Analysis*, 107082.

7. Tiwari V, Thorp K, Tulbure MG, Gray J, **Kamruzzaman M**, Krupnik TJ, et al. (2024) Advancing food security: Rice yield estimation framework using time-series satellite data & machine learning. PLoS ONE 19(12): e0309982. https://doi.org/10.1371/journal.pone.0309982

8. **Kamruzzaman, M.,** Islam, H.M.T., Rahman, M.S. *et al.* Assessing the impacts of future climate extremes on *boro* rice cultivation in the northeastern *Haor* region of Bangladesh: insights from CMIP6 multi-model ensemble projections. *Theor Appl Climatol* **156**, 3 (2025). https://doi.org/10.1007/s00704-024-05270-5

9. **Kamruzzaman, M.,** Bhattacharjya, D. K., Alam, E., Karim, M. R., Nath, B., Al Hattawi, K. S., & Islam, M. K. (2024). Thermochemical and physical characterization of agricultural biomass for sustainable energy in Bangladesh. *Energy Reports*, *12*, 5758-5768.

10. **Kamruzzaman, M.,** Shariot-Ullah, M., Islam, R., Amin, M. G. M., Islam, H. M. T., Ahmed, S., ... & Shahid, S. Projections of future bioclimatic indicators using bias-corrected CMIP6 models: a case study in a tropical monsoon region. *Environmental science and pollution research international*.

11. Kader, M. A., Majumder, R. R., Hore, T. K., Shaha, U. R., Shalahuddin, A. K. M., Akter, S., ... & **Kamruzzaman, M.** Dataset on Developing Low Glycemic Index Rice Variety Suitable for Irrigated Ecosystem in Bangladesh. *Available at SSRN 4870565*.

12. Adila Tanim Ekra, Mohammed Magdy Hamed, Zulfiqar Ali, Mohd Khairul Idlan Bin Muhammad, Md Munir Hayet Khan, **Mohammad Kamruzzaman**, Shamsuddin Shahid. Changes in human heat discomfort and its drivers in Bangladesh, Urban Climate, Volume 55, 2024, 101884, https://doi.org/10.1016/j.uclim.2024.101884.

13. **Mohammad Kamruzzaman**, Mahir Shahriyar, Arafat A. Bhuiyan, Debu Kumar Bhattacharjya, Md Kamrul Islam, Edris Alam. Energy potential of biomass from rice husks in bangladesh: An experimental study for thermochemical and physical characterization,Energy Reports,Volume 11,2024,Pages 3450-3460, https://doi.org/10.1016/j.egyr.2024.03.019.

14. Abu Reza Md. Towfiqul Islam, Mst. Yeasmin Akter, Md. Abdul Fattah, Javed Mallick, Ishita Parvin, H. M. Touhidul Islam, Shamsuddin Shahid, Zobaidul Kabir & **Mohammad Kamruzzaman**. Modulation of coupling climatic extremes and their climate signals in a subtropical monsoon country. *Theor Appl Climatol* (2024). https://doi.org/10.1007/s00704-024-04892-z

15. Bashir Tanimu, Al-Amin Danladi Bello, Sule Argungu Abdullahi, Morufu A. Ajibike, Zaher Mundher Yaseen, **Mohammad Kamruzzaman**, Mohd Khairul Idlan bin Muhammad & Shamsuddin Shahid. Comparison of conventional and machine learning methods for bias correcting CMIP6 rainfall and temperature in Nigeria. *Theor Appl Climatol* (2024). https://doi.org/10.1007/s00704-024-04888-9

16. Shabista Yildiz, H. M. Touhidul Islam, Towhida Rashid, Abdus Sadeque, Shamsuddin Shahid, **Mohammad Kamruzzaman**. Exploring Climate Change Effects on Drought Patterns in Bangladesh Using Bias-Corrected CMIP6 GCMs. *Earth Syst Environ* (2023). https://doi.org/10.1007/s41748-023-00362-0

