

DR. DEEP CHAKRABORTY

M.Sc., Ph.D., Postdoc, PGDELP

Present affiliation:

Assistant Professor

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Profile at a glance:

- Highly motivated scientific researcher with demonstrated academic and research expertise in the field of ***Environmental Science, Environmental Health, Women and Children Health, Indoor Air Pollution, Environmental Pollution monitoring, Exposure Assessment, Health Risk Assessment, Pollution Mitigation, Environmental Law, and Socio-economic*** research among the diverse communities in India with ***4 times best research paper awarded*** in Environmental Science by Department of Higher Education, Science and Technology and Biotechnology (DHESTBT), Government of West Bengal, India.
- Having ***Ten years of full-time research and academic*** experience in the different aspects of Environmental Science, Analytical Environmental Chemistry, Qualitative Research Methods – like interviews, participant observations, participatory appraisal, oral histories, group discussions, process documentation and analysis to find out socio-economic and environmental change in rural and urban population in India.
- Served as ***Guest Lecturer*** of Environmental Engineering from 01-07-2017 to 30-06-2018 at the Department of Humanities/ General Sc./ Eng. Science of University Institute of Technology. While teaching the topics covered were Environmental Chemistry, Environmental Technology and Management, Environmental Impact Assessment, Water, soil and air chemistry, Water Resource Management.
- Having experience of taking classes of undergraduate and post-graduate students during doctoral and postdoctoral research.
- Having good capacity to build team and network among diverse ethnic communities and administrations.
- Having experience in large socio-demographic data handling, analysis through sophisticated software's like ***SPSS, MiniTab, STATA, Origin, Design experts*** etc.
- Having expertise to present and publish scientific outcomes (***Total publication = 29; Total SCI I.F. 55.50***) in national and international platform of repute.
- Having high motive to transit for new field of research in collaboration with national and international academia. Till date worked with ***five (5) inter-disciplinary*** projects and ***three (3)*** project proposal have been communicated to different funding agencies.
- Having scientific experience of conduction of environmental awareness campaign, rallies, seminars and community outreach programmes.

EDUCATIONAL QUALIFICATION

Education	Institution	Year	Result
ICMR-Post Doctorate Research Associate	Dept. of Environmental Health Engineering, Faculty of Public Health, Sri Ramachandra Institute of Higher Education and Research, Chennai-600116, India,		
(Non-Communicable Disease, Environmental Chemistry, Environmental Health)	WHO Collaborating Center for Research & Training in Occupational and Environmental Health, ICMR Center for Advanced Research on Air Quality, Climate and Health	2021-2023	
Postdoc Research	Dept. of Environmental Health Engineering, Faculty of Public Health, Sri Ramachandra Institute of Higher Education and Research, Chennai-600116, India,		
(Environmental Chemistry, Environmental Health)	WHO Collaborating Center for Research & Training in Occupational and Environmental Health, ICMR Center for Advanced Research on Air Quality, Climate and Health	2018 –2020	
Ph. D. in Environmental Science (<i>UGC2009 regulations</i>)	Department of Environmental Science, The University of Burdwan, India	2013- 2018	Awarded
Ph.D. (Course Work)	Department of Environmental Science, The University of Burdwan, India	2014- 2015	1 st Class
M.Sc. in Environmental Science	Department of Environmental Science, University of Kalyani, India	2011- 2013	1 st Class
B.Sc. Honours in Molecular Biology and Biotechnology	Kalyani Mahavidyalaya, India	2008- 2011	1 st Class
Post Graduate Diploma in Environmental Law and Policy	WWF and National Law University, India	2018- 2019	Awarded

DOCTORAL THESIS:

Indoor air pollution and associated health effects from unprocessed biomass fuels used in rural West Bengal

Supervisor: Professor Naba Kumar Mondal, Department of Environmental Science, The University of Burdwan, West Bengal, India

BROAD AREAS OF EXPERIENCE: *Environmental Science, Environmental Chemistry, Indoor Air pollution, Air quality modelling, Health risk assessment, Rural health and hygiene, Environmental Law, Sustainable Public Health.*

POST DOCTORATE:

Supervisor: Professor Krishnendu Mukhopadhyay, Dept. of Environmental Health Engineering, Faculty of Public Health, Sri Ramachandra Institute of Higher Education and Research, Chennai-600116, India.

