

CURRICULUM VITAE

PERSONAL DETAILS

Name : MD AHOSAN HABIB
Sex : Male
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CONTACT:

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PROFESSIONAL INFORMATION

| Period | Position |
|--------------|--|
| 2015-present | Deputy Director, GSB; Ministry of Power, Energy, and Minerals Resources; Government of the People's Republic of Bangladesh |
| 2005-2014 | Assistant Director, GSB; Ministry of Power, Energy, and Minerals Resources; People's Republic of Bangladesh |

RESEARCH INTERESTS/EXPERTISE

Geological and Geo-environmental sciences, Environmental chemistry & radiochemistry, Waste utilization, Pollution & Risk assessment

PERSONALE KEYWORDS

Coal, ash, soil, sediment, sand, rock, and water chemistry

ACADEMIC BACKGROUND

| Period | Title |
|-----------|---|
| 2016-2019 | Doctor of Philosophy in Sustainable Energy Management, Faculty of Environmental Science, Prince of Songkla University, Thailand Thesis: Potential Impact of Bituminous Coal-based Subcritical Thermal Power Plant on the Soil Resources of Barapukuria Area, Dinajpur, Bangladesh |
| 2003-2004 | Master of Science in Geology and Mining, University of Rajshahi, Bangladesh Thesis: Interpretation of seismic and Well Log data: A case study of Rashidpur |



structure, Bengal Basin, Bangladesh
1999-2002 Bachelor of Science in Geology and Mining, University of Rajshahi, Bangladesh
Project: Palaeoenvironment of Deposition of the Miocene Sedimentary Sequence in the Well BK-9 of the Morichakandi structure, Narshingdi, Bangladesh

PUBLICATION

BOOK CHAPTER

1. Khan, R., Haydar, M.A., Saha, S., Karim, M.M., **Habib, M.A.** Rashid, M.B., & Paul, D., 2022. Spatial Distribution and Radiological Risk Quantification of Natural Radioisotopes in the St. Martin's Island, Bangladesh (**Chapter 15**). Environ Sci Eng, Pravat Kumar Shit et al. (Eds.): Soil Health and Environmental Sustainability. (In Press) Springer Nature.
2. Monir, M. U., Aziz, A. A., Yousuf, A., **Habib, M.A.** Techato, K., & Phoungthong, K. 2022. Simulation of cyclone separator for particulate removal from syngas. In M. R. Rahimpour, M. A. Makarem, & M. Meshksar (Eds.), Advances in Synthesis Gas: Methods, Technologies and Applications-Syngas Process Modelling and Apparatus Simulation (In Press) Elsevier.
3. Monir, M. U., Aziz, A. A., Vo, D.-V. N., Ahmed, M. T., Islam, A., **Habib, M.A.** et al., 2021. Clean and sustainable biofuels through syngas fermentation: Challenges and opportunities (Chapter 10). In S. Nanda & D.-V. N. Vo (Eds.), Innovations in Thermochemical Technologies for Biofuel Processing: Elsevier. (Accepted, In press).
4. **Habib, M.A.** & Khan R., 2021. Environmental Impacts of Coal-Mining and Coal-Fired Power-Plant Activities in a Developing Country with Global Context (**Chapter 24**). In: Shit P.K., Adhikary P.P., Sengupta D. (Eds.) Spatial Modeling and Assessment of Environmental Contaminants (pp. 421-493). Environmental Challenges and Solutions. Springer, Cham. https://doi.org/10.1007/978-3-030-63422-3_24.

