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### **Achievements**

#### **Processes accepted:**

01. A process for the Production of “Stevia Product as Sweetener” accepted in BCSIR.(Ref: Sectt. / R&D/ 62-612/ 07/ 1034 Date: 30/07/2008)
02. A process for the Production of “Kalmegh Tablet” accepted in BCSIR.(Ref: Sectt./ R&D/ 62-569 / 07 / 1033 Date: 30/07/2008).
03. A process for the production of “Instant Stevia Tea” accepted in BCSIR.(Ref: 39. 373.037.03.001.12.202 Date: 26.10.2015)
04. A process for the production of “Stevia Biscuits” accepted in BCSIR. (Ref: 39.02.0000.043.37.885.21/701 Date: 06.03.2024)

#### **Papers Published:**

01. Islam, M. S. M. M., Akter, H., Md. Ali, H., **Morshed, A. J. M.**, Islam, M. A., Uddin, M. H., Sarkar, M. A. A. S. U., Siddik. M. N. A. (2024). Physicochemical Characterization and Determination of Trace Metals in Different Edible Fats and Oils in Bangladesh: Nexus to Human Health, *Heliyon*, 10(18):e37606. DOI: <https://doi.org/10.1016/j.heliyon.2024.e37606>
02. Chowdhury, M. D. A., Billah, T., Rahman, M. R., Bakri, M. K. B., Barua, S., **Morshed, A. J. M.**, Uddin, E., Uddin, M. M. (2024). Evaluation of Water Quality Indexes and Heavy Metal Pollution Indexes of Different Industrial Effluents and Karnaphuli River Water in Chattogram, Bangladesh. *Environmental Quality Management*, 34(1):1-30. <https://doi.org/10.1002/tqem.22290>.
03. Jamal, S., Barua, S., Barua, A., **Morshed, A. J. M.**, Akter, R., and Akhter, S. (2024). Phytochemical Screening and Antihyperglycemic Effect of *Stevia rebaudiana* Leaves Extract on Glucose Loaded Rats. *Oriental Journal of Chemistry*, 40(1): 74-81. <http://dx.doi.org/10.13005/ojc/400109>
04. Barua, P., Monwar, M. M., **Morshed, A. J. M.**, Ahmed, I., Rajib, M., Palash, A. I., Jiauddin, M., Khalil, M. I., Barua, S., and Islam, M. R. (2021). Assessment of Heavy Metal Concentration in Water and Sediments of the Sangu River, Chattogram, Bangladesh. *BAAUSTJ*,01(2): 19-24.
05. Molla, M. H., Chowdhury, M. A. T., Bhuiyan, Md. Habibur Rahman M. H. R., Das, S., **Morshed, A. J. M.**, Das, J., and Islam, S. (2022). Seasonal variation of drinking water quality in urban water bodies (UWBs) of Chittagong Metropolitan City, Bangladesh: implications of higher water quality index (WQI) for the urban environment. *Water supply*, 22 (5),4934 – 4950. doi:10.2166/WS.2022.151.