BROAD AREAS OF EXPERIENCE: *Environmental Health Science, Non-Communicable Disease, Public Health, Indoor Air pollution, Health risk assessment, Women and Child Health, Sustainable Public Health*

PRODUCT DEVELOPMENT

Develop a prototype of improved biomass cookstove namely “**ND-ICS**” (**Naba-Deep Improved Cookstove**) for rural household use for daily cooking purposes and this stove can reduce the indoor air pollution exposure (Published in *Clean Technologies and Environmental Policy* Springer journal)

ACADEMIC EXPERIENCES

❖ **From September 2023- Assistant Professor**, Department of Environmental Science, Amity School of Life Science, Amity University Madhya Pradesh, Gwalior-474005

Responsibilities at a glance:

- Regular teaching, research and administrative responsibilities
- **Teaching courses**
 - Environmental Sciences
 - Environmental Studies
 - Disaster Regulations and Management
- **Research Undertaken**
 - Air pollution monitoring, assessment
 - Environmental Health, Public Health Epidemiology
 - Environmental Exposure Monitoring and Health Risk Assessment
- **Administrative Responsibility**
 - Maintain Departmental monthly research and academic data
 - Preparation of AQAR documentation and all other responsibilities.

RESEARCH EXPERIENCES

❖ **Principal Investigator (PI)** in the project of **Indian Council of Medical Research (ICMR, India, GoI)**
Project Title: “Assessment of health risk due to burning of biomass fuels in household environment and possible remediation technique through ventilation modification in rural West Bengal” from **01/02/2021 to 31/08/2023**.

Responsibilities at a glance:

- Building up awareness among rural tribal population about indoor air pollution and health effects
- Data Extraction and analysis of Socio-economic and demographic information from tribal rural areas of West Bengal, India;
- Exposure assessment (kitchen, living and cooking) of indoor CO, PM_{2.5}, and PAHs;
- Find out representative urinary biomarkers of PAHs, and associated women health risk;
- To find out sustainable way out to improve population health condition of rural tribal biomass using women; Building data repository, analysis and writing research articles.
- To improve and restructure the kitchen and household ventilation for reduction of pollution exposure.
- Add findings to Policy implication and further policy advocacy.

❖ **Post-Ph.D. Research Fellow** in the project of **Indian Council of Medical Research (ICMR, India, GoI)**
Project Title: “Estimating exposures to volatile organic compounds and polycyclic aromatic hydrocarbons associated with use of kerosene as a household fuel through integrated environmental and biomonitoring in rural and urban Tamil Nadu: a follow-up study on air toxics in the ICMR-CAR cohort” from **12/04/2018 to 12/04/2020**.

Responsibilities at a glance:

- Socio-economic and demographic survey in rural and urban areas of Tamil Nadu, South India;
- Kitchen, living, cooking and personal exposure monitoring in indoor air environment;
- Find out representative urinary biomarkers of **PAHs** (2-naphthol, 2-hydroxyfluorene, 3-hydroxyphenanthrene, 1-hydroxypyrene, 6-hydroxychrysene and 3-hydroxybenzo[a]pyrene) **VOCs** (t,t-Muconic Acid, S-phenylmercapturic acid (S-PMA), hippuric acid (HA), o-, m- and p-methyl hippuric acids (MHAs), phenyl glyoxylic acid (PGA) and mandelic acid (MA) and health risk estimation;
- Building data repository, analysis and writing research articles.

❖ **Project Fellow** in the project of **University Grants Commission (UGC, India, GoI)**

Project Title: Indoor air pollution and associated disease from unprocessed biofuels and possible remedial measures in rural villages of West Bengal, India” from **29/08/2013 to 31/03/2017**.

