

UNIVERSITY OF CALCUTTA



Re : Updating University Website

ACADEMIC DEPARTMENT

FACULTY ACADEMIC PROFILE/ CV

1. **Full name of the faculty member:**ANIRUDDHA MUKHOPADHAYAY.....
2. **Designation:**Professor.....
3. **Specialization :**.....Environmental Biotechnology, Bioremediation and Toxicology.....
4. **Passport size photograph :**



5. **Contact information :**

Please provide contact address, email, phone number (optional), etc.

Contact address:35 Ballygunge Circular Road, Kolkata – 700 019

Email: amcu.envs24@gmail.com

Phone number: +91 9830310635; 033 2461 4959 (Ext. 520); 033 2419 1696 (residential)

6. **Academic qualifications:**

Please mention here the degrees (graduation onward):

College/ university from which the degree was obtained	Abbreviation of the degree
University of Calcutta	Ph.D.
University Grants Commission	NET
University of Calcutta	M.Phil.
University of Calcutta	M.Sc.
University of Calcutta	B.Sc. (Hons.)

7. Positions held/ holding:

Designation	Department
Professor (Current position)	Department of Environmental Science
Head/ In – Charge (April 2006 – April 2016) (April 2018- August 2020)	Department of Environmental Science
Chairman, UG-PG Board of Studies Environmental Science.	University of Calcutta
Convener, Ph.D. Committee	Department of Environmental Science

8. Research interests:

Please cite briefly the areas of research interests

- ...Environmental Biotechnology
- ... Bioremediation
- ...Toxicology

9. Research guidance :

Number of researchers awarded M.Phil/ Ph.Ddegrees :**1**(M.Phil) /**10**(Ph.D.)

Number of researchers pursuing M.Phil/ Ph.D :**8** (Ph.D.).....

10. Select list of publications:

a) *Journals:*

Recent significant publications:

1. R. Bhattacharya, R. Chatterjee, A. K. A. Mandal, **A. Mukhopadhyay**, S. Basu, A. K. Giri, U. Chatterji and P. Bhattacharjee. (2020) **Theaflavin-containing black tea extract: A potential DNA methyltransferase- inhibitor in human colon cancer cells and Ehrlich ascites carcinoma-induced solid tumors in mice.** *Accepted for publication in Nutrition and Cancer: An International journal (Taylor and Francis).*
2. Banerjee, P., **Mukhopadhyay, A.** and Das, P., 2019. **Graphene oxide – nanobentonite composite sieves for enhanced desalination and dye removal.** *Desalination* 451: 231–240 (DOI: 10.1016/j.desal.2017.06.010) [Elsevier, **Impact factor: 6.603**, ISSN: 0011-9164].

