

# PAPPU PAUL

Graduate Teaching Assistant  
Department of Climate, Meteorology & Atmospheric Sciences  
University of Illinois Urbana-Champaign  
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**OBJECTIVE** I wish to advance my career as a research scientist or professor. I believe, a genuine enthusiasm in these sectors would push me to work hard and progress.

**RESEARCH INTERESTS** Climate Dynamics, Climate Modeling, Climate Variability, Extreme Weather, Cloud Physics, Thunderstorms and Lightning.

**EDUCATION** **Ph.D. in Atmospheric Sciences** **Aug 2022-Present**  
University of Illinois Urbana-Champaign  
**Thesis:** SST pattern effect on the top of atmospheric radiation using Community Earth System Model (CESM)  
Supervisor: Dr. Cristian Proistosescu  
Department of Climate, Meteorology and Atmospheric Sciences  
University of Illinois Urbana-Champaign

**Master of Science in Physics** **2018-2020**  
University of Dhaka, Bangladesh  
CGPA: **3.97** on a scale of 4.00 (**Position: 1<sup>st</sup>**)  
**Thesis:** Study of Pre-Monsoon Thunderstorm and Lightning Events using WRF-ARW Model in Bangladesh  
Supervisor: Dr. Ishtiaque M. Syed  
Department of Physics  
University of Dhaka, Bangladesh.

**Bachelor of Science in Physics** **2014-2018**  
University of Dhaka, Bangladesh  
CGPA: **3.64** on a scale of 4.00 (**Position: 2<sup>nd</sup>**)

**RESEARCH EXPERIENCES**

1. Analyzing the radiative feedback for the spatial variation of sea surface temperature with the help of green's function using CESM. (*on going*)
2. Analysis of the E3SM Atmosphere Model's Parametric Sensitivity Using Short Perturbed Parameter Ensemble Simulations. (*on going*)
3. Master's degree Thesis at Department of Physics, University of Dhaka, Thesis title: "Study of Pre-Monsoon Thunderstorm Events using WRF-ARW Model in Bangladesh."
4. Calculation of vertical profile of the Electric Field and Lightning Potential Index (LPI) in developing thundercloud by using WRF-ELEC.

## WORK EXPERIENCE

Graduate Teaching Assistant **Aug 2023-Present**  
Department of Atmospheric Sciences  
University of Illinois Urbana-Champaign.

Graduate Research Assistant **Aug 2022-Aug 2023**  
Department of Atmospheric Sciences  
University of Illinois Urbana-Champaign.

Lecturer **Jun 2021-Present**  
Department of Meteorology **On leave**  
University of Dhaka, Bangladesh.

Lecturer **Jan 2021-Jun 2021**  
Department of Science & Humanities (Physics Wing)  
Military Institute of Science and Technology

Lecturer **Feb 2020-Jul 2020**  
Department of Computer Science and Engineering  
United International University

## PUBLICATIONS

1. Islam, M. M., **Paul, P.**, Shuvo, S. D., Akter, F., & Khan, S. M. (2024). Exploring the Use of WRF-ARW Model for Analyzing Heatwaves in Bangladesh. *The Dhaka University Journal of Earth and Environmental Sciences*, 12(1), 9–28. <https://doi.org/10.3329/dujees.v12i1.70461>
2. **Paul, P.**, Imran, A., Mallik, M.A., Syed, I.M. (2022). Diagnostic Study of the Lightning Potential Index and Electric Field in Two Thunderstorm Cases over Bangladesh. *Atmos Ocean Opt* 35, 524–540. <https://doi.org/10.1134/S1024856022050177>
3. Rabbani, K. M. G., Islam, M. J., Fierro, A. O., Mansell, E. R., & **Paul, P.** (2022). Lightning forecasting in Bangladesh based on the lightning potential index and the electric potential. *Atmospheric Research*, 267, 105973. <https://doi.org/10.1016/j.atmosres.2021.105973>
4. Jaman, S., Islam, M. J., Imran, A., Kamruzzaman, M., Mallik, M. A. K., **Paul, P.**, & Syed, I. M. (2022). Sensitivity of Different Physics Schemes in the Simulation of Heat Wave Events over Bangladesh Using WRF-ARW Model. *Dhaka University Journal of Science*, 70(1), 70-78. <https://doi.org/10.3329/dujs.v70i1.60384>
5. **Paul, P.**, Imran, A., Islam, Md. J., Kabir, A., Jaman, S., & M. Syed, I. (2018). Study of Pre-Monsoon Thunderstorms and Associated Thermodynamic Features Over Bangladesh Using WRF-ARW Model. *Dhaka Univ. J. Sci.*, 67(2), 151–156. Retrieved November 15, 2021, from <http://journal.library.du.ac.bd/index.php?journal=dujs&page=article&op=view&path%5B%5D=2232>

**CONFERENCE PRESENTATIONS**

1. **Paul, P.**, Proistosescu, C., Sasaki, M. (2024) Impacts of Sea Surface Temperature Patterns on Global Radiative Response, 23rd Annual Student Conference AMS 2024, Baltimore, MD.
2. **Paul, P.**, Proistosescu, C., Sasaki, M. (2023). Impacts of Sea Surface Temperature Patterns on Global Radiative Response. Midwest Student Conference on Atmospheric Research 2023, University of Illinois Urbana Champaign, Urbana, IL.
3. **Paul, P.**, Imran, A., Syed, I. M., Mallik, M. A. K., & Islam, Md. J. (2020). *Study of Pre-Monsoon Thunderstorm Events using WRF-ARW Model in Bangladesh*. International Conference on Physics-2020, Atomic Energy Centre, Dhaka.
4. **Paul, P.**, Imran, A., Syed, I. M., Mallik, M. A. K., Islam, Md. J., & Jaman, S. (2019). *Prediction of Pre-Monsoon Thunderstorms and Its Associated Thermodynamic Feature over Bangladesh Using WRF-ARW Model*. International Conference on Contemporary Research and Applications of Meteorology ICCRAM-2019, Bangladesh Meteorological Department, Dhaka, Bangladesh.

**FELLOWSHIP & AWARD**

1. National Science and Technology (NST) fellowship 2019-2020.
2. Best presentation award at the International Conference on Physics by Bangladesh Physical Society 2020
3. Bangladesh Government Honours Scholarship based on Honors result-2017.

**COMPUTER SKILLS**

G-fortran, Python, c++ & R programing, Matlab, Gnuplot, GrADS, Accuracy of using various operating system: Linux (Ubuntu, CentOS), Windows (7, 8, 10), Proficiency in Microsoft Office (Word, Excel, PowerPoint) documentation.

**PERSONAL SKILLS**

Fluent in English, multicultural teamwork skills, self-motivated and ability to take the initiative, capability to work under pressure.

**VOLUNTEER EXPERIENCE**

1. Technical Member at the International Conference on Physics by Bangladesh Physical Society (2019 & 2020).
2. Student Volunteer at the American Meteorological Society Annual Fall meeting 2024.