Responsibilities at a glance:

- *Socio-economic survey in rural areas of West Bengal, East India;*
- *Pollution monitoring from biomass burning in indoor environment;*
- *Biomass fuel smoke characterization and relationship with children health*
- *Find out health status of biomass using women through various health study like BP, BMI, Spirometry;*
- *Software modeling approach to find out green building structure for rural households to provide sustainable indoor environment;*
- *Designing an innovative smokeless cookstove for biomass using households for their health risk reduction and sustainable health;*
- *Building data repository, analysis and writing research articles.*

❖ **Post-Graduate thesis**

Project Title: Assessment of impact of water quality on fish growth in sewage-fed aquaculture system **2012-2013**

Responsibilities at a glance:

- *To survey the aquaculture status in and around the study area;*
- *To survey the economic and livelihood transition between local fisherman and fish markets;*
- *To survey and analysis water quality inside and outside the aquaculture system;*
- *To measure the fish growth status inside the sewage-fed aquaculture system.*
- *To provide better understanding of aquaculture system for better livelihood.*

❖ **Post-Graduate Diploma in Environmental Law and Policy project report:**

Household air pollution and its Implications on health in India: need enhancement of policy & progress

❖ **Other experiences**

❖ **Surveyed Sundarban National Park (During M.Sc.) to observe the socio-economic-ecological status of the Gangetic delta of West Bengal:**

Study objectives at glance:

- *To survey the livelihood status of the delta people, household and demographic characteristics;*
- *To survey the renewable energy use pattern of the delta region;*
- *To assess the perception of before and after any natural calamities;*
- *To survey the ecological/biological resources available in the coastal regions;*
- *To survey the geologic formation of costal delta;*
- *To survey the implementation of tourism facilities and it's effects on ecological diversity;*
- *To survey the traditional knowledge used by the delta people.*

RESEARCH PAPER PUBLICATIONS

||Accepted for publication|| (Total = 29) (Total SCI Impact Factor =55.50)

1. Natarajan S, Mukhopadhyay K, Thangaswamy D, Natarajan A, **Chakraborty D.** (2023). *Influence of indoor volatile organic compounds and its relative respiratory symptoms among children living in rural biomass cooking households of Tamil Nadu and Andhra Pradesh.* International Archives of Occupational and Environmental Health

<https://doi.org/10.1007/s00420-023-01998-1> (Springer Nature)

