

SOUMYADEEP MUKHOPADHYAY M.Sc, M.TECH, PHD

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Date of Birth: 22.08.1983; PPSN: 1857195RA; Married



PROFILE

Doing Masters in Natural Resource Economics & Policy from NUI Galway
10 years' international experience in research & consultancy in the water treatment and green technology
Data analysis, research methodologies and technical writing skills with multidisciplinary approach
Strong collaborative approach across continents and cultures with intensive stakeholder engagement
Focused on commercial side of green technology, econometric analysis and policy making
Proven project management skills: Involvement in 10+ international projects
Organisation and management skills- Strategy, feasibility & Risks/Opportunities Assessment

EDUCATION

Doing M.Econ.Sc at J.E. Cairnes School of Business and Economics, NUI Galway Natural Resource Economics and Policy	Sept 2017-Aug 2018
PhD from University of Malaya, Kuala Lumpur, Malaysia Chemical Engineering (Environmental Technologies) Supervisor: Prof Ir Mohd Ali Hashim, FICHEM FIEM PEng CEng FASc (Merdeka Prize 2015, National Science Award 2001) & Prof Bhaskar Sen Gupta, OBE (Queen's University Belfast (NI), currently at Heriot-Watt University) Thesis Title: Remediation of contaminated soil using natural surfactant solution and colloidal gas aphrons	Sept 2010-Apr 2014
M.Tech from Bengal Engineering & Science University, Shibpur (BESU), India Safety and Occupational Health (1st class, 74%) Term Paper (2nd Year): Hazard Identification Technique: Concept & Methodology of HAZOP Term Paper (2nd Year): Wastewater treatment- designing issues for enhancing process reliability & performance Dissertation (3rd Year): Hazard identification and QRA techniques associated with the ammonia storage & transport at Tata Chemicals Ltd, Haldia	Aug 2007-Jul 2010
M.Sc from University of Kalyani, India Environmental Science (1st class, 72%) Special Paper: Environmental Biotechnology and Molecular Toxicology Dissertation: Endosulfan induced toxicity by COX 2 & TGF-beta regulation	Aug 2005-Jul 2007
B.Sc. (Hons) from St Xavier's College, Calcutta University, India Chemistry (High 2nd class, 54.5%)	Aug 2002-Jun 2005
Gandhi Colony High School HSC/Standard 12 (equivalent to UK A-level) (1st Div, star, 79%)	Aug 2000-Jun 2002
Nava Nalanda High School Secondary Exam/Tenth grade (equivalent to UK GCSE) (1st Div, star, 77%)	Jun 2000

JOB EXPERIENCE

CONSULTING DESIGN ENGINEER	Jan 2017-present
Scientific Events Ltd (UK) Appointed as India Project Consultant for Newton Fund - India-UK Collaborative Industrial Research & Development Programme 2015 project (Industrial research on a clean process for delivering arsenic free safe water to affected communities in India, File Ref: 102727, Application number: 69667-480252).	
Bright Green Energy Foundation (BGEF, Bangladesh) Consultant for installation of a water treatment pilot plant for in-situ arsenic removal at Comilla. Pilot plant has been installed successfully and under operation. This will be expanded to a full scale commercial project on its success (http://www.bbc.com/news/uk-scotland-39647456).	

Post Doctoral Research Fellow

Jul 2014- Dec 2016

Beyond normal duties, applied for 5 projects by writing proposals. Two applications were successful and projects completed. Published 5 ISI journal papers and filed for 1 patent.

Duties: **1. Research:** Present research involves development of sustainable technologies under 3 interrelated areas of soil remediation, groundwater treatment and wastewater treatment; **2. Proposal for Funding:** Preparation of national and international proposals for funding **3. Student Supervision:** Chem Engg undergraduate final year research projects; **4. Arrangement of Workshops, Conferences and Training Programs;** **5. Procurement of research materials and equipment;** **6. Assisting Professor Mohd Ali Hashim in other academic duties**

Projects involved: 1. "Integrated water resources management & planning system in Malaysia" British Council Institutional Link Fund: Newton-Omar Ungku project 2015-16 (Application ID 172690856); 2. "Affordable and Serviceable Iron removing filter for rural community - Prototype Research Grant Scheme (PRGS) Malaysian Govt (PR002-2015A)

Research Assistant

Jul 2010- Jun 2014

Managed to publish 6 ISI journal papers and completed 4 funded projects. 1 water treatment plant installed.