PAPER

| No. | List (Write in Reference format) |
|-----|--|
| 23 | Islam, A.R.M.T., Jion, M.M.M.F., Jannat, J.N., Varol, M., Islam, M.A., Khan, R., Idris, A.M., Malafaia, G. and Habib, M.A. , 2023. Perception and legacy of soil chromium and lead contamination in an operational small-scale coal mining community. <i>Environmental Geochemistry and Health</i> , pp.1-17. |
| 22 | Islam, A.R.M.T., Varol M., Habib, M.A. , Khan, R., 2023 . Risk assessment and source apportionment for metals in sediments of Kaptai Lake in Bangladesh using individual and synergistic indices and a receptor model. <i>Marine Pollution Bulletin</i> 190 (2023) 114845. |
| 21 | Rashid, M.B., Sheik, M.R., Haque, A.E., Siddique, M.A.B., Habib, M.A. , et al. and Patwary, M.A.A., 2023. Salinity-induced change in green vegetation and land use patterns using remote sensing, NDVI, and GIS techniques: A case study on the southwestern coast of Bangladesh. <i>Case Studies in Chemical and Environmental Engineering</i> , p.100314. |

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| 20 | Rashid, M.B., Habib, M.A. , et al., 2023. Tectonic setting, provenance, depositional, and paleo-climatic conditions of the late quaternary subcrop sediments of the southeastern coastal region of the Bengal basin. <i>Heliyon</i> , p.e12998. |
| 19 | Rashid, B. and Habib, A. , 2022. Channel bar Development, Braiding and Bankline Migration of the Brahmaputra-Jamuna River, Bangladesh through RS and GIS techniques. <i>International Journal of River Basin Management</i> , pp.1-45. |
| 18 | Majlis, A. B. K., Habib, M.A. , et al., 2022. Intrinsic characteristics of coal combustion residues and their environmental impacts: A case study for Bangladesh. <i>Fuel</i> , 324, p.124711. |
| 17 | Habib, M.A. , Khan, R. & Phoungthong, K., 2022. Evaluation of environmental radioactivity in soils around a coal burning power plant and a coal mining area in Barapukuria, Bangladesh: Radiological risks assessment. <i>Chemical Geology</i> , 600, p.120865. |
| 16 | Khan, R., H.M. Touhidul Islam, Md. Adnan Sarker Apon, Islam, A.R.M.T., Habib, M.A. , et al., 2022. Environmental geochemistry of higher radioactivity in a Transboundary Himalayan River sediment: Potential radiation exposure and health risks" : <i>Environmental Science and Pollution Research</i> |
| 15 | Md. Saiful Islam, Abubakr M. Idris, Khampho Phoungthong, Kawser Ahmed, Habib, M.A. , & Ramal Ahmed 2021. Geochemical speciation and bioaccumulation of trace elements in different tissues of pumpkin in the abandoned soils: Health hazard perspective in a developing country. <i>Toxin Reviews</i> (accepted). |
| 14 | Siddique, M.A.B., Khan, R., Islam, A.R.M.T., Alam, M.K., Islam, M.S., Hossain, M.S., Habib, M.A. , et al., 2021. Quality assessment of freshwaters from a coastal city of southern Bangladesh: Irrigation feasibility and preliminary health risks appraisal. <i>Environmental Nanotechnology, Monitoring & Management</i> , 16, 100524. (https://doi.org/10.1016/j.enmm.2021.100524) |
| 13 | Rashid, M.B., Habib, M.A. , et al., 2021. Land transform and its consequences due to the route change of the Brahmaputra River in Bangladesh. <i>International Journal of River Basin Management</i> , (https://doi.org/10.1080/15715124.2021.1938095) |
| 12 | Begum, M., Khan, R., Roy, D.K., Habib, M.A. , et al., 2021. Geochemical characterization of Miocene core sediments from Shahbazpurgas-wells (Bangladesh) in terms of elemental abundances by Instrumental Neutron Activation Analysis. <i>J Radioanal Nucl Chem</i> (https://doi.org/10.1007/s10967-021-07770-4) |
| 11 | Islam, A.R.M.T., Hasanuzzaman, M., Islam, H.M.T., Mia, M.U., Khan, R., Habib, M.A. , et al., 2020. Quantifying source apportionment, co-occurrence and ecotoxicological risk of metals from up-mid-downstream river segments, Bangladesh. <i>Environmental Toxicology & Chemistry</i> , (https://doi.org/10.1002/etc.4814). |
| 10 | Khan, R., Islam, M.S., Tareq, A.R.M., Naher, K., Islam, A.R.M.T., Habib, M.A. , et al., 2020. Distribution, sources and ecological risk of trace elements and polycyclic aromatic hydrocarbons in sediments from a polluted urban river in central Bangladesh. <i>Environmental Nanotechnology, Monitoring and Management</i> , 14, 100318 (https://doi.org/10.1016/j.enmm.2020.100318) |
| 9 | Islam, A.R.M.T., Islam, H.M.T., Mia, M.U., Khan, R., Habib, M.A. , et al., 2020. Co-distribution, possible origins, status and potential health risk of trace elements in surface water sources from six major river basin, Bangladesh. <i>Chemosphere</i> , (https://doi.org/10.1016/j.chemosphere.2020.126180) |

