

Morshad Ahmed

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EXPERIENCE

Teaching Assistant, Atmospheric Sciences

Fall 19 – Current

- Responsible for teaching, developing, and implementing curriculum for Atmospheric Science lab courses.

Intern - Water Quality Division - Mickey Leland Environmental Internship Program (MLEIP), Texas Commission on Environmental Quality (TCEQ)

Summer 2023

- Conducted reviews of 60+ major and minor wastewater permit renewals.

Research Intern - Water Quality Assessment section – MLEIP, TCEQ

Summer 2022

- Updated water quality boundaries within the Houston Ship Channel using ArcGIS Pro and Excel resulting in more accurate dissolved oxygen (DO) modelling.

Research Intern - Air Modelling and Data Analysis section - MLEIP, TCEQ

Summer 2021

- Prepared 30+ research summaries and created databases of research projects.

SKILLS

- Instruments** TEKRAN Hg Analyzer (2537B, 1130, and 1135 units), Particulate matter (PM) sampler.
- Software Skills** R, Python, ArcGIS Pro, PMF, HYSPLIT, AtChem2 box model, AERMOD, CALPUFF, CALINE.

EDUCATION

Ph.D. Candidate in Atmospheric Sciences

Department of Earth and Atmospheric Sciences, University of Houston, CGPA: 3.833/4.00

Expected graduation Jul. 2024

M.S.

Inorganic and Analytical Chemistry, University of Dhaka, CGPA: 3.73/4.00

Oct. 2018

B.S.

Chemistry, University of Dhaka, CGPA: 3.40/4.00

Feb. 2016

PUBLICATIONS

- Ahmed M.**, Rappenglueck B., Ganranoo L., and Dasgupta P.K. (2023): Source apportionment of gaseous Nitrophenols and their contribution to HONO formation in an urban area. *Chemosphere*, 338, 139499.
- Hosseinpoor S., **Ahmed M.**, Akther T., Amir M. (2023): Spatial trend and source apportionment of metals in wet atmospheric precipitation: a study on drying Urmia Lake implications, NW Iran. *International Journal of Environmental Analytical Chemistry*, 1-11.
- Mohammadi, A., Soleimani, A., Abdollahnejad, A., **Ahmed, M.**, Akther, T., Nemati-Mansour, S., & Miri, M. (2022): SARS-CoV-2 detection in hospital indoor environments, NW Iran. *Atmospheric Pollution Research*, 101511.
- Ahmed M.**, Rappenglück B., Das S., and Chellam S. (2021): Source Apportionment of Volatile Organic Compounds, CO, SO₂ and Trace Metals in a complex urban atmosphere. *Environmental Advances*, 100127.
- Akther T., **Ahmed M.**, Shohel M., Ferdousi F.K., Salam A. (2018): Particulate Matters and Gaseous Pollutants in Indoor Environment and Association of Ultra-fine Particulate Matters (PM_{1.0}) with Lung Function. *Environmental Science and Pollution Research*, 26(6), 5475-84.
- Ahmed M.**, Hossain A., Akther T., Shohel M., Salam A. (2018): Chemical Composition and Source Identification of Fog Water at an Indo-Gangetic Plain (IGP) Outflow Location (Coastal Bhola Island), Bangladesh. *Journal of Environmental Pollution and Management* 1: 104.
- Ahmed M.**, Das M., Afser T., Rokonujjaman M., Akther T., Salam A. (2018): Emission of Carbonaceous Species from Biomass Burning at the Traditional rural Cooking Stove in Bangladesh. *Open Journal of Air Pollution*, 07(04):287-297.
- Samiha R.A., **Ahmed M.**, Shohel M., Salam A. (2018): Chemical Composition and Source Characterization of Hailstones in Dhaka, Bangladesh. *Journal of Geoscience and Environment Protection*, 6, 71-82.

KEY WORKSHOPS & PRESENTATIONS

- 17th IGAC Science Conference, 11-15 September 2022, Manchester, UK.
- American Geophysical Union, 13-17 December 2021, Louisiana, USA
- HYSPLIT Workshop (virtual), 22-25 June, NOAA Air Resources Laboratory
- Fourth Atmospheric Composition and Asian Monsoon, 26-28 June 2019, Malaysia
- 14th iCACGP Quadrennial Symposium/15th IGAC Science Conference, 25-30 September, Japan
- Second Atmospheric Composition and Asian Monsoon Training School, 10-12 June 2017, China
- Third Atmospheric Composition and Asian Monsoon, 5-9 June 2017, China

VOLUNTEER WORK

Judge, senior division (Earth and Environmental Sciences), Science and Engineering Fair of Houston

2022

- Evaluated 10 research projects and discussed with the panel to determine the top 3 projects.

Member of the organizing committee, 35th Student Research Conference, Alumni & Industry Open House

2022

- Created Zoom links, breakout rooms, and provided assistance during Zoom meetings.

HONORS & AWARDS

- Outstanding Academic Achievement Award in Atmospheric Science and Graduate Tuition Fellowship 2019-2023
- Outstanding Graduate Scholarship, Department of Chemistry, University of Dhaka (top 15%) 2017