

Mohammad Mosharraf Hossain, PhD

Professor, Institute of Forestry and Environmental Sciences (IFES),
University of Chittagong, Chittagong 4331, Bangladesh
Collaborative professor, Kanazawa University, Japan
US State Separment Alumni under IVLP 2016

Office: +88-031-2606144, Cell: +88-0172-9094397

E-Mail: mosharraf@cu.ac.bd, md.mosharraf@gmail.com

Skype: call.mosharraf

Linkedin: /ProfMosharraf

Present address: Flat 4A, Epic Divine, 19 Panchlaish R/A, Chittagong

Permanent address: Molla Bari, Village: East polmogra, P.O.: Borotakia
Upazilla: Mirsharai, Chattogram



Date of Birth: April 15, 1975

Key Career Goals

- Teaching,
- Collaborative Research and Learning,
- Consultancy on sustainability challenges
- Technology innovation and transfer
- Sustainability assessment for Resource efficiency
- Monitoring and impact evaluation

Key Qualifications

- Teaching and research,
- Design research & development projects
- Run international research collaboration
- Design tertiary education curriculum
- Creative problem solving

Language skills

- IELTS BAND 9.0 (in 9.0)
- Level III in JLPT (Japanese Language Proficiency Test)
- Native in Bangla

Teaching focus

M.Sc., M.Phil. and Ph.D.

- Genetics and biotechnology
- Bioinformatics
- Bioethics
- Environmental Management and ethics
- Applied Industrial Ecology

Undergraduate Level:

- GIS and Remote sensing
- Environmental Impact Assessment
- Environmental Ethics
- Industrial Ecology
- Energy Management
- Air and Water Quality Management
- Solid and Hazardous Waste Management
- Water quality management
- Environmental Biochemistry and Toxicology

Societal engagements

- VP, an entrepreneurship promotion group
[fb/groups/uddokta](https://www.facebook.com/groups/uddokta)

Education

- PhD in Biotechnology**, 2010, Graduate School of Engineering, Osaka University, Osaka, JAPAN, 2010
- MSc in Forestry**, Institute of Forestry and Environmental Sciences, University of Chittagong (IFESCU), BANGLADESH, 1998 (Examination held in 2003), 1st Class 1st
- BSc (Honors) in Forestry**, IFESCU, BANGLADESH, 1997 (Examination held in 2001), 1st Class 1st
- Diploma in Computer Science and Application**, Bangladesh Open University, BANGLADESH, 2002, CGPA 3.84 ON THE SCALE OF 4.00
- HSC**, Chittagong College, Comilla Board, BANGLADESH. 1993, 1st calss
- SSC**, Govt. Muslim High School, Comilla Board, BANGLADESH. 1991, 1st class

Employment History

- **Professor**, IFESCU, December 2015 to present
- **Collaborative Professor (Honorary position)**, Kanazawa University, Kanazawa, Japan, September 2015 to March 2017
- **Associate Professor**, Institute of Forestry and Environmental Sciences, Univ. of Chittagong (IFESCU), June 2011 to December 2015
- **Assistant Professor**, IFESCU, September 2005 to June 2011
- **Adjunct faculty** at One Health Institute MPH programme, Chittagong Veterinary and Animal Science University, Chittagong
- **Lecturer**, IFESCU, June 2003 to September 2005
- **Assistant Commissioner**, Bangladesh Civil Service (Admin Cadre) May 2003 to June 2003
- **Senior National Consultant** for UNDP (2016) for Hazardous Waste Assessment in Chittagong with Sofies BRS of Switzerland and
- **Senior National Consultant** FAO (Dec 2019- March 2020) on 'Dry seasons plantation trial in Cox's Bazar'
- **Lead consultant** of IFESCU team in Monitoring of USAID funded projects (August 2020- November 2020) of CODEC, Arannayk and NACOM on forest comangement in Cox's Bazar,