Duties: 1. Literature review and desktop research, 2. Designing of laboratory experiments and putting up experimental setups, 3. Supervision of undergraduate students, 4. Helping in tutorials and preparation of UG teaching materials, 5. Field work as and when required, especially for the in-situ iron removal plant installation project, 6. Analysis of samples and generation of relevant data, 7. Preparation of manuscripts and project reports, 8. Assisting the PI and experts in various academic tasks, 9. Attending conferences and helping in knowledge dissemination, 10. Various administrative tasks including procurement of project materials and research fund management

In-situ remediation of groundwater contaminants (UMQUB6A-2011)

Jul 2012- Jun 2014

This project was funded by University of Malaya as its collaborative project with Queen's University Belfast (UK) and Air Kelantan Sdn Bhd. I was the part of the research team and helped in installing a large scale in-situ groundwater treatment plant in Kelantan, Malaysia. I helped in designing, trouble shooting of the plant, preparation of progress reports and final project report.

Heavy metal removal from groundwater by low-cost technology (THEQS2010A) University of Malaya collaborated with Queen's University Belfast (UK) and Air Kelantan Sdn Bhd to install a water treatment plant for iron removal at Kota Bharu, Malaysia. I was the part of the research team and helped in plant installation process and water sampling exercises.

Jul 2010- Jul 2012

Principal Investigator

Aug 2011- Aug 2014

Remediation of Contaminated Soil & Groundwater (PV102-2011A)

This laboratory based project was funded by Institute of Research Management and Monitoring (IPPP), University of Malaya. I designed and conducted series of experiments in laboratory to find out an environment friendly soil washing agent. I used the experimental set up that I designed during the last project earlier that year for factorial and optimization experiments using Design Expert (Stat-Ease) software. I published 4 research papers and attended a number of conferences during the course of this project.

In-Situ Remediation of Contaminated Soil & Groundwater (PS100-2010B)

Aug 2010- Jul 2011

Funded by IPPP, University of Malaya, I performed literature review on existing soil and water treatment techniques and was able to publish two review papers in high ranking scientific journals. I was also able to design and fabricate my experimental setup which I will be using in future to conduct soil washing experiments.

CONSULTING PROFESSIONAL AND ENVIRONMENTAL SERVICES, KOLKATA (Govt Regd no: L72932)

Jul 2009-Jun 2010

Partner and In-Charge, Operations & Systems Division

I was one of the partners to initiate the company CPES registered with Govt of India for delivering professional certificate courses on environmental topics and third party HSE audit. I was responsible for putting together audit teams and resource persons for certificate courses, arrangement of logistics and day to day operations of the consultation activities. Additionally, I was involved in advertising, research and preparation of study materials for offered courses. The company managed to break even during the first year of the operation.

RAMAKRISHNA VIVEKANANDA MISSION -INSTITUTE OF ADVANCED STUDIES

Oct 2008-Jun 2009

Team Leader, World Bank Project "Subterranean Arsenic Removal: Experiment to Delivery" (DM 06-880)

Worked as the Team Leader of an international project funded by the World Bank at Ramakrishna Vivekananda Mission, India. The project team consisted of researchers from four European Universities viz. Queen's

University-Belfast, UK; ISWA-Stuttgart University-Germany; Leiden University-The Netherlands and Universidad Miguel Hernandez-Spain.

Team Leading: I had to lead a team of 20 office and field staff and report to the Secretary of the RKVM; **International Liaison:** I had to liaison with World Bank authority and EU partners for financial and research collaborations; **Research:** As an Assistant Scientist, I had to prepare scientific reports and analyze the obtained data; **Project management:** I had to ensure that the construction work follows deadlines agreed upon and the project ends in time.