M.A.

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| 8 | Habib, M.A. , Islam, A.R.M.T., Bodrud-Doza, M., Mukta, F.A., Khan, R., Siddique, M.A.B., Phoungthong, K., Techato, K., 2020. Simultaneous appraisals of pathway and probable health risk associated with trace metals contamination in groundwater from Barapukuria coal basin, Bangladesh. <i>Chemosphere</i> , 242 (https://doi.org/10.1016/j.chemosphere.2019.125183) |
| 7 | Khan, R., Das, S., Kabir, S., Habib, M.A. , et al., 2019. Evaluation of the elemental distribution in soil samples collected from ship-breaking areas and an adjacent island. <i>Journal of Environmental Chemical Engineering</i> , 7, (https://doi.org/10.1016/j.jece.2019.103189) |
| 6 | Khan, R., Parvez, M.S., Jolly, Y.N., Haydar, M.A., Alam, M.F., Khatun, M.A., Sarker, M.M.R., Habib, M.A. , et al., 2019. Elemental abundances, natural radioactivity and physicochemical records of a southern part of Bangladesh: Implication for assessing the environmental geochemistry. <i>Environmental Nanotechnology, Monitoring & Management</i> . 12, (https://doi.org/10.1016/j.enmm.2019.100225) |
| 5 | Habib, M.A. , et al., 2019a. Assessment of natural radioactivity in coals and coal combustion residues from a coal-based thermoelectric plant in Bangladesh: Implications for radiological health hazards. <i>Environ Monit Assess</i> , 191, 27, (https://doi.org/10.1007/s10661-018-7160-y). |
| 4 | Habib, M.A. , et al., 2019b. Distribution of naturally occurring radionuclides in soil around a coal-based power plant and their potential radiological risk assessment. <i>Radiochim. Acta</i> , 107(3), 243-259. (https://doi.org/10.1515/ract-2018-3044). |
| 3 | Ahsan, K., Habib, M.A. , & Alam, M. F., 2019. Quaternary geology of Bhola District, Bangladesh. Records of the Geological Survey of Bangladesh, Dhaka, 15(1). Government of the People's Republic of Bangladesh. |
| 2 | Islam, A. R. M.T., Shen, S., Haque, M. A., Bodrud-Doza, M., Maw, K. W., & Habib, M.A. , 2017. Assessing groundwater quality and its sustainability in Joypurhat district of Bangladesh using GIS and multivariate statistical approaches. <i>Environment, Development and Sustainability</i> , 20(5). pp.1935-1959. |
| 1 | Ahsan, K., Habib, M.A. , et al., 2017. Geological Report on Cox's Bazar-Teknaf Coastal Area, Bangladesh. Records of the Geological Survey of Bangladesh, Dhaka, 14(4). Government of the People's Republic of Bangladesh. |

UNDER REVIEW

1. **Habib, M.A.**, et al. Genetic aspects and economic potentiality of the Barapukuria coals of Bangladesh in sight from petrography and geochemistry: A critical evaluation
2. **Habib, M.A.**, et al. Environmental characterisation of coals (Barapukuria coalfield, Bangladesh): Potential health risk and eco-environmental consequences
3. **Habib, M.A.**, Risk assessment and source apportionment for metals in sediments of the largest lake in Bangladesh using individual and synergistic indices and a receptor model
4. **Habib, M.A.**, A new coupled approach for source-oriented health risk of soil toxic metal (loid)s with uncertainty analysis from Bangladesh's coal basin. *Toxin Reviews*
5. Sheikh Md. Anowar Hossain, Rahat Khan, Md. Noman Hossain, Jolly Sultana, Md. Abu Bakar Siddique, Mohammad Amirul Islam, Kamrun Naher, **Habib, M.A.**, et al.. Environmental geochemistry of Bhairab river sediment, Bangladesh: Pollution status and potential ecological risks assessment.