17. **Kamruzzaman**, M., Islam, H.M.T., Ahmed, S. *et al.* Evaluating the Effects of Climate Change on Thermal Bioclimatic Indices in a Tropical Region Using Climate Projections from the Bias-Corrected CMIP6 Model. *Earth Syst Environ* **7**, 699–722 (2023). https://doi.org/10.1007/s41748-023-00360-2

18. Md Anarul Haque Mondol, Md Ashraful Habib, Faria Kabir, Abu Reza Md. Towfiqul Islam, Md Zakiur Rahman, **Mohammad Kamruzzaman** & Ubaydur Rahaman Siddiki.*2023.* Variability in episodic precipitation concentration in the Asian megacity of Dhaka, Bangladesh. *Meteorol Atmos Phys* **135**, 57 (2023). https://doi.org/10.1007/s00703-023-00995-w

19. Rahman, M.M., **Kamruzzaman, M.,** Shahid, S. *et al.2023.* A GIS Framework to Demarcate Suitable Lands for Combine Harvesters Using Satellite DEM and Physical Properties of Soil. *J geovis spat anal* **7**, 27 (2023). https://doi.org/10.1007/s41651-023-00156-y

20. Kyaw, A. K., Hamed, M. M., **Kamruzzaman, M.**, & Shahid, S. (2023). Spatiotemporal Changes in Population Exposure to Heat Stress in South Asia. Sustainable Cities and Society, 104544.

21. Islam, H. M., **Kamruzzaman, M.,** Shahid, S., Mainuddin, M., Alam, E., Islam, A. R., Biswas, J. C., & Islam, M. A. (2023). Spatiotemporal changes in temperature projections over Bangladesh using multi-model ensemble data. *Frontiers in Environmental Science*, *10*. https://doi.org/10.3389/fenvs.2022.1074974

22. **Mohammad Kamruzzaman**, Shahriar Wahid, Shamsuddin Shahid, Edris Alam, Mohammed Mainuddin, HM Touhidul Islam, Jeapil Cho, Md Mizanur Rahman, Jatish Chandra Biswas, and Kelly R. Thorp. "Predicted changes in future precipitation and air temperature across Bangladesh using CMIP6 GCMs." *Heliyon* 9, no. 5 (2023).

23. **Mohammad Kamruzzaman**, MA Salam, Anarul Haque Mondol, Limon Deb, Polash Kumar, Md. Asad Uz zaman, Abu Reza Md.Toufiqul Islam. Spatiotemporal drought analysis in Bangladesh using the standardized precipitation index (SPI) and standardized precipitation evapotranspiration index (SPEI). *Sci Rep* **12**, 20694 (2022). https://doi.org/10.1038/s41598-022-24146-0

24. Hafijur Rahaman, Md. Mizanur Rahman, A. K. M. Saiful Islam, Md. Durrul Huda & **Mohammad Kamruzzaman**.2022. Mechanical Rice Transplanting in Bangladesh: Current Situation, Technical Challenges, and Future Approach. J. Biosyst. Eng. (2022). https://doi.org/10.1007/s42853-022-00161-x

25. Das, S.; **Kamruzzaman, M.;** Md, A.R.; Zhu, D.; Kumar, A. Com-parison of Future Changes in Frequency of Climate Extremes Between Coastal and Inland Locations of Bengal Delta Based on CMIP6 Climate Models. Atmosphere 2022, 13, x. https://doi.org/10.3390/xxxxx

26. Biswas, J.C.; Haque, M.M.; Hossain, M.B.; Maniruzzaman, M.; Zahan, T.; Rahman, M.M.; Sen, R.; Ishtiaque, S.; Chaki, A.K.; Ahmed, I.M.; Akhtar, S.; Ahmmed, F.; Hossain, M.F.; Akhter, S.; **Kamruzzaman, M**.; Biswas, J.K.; Alsuhaibani, A.M.; Gaber, A.; Hossain, A. Seasonal Variations in Grain Yield, Greenhouse Gas Emissions and Carbon Sequestration for Maize Cultivation in Bangladesh. Sustainability 2022, 14, 9144. https://doi.org/10.3390/su14159144