Major Projects and Research Positions

- **PI** in research project on “Microplastic contamination of sediments and water in the vicinity of Ship breaking areas in Chittagong” funded by Chittagong University’s research and publication cell, 2019-20
- **PI** in research project on “Improved cookstove assessment for existing ICS models in Bangladesh” funded by Chittagong University’s research and publication cell, 2018-2019
- **Co-PI** in research project on the “Environmental cost assessment of Rohingya refugee Influx” funded by North South University in collaboration with Kwansei Gakuin University of Japan, 2019-
- **Co-PI** in JSPS grant in Aid project on *Research on Property Rights, Decision-making Processes, and Resource Use at Village Common Forests in Chittagong Hill Tract, Bangladesh* with a team of researchers from four Japanese Universities including Kwansei Gakuin University, Osaka; Musashi University, Tokyo; Nagoya City University, Nagoya and Waseda University, Tokyo.
- **PI** in Ecoinvent (Switzerland) project on Life Cycle Inventory for Sustainable Cotton and Jute Textile Supply Chain in Bangladesh. March 2017- April 2018
- **PI** in John Hopkins University’s Bloomberg School of Public Health funded and Bangladesh Centre for Communication Program (BCCP) administered project on the *Mapping Land use Land cover changes due to tobacco cultivation in Bangladesh with its social, environmental and health impacts*, 2016
- **Joint Researcher** in *Research project on the management of Village Common Forest by indigenous communities in the CHT*, - a joint research project of Kwansei Gakuin University-Nagoya City University-University of Chittagong, funded by Kwansei Gakuin University’s research grant, July 2014-June 2017
- **Co-PI** in SANDEE funded *Research project on Environmental compliance cost of ship breaking industry in Bangladesh*. April 2015 to December 2016.
- **Collaborative researcher** in JSPS grant in Aid project on End-of-life ship-processing in the world - Evaluation of water contamination and comprehensive remediation with the Institute of Environmental Technology at Kanazawa University, JAPAN
- **Joint Researcher** in Asian Center for Development administered and Mangrove for the Future (MFF) funded research project on the *Economic and Ecological Feasibility of Aquatic Policulture at Chakaria Sundarban, Maheshkhali, and Sonadia Island, Bangladesh*
- **Co-PI** in *Research project on Ship-recycling and Material flow of Iron* Kwansei Gakuin University-Tokyo University-University of Chittagong Joint research project funded by "The 21st Century Culture and Science Foundation, JAPAN 01/2012-12/2014.
- **Research scholar** under Monbukagakusho (MEXT) scholarship at Japan Advanced Institute of Science and Technology (JAIST), JAPAN, 10/2006 to 09/2007 and at the Graduate School of Engineering, Osaka University, JAPAN, 10/2007 to 09/2010

Consultancy positions

- **Lead consultant** of IFESCU team in Monitoring of USAID funded projects (August 2020- November 2020)) of CODEC, Arannayk and NACOM on forest comanagement in Cox’s Bazar,
- **Senior National consultant** at FAO (Food and Agricultural Organization of the UN) in dry season plantation project initiated and funded by Japanese organization, November 2019 – February 2020
- **Senior consultant** for Biological Wastewater Treatment’ under Watershed Restoration Project of UNHCR which is under implementation by CNRS, 18 March and 20 April 2019.
- **Senior National consultant** at UNDP for the Preparation of Hazardous waste Inventory from Industries in Chittagong for feasibility assessment and design of a TSDF under the Project on the environmentally sound management of waste from ship dismantling in Bangladesh, February 2016-October 2016
- **Lead Consultant** in the team of Environmental Impact Assessment of construction of Bay terminal for the Chittagong Port Authority and other EIA projects
- **Consultant** for Arannayk Foundation to monitor and evaluate different natural resource management projects in different parts of Bangladesh

Memberships

Secretary, Bangladesh Chapter of the Society of Conservation Biology (SCB)

Member, Society of Environmental Toxicology and Chemistry (SeTaC)

Member, International Society of Infectious Diseases (ISSD)

Member, International Society for Environmental Information Sciences (ISEIS)

Professional member, International Society of Substance Use Prevention and Treatment Professionals (ISSUP)

Life Member, Institute of Foresters, Bangladesh (IFB)

Grants and scholarships

Temu Award: For the highest grade in “Aerial Photogrammetry and Remote Sensing” during undergraduate.

Monbukagakusho Scholarship: Embassy of Japan in Bangladesh selection for Doctoral study in Japan.

Marie Curie Action Fellowship: EU fellowships to attend 5th International School on Regenerative Medicine 2008, Berlin and Rostock, Germany and 7th International School on Regenerative Medicine 2009, Prague, Czech Republic.

International valuable leadership program (IVLP, USA): Department of State of USA has selected me as an international valuable leader and invited me to USA for three weeks for exchange of ideas with US Universities and research Institutes

Workshops and Trainings conducted

Training of the trainer workshop on Biosafety and Biosecurity, 8-18 April 2017 organized by HEQEP CP-2143 at IFES, University of Chittagong, Bangladesh

Training workshop on Life Cycle Assessment, 19-20 December 2020, organized by IAA at IFES, University of Chittagong, Bangladesh

Training workshop on Research data analysis by SPSS and R, 6-10 September 2015 organized by HEQEP CP-2143 at IFES, University of Chittagong, Bangladesh

Training workshop on Environmental Modelling by GIS, 11-14 September 2015 organized by HEQEP CP-2143 at IFES, University of Chittagong, Bangladesh

Workshops and Trainings attended

Training workshop on Project cycle management, 29 September 2015 organized by HEQEP CP-2143 at IFES, University of Chittagong, Bangladesh

Training workshop on Research Results to Inform Policy based on ODI-UK's RAPID Outcome Mapping Approach March 21-22, 2015 at IFES-CU organized by USAID, Winrock International's JDR3, IFES and the Faculty of Law, University of Chittagong.

Workshop on National Forest Inventory in Bangladesh March 3-4, 2015 organized by Silva carbon project of USAID, at American Centre, Dhaka, Bangladesh.