3. S.R. Barman, S. Chakraborty, **A. Mukhopadhyay**, S. Chattopadhyay. 2018. Optical Analysis Authenticated Electrical Impedance Based Quantification of Aqueous Naphthalene. *Brazilian Journal of Analytical Chemistry*. 5(21): 30-39. (DOI: 10.30744/brjac.2179-3425.2018.5.21.30-39).
4. Barman, S.R., Banerjee, P., Das, P. and **Mukhopadhyay, A.**, 2018. **Urban wood waste as precursor of activated carbon and its subsequent application for adsorption of polyaromatic hydrocarbons.** *International Journal of Energy and Water Resources* (DOI: 10.1007/s42108-018-0001-4) [Springer Nature, ISSN: 2522-0101]. (Accepted)
5. Banerjee, P., **Mukhopadhyay, A.** and Das, P., 2018. **Ultrasound enhanced azo dye adsorption by graphene oxide nanocomposite.** *Madridge Journal of Nanotechnology & Nanoscience* 3(2): 108-113. (DOI: 10.18689/mjnn-1000120) [Madridge Publishers].
6. Banerjee, P., Barman, S.R., Swarnakar, S. **Mukhopadhyay, A.** and Das, P., 2018. **Treatment of textile effluent using bacteria-immobilized graphene oxide nanocomposites: evaluation of effluent detoxification using *Bellamyia bengalensis*.** *Clean Technologies and Environmental Policy* 20(10): 2287-2298 (DOI: 10.1007/s10098-018-1602-7) [Springer Nature, **Impact factor: 2.337**, ISSN: 1618-9558].
7. Goswami, M.R., Banerjee, P., Swarnakar, S. and **Mukhopadhyay, A.**, 2018. **Studies on the effect of application of carbaryl insecticide on Alfalfa (*Medicago sativa* L.).** *International Journal of Engineering, Science and Mathematics*. 7(4): 67-73. [ISSN: 2320-0294].
8. Barman, S.R., Banerjee, P., **Mukhopadhyay, A.** and Das, P., 2017. **Biodegradation of Acenaphthene and Naphthalene by *Pseudomonas mendocina*: Process Optimization, and Toxicity Evaluation.** *Journal of Environmental Chemical Engineering* 5(5): 4803–4812 (DOI: 10.1016/j.jece.2017.09.012) [Elsevier, ISSN: 2213-3437].
9. S. Ghosh, A. Chatterjee, **A. Mukhopadhyay**, P. Chakrabarti, 2017. **Phytoremediation of methotrexate induced genotoxicity using polyphenol extracts of *Asteracantha longifolia* Nees. and *Piper betle* Linn.** *Journal of Pharmacognosy and Phytochemistry* 6(3): 105-110. [ISSN: 2349-8234].

10. S.R. Barman, P. Banerjee, **A. Mukhopadhyay** and P. Das, 2017. **Biodegradation of Acenaphthene and Naphthalene by Pseudomonas mendocina: Process Optimization, and Toxicity Evaluation.** *Journal of Environmental Chemical Engineering* 5(5): 4803–4812 (DOI: 10.1016/j.jece.2017.09.012) [Elsevier, ISSN: 2213-3437].
11. P. Banerjee, S.R. Barman, D. Sikder, U. Roy, **A. Mukhopadhyay**, and P. Das, 2017. **Enhanced degradation of ternary dye effluent by developed bacterial consortium with RSM optimization, ANN modeling and toxicity evaluation.** *Desalination and Water Treatment* 72: 249-265 (DOI: 10.5004/dwt.2017.20422) [Desalination Publications, IF: 1.272].
12. S. Goswami, P. Banerjee, S. Datta, **A. Mukhopadhyay**, and P. Das, 2016. **Graphene oxide nanoplatelets synthesized with carbonized agro-waste biomass as green precursor and its application for the treatment of dye rich wastewater.** *Process Safety and Environment Protection* 106: 163-172. [Elsevier, IF: 2.078].
13. P. Banerjee, S.R. Barman, **A. Mukhopadhyay**, and P. Das, 2016. **Ultrasound assisted mixed azo dye adsorption by chitosan- graphene oxide nanocomposite.** *Chemical Engineering Research and Design* 117: 43-56. [Elsevier, IF: 2.525].
14. P. Banerjee, T.K. Dey, S. Sarkar, S. Swarnakar, **A. Mukhopadhyay** and S. Ghosh (2015). **Treatment of cosmetic effluent in different configurations of ceramic UF membrane based bioreactor: toxicity evaluation of the untreated and treated wastewater using catfish (*Heteropneustes fossilis*).** *Chemosphere* 146:133-144. [Elsevier, IF: 3.340].
15. P. Bhattacharya, S. Swarnakar, **A. Mukhopadhyay** and S. Ghosh, (2016). **Exposure of composite tannery effluent on snail, *Pila globosa*: A comparative assessment of toxic impacts of the untreated and membrane treated effluents.** *Ecotoxicology and Environmental Safety* 126: 45-55. [Elsevier; IF: 2.773].