27. Samiran Das, , Abu Reza Md. Towfiqul Islam **and Mohammad Kamruzzaman**.**2022**. Assessment of climate change impact on temperature extremes in a tropical region with the climate projections from CMIP6 model. Clim Dyn (2022). https://doi.org/10.1007/s00382-022-06416-9

28. Samiran Das, **Mohammad Kamruzzaman**, Abu Reza Md. Towfiqul Islam. **2022**. Assessment of characteristic changes of regional estimation of extreme rainfall under climate change: A case study in a tropical monsoon region with the climate projections from CMIP6 model, Journal of Hydrology, Volume 610, 128002, https://doi.org/10.1016/j.jhydrol.2022.128002.

29. Elbeltagi, Ahmed, Faisal AlThobiani, **Mohammad Kamruzzaman**, Shamsuddin Shaid, Dilip K. Roy, Limon Deb, Md M. Islam, Palash K. Kundu, and Md. M. Rahman. **2022**. "Estimating the Standardized Precipitation Evapotranspiration Index Using Data-Driven Techniques: A Regional Study of Bangladesh" Water 14, no. 11: 1764. https://doi.org/10.3390/w14111764

30. Rahman, Md. M., Faisal AlThobiani, Shamsuddin Shahid, Salvatore G.P. Virdis, **Mohammad Kamruzzaman**, Hafijur Rahaman, Md. A. Momin, Md. B. Hossain, and Emad I. Ghandourah. **2022**. "GIS and Remote Sensing-Based Multi-Criteria Analysis for Delineation of Groundwater Potential Zones: A Case Study for Industrial Zones in Bangladesh" Sustainability 14, no. 11: 6667. https://doi.org/10.3390/su14116667

31. H. M. Touhidul Islam1, Abu Reza Md. Towfiqul Islam, Shamsuddin Shahid, GM Monirul Alam, Jatish Chnadra Biswas, Md. Mizanur Rahman, Dilip Kumar Roy, **Mohammad Kamruzzaman**. **2022**. Future precipitation projection in Bangladesh using SimCLIM climate model: a multimodel ensemble approach. International Journal of Climatology, 1– 25. https://doi.org/10.1002/joc.7605.

32. Javed Mallick, Roquia Salam, H. M. Touhidul Islam, Shamsuddin Shahid, **Mohammad Kamruzzaman**, Subodh Chandra Pal, Shakeel Ahmad Bhat, Ahmed Elbeltagi, Thiago Rangel Rodrigues, Sobhy M. Ibrahim, Abu Reza Md. Towfqul Islam. **2022**. Recent changes in temperature extremes in subtropical climate regions and the role of large-scale atmospheric oscillation patterns. Theor Appl Climatol (2022). https://doi.org/10.1007/s00704-021-03914-4

33. **Kamruzzaman, M**., Shahid, S., Roy, D. K., Islam, A. R. M. T., Hwang, S., Cho, J., Zaman, M. A. U., Sultana, T., Rashid, T., & Akter, F. **2021.** Assessment of CMIP6 global climate models in reconstructing rainfall climatology of Bangladesh. International Journal of Climatology, 1–26. https://doi.org/10.1002/joc.7452

34. **Kamruzzaman, M**, Shahid, S., Islam, A.T. et al**. 2021.**Comparison of CMIP6 and CMIP5 model performance in simulating historical precipitation and temperature in Bangladesh: a preliminary study. Theor Appl Climatol 145, 1385–1406 (2021). https://doi.org/10.1007/s00704-021-03691-0