06. **Morshed, A. J. M.**, Akter, N. N., Das, S. K., and Afrin, A. (2020). Toxic metals monitoring in soil, water, vegetable and fish from Lakshmipur district in Bangladesh. *IOSR Journal of Environmental Science, Toxicology and Food Technology (IOSR-JESTFT)*, 14(6): 53-59. DOI: 10.9790/2402-1406035359
07. **Morshed, A. J. M.**, Das, S. K., Chakraborty, D. (2019). Qualitative Analysis and Assessment Of Heavy Metals In Some Poultry Feeds From Chattogram Division, Bangladesh. *International Journal of Scientific & Technology Research*, 8(10): 1424-1431.
08. Kabir, A., Bhuyan, M. S., Das, S. K., **Morshed, A. J. M.**, and Bakar, M. A. (2019). Heavy Metals and Essential Elements in Poultry Feeds in Chittagong, Bangladesh. *American-Eurasian Journal of Toxicological Sciences* 11 (1): 11-20. DOI: 10.5829/idosi.ajejts.
09. **Morshed, A. J. M.**, Bakar, M. A., and Das, S. K. (2019). Quantitative Analysis of Heavy Metals in Body Lotions Collected from Local Markets of Bangladesh. *IOSR Journal of Applied Chemistry (IOSR-JAC) e-ISSN: 2278-5736*, 12(1): 55-59. DOI: 10.9790/5736-1201015559
10. **Morshed, A. J. M.**, Helali, Md. O. H., Bakar, M. A., and Das, S. K. (2018). A Review - Production of Ribbed Smoked Sheet in Chattogram Hill Tracts of Bangladesh and Assessment of Heavy Metals in Itself. *IOSR Journal of Applied Chemistry (IOSR-JAC)*, 11(8): 11-14. DOI: 10.9790/5736-1108011114
11. **Morshed, A. J. M.** (2017) Quantification of Heavy Metal in the Various Branded Face Wash available in the Bangladeshi Markets. *International Journal of Science & Technology Research*. 6 (10): 295-29.
12. Das, P. K., Das, S., **Morshed, A. J. M.**, Chakraborty, D., Sabuj, M. R. H., Bhattacharjee, S. C., and Bhuiyan, H. R.(2017). Toxic Metal and Essential Nutrients Concentration in Different Vegetables Collected from Market Sites of Chittagong Metropolitan City, *Bangladesh. Current World Environment*, 12 (2): 270-277.
13. Islam, N., **Morshed, A. J. M.**, and Paul, D. P. (2017). Comparison of ground water quality between CEPZ industrial area and Hathazari non industrial area in Chittagong, Bangladesh. *IOSR Journal of Applied Chemistry (IOSR-JAC)*, 10(3): 01-05. Doi: 10.9790/5736-1003010105
14. Islam, F., **Morshed, A. J. M.**, Rahman, M. M., Akhter, P., Islam, M. J., Mahmud, A. S. M., Mery, M., and Heng, L. Y. (2015). Determination of Heavy Metals and Trace Elements in Worldwide Branded Shampoo Available in Local Market of Bangladesh by Atomic Absorption Spectrometry. *Asian Journal of Chemistry*, 27(10): 3756-3762. <https://doi.org/10.14233/ajchem.2015.18967>
15. **Morshed, A. J. M.**, Bakar, M. A., Islam, F., and Mazumdar, R. M. (2013). Estimation of heavy metals and microbiological quality of locally manufactured herbal products in Bangladesh. *Hamdard Medicus*, 56(4): 38-52.
16. Bakar, M. A., **Morshed, A. J. M.**, Islam, F., and Karim, R.(2013). Screening of chloramphenicol in chicken and fish in Chittagong city of Bangladesh. *Bangl.J. Vet. Med.* 11(2): 173 – 175. DOI: 10.3329/bjvm.v11i2.19144

17. **Morshed, A. J. M.** (2013). A survey of medicinal plants as regards to their uses by the tribal practitioners in the Chittagong Hill Tracts of Bangladesh to check various diseases. *Hamdard Medicus*, 56(3): 18 – 40.
18. **Morshed, A. J. M.** (2013). Some medicinal plants used by the rural practitioners (Kabiraj or Boidda) of Bangladesh for treating menstrual troubles and leucorrhoea. *Hamdard Medicus*, 56 (1):86 – 102.
19. **Morshed, A. J. M.** and N. C. Nandi. (2012). Indigenous Medicinal Plants Used by the Tribal Healers of Chittagong Hill Tracts to Treat Diarrhoea and Dysentery. *Hamdard Medicus*, 55 (2): 48 – 66.
20. **Morshed, A. J. M.**, and N. C. Nandi. (2012). Traditional Folk Medicine Used by the Tribal Practitioners of Chittagong Hill Tracts of Bangladesh to Alleviate Rheumatism. *Hamdard Medicus*, 55 (3): 79 - 92.
21. **Morshed, A. J. M.**, Hossain, M. K., Zaman, M. M. U., Salam, M. A., and Mahmud, J. I. (2009). Documentation of Some Medicinal Plants Used by the Tribal Communities of Chittagong Hill Tracts of Bangladesh for Treatment of Skin Diseases. *Hamdard Medicus*, 52 (4): 41 – 52.
22. Salam, M. A., Ahmed, K., **Morshed, A. J. M.**, Hossain, M. K., Chowdhury, S. Y., and Chowdhury, M. M. (2009) “Measurement of Natural and Artificial Radionuclides of *Stevia rebaudiana* Bertoni Extract.” *Bangladesh J. Sci. Ind. Res.* 44 (4): 467 – 472. DOI: 10.3329/bjsir.v44i4.4600
23. Hossain, M. K., **Morshed, A. J. M.**, Wahab, M. A., Chowdhury, S. Y., and Chowdhury, J. U. (2009). Some Indigenous Medicinal Plants knowledge for Treating Bronchial Asthma in Chittagong Hill Tracts, Bangladesh. *Hamdard Medicus*, 52 (3): 152 – 155.
24. Wahab, M. A., Hossain, M. K., **Morshed, A. J. M.**, Chowdhury, S. Y., and Haque, K. M. F. (2008). Ethno-medical Uses of Some Medicinally Active Plants for Treating Malaria in Chittagong Hill Tracts, Bangladesh. *Hamdard Medicus*, 51 (4): 106 – 110.