16. S. Sain, D. Ray and **A. Mukhopadhyay** (2015). **Improved mechanical and moisture resistance property of in situ polymerized transparent PMMA/Cellulose composites.** *Polymer Composites* 36(9): 1748–1758. [Elsevier; IF:1.482]
17. P. Bhattacharya, S. Ghosh, S. Swarnakar and **A. Mukhopadhyay** (2015). **Reuse of textile effluent for dyeing using combined technology of ceramic microfiltration and surface treated sugarcane bagasse: toxicity evaluation using *Channa punctatus* as model.** *Desalination and Water Treatment* 54(3): 715-735. [Taylor and Francis; IF: 1.173]
18. R. Basu, S.S. Ram, A. Biswas, S.S. Ray, **A. Mukhopadhyay**, A. Chakraborty, M. Sudarshan and S. Chakrabarti (2015). **Investigation on the trace elemental profile of sewage workers in Kolkata, an Indian megacity.** *Journal of Public Health Research* 4: 473.
19. S. Sengupta, D. Ray, A. Mukhopadhyay, S. Sengupta and T. Kar (2015). **Lauric Acid Coated Fly ash as Reinforcement in Recycled Polymer Matrix Composites.** *Journal of Applied Polymer Science* 132(10): 41586. [Elsevier; IF:1.3]
20. R. Basu, A. Biswas, K. Biswas, **A. Mukhopadhyay**, S.N. Talapatra, S.S. Ray, S.S. Ram, M. Sudarshan, A. Dasgupta and S. Chakrabarti (2015). **An attempt to search the health status of garage workers – A neglected part in India.** *International Journal of Advanced Research* 3(7): 1466-1471.
21. P. Bhattacharya, S. Ghosh, S. Swarnakar and **A. Mukhopadhyay** (2015). **Tannery effluent treatment by microfiltration through ceramic membrane for water reuse: Assessment of environmental impacts.** *CLEAN – Soil, Air, Water* 43(5): 633–644. [Wiley International; IF 1.838]
22. P. Banerjee, S. Sau, P. Das and **A. Mukhopadhyay** (2015). **Optimisation and modelling of azo dye adsorption onto Graphene Oxide nanoplatelets including characterisation and toxicity evaluation.** *Ecotoxicology and Environmental Safety* 119:47-57. [Elsevier; IF:2.762]

23. R. Basu, **A. Mukhopadhyay**, S.S. Ray, P. Chakrabarti, S.S. Ram, M. Sudarshan and Chakrabarti S. (2014). **Elevated strontium concentration in the blood of automobile workers in Kolkata.** *Progress in Health Sciences* 4(2): 185-189.
24. R. Basu, S.N. Talapatra, **A. Mukhopadhyay**, M.R. Goswami, S.S. Ray, P. Chakrabarti, S.S. Ram, M. Sudarshan, A. Chakraborty, A. Dasgupta, U.C. Ghosh and S. Chakrabarti (2014). **Genotoxicity Study with Special Reference to Comet Test in the Blood Cells of Workers Exposed to Sewage Water.** *Advances in Toxicology* Doi: 10.1155/2014/251812.
25. S. Bhattacharya, G. Guha, K. Gupta, D. Chattopadhyay, **A. Mukhopadhyay** and U.C Ghosh (2014). **Trend of arsenic pollution and subsequent bioaccumulation in *Oryza sativa* and *Corchorus capsularis* in Bengal Delta.** *International Letters of Natural Sciences*: 16: 1-9.
26. M.R. Goswami, S. Tripathi and **A. Mukhopadhyay** (2014). **Efficacy of different insecticides on leafhopper (*Amrasca bigutulla bigutulla*.) population in eggplant (*Solanum melongena* L.) vis-à-vis repeated and sequential application.** *Indian Biologist*: 46: 31-33.
27. R. Basu, S.N. Talapatra, **A. Mukhopadhyay**, S.S. Ray, P. Chakrabarti, U. Chaudhuri, S. Chakrabarti (2014). **Assessment of biomarker with special reference to antioxidant level in blood as occupational exposure of sewage and garage workers.** *International Letters of Natural Sciences*: 9: 40-50.
28. S. Sarkar, A. Nandi, S.N. Talapatra, R. Basu, **A. Mukhopadhyay** (2014). **Survey of indoor air pollution and health symptoms at residential buildings.** *International Letters of Natural Sciences*: 8(1): 17-30.
29. P. Banerjee, M. Sathapathy, **A. Mukhopadhyay**, P. Das (2014). **Leaf extract mediated green synthesis of silver nanoparticles from widely available Indian**