This project has won a number of prestigious awards such as St Andrew's Prize- Scotland, Energy Globe (Water) Award- Austria, DELPHE Grants- India and Cambodia, UK Energy and Environment Award, IChemE(UK) DhirubhaiAmbani Award and many more. Please check the website www.insituarsenic.org for more information.

AWARDS AND RECOGNITIONS

PERSONAL RECOGNITIONS

- 2007: Held 1st position in the "24th Regional Rural Eco-development Training Camp" organized by "School of Fundamental Research" Regional Resource Agency (NEAC, MoEF) at Bankura for 9 days.
- 2011: ScienceDirect Top 25 : 4th Most Downloaded Article for Journal of Environmental Management January to December 2011 full year, Elsevier (Remediation technologies for heavy metal contaminated groundwater)
- 2012: ScienceDirect Top 25 : 2nd Most Downloaded Article for Journal of Environmental Management January to December 2012 full year, Elsevier (Remediation technologies for heavy metal contaminated groundwater)
- 2013: Awarded 1st place in University of Malaya Three-Minute Thesis Competition at Faculty of Engineering
- 2013: Invited presentation at University of Malaya Researchers' Conference 2013 (Special Session 3: Future Research Leaders), 19-20 November 2013, University of Malaya, Kuala Lumpur, Malaysia.

TEAM AWARDS (RECEIVED AS A MEMBER OF THE IN-SITU ARSENIC TREATMENT PROJECT TEAM)

- 2009: Dhirubhai Ambani Award (Global Innovation Award for Resource-poor people) - IChemE, UK
- 2009: THE Outstanding Engineering Research Team Award
- 2010: DeIPHE British Council Grant (Arsenic Awareness Campaign) Cambodia
- 2010: St Andrew's Prize for the Environment (St Andrew's University Scotland & Conoco Philips)
- 2011: Innovation Award for Remediation Technology - UK Environment & Energy Award
- 2012: Energy Globe Award (India) - Energy Globe Foundation, Austria
- 2012: Energy Globe World Award for Water - The Energy Globe Foundation
- 2012: National Green Apple Award - Green Organization, UK
- 2015: Newton-Omar Ungku fund- British Council Institutional Link Programme
- 2016: Newton Fund - India-UK Collaborative Industrial Research & Development Programme 2015

COMPUTER SKILLS:

MS Office ****	Corel Draw Graphics Suit ****	End Note ****	Origin Pro ***	WinLab 32 (ICP-OES) ***
ArcGIS ***	Design Expert ***	SmartDraw ***	GanttProject ***	AutoCad 2D & 3D **
Web designing **	ChemSketch **	Google SketchUp **	EPANET *	EPA SWMM*
Visual MODFLOW*	ImageJ (SEM image) *	STATA****		

**** Extensive knowledge; *** Good working knowledge; ** Good understanding; * Rudimentary knowledge

EXPERIMENTATION AND INSTRUMENTATION SKILLS:

Conducting field work including groundwater/soil sampling, water level monitoring, investigative drilling, monitoring well installation, soil and groundwater remediation (excavation, in-situ, etc.), air monitoring, stream and river rehabilitation, site restoration, and construction inspection for both emergency spill response and long-term environmental investigation and remediation projects

• ICP-OES • Zetasizer • Hach Hydrolab (Water Quality Sonde) • FT-IR Spectrophotometer • X-Ray Diffraction (XRD) • Scanning Electron Microscope (SEM) image processing • Surface Tensiometer • Viscometer • High P High Temp reactors • BOD/COD/DO measurement • Sonicator • High Volume Sampler • UV-Vis Spectrophotometer • pH/conductivity meter and other common lab instruments

RESEARCH TRIP TO OTHER COUNTRIES (OUTSIDE MALAYSIA)

- **2012, Nov:** School of Planning, Architecture and Civil Engineering, Queen's University Belfast, Northern Ireland, under supervision of Dr Bhaskar Sen Gupta