6. Md. Bazlar Rashid; Abu Bakar Siddique; Rahat Khan; ***Habib, M.A.***; Multiple water sources from the southwestern coastal region of Bangladesh: Quality, Pollution sources and health risks appraisals.

Details on Funding/Grants

| Year and amount (US\$) | Title of Research Project | Granting Agency | Responsibility |
|-------------------------|---|------------------------------------|-----------------------------|
| 2020-2021 (4725.9\$) | Baseline assessment for geological and environmental impact monitoring in areas of Payra and Rampal thermal power plants Bangladesh | Ministry of Science and Technology | Associate Investigator (AI) |

AWARDS and ACHIEVEMENT

1. The 2022 Prince of Songkla University International Postdoctoral Fellowship (Reinventing University Project 2564-2565), PSU and Ministry of Higher Education, Science, Research and Innovation under the Reinventing University Project (Grant Number REV65007)
2. Postdoctoral Fellowship of Fiscal Year 2021 from Prince of Songkla University, Thailand.
3. The scholarship awards of Thailand's Education Hub for Southern Region of ASEAN Countries (TEH-AC) (Contract No.: THE-AC014/2016), funds for Doctor of Philosophy program from the graduate school, Prince of Songkla University, Hat Yai, Thailand. Graduate school dissertation funding for thesis, Prince of Songkla University, Thailand. (2559-2562). Funding 578,000 (Five hundred and seventy eight thousand Thai Bath only) = 18543.47 US\$.
4. Graduate School Dissertation Funding for thesis, Prince of Songkla University, Thailand for Doctor of Philosophy.

WORKSHOP/SEMINAR/CONFERENCE CONTRIBUTIONS

National

Initiatives in Science Education, Research and Capacity Building, Bangladesh Academy of Science, Dhaka, Bangladesh, September 14-15, 2013.

PROFESSIONAL EXPERIENCE UNDER ANNUAL DEVELOPMENT PROJECT

| Fiscal year | Project Title | Source of Funding | Total Budget (US\$) |
|-------------|---------------|-------------------|---------------------|
|-------------|---------------|-------------------|---------------------|



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| 2011-2013 | Integrated Geological Mapping of the Chalanbil Area to unveil the Quaternary Records and Climatic Changes | Ministry of Power, Energy, and Minerals Resources, Government of the People's Republic of Bangladesh | 500,000.00 |
| 2007-2010 | Geological Exploration for the Identification of Mineral Resources and the Areas Vulnerable to Natural Hazards in the Coastal Parts of Bangladesh | Ministry of Power, Energy, and Minerals Resources, Government of the People's Republic of Bangladesh | 2125,000.00 |

TRAINING

International

- 2017 Arc GIS software (10.2 version), Prince of Songkla University, Thailand, Jan-Feb 2017
- 2015 Coastal Geology and Geohazards (GeoCoast), International School for Geoscience Resource, KIGAM, South Korea, 05-21 Oct 2015
- 2014 Global Warming Mitigation and Adaptation by Sustainable Energy Management, Thailand, 09-25 July 2014

National

- 2013 Statistical Package for Professionals, Researchers and Students (SPSS), University of Dhaka, Bangladesh, June-July
- 2009 Oceanography: Principles and Applications, National Oceanographic and Maritime Institute, Bangladesh, April-June

PROFESSIONAL MEMBERSHIP

1. General Member-Bangladesh Geological Society
2. Life Member-Association of Geoscientists for International Development (AGID)
3. General Member-Bangladesh Earthquake Society

DECLARATION

I hereby declare that all the aforementioned furnished details are true, complete and correct to the best of my knowledge and belief.

2023

(Dr. Md. Ahasan Habib)




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