- plants: synthesis, characterization, antimicrobial property and toxicity analysis.** *Bioresources and Bioprocessing* 1:3. [Springer Open]
30. P. Banerjee, S. Sau, P. Das and **A. Mukhopadhyay** (2014). **Green Synthesis of Silver - Nanocomposite for Treatment of Textile Dye.** *Nanoscience & Technology (Symbiosis)* 1: 1-6.
31. P. Banerjee, S. Sarkar, T.K. Dey, M. Bakshi, S. Swarnakar **A. Mukhopadhyay** and S. Ghosh. (2014). **Application of isolated bacterial consortium in UMBR for detoxification of textile effluent: comparative analysis of resultant oxidative stress and genotoxicity in catfish (*Heteropneustes fossilis*) exposed to raw and treated effluents.** *Ecotoxicology* 23(6):1073-1085. [Springer; IF:2.773]
32. S.K. Maity, S. Saha, S. Adhikary, **A. Mukhopadhyay** and T. Saha (2014). **Seasonal variation of phytoplankton diversity in relation to eutrophication of Mathura Beel, a flood plain lake in West Bengal, India.** *Asian Journal of Water, Environment and Pollution* 2: 37-44. [IOS Press]
33. S. Banerjee, P. Banerjee and **A. Mukhopadhyay** (2014). **Implications of Global Warming on Changing Trends in Crop Productivity – A Review.** *International Letters of Natural Sciences* 6: 16-29.
34. A. Nandi, S.N. Talapatra, P. Bhattacharya, P. Chaudhuri and **A. Mukhopadhyay** (2014). **Assessment of morphological damages of leaves of selected plant species due to vehicular air pollution, Kolkata, India.** *International Letters of Natural Sciences* 4: 76-91.
35. S. Dutta, T. Mazumdar, T. Saha and **A. Mukhopadhyay** (2014). **A bioassay approach to determine the bioindicator potential of *Ceriodaphnia dubia* for heavy metal pollution.** *International Journal of Environmental Biology* 4: 41-46.

36. S.N. Talapatra, P. Banerjee, **A. Mukhopadhyay** (2014). **Dose- and time-dependent micronucleus induction in peripheral erythrocytes of catfish, *Heteropneustes fossilis* (Bloch) by zinc.** *International Letters of Natural Sciences* 4: 36-43.
37. P. Bhattacharya, K. Mallick, S. Ghosh, P. Banerjee, **A. Mukhopadhyay** and S. Bandyopadhyay (2014). **Algal biomass as potential biosorbent for reduction of organic load in grey water and subsequent reuse: effect on seed germination and enzyme activity.** *Bioremediation Journal* 18: 56-70. [Taylor and Francis, IF: 0.784]
38. M. Banerjee, S. Sain, **A. Mukhopadhyay**, S. Sengupta, T. Kar, D. Ray (2014). **Surface treatment of cellulose fibres with methacrylate for enhanced properties of in situ polymerized PMMA/cellulose composites.** *Journal of Applied Polymer Science* 131: 39808. [Elsevier; IF:1.3]
39. S.N. Talapatra, S. Bhattacharya, G. Guha, S. Dutta, D. Chattopadhyay, **A. Mukhopadhyay** (2014). **Dosage and temporal dependent Arsenic-induced mortality in *Ceriodaphnia dubia*: An effective biomarker for Arsenic pollution.** *International Letters of Natural Sciences* 2: 30-34.
40. P. Bhattacharya, A. Roy, S. Sarkar, S. Ghosh, S. Majumdar, S. Chakraborty, S. Mandal, **A. Mukhopadhyay**, S. Bandyopadhyay (2013). **Combination technology of ceramic microfiltration and reverse osmosis for tannery wastewater recovery.** *Water resources and Industry* 3: 48-62. [Elsevier]
41. S. Sain, S. Sengupta, A. Kar, **A. Mukhopadhyay**, S. Sengupta, T. Kar, D. Ray (2013). **Effect of modified cellulose fibres on the biodegradation behaviour of in-situ formed PMMA/cellulose composites in soil environment: Isolation and Identification of the composite degrading fungus.** *Polymer Degradation and Stability* 30: 1-10. [Elsevier; IF: 3.291]
42. P. Bhattacharya, S. Ghosh and **A. Mukhopadhyay** (2013). **Combination technology of ceramic microfiltration and biosorbent for treatment and reuse of tannery**