2. **Deep Chakraborty**, Krishnendu Mukhopadhyay. (2023). *Application of Photocatalysts to Improve Indoor Air Quality and Health: A Sustainable Environmental Approach*. 235-246. https://doi.org/10.1007/978-3-031-27707-8_9. (Springer Nature)
3. Pradip Mitra, **Deep Chakraborty**, Sukanta Nayek, Soumya Kundu, Debojyoti Mishra, Utpal Dan, Naba Kumar Mondal. (2022). *Biomass using tribal women exhibited respiratory symptoms, hypertensive risks and abnormal pulmonary function*. Chemosphere, 2022, 136995. (Elsevier)
4. Srinivasan Natarajan, Krishnendu Mukhopadhyay, Dhanasekaran Thangaswamy, Amudha Natarajan, **Deep Chakraborty**. *Characterisation of indoor volatile organic compounds and its association with respiratory symptoms among children living in solid fuel using households in Tamil Nadu, India*. Mapan, 37, 565–578. (Springer Nature)
5. **Chakraborty D**, Mukhopadhyay K, Mitra P, Mondal N K. (2022). *Optimization of Household Ventilation with Improved Cookstove: An Amicable Approach to Strengthen Indoor Air Quality and Public Health*. IOS Press. DOI: 10.3233/AISE220008. (Web of Science).
6. Mukhopadhyay K, **Chakraborty D**, Natarajan S, Sambandam S, Balakrishnan K. (2022). *Monitoring of Polycyclic Aromatic Hydrocarbons discharge from kerosene fuel burning of rural and urban households of South India and health risks assessment among the selected women*. Environmental Geochemistry and Health. DOI: 10.1007/s10653-022-01276-y. (Springer Nature).
7. Mitra P, **Chakraborty D**, Mondal NK. (2022). *Assessment of household air pollution exposure of tribal women*. Science of The Total Environment. 817, 15, 152869. doi.org/10.1016/j.scitotenv.2021.152869. (Elsevier)
8. Mondal R, **Chakraborty D**, Majumder D. *Phthalate Esters from packaged milk and associated human health risk: A Monte-Carlo Probabilistic simulation approach*. <https://doi.org/10.1007/s12647-022-00531-y>. (Springer Nature)
9. **Chakraborty D**, Mondal NK. (2018). *Hypertensive and toxicological health risk among women exposed to biomass smoke: A rural Indian scenario*. Ecotoxicology and Environmental Safety. 161 (15): 706–714. doi.org/10.1016/j.ecoenv.2018.06.024. (Elsevier).
10. **Chakraborty D**, Mondal NK. (2017). *Assessment of health risk of children from traditional biomass burning in rural households*. Exposure and Health, 10(1): 15-26. doi.org/10.1007/s12403-017-0242-1. (Springer Nature).
11. **Chakraborty D**, Mondal NK. (2021). *Reduction of Household Air Pollution and associated health risk: A pilot study with an Improved Cook Stove in rural households*. Clean Technologies and Environmental Policy, DOI: 10.1007/s10098-021-02098-9. (Springer Nature)
12. Ghosh SB, **Chakraborty D** and Mondal NK. (2016). *Effect of arsenic and manganese exposure on children intellectual function residing at arsenic stress area of Purbasthali, Burdwan, West Bengal*. Exposure and Health. 9(1): 1-11. doi: 10.1007/s12403-016-0216-8. (Springer Nature)
13. Mondal NK, **Chakraborty D**, Roy P, Roy TK, Das CR, Bhaumik R, Pal KC, Medda S, Datta JK. (2014). *Correlation between arsenic intoxication and cognitive ability of primary school children of West Bengal*. Asian Pacific Journal of Tropical Disease. 8.26 Vol.4, Suppl 2. doi.org/10.1016/S2222-1808(14)60743-X. (Elsevier).
14. **Chakraborty D**, Mondal NK. (2021). *Optimization of rural indoor kitchen structure and minimizing the pollution load: A sustainable environmental modelling approach* in book entitled Cognitive Data Models for Sustainable Environment. Academic Press. Elsevier, 181-200, ISBN: 978-0-12-824038-0. doi.org/10.1016/B978-0-12-824038-0.00011-0. (Elsevier).
15. **Chakraborty D**, Mondal NK, Datta JK. (2014). *Indoor pollution from solid biomass fuel and rural health damage: A micro-environmental study in rural area of Burdwan, West Bengal*. International Journal of Sustainable Built Environment. 3(2): 262-271. doi.org/10.1016/j.ijbsbe.2014.11.002. (Elsevier).
16. **Chakraborty D**, Mondal NK. (2021). *Estimation of Nitrogen Dioxide (NO₂) due to Burning of Household Biomass Fuel and Assessment of Health Risk among Women in Rural West Bengal*. Current World Environment, 16 (Special

Issue 1), 1-8. DOI: <http://dx.doi.org/10.12944/CWE.16.Special-Issue1.04>. (Web of Science).