35. A. S. M. Shanawaz Uddin, Najeebullah Khan, Abu Reza Md. Towfiqul Islam, **Mohammad Kamruzzaman** & Shamsuddin Shahid. **2021.** Changes in urbanization and urban heat island effect in Dhaka city. Theor Appl Climatol (2021). https://doi.org/10.1007/s00704-021-03872-x

36. Abu Reza Md. Towfqul Islam, Roquia Salam, Nilufa Yeasmin, **Mohammad Kamruzzaman**, Shamsuddin Shahid, Md.Abdul Fattah, ASM Shanawaz Uddin,Mohammad Hasan Shahariar, Md Anarul Haque Mondol, Deepak Jhajharia, Kuaanan Techato. **2021**. Spatiotemporal distribution of drought and its possible associations with ENSO indices in Bangladesh. Arab J Geosci 14, 2681. https://doi.org/10.1007/s12517-021-08849-8

37. Roy, D.K., Saha, K.K., **M**ohammad **Kamruzzaman,** et al. **2021**. Hierarchical Fuzzy Systems Integrated with Particle Swarm Optimization for Daily Reference Evapotranspiration Prediction: a Novel Approach. *Water Resour Manage* (2021). https://doi.org/10.1007/s11269-021-03009-9

38. H.M. Touhidul Islam, Abu Reza Md. Towfiqul Islam, Md. Abdullah-Al-Mahbub, Shamsuddin Shahid, Anjum Tasnuva, **Mohammad Kamruzzaman**, Zhenghua Hu, Ahmed Elbeltagi, Mohammad Mahbub Kabir, Mohammed Abdus Salam, Sobhy M. Ibrahim. **2021.** Spatiotemporal changes and modulations of extreme climatic indices in monsoon-dominated climate region linkage with large-scale atmospheric oscillation, Atmospheric Research, Volume 264, 105840, https://doi.org/10.1016/j.atmosres.2021.105840.

39. Bonosri Ghose, Abu Reza Md. Towfiqul Islam, Roquia Salam, Shamsuddin Shahid, **Mohammad Kamruzzaman**, Samiran Das, Ahmed Elbeltagi, Mohammed Abdus Salam & Javed Mallick. **2021.** Rice yield responses in Bangladesh to large-scale atmospheric oscillation using multifactorial model. Theor Appl Climatol 146, 29–44. https://doi.org/10.1007/s00704-021-03725-7

40. Bonosri Ghose, Abu Reza Md. Towfiqul Islam, **Mohammad Kamruzzaman**, Md. Moniruzzaman & Zhenghua Hu. **2021.** Climate-induced rice yield anomalies linked to large-scale atmospheric circulation in Bangladesh using multi-statistical modeling. Theor Appl Climatol 144, 1077–1099. https://doi.org/10.1007/s00704-021-03584-2

41. M. Islam, M. Munir, M. Bashar, K. Sumon, **M. Kamruzzaman**, and Y. Mahmud. **2021**. Climate Change and Anthropogenic Interferences for Bangladesh's Morphological Changes in the Padma River. American Journal of Climate Change, 10, 167-184. https://doi: 10.4236/ajcc.2021.102008.

42. **Mohammad Kamruzzaman**, Syewoon Hwang, Soon-Kun Choi, Jaepil Cho, Inhong Song, Hanseok Jeong, Jung-hun Song, Teail Jang, and Seung-Hwan Yoo.**2020.** Prediction of the Effects of Management Practices on Discharge and Mineral Nitrogen Yield from Paddy Fields under Future Climate using APEX-Paddy Model. Agricultural Water Management 241, 106345.https://doi.org/10.1016/j.agwat.2020.106345

43. **Mohammad Kamruzzaman**, Syewoon Hwang, Soon-Kun Choi, Jaepil Cho, Inhong Song, Jung-hun Song, Hanseok Jeong, Teail Jang, and Seung-Hwan Yoo. **2020.** Evaluating the Impact of Climate Change on Paddy Water Balance using APEX-Paddy model. Water 12(3), 852. https://doi.org/10.3390/w12030852