- **2013, Oct:** AOTULE Grad Student Program at Chulalongkorn University Thailand, as Student Ambassador of University of Malaya to promote inter-university cooperation through joint programs including an annual Dean's meeting, student workshop and exchange of students and staff. (AOTULE is a league of eleven premiere engineering universities in the Asia-Oceania region: <http://www.aotule.eng.titech.ac.jp/>)
- **2014, May:** School of Planning, Architecture and Civil Engineering (SPACE), Queen's University Belfast, Northern Ireland, under supervision of Prof Bhaskar Sen Gupta
- **2015, August:** Water Academy, Heriot-Watt University Edinburgh UK in relation to British Council Newton Ungku Omar project on Flood and Drought management issues.
- **2016, January:** Water Academy, Heriot-Watt University Edinburgh UK in relation to British Council Newton Ungku Omar project on Flood and Drought management issues.
- **2016, March:** Bright Green Energy Foundation, Dhaka Bangladesh in relation to installation of in-situ arsenic treatment plant at Comilla, Bangladesh.

RESEARCH PROJECT CO-SUPERVISION

1. In-situ removal of arsenic from soil by saponin and its effect on plant uptake, 2016 (Undergraduate final year research project, Department of Chemical Engineering, co-supervised with Prof Mohd Ali Hashim and Dr Sumona Mukherjee)
2. Removal of clay from wastewater using biopolymers, 2016 (Undergraduate final year research project, Department of Chemical Engineering, co-supervised with Prof Mohd Ali Hashim and Dr Sumona Mukherjee)
3. Treatment of contaminated soil using Deep Eutectic Solvents, 2015 (B.Eng.Sc project of University of Malaya; co-supervised with Prof Mohd Ali Hashim). Published in Chemical Engineering Journal
4. Treatment of arsenic contaminated soil by using saponin and effect of phosphate on the process (M.Eng project of Queen's University Belfast (QUB); co-supervised with Dr Bhaskar Sen Gupta of QUB)
5. Treatment of cadmium contaminated soil using biosurfactant (a final year B.Eng project of University of Malaya; co-supervised with Dr Jaya Narayan Sahu, Dept of Chemical Engineering, UM)
6. Treatment of zinc contaminated soil using natural surfactant (a final year B.Eng project of University of Malaya; co-supervised with Dr Jaya Narayan Sahu, Dept of Chemical Engineering, UM)
7. Iron contaminated water treatment using birm and sand media in a continuous flow column (a final year B.Eng project of University of Malaya; co-supervised with Dr Ismail Yusoff, Dept of Geology, University of Malaya)
8. Treatment of Iron contaminated groundwater using soil and sand media (a final year B.Eng project of University of Malaya; co-supervised with Dr Ismail Yusoff, Dept of Geology, University of Malaya)