17. Kaalieswari GS, **Chakraborty D**, Mukhopadhyay K. (2021). *Determination of Arsenic Uptake Potential in An Edible Plant Species (Trigonellinafoenum- granecum) and Assessment of Human Health Risk*. Curr World Environ, 16(2): 1-8. DOI: <http://dx.doi.org/10.12944/CWE.16.2.16>. (Web of Science).
18. **Chakraborty D**, Gnaana Sri KK, Mukhopadhyay K, Mitra P, Mondal NK. (2022). *Exposure to Polycyclic Aromatic Hydrocarbon (PAHs) due to burning of biomass fuels and associated human health effects: A brief review*. Environmental Management. 1: 101-113. ISBN: 978-93-9155073-8.
19. **Chakraborty D**, Mukhopadhyay K. (2021). *Monitoring of carbon monoxide from burning of household biomass cooking fuel and associated health risk among rural adult and children in book entitled Environmental Paradigm: Recent Researches & Reviews*. Unique Publication, 1: (1-9), ISBN: 9789391615024.
20. **Chakraborty D**, Mondal NK. (2021). *Estimation of Carbon Monoxide (CO) Due to Burning of Household Biomass Fuel and Assessment of Health Risk Among Women in Rural West Bengal in edited book volume entitled Environmental Issues :A Multidisciplinary Approach*. Chapter 24; Page 218-225, ISBN: 978-81-951369-6-4
21. Mondal NK, **Chakraborty D**. (2015). *Vulnerability of rural health exposed by indoor pollution generated from biomass and fossil fuels*. Moroccan Journal of Chemistry. 3 (1): 83-98. doi.org/10.48317/IMIST.PRSM/morjchem-v3i1.2292. (Scopus).
22. Das C, Dey U, **Chakraborty D**, Datta JK, Mondal NK. (2015). *Fluoride toxicity effects in potato plant (SolanumtuberosumL.) Grown in contaminated soils*. Octa Journal of Environmental Research. 3(2): 136-143.
23. Nilu K, Biswas S, Dey U, **Chakraborty D**, Datta JK, Mondal NK (2015). *Bacterial strain isolated from different sources of Burdwan town and their potentiality towards decolouration of azo and non-azo dyes*. Moroccan Journal of Chemistry. 3 (4): 675-687. doi.org/10.48317/IMIST.PRSM/morjchem-v3i4.3030. (Scopus).
24. Medda S, Dey U, **Chakraborty D**, Mondal NK. (2015). *Efficacy of Adhatodazeylanica Medik leaf as mosquito repellent*. Indian Journal of Natural products and Resources. 6(1):33-37. (Scopus).
25. Mondal NK, Hajra A, **Chakraborty D**, Medda S, Dey U, Datta JK. (2015). *Cigarette Butt Waste and Its Effective Utilization towards Larvicidal Activity of Mosquito*. International Journal of Scientific Research in Environmental Sciences. 3(1): 9-15. dx.doi.org/10.12983/ijres-2015-p0009-0015.
26. **Chakraborty D** and Mondal NK. (2014). *Status of biomass use and their pollution in indoor environment in West Bengal with special reference to abroad*. ISBN: 9788192108384, PP.40-49.
27. Mondal NK, Adhikari S, Dey U, **Chakraborty D**, Medda S, Hazra A, Roy T, Datta JK. (2014). *Prevalence of fluorosis among the inhabitant of Santoshpur and Joypur villages of Birbhum district, West Bengal*. Moroccan Journal of Chemistry. 2(4): 321-326. doi.org/10.48317/IMIST.PRSM/morjchem-v2i4.2254. (Scopus).
28. Mondal NK, **Chakraborty D**, Medda S, Dey U, Mukhopadhyay B, Datta JK. (2014). *Mosquito Coil Smoke and its Health Implication*. Indian Science Cruiser. 28(3): 40-43.
29. **Chakraborty D**, Dey U, Medda S, Datta JK, Roy TK and Mondal NK. (2014). *Effects of ultraviolet radiation on pigmentation and malondialdehyde content of three aquatic macrophytes*. Communications in Plant Sciences. 4(1-2): 35-41.

EDITED BOOK PUBLICATION

Book entitled “*Environmental paradigm: Recent researches & reviews*” has been Published under ISBN publication (ISBN: 978-93-91615-02-4). Editors: **Dr. Deep Chakraborty**, Dr. Arpita Chatterjee

TEACHING EXPERIENCE

- ❖ As a Guest faculty of **Environmental Engineering** from **23-08-2017** to **30-08-2018** at the Department of Humanities/ General Sc./Eng. Science of University Institute of Technology (UIT).