Training workshop on Urban rainwater harvesting June 17-19, 2014 organized by WaterAid Bangladesh, at BRAC CDM, Savar, Dhaka, Bangladesh.

Training workshop on Application of GIS for Mapping and Analysis June 2013 organized by IFES, CU and USDA project titled Identifying and Developing Management Techniques of Sustainable Forest Tree Species of Agro-ecological Zones using Climate Change Scenarios in Bangladesh

International Workshop on Life Cycle Assessment (LCA) and Material Flow Analysis (MFA), 3-4 December, 2012 organized by HEQEP CP-2143 at IFES, University of Chittagong, Bangladesh

International Workshop on water solution February 14-23, 2011 organized by the Association of Overseas Technical Scholarship (AOTS) of the Ministry of Economy, Trade and Industry, Japan at AOTS centers in Osaka and Tokyo, Japan

7th International Stem Cell School in Regenerative Medicine, focusing on “Stem cells, biomaterials and nanotechnologies in regenerative medicine”, November 1-7, 2009 at the Institute of Experimental Medicine, Academy of Sciences of the Czech Republic, Prague, Czech Republic,

5th International Stem Cell School in Regenerative Medicine October 21-23, 2008 focusing at Berlin, Germany organized by RegMedTech of EU.

Practical training workshop on Culturing and Transfection of Neural Stem cells October 24-26 organized by Albert-Kossel Institute for Neuroregeneration, University of Rostock, Rostock, Germany

Training workshop on Environment and Environmental Law, 25-29 June 2005 organized by Bangladesh Environmental Lawyer's Association (BELA) at BELA headquarter, Dhaka, Bangladesh.

Publications

Book

1. Hoque SMS; **Hossain, M. M.** and Islam KM. 2013. Introduction to Environmental Science, Degradation of Upland Watershed in Bangladesh Project - a USDA funded Project, Grant No.BG-ARS-123, Institute of Forestry and Environmental Sciences, University of Chittagong (IFESCU), Chittagong, Bangladesh.

Book Chapters

1. **Hossain, M. M.** 2019. Future importance of healthy oceans: Ecosystem functions and biodiversity, marine pollution, carbon sequestration, ecosystem goods and services. *Journal of Ocean and Coastal Economics*, 6(2), p.4. (2019)
2. Roy S., **Hossain M. M.**, Safavieh M., Lubis H.N., Zourob M. and Ahmed M.U., 2016. Isothermal DNA Amplification Strategies for Food Biosensors. In: Food Biosensors, Editors: Ahmed M.U., Zourob, M. and Tamiya, E. (pp. 367-392), RSC publishing, UK.
3. **Hossain, M. M.**, Islam KMN, Rahman IMM. 2012. An Overview of the Persistent Organic Pollutants in the Freshwater System, In: Ecological Water Quality - Water Treatment and Reuse, Edited by: Voudouris, 1–14 Rijeka, Croatia: InTech, ISBN: 978-953-51-0508-4
4. **Hossain, M. M.**, Islam KMN, Rahman IMM, Begum ZA, Hasegawa H. 2012. An overview of toxic environmental releases from e-waste, In: E-Waste: Management, Types and Challenges Edited by: Yuan Chun Li and Banci Lian Wang. Hauppauge, NY, USA: Nova Science Publishers, Inc. ISBN:978-1-61942-217-9
5. Lisar YSS, Motafakkerzad R, **Hossain, M. M.**, Rahman IMM. 2012. Water stress in plants: Causes, effects and responses In: Water Stress Edited by: Ismail M. M. Rahman and Hiroshi Hasegawa. 1–14 Rijeka, Croatia: InTech ISBN:978-953-307-963-9
6. Rahman IMM, **Hossain, M. M.**, Begum ZA, Rahman MA, Hasegawa H. 2011. Eco-environmental consequences associated with chelant-assisted phytoremediation of metal-contaminated soil In: Handbook of Phytoremediation Edited by: Ivan A. Golubev. 709–722 Hauppauge, NY, USA: Nova Science Publishers, Inc. ISBN:978-1-61728-753-4
7. Rahman IMM, Nazim Uddin M, Hasan MT and **Hossain, M. M.** 2006. Assimilation of arsenic into edible plants grown in soil irrigated with contaminated groundwater. In: J. Bundschuh, M.A. Armienta, P. Bhattacharya, J. Matschullat & A.B. Mukherjee (eds.) Natural Arsenic in Groundwaters of Latin America- Occurrence, Health Impact and Remediation. In: J. Bundschuh & P. Bhattacharya (series ed.): Arsenic in the Environment, Vol. 1. Taylor & Francis/Balkema. Leiden, The Netherlands.