TRAINING COURSES AND CERTIFICATIONS

- Course on "Introduction to Practical GIS", 1st-2nd of June 2017 at the GIS Centre, Ryan Institute, NUI Galway, Ireland
- NEBOSH IGC Certification (UK), February 2015
- Short courses on "Integrated water resources management and planning system"; University of Malaya, 6th April and 3rd August 2016
- Training workshop on "Effective Strategies for Increasing Citation Frequency" organized between 28th October - 18th December 2014 by Department of Chemical Engineering, University of Malaya in co-operation with Institute of Research Management & Monitoring, University of Malaya, 2014.
- "Workshop on X-ray Diffraction (XRD) and Scanning Electron Microscope (SEM): Theory, Applications and Laboratory Practical" conducted by Centre for Ionics, Department of Physics, Faculty of Science, University of Malaya (3 days), 2012.
- "Product Information Course on ICP-OES and hands-on training" conducted by Perkin-Elmer, Malaysia at Dept of Geology, University of Malaya, KL, Malaysia (3 days), 2012.
- "Taguchi Method for Process & Product optimization" organized by IEEE, EDS, Malaysia. 21st-23rd June, 2011
- Certificate course on "Risk assessment in Chemical Process Industries" conducted by Jadavpur University, Kolkata, India (3 weeks), 26th Oct to 14th Nov, 2009.
- Certificate course on "Management Development Programme" conducted by Micro, Small & Medium Enterprises Devp Inst (MSMED), Govt of India (1 week), 9/2009.
- "Industry-Academia Partnership on Health & Safety at Workplace" at Bengal Engg & Science University, Shibpur organized by School of Safety & Occupational Health Engg & TEQIP-BESU, 26-27th Feb, 2009.
- "International Seminar on In-situ Arsenic Treatment Technology" at RKVM-IAS, Kolkata organized by Ramakrishna Vivekananda Mission - Institute of Advanced Studies, 9th Sept, 2009.
- "24th Regional Rural Eco-development Training Camp" at Bankura, West Bengal organized by "School of Fundamental Research" Regional Resource Agency (NEAC, Ministry of Env & Forests, Govt of India), 20-28th Jan, 2007.
- "National Workshop on Solid Waste Management" at University of Kalyani organized by Dept of Envs-KU, KUESAA, ENVIS Centre-KU and Office of DSW, 2007.
- National Workshop on Biodiversity and Conservation, organized by Centre for Environmental Studies, Visva-Bharati, India in collaboration with WB Renewable Energy Development Agency and Bengal Biodiversity Board, 2006 .

OTHER ACTIVITIES

- Organized 2 short courses and 6 research meetings under the program "British Council Institutional Link Fund : Newton-Omar Ungku project - Integrated water resources management and planning system in Malaysia; Project id: 172690856" (2015-2016)

- Represented Faculty of Engineering, University of Malaya at Student's Conference for AOTULE 2013 at Chulalongkorn University, Bangkok, Thailand.
- Reviewer of a number of peer-reviewed journal: Journal of Environmental Management, Frontiers of Environmental Science and Engineering, Advances in Water Resources, Ecotoxicology and Environmental Safety, Research on Chemical Intermediates
- Reviewed a book titled "Environmental & Climate Change in South and SE Asia" by BRILL publications (ISSN: 2213-0519)
- Held the post of "Student Representative" at the Dean's Meeting for Asia-Oceania Top University League in Engineering (AOTULE) in 2012.
- Founder member of the Faculty of Engineering Post Graduate's Club, UM (FPCUM)
- "Publication & Communications-in-charge" of UM Chemical Engineering Post Graduate's Club (CEPGC)
- "Website Moderator" & "Publications-in-charge" in the Governing Body of Kalyani University Environmental Science Alumni Association (KUESAA)
- Executive Producer of a 45 min documentary film on "In-situ Arsenic Treatment Technology"
- Designer & Moderator of several websites (e.g. kuesaa.org, insituarsenic.org, soumyadeep.net)

JOURNAL PAPERS

15 ISI cited articles, 24 conference papers and 7 project reports. Google h-index = 7,
Please visit <https://scholar.google.com/citations?user=RDUAVPIAAAAJ&hl=en> ; ORCID <http://orcid.org/0000-0002-1838-2815>