Topic Covered: Environmental Chemistry, Environmental Technology and Management, Environmental Impact Assessment

- ❖ Experience having **paper setter, examiner, paper scrutinizer** of subject Environmental Science.

INVITED LECTURES as RESOURCE PERSON

- ❖ Invited Resource person lecture on “**Environmental Law and Policy**” on 20th November, 2022 at Vidyasagar University for the certificate course on Environmental Impact Assessment.
- ❖ Invited Resource person lecture on “**Clean Air, Water, Food for better Sustainable Health**” on 7th April, 2022 in Kulti College on WHO’s World Health Day.
- ❖ Invited Resource person lecture on “**Indoor Air Pollution-A silent threat to human health**” on 15th January, 2022 in Kanad Institute of Science.
- ❖ Invited Resource person lecture on “**Indoor Air Pollution-A silent Killer**” on 24th September, 2021 in Kulti College
- ❖ Invited Lecture on “**Indoor Air Pollution**” on 27th August, 2021 in Dept. of Environmental Studies, Plassey College.
- ❖ Invited Lecture on “**Introduction to Natural Environment**” on 24th December, 2020 in Rabindrik Psychotherapy Research Institute Trust, Registered Under Indian Trust Act, 1882, REGD.NO.150600103 in “Three Months Internship Course on Environmental Science”
- ❖ Invited Lecture on “**Environmental Science and its relationship with GIS**” on 27th, December, 2020 in Integrated Institute for Advanced Research and Information (IIARI) in Three Days National level online Workshop cum Hands-on Training in ENVIRONMENTAL SCIENCE: A Relationship with Remote Sensing & GIS Technology.
- ❖ Invited Lecture on “**Biodiversity-A relation to Environmental Science**” on 2nd January, 2021 in Rabindrik Psychotherapy Research Institute Trust, Registered Under Indian Trust Act, 1882, REGD.NO.150600103 in “Three Months Internship Course on Environmental Science”

PROFESSIONAL RECOGNITION/ AWARD/ PRIZE/ CERTIFICATE/FELLOWSHIP

Name of Award	Awarding Agency	Year
Awarded Postdoctoral Research Associate	Indian Council of Medical Research (ICMR), Govt. of India	November 2020
Outstanding paper award in 1st Regional Science & Technology Congress- 2016 in Environmental Science	West Bengal State Council of Science & Technology, Department of Science & Technology, Government of West Bengal, India	November 2016
Certificate of Commendation in 24th Science & Technology Congress-2017 in Environmental Science	West Bengal State Council of Science & Technology, Department of Science & Technology, Government of West Bengal, India	March 2017

3rd prize award in 2 nd Regional Science & Technology Congress-2017 in Environmental Science	West Bengal State Council of Science & Technology, Department of Science & Technology, Government of West Bengal, India	November 2017
Facilitated by outstanding paper award in 25 th West Bengal state science and technology congress, 2018 in Environmental Science	West Bengal State Council of Science & Technology, Department of Science & Technology, Government of West Bengal, India	March 2018
Swami Vivekananda merit come means scholarship	Government of West Bengal, India	July, 2011
Young Environmentalist Award	Deccan Environmental Research Organization (DRO), Karnataka	September, 2020

TRAINING COURSES

1. One month certificate course on “**Internship on Attitude Scale Construction on Environmental Science**” from Rabinrik Psychotherapy Research Institute Trust. From 5th Sept to 28th Oct, 2020.
2. Attended training programme on “**Sustainable Development and Management of Ground Water Resources**” at ETC., Burdwan from 23-02-2015 to 27-02-2015 organized by Ministry of Water Resources, River Development and Ganga Rejuvenation and Central Water Board, Eastern Region, GOI.
3. Attended Hands-on-training programme on **Quality standardization in air & water including detection of histotechnological** parameters sponsored by DST, GoWB, organized by Department of Environmental Science, The University of Burdwan on 12 to 20 September, 2016.
4. Attended training programme on “**Advanced training programme on Pollution Monitoring Techniques and Instrumentation**” at Centre for Science and Environment, New Delhi from 16 to 20th March, 2015 organized by Pollution Monitoring Laboratory, CSE, New Delhi.