44. Thi Kieu Tran, T.; Lee, T.; Shin, J.-Y.; Kim, J.-S.; **Kamruzzaman, M.2020.** Deep Learning-Based Maximum Temperature Forecasting Assisted with Meta-Learning for Hyperparameter Optimization. Atmosphere 11, 487. https://doi.org/10.3390/atmos11050487

45. **Mohammad Kamruzzaman**, J. Cho, J.H. Song, I. Song, S.K. Choi, S. Hwang. **2019.** Evaluating the Performance of APEX-PADDY Model using the monitoring data of paddy fields in South Korea. Journal of Korean Society of Agricultural Engineers 62 (1), 1-6. https://doi:10.5389/KSAE.2020.62.1.001.

46. **Mohammad Kamruzzaman**, S. Hwang, J. Cho, M.-W. Jang, H. Jeong. **2019.** Evaluating the Spatiotemporal Characteristics of Agricultural Drought in Bangladesh Using Effective Drought Index. Water, 11, 2437. https://doi.org/10.3390/w11122437

47. **Mohammad Kamruzzaman**, M.-W. Jang, J. Cho, S. Hwang.**2019.** Future Changes in Precipitation and Drought Characteristics over Bangladesh under CMIP5 Climatological Projections. Water, 11, 2219. https://doi.org/10.3390/w11112219

48. **Mohammad Kamruzzaman**, Syewoon Hwang, Jaepil Cho, Jang, Min-Won. **2019.** Assessment of the Historical Variability of Meteorological Drought in Bangladesh. Journal of the Korean Society of Agricultural Engineers, 61(3): 77-88. https://doi.org/10.5389/KSAE.2019.61.3.077

49. **Mohammad Kamruzzaman**, Jaepil Cho, Jang, Min-Won, Syewoon Hwang. **2019.** Comparative Evaluation of Standardized Precipitation Index (SPI) and Effective Drought Index (EDI) for Meteorological Drought Detection over Bangladesh. Journal of the Korean Society of Agricultural Engineers, 61(1): 77-88. https://doi.org/10.5389/KSAE.2019.61.1.145

50. **Mohammad Kamruzzaman**, Min-Won, Jang, Syewoon Hwang, Taeil Jang**.2018.** Evaluating the Agricultural Drought for Pre-Kharif Season in Bangladesh using MODIS Vegetation Health Index. Journal of the Korean Society of Agricultural Engineers, 61(1): 77-88. https://doi.org/10.5389/KSAE.2018.60.6.053

Book Chapter:

1. **Kamruzzaman, M.,** Biswas, J. C., Islam, H. T., & Hossain, A. Z. (2024)**.** Interannual Climate Variability and Its Impacts on Major Crop Productivity. In Climate Change and Soil-Water-Plant Nexus: Agriculture and Environment (pp. 297-329). Singapore: Springer Nature Singapore.

Conference Presentations/Proceedings

1. **Mohammad Kamruzzaman**. Optimizing GHG Reduction in Rice Farming: Urea Deep Placement for Prilled Urea Application.2023. Paper presented at the International Rice Congress 2023 from October 16-19 in Manila, Philippines.
2. **Mohammad Kamruzzaman**. 2022. Future Change in precipitation and Temperature over Bangladesh. Proceedings of the International Conference on Climate Change 2022 (ICCC 2022), on 10 and 11 December of 2022.
3. **Mohammad Kamruzzaman**, Towhid Rashid and Md. Shajahan Kabir. 2022. Future Change in Bioclimatic Indicator over Bangladesh. Proceedings of the International Conference on 4IR for emerging future, on 4 and 5 November of 2022.
4. **Mohammad Kamruzzaman, and Ahmed Elbeltagi. 2021.** Future change in the water footprint of irrigated (Boro) rice in North-West Bangladesh. Proceedings of the International Conference on Meteorology and Climate Science 2021 (ICMCS 2021), on 10 and 11 December of 2021.