1. B. Sen Gupta, S. Chatterjee, U. Rott, H. Kauffman, A. Bandopadhyay, W. DeGroot, N.K. Nag, A.A. Carbonell-Barrachina, **S. Mukherjee** (2009), A simple chemical free arsenic removal method for community water supply - A case study from West Bengal, India, *Environmental Pollution* 157, 3351-3353 (ISI, Q1) [\[Link\]](#)[\[Download link\]](#)
2. B. Sen Gupta, S. Chatterjee, P. Otarawanna, **S. Mukhopadhyay** (2010), Getting bacteria to remove arsenic from groundwater; Special Feature, *Asia Water*. [\[Download link\]](#)
3. Hashim, M. A., **Mukhopadhyay, S.**, Sahu, J. N., & Sen Gupta, B. (2011). Remediation technologies for heavy metal contaminated groundwater. *Journal of Environmental Management*, 92(10), 2355-2388. (ISI, Q1) [\[Link\]](#)[\[Download link\]](#)
4. Hashim, M. A., **Mukhopadhyay, S.**, Sen Gupta B., & Sahu, J. N. (2012). Application of colloidal gas aphrons for pollution remediation. *Journal of Chemical Technology and Biotechnology*, 87(3), 305-324. (ISI, Q1) [\[Link\]](#)[\[Download link\]](#)
5. **Mukhopadhyay, S.**, Hashim, M. A., Sahu, J. N., & Sen Gupta, B. (2013). Comparison of a plant based natural surfactant with SDS for washing of As(V) from Fe rich soil. *Journal of Environmental Science-China*, 25(11), 1-11. (ISI, Q2) [\[Link\]](#)[\[Download link\]](#)
6. Nosrati, S., Jayakumar, N. S., Hashim, M. A., & **Mukhopadhyay, S.** (2013). Performance evaluation of vanadium (iv) transport through supported ionic liquid membrane. *Journal of the Taiwan Institute of Chemical Engineers*, 44(3), 337-342 (ISI, Q2) [\[Link\]](#)[\[Download link\]](#)
7. **Mukhopadhyay, S.**, Hashim, M. A., Allen. M., & Sen Gupta, B. (2013). Arsenic removal from soil with high iron content using a natural surfactant and phosphate. *International Journal of Environmental Science and Technology* 12, 617-632.. (ISI, Q1) [\[Link\]](#)[\[Download link\]](#)
8. S. Mukherjee, **S. Mukhopadhyay**, A. Pariatamby, M.A. Hashim, B. Sen Gupta. (2014). A comparative study of biopolymers and alum in the separation and recovery of pulp fibres from paper mill effluent by flocculation. *Journal of Environmental Sciences*, 26(9): 1851-1860 (ISI, Q2). [\[Link\]](#)[\[Download link\]](#)
9. Mukherjee, S., **Mukhopadhyay, S.**, Hashim, M. A., Sahu J.N. & Sen Gupta, B. (2015). Contemporary environmental issues associated with landfill leachate: Plume monitoring, impact assessment & remedial measures. *Critical Reviews in Environmental Science and Technology*, 45, 472-590 (ISI Q1) [\[Link\]](#)[\[Download link\]](#)
10. **Mukhopadhyay, S.**, Mukherjee, S., Hashim, M. A., & Sen Gupta, B. (2015). Application of colloidal gas aphron suspensions produced from *Sapindus mukorossi* for arsenic removal from contaminated soil, *Chemosphere* 119, 355–362. (ISI Q1) [\[Link\]](#)[\[Download link\]](#)
11. S. Mukherjee, **S. Mukhopadhyay**, A. Pariatamby, G. Redzwan, M.A. Hashim, B. Sen Gupta. (2015). Optimization of pulp fibre removal by flotation using colloidal gas aphrons generated from a natural surfactant, *Journal of the Taiwan Institute of Chemical Engineers* 53: 15-21 (ISI Q1) [\[Link\]](#)
12. **Mukhopadhyay, S.**, Mukherjee, S., N.F. Adnan, A. Hayyan, M. Hayyan, Hashim, M. A., & Sen Gupta, B. (2016). Ammonium-based deep eutectic solvents as novel soil washing agent for lead removal, *Chemical Engineering Journal* 294: 316-322
13. **Mukhopadhyay, S.**, Mukherjee S., Hashim, M. A., Yusoff, I., & Sen Gupta, B. (2016). Effect of phosphate on arsenic removal from contaminated soil using colloidal gas aphron suspensions produced from *Sapindus mukorossi*, *Bulletin of Environmental Contamination & Toxicology* (BECT); doi: 10.1007/s00128-016-1878-4 [\[Link\]](#)
14. **Mukhopadhyay, S.**, Mukherjee, S., A. Hayyan, M. Hayyan, Hashim, M. A., & Sen Gupta, B. (2016). Enhanced removal of lead from contaminated soil by polyol-based deep eutectic solvents and saponin. *Journal of Contaminant Hydrology*; 194: 17-23 (ISI Q1 Accepted) <http://www.sciencedirect.com/science/article/pii/S0169772216302030>
15. Mukherjee, S., Mukhopadhyay, S., Zafri, M. Z. B., Zhan, X., Hashim, M. A., & Gupta, B. S. (2018). Application of guar gum for the removal of dissolved lead from wastewater. *Industrial Crops and Products*, 111, 261-269. [\[Link\]](#)
16. Mohd Ali Hashim, Anirban Kundu; Sumona Mukherjee; Yee Sern Ng; **Soumyadeep Mukhopadhyay**; Ghufuran Redzwan; Bhaskar Sen Gupta, (2016) Arsenic removal by adsorption on activated carbon in a rotating packed bed. Submitted in *Journal of Water Process Engineering* (ISI Q2)
17. Ismail, W. M. Z. W., Sern, N. Y., Mukherjee, S., Kundu, A., **Mukhopadhyay, S.**, Sen Gupta, B., et al. (2016). Removal of iron from contaminated groundwater using rotating packed bed reactor and process optimization by Taguchi method (Submitted in *Water Journal*—MDPI—ISI Q2).
18. Ismail, W. M. Z. W., Mukherjee, S., **Mukhopadhyay, S.**, Sern, N. Y., Gupta, B. S., Hashim, M. A., et al. (2016). Removal of iron from water obtained from river bank filtration using biopolymers. (Under Preparation).