WORKSHOPS

1. Attended **Author Workshop** conducted by **Elsevier** in association with **Department of Science & Technology, Government of West Bengal** on 2nd and 3rd December, 2016.
2. Attended workshop on **Fundamentals of Biomedical Research Methods** organized by **Regional Occupational Health Centre (Eastern), Kolkata (ICMR)** from October 7 to 9, 2015.
3. Attended one day Colloquium in **Modern trends in Biotechnology** on 18th February, 2015 organized by Department of Biotechnology, DBT recognized. The University of Burdwan.
4. Attended National level workshop on **Biostatistics and Biomedical Research** from 24th - to 28th March 2014. Organized by **Biomedical Informatics Centre, National Institute of Nutrition (Indian Council of Medical Research)**, Tarnaka, Hyderabad, India.
5. Attended workshop on **Food Security, GM Crops, GMO and Biosafety** organized by ENVIS Centre on Environmental Biotechnology, Department of Environmental Science, University of Kalyani on 19th March, 2013

SEMINAR AND CONFERENCE

1. Effects of indoor air pollution on tribal women's health. Pradip Mitra, **Deep Chakraborty**, et al., 2022, in International Conference on Air Quality and Human Health.

2. **Presented paper** entitled “Household air pollution and associated health effects among rural women in West Bengal and possible remedial measures” authored by **Deep Chakraborty** and KrishnenduMukhopadhyay has been presented in “*Two Days International e-Conference on Environment and Climate Change*” Dated 31st July & 1st August, 2021
3. **Deep Chakraborty**, Naba Kumar Mondal. Assessment of Household Air Pollution and Health Effects From Solid Biomass Fuels and Pollution Control Strategy through an Improved Cook Stove (ND-ICS) Based Study in West Bengal, India in International Conference on Green Energy for Environmental Sustainability (ICGEES 2020) August 5th & 6th 2020.
4. **Deep Chakraborty**, Naba Kumar Mondal. Indoor Air Pollution and related health effects due to burning of biomass fuels and pollution control strategy through an Improved Cook Stove (ND-ICS) based study in West Bengal, India in Fourth INTERNATIONAL (WEBINAR) CONFERENCE on “Mother Earth: Nurture the Nature To have a Better Future” scheduled during 27 to 29 August 2020.
5. Srinivasan Natarajan, **Deep Chakraborty**, et al, Indoor monitoring and emission characterization of Volatile Organic Compounds from Kerosene cookstoves during summer and winter in rural and urban households of Tamil Nadu, India. National Conference on Recent Trends in Environmental Pollution & Disaster Risk Reduction, 6-7 February 2020.
6. **Deep Chakraborty**, Srinivasan Natarajan, et al Indoor air pollution due to burning of kerosene fuel and related health risk assessment in rural and urban Tamil Nadu, India. National Conference on Recent Trends in Environmental Pollution & Disaster Risk Reduction, 6-7 February 2020.
7. **Presented paper** entitled “Chronic exposure to biomass fuel smoke is associated with increased high blood pressure, respiratory tract obstructions and symptoms of hypoglycemia and anemia among rural women” in 25th West Bengal state science and technology congress, 2018 on 4 and 5th March, 2018.
8. **Presented paper** entitled “Effects of Indoor air pollution from solid biomass fuel on Blood pressure, Heart rate and BMI among women: A rural population-based approach in West Bengal” in 24th Science & Technology Congress-2017 on 1st March 2017.
9. **Presented paper** entitled “Indoor air pollution from solid biomass fuel a major public health challenge in rural West Bengal, India” in UGC sponsored National Level Seminar organized by Department of Zoology, Sonamukhi College, Bankura in collaboration with Dpt of Zoology, BankuraSammilaniCollge, Bankura on 5th and 6thJanuary, 2017
10. **Presented paper** entitled “Effects of Indoor air pollution from solid biomass fuel on Blood pressure, Heart rate and BMI among women: A rural population-based approach in West Bengal” in 1st Regional Science & Technology Congress-2016 on 7th & 8th November, 2016.
11. **Presented paper** entitled “Indoor pollution from solid biomass fuels and rural health damage: A micro environmental study of rural village of Burdwan, West Bengal” in State level Seminar on Impact of pollution: Assessment and Awareness Organized by DST and Hooghly Women’s College on 14-15thFebruary, 2014.
12. **Presented paper** entitled “Indoor pollution generated from solid biomass and its effects on rural health” in National Seminar on Environmental Issues: Protection, Conservation and Management Organized by VisvaBharati, on 22-23 November, 2013
13. **Presented paper** UGC sponsored National seminar on **Nano Science and its application** on 28th November organized by Department of Chemistry, Fakir Chand College, DiamondHarbour in collaboration with Sarsuna college, Kolkata.
14. **Presented paper** in National Conference on Environmental Issues and Food Security in India: Let’s voice together towards a sustainable future Organized by Foundation For Science & Environment, Kolkata and Scientific & Environmental Research Institute, Kolkata held on 10th Aug’2014 at Kolkata.
15. **Presented paper** entitled “Relationship between indoor air quality and achievement level of few selected primary schools of Burdwan town, West Bengal” in International Conference on Mother Earth organized by Department of Environmental Science, The University of Burdwan on 10th December to 12thDecember, 2014
16. **Presented paper** entitled “Assessment of health hazard of children from traditional biomass burning in West Bengal, India” organized by Centre for Environmental Protection and Human Resource and Heritage Foundation Trust, Kolkata