Journal articles

1. Paul, A., Sikdar, D., **Hossain, M. M.**, Amin, M. R., Deeba, F., Mahanta, J., Javed, A., Islam, M. M., Noon, S. J., Nath, T. K. 2020. Knowledge, attitudes, and practices toward the novel coronavirus among Bangladeshis: Implications for mitigation measures. *PLoS ONE* 15(9): e0238492.
2. Uddin, M. N., **Hossain, M. M.**, Karim, M. S. and Siriwong, W. 2020. The phytosociological attributes of village common forests in Chittagong Hill Tracts, Bangladesh. *Songklanakarin Journal of Science & Technology*, 42 (4), 819-829, Jul. - Aug. 2020.
3. Ahmed, N., Mahub, R. B., **Hossain, M. M.**, Sujauddin, M. 2020. Modelling spatio-temporal changes of tropical forest cover in the north-eastern region of Bangladesh, *Journal of tropical forest science*, 32 (1), 42-51.
4. Alam, I., Barua, S., Ishii, K., Mizutani, S., **Hossain, M. M.**, Rahman, I.M., Hasegawa, H., 2019. Assessment of health risks associated with potentially toxic element contamination of soil by end-of-life ship dismantling in Bangladesh. *Environmental Science and Pollution Research* 26, 24162–24175.
5. Islam, K.N., Rahman, M.M., Jashimuddin, M., **Hossain, M. M.**, Islam, K., Al Faroque, M., 2019. Analyzing multi-temporal satellite imagery and stakeholders' perceptions to have an insight into how forest co-management is changing the protected area landscapes in Bangladesh. *Forest policy and economics* 101, 70–80.
6. Kabir, M., Kibria, M., **Hossain, M. M.**, 2019. Integrated management of water resources of Halda: a unique river of Bangladesh., in: *Geophysical Research Abstracts*.
7. Uddin, M.N., **Hossain, M. M.**, Chen, Y., Siriwong, W., Boonyanuphap, J., 2019. Stakeholders' perception on indigenous community-based management of village common forests in Chittagong hill tracts, Bangladesh. *Forest Policy and Economics* 100, 102–112.
8. Khan, B.M., Afrin, A.H., **Hossain, M. M.**, 2019. Effects of Phosphorus on In-vitro Seed Germination and Seedling Growth of Brassica rapa L. in Arsenic Condition.
9. Mahub, R.B., Ahmed, N., Rahman, S., **Hossain, M. M.**, Sujauddin, M., 2019. Human appropriation of net primary production in Bangladesh, 1700–2100. *Land Use Policy* 87, 104067.
10. Salihah, N.T., **Hossain, M. M.**, Abdul Hamid, M.R.W., Ahmed, M.U., 2019. A novel, rapid, and sensitive real-time PCR assay for cost-effective detection and quantification of *Staphylococcus aureus* in food samples with the ZENTM double-quenched probe chemistry. *International Food Research Journal* 26.