19. **Mukhopadhyay, S.**, Mukherjee, S., Harun, N. H., Sern, N. Y., Kundu, A., Sen Gupta, B., et al. (2016). Effect of soil washing by saponin on plant uptake of arsenic from arsenic contaminated soil. (Under Preparation).
20. **Mukhopadhyay, S.**, Mukherjee, S., Sahu, J. N., Hashim, M. A., & Sen Gupta, B. (2016). Removal of cadmium from contaminated soil by sapindus mukorossi and edta. (Under preparation).
21. **Mukhopadhyay, S.**, Mukherjee, S., Sahu, J. N., Hashim, M. A., & Sen Gupta, B. (2016). Zinc removal from soil containing high iron by washing with sapindus mukorossi, a natural surfactant. (Under preparation).
22. Sen Gupta, B., Bandopadhyay, A., & **Mukhopadhyay, S.** (2016). Sustainable in-situ treatment of arsenic contaminated groundwater - long term performance of a chemical free technology in rural community. (Under preparation).
23. Zamri, W. M., Sen Gupta, B., **Mukhopadhyay, S.**, Yusoff, I., & Hashim, M. A. (2016). In-situ iron removal from aquifer by recharging oxidized groundwater. (Under preparation).

REPORTS & ASSIGNMENTS

1. "An econometric analysis on low infant birth weight and smoking by mother during pregnancy: An Irish perspective"- assignment submitted for EC506 Econometrics Course at National University of Ireland, Galway
2. "Bullying and bullied in Ireland: Effect of family structure" – assignment jointly submitted for EC515 Data Management Course at National University of Ireland, Galway
3. "Achievement of sustainable development through international cooperation" – assignment submitted for EC5103 Natural Resource Governance Course at National University of Ireland, Galway
4. "Hazard Identification and QRA Techniques associated with the Ammonia Storage & Transport at Tata Chemicals Ltd, Haldia" certified by School of Safety & Occupational Health Engg, BESU, Shibpur & Tata Chemicals Ltd, Haldia, 2010.
5. "A comprehensive report on the Subterranean Arsenic Removal: Experiment to Delivery", published by RKVM-Barrackpore, 2009.
6. "Proceedings on the International Seminar on SAR Technology", published by RKVM- Barrackpore, 2009.
7. "Information Booklet on SAR Technology", published by RKVM, QUB, NML, 2009.
8. "Hazard Identification Technique: Concept & Methodology of HAZOP", certified by School of Safety & Occupational Health Engg, BESU, Shibpur, and Berger Paints, 2008.
9. "Wastewater Treatment- Designing Issues for Enhancing Process Reliability & Performance", certified by School of Safety & Occupational Health Engg, BESU, Shibpur, and DrBhaskar Sen Gupta, Sr Lecturer, Queen's University-Belfast, Northern Ireland, UK, 2008.
10. "Endosulfan induced toxicity by COX 2 & TGF-beta regulation", certified by Dept of Environmental Science, KU, 2007.

