

Professional Experience

- Research Fellow at “Air Quality Research & Monitoring Centre” at Centre for Advanced Research in Sciences (CARS), University of Dhaka, from October 2015 to December 2016.
- Part time lecturer at Daffodil International University from 17th January 2016 to 30th April 2016.

Research Experience

- M. Sc. thesis: “Preparation & Characterization of Nanodiamond Incorporated Biocomposite for Controlled Drug Release Device”.
- Project work on “Modification of Starch for Value Added Purpose in Bangladesh” & “Modification of Rice Bran Wax (RBW) for Use as Food Additive”.
- Research on analysis of physico-mechanical, thermal and electrical properties of grapheme incorporated poly (vinyl alcohol)-gelatin nanocomposites.
- Research on diurnal data evaluation to ensure Quality of the data that consist of CO, CO₂, NO_x, NO, NO₂, O₃, SO₂ and PM-10 at Station-Dhaka1, CARS and this research is mainly focused on generating real time air quality indexes and analysing the sources of pollutants and thus simulating models to predict future scenarios of air pollution in Dhaka.
- Research on determination of particle size of air-borne particulate matter and their cytotoxicity effect on human cell lines by filter method analysis
- Research on effects of source on the yield and nutrient composition of four types of rice and their husks.
- Currently handling Attenuated Total Reflection (ATR) Analyzer and Total Organic Carbon (TOC) Analyzer.

Publications

- Nurul Huda, Mohd. Rashid, **Nahida Sultana** “Dominant Influence of the Terminal Molecule of PNIPA Chain on Wettability”. Accepted in *Sains Malaysiana*.
- Al Islam, Md Arephin, AFM Mustafizur Rahman, Sazia Iftekhar, Khandoker Samaher Salem, **Nahida Sultana**, and Md Latiful Bari. "Morphology, Thermal Stability, Electrical, and Mechanical Properties of Graphene Incorporated Poly (vinyl alcohol)-Gelatin Nanocomposites." (2016).
- Nurul Huda, **Nahida sultana**, Shahid A. Hossain “A Review on Current Air Pollution Scenario of Bangladesh and Remedy Suggestions”. Accepted in *Barisal University Journal of Science*.
- Research proposal: “Assay of Chemical Components in Particulate Matter in the Air around Dhaka University Campus.” Submitted to the Ministry of Science and Technology, Bangladesh for grant.

Scholarship/Awards

- B. Sc. University Scholarship-2012, University of Dhaka, Bangladesh.
- National Science and Technology (NST) Fellowship, 2014-15.
- DU-Expertise Alumni Association Scholarship on April 2015.

Workshop/Training

- Training course on Industrial Process Unit Operation of Process Control Technique from Training Institute for Chemical Industries (TICI) [From 31st May till 26th June 2014].
- Workshop on National Integrity Strategy, Service Delivery and Good Governance in National Academy for Planning and Development held on 10th August, 2014.
- Workshop on Workplace Skills Development Training Sessions arranged by Workplace Skills Development Academy (WSDA) New Zealand, Wellington on 13th December 2014.
- In Plant Training on Manufacturing Technology of Sanitaryware, Insulator & Refractory from Bangladesh Insulator & Sanitaryware Factory Ltd. (BISF) [From 26th November till 23rd December 2012].

Skills/Interests

- Application Software: Origin lab, Gaussian Software, MS Office.
- Technical: FTIR, ATR, TGA, DSC, SEM, AFM.
- Languages: English (proficient), Bengali (native), French (beginner).
- Interests and Affiliations: member of ACS.