11. Majumder, S.C., Islam, K., **Hossain, M. M.**, 2019. State of research on carbon sequestration in Bangladesh: a comprehensive review. *Geology, Ecology, and Landscapes* 3, 29–36.
12. Rahman, I.M., Mutsuddi, R., Jii, N., Barua, S., Ahmmad, B., Kibria, M.G., **Hossain, M. M.**, Begum, Z.A., Dey, B.K., Hasegawa, H., 2019. Does open-beach ship-breaking affect the mineralogical composition of soil more adversely than typical industrial activities? *Journal of environmental management* 240, 374–383.
13. Islam, K.N., Hildenbrand, J., **Hossain, M. M.**, 2018. Life cycle impacts of three-way ceramic honeycomb catalytic converter in terms of disability adjusted life year. *Journal of Cleaner Production* 182, 600–615.
14. Barua, S., Rahman, I.M., **Hossain, M. M.**, Begum, Z.A., Alam, I., Sawai, H., Maki, T., Hasegawa, H., 2018. Environmental hazards associated with open-beach breaking of end-of-life ships: a review. *Environmental Science and Pollution Research* 25, 30880–30893.
15. Khan, B.M., Afrin, A.H., **Hossain, M. M.**, 2018. Effects of phosphorus on germination and seedling growth of *Cucumis sativus* L. in arsenic solution culture. *International Journal of Rural Development, Environment and Health Research* 2, 48–55.
16. Lubis, H., Salihah, N.T., Norizan, N.A., **Hossain, M. M.**, Ahmed, M.U., 2018. Fast and Sensitive Real-time PCR-based Detection of Porcine DNA in Food Samples by Using EvaGreen Dye. *Food Science and Technology Research* 24, 803–810.
17. Salihah, N.T., **Hossain, M. M.**, Ahmed, M.U., 2018a. A fast and sensitive real-time PCR assay to detect *Legionella pneumophila* with the ZENTM double-quenched probe. *Scientia Bruneiana* 17.
18. Salihah, N.T., **Hossain, M. M.**, Hamid, M.R.W.A., Ahmed, M.U., 2018b. A comparison of ZEN double-quenched probe and SYBR GreenER chemistries in the real-time PCR based quantitative detection of enterotoxigenic *Bacillus cereus* in milk. *MALAYSIAN JOURNAL OF MICROBIOLOGY* 14, 34–40.
19. Sujauddin, M., Koide, R., Komatsu, T., **Hossain, M. M.**, Tokoro, C., Murakami, S., 2017. Ship breaking and the steel industry in Bangladesh: a material flow perspective. *Journal of Industrial Ecology* 21, 191–203.
20. Lubis, H., Salihah, N.T., **Hossain, M. M.**, Ahmed, M.U., 2017. Development of fast and sensitive real-time qPCR assay based on a novel probe for detection of porcine DNA in food sample. *LWT* 84, 686–692.
21. Kabir, M., Kibria, M., Jashimuddin, M., **Hossain, M. M.**, 2016. Community involvement in river management for ecosystem services and livelihood: a case study of Halda river in Bangladesh. *Environmental Research Journal* 10.
22. Martin, D., Chakraborty, L.B., Sinha, S., **Hossain, M. M.**, Saha, R., Khetriwal, D.S., Asolekar, Shyam, 2016. Safe and Environmentally Sound Ship Recycling in Bangladesh Work Package 2: Planning the management of hazardous materials - Hazardous Waste Assessment Report, <http://www.imo.org/en/OurWork/Environment/MajorProjects/Documents/Ship%20recycling/WP2a%20Hazardous%20Waste%20Assessment%20Report.pdf>.
23. Roy, S., **Hossain, M. M.**, Safavieh, M., Lubis, H.N., Zourob, M., Ahmed, M.U., 2016. Isothermal DNA amplification strategies for food biosensors, in: *Food Biosensors*. pp. 367–392.
24. Ahmed, M.U., **Hossain, M. M.**, Safavieh, M., Wong, Y.L., Ibrahim Abd Rahman, M.Z., Tamiya, E., 2015. Toward the development of smart and low cost point-of-care biosensors based on screen printed electrodes. *Critical Reviews in Biotechnology* 1–11.
25. Akhter, S., Hoque, M.R., Paul, U.K., **Hossain, M. M.**, 2015. Serum Calcium Status among Pregnancies Complicated By Pre-Eclampsia in Bangladesh. *Mymensingh medical journal: MMJ* 24, 657–660.
26. Salihah, N.T., **Hossain, M. M.**, Lubis, H., Ahmed, M.U., 2016. Trends and advances in food analysis by real-time polymerase chain reaction. *Journal of food science and technology* 53, 2196–2209.
27. Higashida, K., **Hossain, M. M.**, Murakami, S., 2014. Stated Environmental Consciousness and Preferences : Preliminary Analysis using Experimental Data from the Shipbreaking Area of Chittagong. *The Journal of Economics* 68, 39–59.
28. Ahmed, M.U., Saito, M., **Hossain, M. M.**, Hase, A., Tamiya, E., 2014. Polydimethylsiloxane based Microfluidics Flow PCR Sensor for *Bacillus Anthracis* using a Disposable Electrode. *Indian Journal of Science and Technology* 7, 1094–1100.
29. Kabir, M.H., Kibria, M.M., Russell, I.A., **Hossain, M. M.**, 2014. Engineering activities and their mismanagement at Halda: a unique river for natural spawning of Major Indian carps. *International Journal of Surface and Groundwater Management* 1, 59–66.
30. Miah, S., Haque, S.M.S., Sumi, W., **Hossain, M. M.**, 2014. Effects of shifting cultivation on biological and biochemical characteristics of soil microorganisms in Khagrachari hill district, Bangladesh. *Journal of Forestry Research* 25, 689–694.
31. Salehin, S., Islam, K.M.N., Alam, M.S., **Hossain, M. M.**, 2014. Industrial Noise Levels in Bangladesh; is Worker Health at Risk? *Polish Journal of Environmental Studies* 23, 1719–1726.
32. Kabir, Md Humayain, Kibria, M.M., **Hossain, M. M.**, 2013. Economic Valuation of the Irrigation Water use from Halda-A Unique River of Bangladesh. *European Journal of Agricultural Sciences* 10, 54–63.
33. Kabir, M. H., Kibria, M.M., **Hossain, M. M.**, 2013. Indirect and non-use values of Halda River-a unique natural breeding ground of Indian carps in Bangladesh. *Journal of Environmental Science and Natural Resources* 6, 31–36.