### Training Participated on-

- ✚ Atomic Absorption Spectrometer (AAS)
- ✚ Liquid Chromatography tandem Mass Spectrometer (LC-MSMS).
- ✚ High Performance Liquid Chromatography (HPLC)
- ✚ X-Ray Diffractometer (XRD)
- ✚ Ion-Trap Mass Spectrometer
- ✚ Gas Chromatography-Mass Spectrometry (GC-MS)
- ✚ Histopathological Techniques
- ✚ GC-MSMS
- ✚ Fourier-Transform Infrared Spectroscopy (FTIR)
- ✚ Energy Dispersive X-Ray Fluorescence (ED-XRF)
- ✚ ISO/IEC 17025 : 2005

### Foreign Training:

- Liquid Chromatography and Mass Spectrometer (LC-MS), (Shimadzu Asia Pacific Pte. Ltd. Singapore, 17 – 21 June, 2013)

### Administrative Training

Sl. No.	Course Name	Duration	Place
01	1 <sup>st</sup> Foundation Training	From 03/08/2014 to 02/10/2014	Bangladesh Civil Service Administration Academy, Shahbag, Dhaka-1000.
02	Management skills for Project Executives	27 – 31 August, 2017	National Academy for Planning and Development (NAPD), Nilkhet, Dhaka.
03	Public Procurement Management	24 – 26 December, 2020	Bangladesh Institute of Management (BIM), Sobhanbag, Dhaka-1207

### Conference

- ❖ 38<sup>th</sup> Annual conference of Bangladesh Chemical Society  
Theme: *Chemistry for Food Safety*  
Date: 31 march, 2017  
Venue: Shahid Fazlur Rahman Munshi Auditorium, Chittagong Port Authority, Bandar, Chittagong.

### Workshop attended:

Subject	Venue	Period
Integrity Practices and Strategy in Public Services Delivery	BPATC(Bangladesh Public Administration Training Centre), Savar, Dhaka.	05 September, 2015
Innovation and public service	IFRD Auditorium, BCSIR, Dhaka.	07 August, 2019
e-Governance and Innovation Techniques	IFST, BCSIR, Dhaka	30 November, 2021
Right to Information Act 2009	IFST, BCSIR, Dhaka	10 April, 2022

### **Training Provided as a Trainer**

Sl. No.	Name of the Instrument	Period	Place	Remarks
01	Atomic Absorption Spectrometer (AAS)	(17-21) November, 2019	BCSIR Chattogram Laboratories	In-house Training
02	Atomic Absorption Spectrometer (AAS)	(19-23) December, 2021	BCSIR Chattogram Laboratories	In-house Training
03	Atomic Absorption Spectrometer (AAS)	(17-18) January, 2023	BCSIR Chattogram Laboratories	Internal Training

**Membership of Scientific Bodies:** Bangladesh Chemical Society (LM 785)

**Academic Research Guidance/ Supervision (up to June, 2024):** 17

### **Additional Duty:**

1. Officer in-charge, Security section (From 30 January, 2018 to present)
2. Officer in-charge, Vehicle section (From 07 March, 2022 to 19 February, 2024).
3. Officer in-charge, Library section (From 13 September, 2023 to present).