on 25th April 2016.

EDITORIAL BOARD MEMBERSHIP

1. **Environmental Science: An Indian Journal**, ISSN (PRINT):0974-7451
2. **Oriental Journal of Physical Science**

JOURNAL REVIEWER

- Science of the Total Environment (**Elsevier**)
- Ecotoxicology and Environmental Safety (**Elsevier**)
- Frontiers in Public Health (Frontiers publications)
- Exposure and Health (**Springer Nature**)
- Environmental Geochemistry and Health (**Springer Nature**)
- Current World Environment
- Environmental Science: An Indian Journal;
- International Journal of Phytoremediation(**Taylor and Francis**)
- IGI Global

SOCIETAL AWARENESS PROGRAMME COORDINATED

1. Conducted several awareness webinar as President of the society and Organizing secretary
2. Participated in **science awareness programme for popularization of science in school children** at KatwaBharatiBhaban, Katwa, West Bengal, India on 05/02/2015.
3. **Coordinated** meeting on Environmental Science awareness programme in Burdwan on 9th January, 2017.
4. **Coordinated** free health check-up and **Awareness camps Household Air Pollution** camps for rural women on 07/05/2017 in rural villages of West Bengal
5. **CoordinatedWorld Environmental Day awareness week** from 05-06-2018 to 11-06-2018 in West Bengal.
6. **Coordinated** awareness about **Plastic Pollutions, rural Health Hygiene** among rural population and in schools in West Bengal.
7. **Coordinated Solid Waste Management awareness** in different schools (rural and town) of West Bengal.
8. **Coordinated Anti-Drug addiction campaign among society on 24th Jan, 2020.**
9. **Conducting webinars** on different aspects of **Environmental Sciences** to spread and build up awareness among the society from May 2020 to till now.

ORGANIZATION MEMBERSHIP

1. Life Member of **Indian Aerosol Science and Technology Association (IASTA)** from 15th June, 2015. Membership No.: **IASTA-LM-588**

TECHNICAL PROFICIENCY

SPSS 20.0, STATA, MINITAB 16.0, ORIGIN 8.5, STATISTICA 10.0, EXCEL STAT, DESIGN EXPERT 7.0, Office 13
Course: Certificate in Information Technology Application (CITA)

LANGUAGE SPEAKING PROFICIENCY

Bengali (Mother Language); **English** (excellent); **Hindi** (excellent)