34. Kabir, Md Humayain, Kibria, M.M., Jashimuddin, M., **Hossain, M. M.**, 2013. Economic Valuation of Tangible Resources From Halda–The Carp Spawning Unique River Located at Southern Part of Bangladesh. *International Journal of Water Research* 1, 30–36.
35. Sujauddin, M., Koide, R., Komatsu, T., **Hossain, M. M.**, Murakami, S., 2013. Characterization of ship breaking industry in Bangladesh. *Journal of Material Cycles and Waste Management*.
36. Lisar, S.Y., Motafakkerzad, R., Mosharraf, H.M., Ismail, R., 2012. Water Stress in Plants: Causes, Effects and Responses, in: *Water Stress*, Editors: Ismail M. M. Rahman, Hiroshi Ha. InTech: Rijeka, Croatia, pp. 1–14.
37. Ahmed, M.U., Yoshimura, Y., **Hossain, M. M.**, Tamiya, E., Fujimoto, K., 2011. Construction of branched DNA for SNP determination on glass-chip using photochemical ligation. *BioChip Journal* 5, 206.
38. Baul, T.K., **Hossain, M. M.**, Mezbahuddin, M., Mohiuddin, M., 2011. Vegetative propagation of *Litsea monopetala*, a wild tropical medicinal plant: Effects of indole-3-butyric acid (IBA) on stem cuttings. *Journal of Forestry Research* 22, 409–416.
39. Yamanaka, K., Saito, M., Kondoh, K., **Hossain, M. M.**, Koketsu, R., Sasaki, T., Nagatani, N., Ikuta, K., Tamiya, E., 2011. Rapid detection for primary screening of influenza A virus: microfluidic RT-PCR chip and electrochemical DNA sensor. *Analyst* 136, 2064–2068.
40. Islam, M.S., Bhuiyan, M.K., **Hossain, M. M.**, Hossain, M.A., 2011. Clonal propagation of *Bambusa vulgaris* by leafy branch cuttings. *Journal of Forestry Research* 22, 387–392.
41. Rahman, I. M. M., **Hossain, M. M.**, Begum, Z.A., Rahman, M.A., and Hasegawa, H., 2011. Eco-Environmental Consequences Associated with Chelant- Assisted Phytoremediation of Metal-Contaminated Soil, in: *Handbook of Phytoremediation*. Nova Science Publishers, Inc., pp. 709–722.
42. Rahman, I. M. M., Islam, M.M., **Hossain, M. M.**, Hossain, M.S., Begum, Z.A., Chowdhury, D.A., Chakraborty, M.K., Rahman, M.A., Nazimuddin, M., Hasegawa, H., 2011. Stagnant surface water bodies (SSWBs) as an alternative water resource for the Chittagong metropolitan area of Bangladesh: physicochemical characterization in terms of water quality indices. *Environmental monitoring and assessment* 173, 669–684.
43. **Hossain, M. M.**, Shimizu, E., Saito, M., Rao, S.R., Yamaguchi, Y., Tamiya, E., 2010. Non-invasive characterization of mouse embryonic stem cell derived cardiomyocytes based on the intensity variation in digital beating video. *Analyst* 135, 1624–1630.
44. Islam, R., Rahman, S.M.E., Khan, M., Akhter, S., **Hossain, M. M.**, Ding, T., Kim, J.-M., Oh, D.-H., 2010. Quality determination of different wholesale cuts of goat carcass at different ages. *Journal of Food Hygiene and Safety* 25, 251–257.
45. Baul, T.K., Mezbahuddin, M., **Hossain, M. M.**, Mohiuddin, M., 2010. Vegetative propagation of *Holarrhena pubescens*, a wild tropical medicinal plant: effect of indole-3-butyric acid (IBA) on stem cuttings. *Forestry Studies in China* 12, 228–235.
46. Ahmed, M.U., Hasan, Q., **Hossain, M. M.**, Saito, M., Tamiya, E., 2010. Meat species identification based on the loop mediated isothermal amplification and electrochemical DNA sensor. *Food Control* 21, 599–605.
47. Ahmed, M.U., Saito, M., **Hossain, M. M.**, Rao, S.R., Furui, S., Hino, A., Takamura, Y., Takagi, M., Tamiya, E., 2009. Electrochemical genosensor for the rapid detection of GMO using loop-mediated isothermal amplification. *Analyst* 134, 966–972.
48. Ahmed, M.U., **Hossain, M. M.**, Tamiya, E., 2008. Electrochemical biosensors for medical and food applications. *Electroanalysis: An International Journal Devoted to Fundamental and Practical Aspects of Electroanalysis* 20, 616–626.
49. Hossain, M.A., Islam, M.S., **Hossain, M. M.**, 2005. Effect of light intensity and rooting hormone on propagation of *Bambusa vulgaris* Schrad ex Wendl. by branch cutting. *Journal of Bamboo and Rattan* 3, 231–241.