5. **Mohammad Kamruzzaman** , Syewoon Hwang, Jaepil Cho and Soon-kun choi. Evaluating the performance of APEX-PADDY Model using the monitoring data of Paddy fields in South Korea. Proceedings of the Korean Society of Agricultural Engineers Conference, 10-11 October 2019, Vol. 2019, South Korea, p. 2011
6. **Mohammad Kamruzzaman**, Syewoon Hwang, Jaepil Cho, Soon-Kun Choi, Chanwoo Park. Calibration of APEX-Paddy Model using Experimental Field Data. Proceedings of the Korea Water Resources Association Conference, 30-31 May 2019, South Korea, p. 155.
7. **Mohammad Kamruzzaman**, Syewoon Hwang, Jaepil Cho. Discussions about calibrating APEX-Paddy model using monitoring data from the experiment field in Iksan, South Korea, Proceedings of the Korean Society of Agricultural Engineers Conference, Vol. 2018, p. 250, South Korea
8. **Mohammad Kamruzzaman**, Syewoon Hwang, Jaepil Cho. Evaluating the Applicability of Effective Drought Index (EDI) to Detect Meteorological Drought over Bangladesh, Proceedings of the Korean Society of Agricultural Engineers Conference, 2018 (Poster)
9. **Mohammad Kamruzzaman**, Syewoon Hwang, Jaepil Cho, Chanwoo Park. Evaluating the Spatio-temporal Drought Patterns over Bangladesh using Effective Drought Index (EDI). Proceedings of the Korea Water Resources Association Conference, 23 May 2018, South Korea, p.158
10. Hwang, Syewoon; **Kamruzzaman, Mohammad**. Future Projection of Meteorological Drought Characteristics over Bangladesh using Effective Drought Index (EDI). 20th EGU General Assembly, EGU2018, Proceedings from the conference held 4-13 April 2018 in Vienna, Austria, p.2137
11. **Mohammad Kamruzzaman**, Syewoon Hwang, Jaepil Cho. Applicability of Effective Drought Index (EDI) to Detect Meteorological Drought over Bangladesh, Proceedings of the Korean Society of Agricultural Engineers Conference, 15-17 October 2017, South Korea, p.227

MS student supervised: Department of Meteorology, University of Dhaka

1. **Project title:** Evaluation of Effects of Climate Change on Growth and yield of BORO Rice in Drought-prone Area of Bangladesh using CERES-Rice model
2. **Project title:** Assessing the effect of climate change on temperature and rainfall extremes over Bangladesh
3. **Project title:** Assessing Future Meteorological Drought frequency over Bangladesh using CMIP6 projections
4. **Project title:** Future change in precipitation and temperature over Bangladesh using CMIP5 mutimodel ensemble
5. **Project title:** Future Climate Extremes in Tropical Monsoon Regions: Insights from a Multi-Model Ensemble of CMIP6 Simulations

Award and Scholarship

Best Paper Award-2019 by the Korean Society of Agricultural Engineers

Best Poster award: 1st International Conference on Agricultural Machinery and Bioresource Engineering (ICAMBE) 2025 (https://icambe2025.bau.edu.bd/)

PhD Schplarship

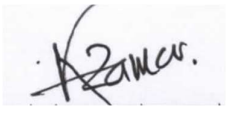
Full funded scholarship from Gyeongsang National University, South Korea

ACDEMIC SERVICE

Associate Editor, Earth System and Environment (Impact Factor: 5.3)

MEMBERSHIPS OF THE PROFESSIONAL ORGANIZATIONS

- Honorary Secretary, The Institution of Engineers, Bangladesh (IEB), Gazipur center
- Member, Institution of Engineers Bangladesh
- Member, Krishibid Institution Bangladesh



Mohammad Kamruzzaman, *PhD*