

Md. Jahidul Hoque

☎ +33 751044629 — ✉ mdjahidul.hoque@agroparistech.fr — 🌐 mdjahidulhoque — 📍 45b Bd Jourdan, 75014 Paris

Education

AgroParisTech - Université Paris-Saclay, France

Master of Science (M2) in Climate, Land-Use and Ecosystem Services

Sep 2024 - Oct 2025

Mention: Good

Bangladesh Agricultural University (BAU), Bangladesh

Master of Science (MSc) in Environmental Science

Oct 2022 - Mar 2024

CGPA: 3.92/4.00

Noakhali Science and Technology University (NSTU), Bangladesh

Bachelor of Science (BSc) in Environmental Science

Jan 2017 - Jul 2022

CGPA: 3.64/4.00

Professional Experience

Research Intern

LSCE (Laboratoire des Sciences du Climat et de l'Environnement; CEA-CNRS), MOSAIC Team

May 2025 - Oct 2025

Gif-sur-Yvette, France

- Contributed to the implementation and evaluation of the Johnson & Berry (2021) mechanistic photosynthesis model within the ORCHIDEE land-surface model.
- Participated in early-stage integration of mechanistic photosynthesis formulations in a terrestrial biosphere model (TBM), supporting fluorescence-constrained analyses.
- Performed literature synthesis and dataset compilation on Pulse-Amplitude Modulation (PAM) chlorophyll fluorescence.
- Conducted quantitative meta-analysis of photosynthesis and fluorescence metrics to identify variability and data gaps across ecosystems.

Research Assistant

Dr. Murad Ahmed Farukh's Lab, Bangladesh Agricultural University

Nov 2022 - Apr 2024

Mymensingh, Bangladesh

- Worked on an FAO-funded project on agricultural land transformation in floodplain systems of Bangladesh.
- Analysed land-use/land-cover dynamics using Google Earth Engine and satellite imagery within a GIS framework.
- Conducted field surveys and integrated ground observations with remote-sensing products for validation.

Research Assistant

Department of Environmental Science and Disaster Management, NSTU

Jan 2020 - Jul 2022

Noakhali, Bangladesh

- Supported research on environmental monitoring, soil and water quality, and ecological assessment using field, laboratory, and GIS-based approaches.
- Conducted remote sensing and geospatial analyses to support environmental studies.
- Trained undergraduate students in programming and statistical analysis for environmental data interpretation.

Research Outputs

Manuscripts and Thesis

- **Climatological assessment of pre-monsoon heatwave days in Bangladesh and their relationship to Indo-Pacific circulation anomalies.** (Published; *Natural Hazards*, 122:32, 2026). Farukh, M. A., Brahma, P. P., Hossain, M. S., Hoque, M. J., Sejuti, S. I., Shammy, U. S., & Arefin, K. S.
- **Enhancing global photosynthesis estimation using the Farquhar Model Recharged: mechanistic light-dependent reactions.** (M2 internship report; LSCE (CEA-CNRS), Université Paris-Saclay; 2025).
- **Assessment of Transformation of Agricultural Land based on Land Use and Land Cover (LULC) Dynamics in the Ganges-Padma Floodplain.** (Master's thesis; Manuscript submitted).
- **Assessment of Land Use and Land Cover (LULC) and Land Surface Temperature (LST) in the North-Eastern Haor (wetland) Areas of Bangladesh.** (Manuscript submitted).
- **Prediction of Land Use and Land Cover Pattern in the Hilly Region of Chattogram, Bangladesh Using Satellite Data.** (Manuscript in preparation).

Conference Contributions

- Martini, D., **Hoque, M. J.**, Johnson, J. E., Wohlfahrt, G., & Maignan, F. (2025). Implementing the Johnson & Berry photosynthetic model in the ORCHIDEE terrestrial biosphere model for SIF-constrained GPP estimations under stress conditions. *AGU Fall Meeting 2025 (Poster)*.
- Seasonal Variabilities and Human Casualties of Lightning Events in Bangladesh Using Vaisala GLD360 Data *8th Annual International Conference on Social Research in Bangladesh, 2023 (Oral presentation)*

Skills

- **Programming & Statistical Tools:** Python, R, Fortran, SPSS, Minitab, Origin Pro, GraphPad Prism
- **Design & Creative Tools:** Adobe Illustrator, Adobe Photoshop, Adobe Premiere Pro, Canva
- **Technical Skills**
 - GIS & Remote Sensing: Google Earth Engine, ArcGIS, ArcGIS Pro, QGIS, ILWIS
 - Life Cycle Assessment: SimaPro
- **Languages:** Bengali (Native), English (C1), French (A1)

Conferences

- ICOS Science Conference 2024, Versailles Palais des Congrès, France (Attended)
- International Conference on Advanced Agricultural Research, Sylhet Agricultural University, Bangladesh (Presented findings), May 2024
- 8th Annual Conference on Social Research in Bangladesh, Bangladesh Institute of Social Research Trust (Presented findings), November 2023
- National Conference on Resource Management Sustainability and Climate Change, Department of Geography and Environment, Dhaka University, Bangladesh (Attended), March 2019
- 7th International Conference on Water and Flood Management (ICWFM), Focusing on Water Security Under a Changing Climate (Attended), March 2019

Training and Courses

- Training on Statistical Packages (SPSS, R, Minitab), Department of Agrometeorology, Bangladesh Agricultural University, October 2023
- Training on urban tree inventory using i-Tree, United States Forest Service, August 2023
- Training on Application of Google Earth Engine (GEE) in Forestry, US Forest Service and USAID at Khulna University, May 2023
- Training on R Programming for Research and Data Analysis, Research Learning Counter, Bangladesh, February-March 2022
- Training on Environmental Science and Engineering and Sustainability using Life Cycle Assessment, Dr. Nawshad Haque, Senior Scientist (CSIRO Australia), September-December 2020
- MOOC (Massive Open Online Course) - Cartography facilitated by ESRI, April 2023
- MOOC - Going Places with Spatial Analysis facilitated by ESRI, March 2023

Honours and Awards

- French Government Scholarship (Awarded) for M2 Climate, Land-Use and Ecosystem Services, Université Paris-Saclay.
- Eiffel Excellence Scholarship (Master's level) - *Nominated by Université Paris-Saclay.*
- National Science and Technology (NST) Fellowship, Bangladesh.
- Education Board Scholarships during Junior School Certificate (JSC), Secondary School Certificate (SSC), and Higher Secondary Certificate (HSC).

Co-Curricular Activities

NSTU Photography Club <i>President</i>	Jan 2021 - Aug 2022
NSTU Adventure Club <i>Joint Secretary</i>	Jan 2021 - Dec 2021
Dhrupod Musical Club - NSTU <i>Joint Documentation Secretary</i>	Apr 2020 - Mar 2022
Coastal Environmental Network (CoEN) <i>Organizing Secretary</i>	Feb 2018 - Feb 2019