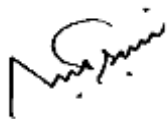
Conferences

1. Haque, M. W., Zafar, T., and **Hossain, M. M.** 2020. Occurrence of microplastics at ship breaking and recycling zone of Bangladesh, Proceedings of the 5th International Conference on Civil Engineering for Sustainable Development (ICCESD 2020), 7–9 February 2020, KUET, Khulna, Bangladesh.
2. Ruma, S. S., **Hossain, M. M.** 2020. Material flow accounting of aluminum in Bangladesh with special emphasis on civil engineering sector, Proceedings of the 5th International Conference on Civil Engineering for Sustainable Development (ICCESD 2020), 7–9 February 2020, KUET, Khulna, Bangladesh.
3. Haque, M. W., Zafar, T., and Huda, S. M. S., **Hossain, M. M.** 2020. Presence of microplastic particles in edible salts in Bangladesh, Proceedings of the 5th International Conference on Civil Engineering for Sustainable Development (ICCESD 2020), 7–9 February 2020, KUET, Khulna, Bangladesh.
4. Roy, P., **Hossain, M. M.** 2019. Estimation of greenhouse gas emission from coal mining in bangladesh through life cycle assessment (LCA), The 5th International Conference on Mechanical Engineering and Renewable Energy (ICMERE 2019), Department of Mechanical Engineering Chittagong University of Engineering & Technology, 11 – 13th December, 2019
5. Ruma, S. S., Sujauddin, M., **Hossain, M. M.** 2019. Material flow account of copper in Bangladesh with special emphasis on ship breaking and recycling industry, The 5th International Conference on Mechanical Engineering and

- Renewable Energy (ICMERE 2019), Department of Mechanical Engineering Chittagong University of Engineering & Technology, 11 – 13th December, 2019
6. Alam, I., Barua, S., Rahman, I.M., **Hossain, M. M.**, Saito, M., Maki, T., Mizutani, S., and Hasegawa, H., 2017. Metal Contamination of Soils Due to the End-of-Life Ship Dismantling in the Open-Beaches, 4th International Conference on Open Sink, October 24-27th, 2017, Kyoto, Japan,
 7. Alam, I., Barua, S., Rahman, I.M., **Hossain, M. M.**, Saito, M., Maki, T., Mizutani, S., and Hasegawa, H., 2017. Potential Risk Assessment of Heavy Metals in Soils and Waters in the Vicinity of Ship Breaking and Recycling Industries, Bangladesh, The Japan Society for Analytical Chemistry (JSAC) conference, September 9-12, Science University of Tokyo, Tokyo, Japan.
 8. Aziz, M. I., Karim, M., Baul, T. K. and **Hossain, M. M.** 2015. A novel ultraportable charcoal kiln cum clean cook stove for enhancing biomass fuel use efficiency, The 3rd International Conference on Mechanical Engineering and Renewable Energy (ICMERE 2015), Department of Mechanical Engineering Chittagong University of Engineering & Technology, 26 – 29th November, 2015
 9. Ray, T. K., Dutta, H. and **Hossain, M. M.** 2015. Life cycle assessment of seedlings produced at private and government nurseries in Chittagong, The 3rd International Conference on Mechanical Engineering and Renewable Energy (ICMERE 2015), Department of Mechanical Engineering Chittagong University of Engineering & Technology, 26 – 29th November, 2015
 10. Alam, I., Sujauddin, M. and **Hossain, M. M.** 2015. Economy-wide material flow analysis of cement industry in Bangladesh, The 3rd International Conference on Mechanical Engineering and Renewable Energy (ICMERE 2015), Department of Mechanical Engineering Chittagong University of Engineering & Technology, 26 – 29th November, 2015
 11. Rahman, A. N. M. T., Kabir, M. H. and **Hossain, M. M.** 2015. Exposure of Chittagong university shuttle train passengers to PM_{2.5} and PM₁₀, The 3rd International Conference on Mechanical Engineering and Renewable Energy (ICMERE 2015), Department of Mechanical Engineering Chittagong University of Engineering & Technology, 26 – 29th November, 2015
 12. Dey, S., Islam, K. M. N. and **Hossain, M. M.** 2015. Pattern of residential electrical energy consumption in Chittagong city, The 3rd International Conference on Mechanical Engineering and Renewable Energy (ICMERE 2015), Department of Mechanical Engineering Chittagong University of Engineering & Technology, 26 – 29th November, 2015
 13. Hossain, M. N. and **Hossain, M. M.** 2015. Life Cycle Assessment of Admission Process at the University of Chittagong, Bangladesh, *ISIE Conference - Taking Stock of Industrial Ecology*, University of Surrey, UK., 7-10th July 2015,
 14. Aziz, M. T. and **Hossain, M. M.** 2015. Evaluation of Google Earth and other Free Software Tools to Analyze Land Use Changes: The Case of Chittagong University Campus, *International Conference on Climate Change in relation to Water and Environment-2015*, DUET, Gazipur, 09-11th April, 2015
 15. Kabir, M. H., Acharjee, S., *Hoque*, M. R., and **Hossain, M. M.** 2013. Climate Resilience of the Drainage System of Chittagong Metropolitan Area, *International Conference on Climate Change Impact and Adaptation – 2013*. 15-17 November, 2013 DUET, **Gazipur, Bangladesh** PI.I3CIA_13092
 16. Alam, O. and **Hossain, M. M.** 2013. A Comparative Study on the Differences between Public and Private Healthcare Entities in Healthcare Waste Management in Chittagong. *Proceedings of the Waste Safe 2013 – 3rd International Conference on Solid Waste Management in Developing Countries*, **Khulna, Bangladesh**, PI.136 (1-9)
 17. **Hossain, M. M.** and Alam, O. 2013. A Deeper Look into the Inner Factors Associated to Healthcare Waste Management in Chittagong – the Commercial Capital of Bangladesh. *Proceedings Sardinia 2013, Fourteenth International Waste Management and Landfill Symposium S. Margherita di Pula*, **Cagliari, Italy**; 30 September - 4 October 2013, PI.672
 18. Alam, O. and **Hossain, M. M.** 2013. Quantification and Physical Categorization of Waste Generated by Different Healthcare Entities in Chittagong Metropolitan Area – Bangladesh. *International Conference on Mechanical, Industrial and Materials Engineering 2013 (ICMIME2013)*, 1-3 November, 2013, RUET, **Rajshahi, Bangladesh**. PI.197
 19. Sujauddin, M., Komatsu, T., Koide R, **Hossain, M. M.** and Murakami, S. 2013. Contribution of Ship Breaking Industry in Bangladesh – the Material Flow Perspective. Poster presented in 7th International Society for Industrial Ecology biennial Conference. University of **Ulsan, Korea**. June 25-28, 2013
 20. Sujauddin, M., Koide, R., Murakami, S. and **Hossain, M. M.** 2011. Status of the ship breaking industry in Bangladesh – problems and prospects. In: Symposium of The Life Cycle of Metals: Improving Health, Environment and Human Security. A Symposium Hosted by the University of Tokyo and Harvard University Sanjo Conference Hall at the **University of Tokyo, Japan** October 31 - November 2, 2011
 21. Alam, O., **Hossain, M. M.** and Hossain, E. 2013. Climate Change Adaptation and Healthcare Waste Effect on it in Chittagong Metropolitan Area of Bangladesh *International Conference on Climate Change Impact and Adaptation – 2013*. 15-17 November, 2013 DUET, **Gazipur, Bangladesh**. PI.I3CIA_13161