CONFERENCE AND PRESENTATIONS

1. Mohd Ali Hashim, Anirban Kundu; Sumona Mukherjee; Yee Sern Ng; **Soumyadeep Mukhopadhyay**; Ghufan Redzwan; Bhaskar Sen Gupta, (2016) "Arsenic removal by adsorption on activated carbon in a rotating packed bed" in 1st International Conference on Sustainable Water Processing, 11-14 September 2016 | Meliá Sitges, Spain
2. B. Sen Gupta, Mukherjee S., **S. Mukhopadhyay**, M.A. Hashim, Ng Y.S. 2016. "Remediation of river water and industrial effluent by plant based biopolymers" at Short Course 2 on Integrated water resources management and planning system in Malaysia, 3rd August 2016, Engineering Faculty, University of Malaya
3. B. Sen Gupta, Wan Mohd Zamri, **S. Mukhopadhyay**, I. Yusoff , M.A. Hashim; 2016. "Sustainable in-situ treatment process for groundwater iron removal suitable for urban water management" at Short Course 2 on Integrated water resources management and planning system in Malaysia, 3rd August 2016, Engineering Faculty, University of Malaya
4. Wan Mohd Zamri, B. Sen Gupta, **S. Mukhopadhyay**, I. Yusoff , M.A. Hashim; 2016. In-situ iron removal from aquifer by recharging oxidized groundwater, Asiawater Roundtable 2016, Kuala Lumpur
5. M.A. Hashim, **S. Mukhopadhyay**, Mukherjee S., Ng Y.S., Kundu A.K., B. Sen Gupta. 2016. Wastewater treatment technologies at Short Course on Integrated water resources management and planning system in Malaysia, 6th April 2016, Engineering Faculty, University of Malaya
6. **S. Mukhopadhyay**, M.A. Hashim, Mukherjee S., Ng Y.S., Kundu A.K., B. Sen Gupta. 2016. Integrated river basin management, 10th-14th January 2016, Heriot-Watt University, Edinburgh UK
7. M.A. Hashim and **S. Mukhopadhyay**. 2015. Writing a successful International Fund Application, 27th Nov 2015, Faculty of Engg, UM
8. Rapporteur for Industrial Technology Research Institute of Taiwan seminar "Break Up Session: Innovation and Commercialization" on 17th September, 2015 at IPPP auditorium. Taiwan Delegate was Dr. Frank Chang and moderator was Prof Mohd Ali Hashim.
9. **S. Mukhopadhyay**, Mukherjee S., Ng Y.S., Kundu A.K., M.A. Hashim, B. Sen Gupta. 2015. Integrated water management in Langat River Malaysia, 18th Aug 2015, Awana Hotel Genting
10. **S. Mukhopadhyay**, Mukherjee S., Ng Y.S., Kundu A.K., M.A. Hashim, B. Sen Gupta. 2015. Water Quality Monitoring along Langat River Malaysia, 12th Aug 2015, Heriot-Watt University, Edinburgh UK
11. B. Sen Gupta, A. Bandopadhyay, N. K. Nag, **S. Mukhopadhyay**. 2015. Effect of Climate Change on the Escalation of Arsenic Crisis in Bengal Delta, 4th International Convention of Environmental Laureates, 12-15 March 2015, Freiburg, Germany
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DECLARATION

I, the undersigned, certify to the best of my knowledge and belief that the data so provided correctly describes me, my qualification and the expertise that I possess.

Dated: January 2018

Soumyadeep Mukhopadhyay