22. **Hossain, M. M.**, Alam, O. and Uddin, M. S. 2013. Geographic Distribution of Healthcare Entities in Chittagong Metropolitan Area in Relation to Our Quest for a Climate Adaptive Healthcare Waste Management System. *International Conference on Climate Change Impact and Adaptation – 2013*. 15-17 November, 2013 DUET, **Gazipur, Bangladesh** PI.I3CIA_13159
23. Kabir, M. H., Kibria, M. M., and **Hossain, M. M.**. 2013. River Bank Erosion and its Protection at Halda: a Unique River from South-Eastern Part of Bangladesh, *International Conference on Climate Change Impact and Adaptation – 2013*. 15-17 November, 2013 DUET, **Gazipur, Bangladesh** PI.I3CIA_13048
24. Hossain, M. N., Hossain, M. M., and **Hossain, M. M.**. 2013. An Investigation into the Disruption of Rural Supply Chain due to Climate Change - its Mitigation and Adaptation: the case of Sandwip Island, Bangladesh, *International Conference on Climate Change Impact and Adaptation – 2013*. 15-17 November, 2013 DUET, **Gazipur, Bangladesh** PI.I3CIA_13096
25. Yamaguchi, Y., **Hossain, M. M.**, Ikeuchi, T., Hashimoto, A., Rao, S. R., Saito, M., Tamiya, E. 2012. Hanging drop culture device for embryonic stem cell, *16th International Conference on Miniaturized Systems for Chemistry and Life Sciences*, October 28 - November 1, 2012, **Okinawa, JAPAN**
26. **Hossain, M. M.** and Alam, O.. 2012. Existing Scenario of Solid Waste Management from Healthcare Industry in Chittagong Metropolitan Area – A Pictorial Investigation. *International Conference on Industrial Waste Management and Process Efficiency – 2012*, DUET, **Gazipur, Bangladesh** ISBN: 978-984-33-5734-2, PI.12038 (503-513)
27. **Hossain, M. M.**, Ahmed, M. U., Saito, M. and Tamiya, E. 2008. Conductive biocompatible polymer patterning inside microfluidic channel for cellular investigation (oral presentation) at *the 75th Convention of Electrochemical Society of Japan (ECSJ)* in **Yamanishi, Japan**, March 29-31, 2008
28. **Hossain, M. M.**, Saito, M. and Tamiya, E. 2008. Electrochemical patterning of conductive polymer wall inside microfluidic channel for biosensor application, at *10th World Congress on Biosensors* **Shanghai, China**. May 16, 2008
29. **Hossain, M. M.**, Rao, S. R. and Tamiya, E. 2008. Electro-active cells on Microfluidic cell chips: Culture, Stimulation and Manipulation (oral presentation), at *5th International Stem Cell School in Regenerative Medicine* in **Berlin, Germany**. October 20-22, 2008.

Signature



Mohammad Mosharraf Hossain, PhD