- effluent from different streams: response of defence system in *Euphorbia* sp.**
International Journal of Recycling of Organic Waste in Agriculture 2:19. [Springer]
43. S. Sengupta, S. Sain, D. Ray, **A. Mukhopadhyay** (2013). **Development and characterization of green coupling agent coated fly ash reinforced recycled polypropylene matrix composites.** *Advanced Material Research* 747: 707-710. [Trans Tech Publications, Switzerland]
44. S. Sain, S. Sengupta, D. Ray, A. Kar, **A. Mukhopadhyay** (2013). **Cellulose nanofibre reinforced ecofriendly green PMMA nano composites.** *Advanced Material Research* 747: 387-390. [Trans Tech Publications, Switzerland]
45. S. Bhattacharya, G. Guha, D. Chattopadhyay, **A. Mukhopadhyay**, P.K. Dasgupta, M.K. Sengupta and U.C. Ghosh (2013). **Co-deposition and distribution of Arsenic and oxidisable organic carbon in the sedimentary basin of West Bengal, India.** *Journal of Analytical Science and Technology* 4: 11. [Spinger Open]
46. S. Sengupta, D. Ray and **A. Mukhopadhyay** (2013). **Sustainable Materials: Value Added Composites from Recycled Polypropylene and Fly Ash using a Green Coupling Agent.** *Sustainable Chemistry & Engineering* 1:574-584. [ACS; IF: 5.267]
47. S. Bhattacharya, I. Saha, A. Mukhopadhyay, D. Chattopadhyay, U.C. Ghosh and D. Chatterjee (2013). **Isolation and characterisation of Starch/ Polyvinyl Alcohol Degrading Fungi from Aerobic Compost Environment.** *International Journal of Biodeterioration & Biodegradation* 82:9-12 [Elsevier; IF:2.429]
48. S. Bhattacharya, I. Saha, **A. Mukhopadhyay**, D. Chattopadhyay, U.C. Ghosh, D. Chatterjee (2013). **Role of nanotechnology in water treatment and purification: Potential applications and implications.** *International Journal of Chemical Science and Technology* 3: 59-64. [URP Journals]
49. M.R. Goswami, P. Banerjee, S. Swarnakar and **A. Mukhopadhyay** (2013). **Carbaryl Mediated Biochemical Alterations in Eggplant (*Solanum melongena* L.).**

International Journal of Research in Environmental Science and Technology 3:51-57.
[URP Journals]

50. S. Bhattacharya, R. Bhattacharya and **A. Mukhopadhyay** (2013). **Environmental, economic and ethical perspectives of bioprospecting and biopiracy in a globalized world.** *Psyche and Society* 11:28-33.
51. S. Bhattacharya, A. Ganguli, **A. Mukhopadhyay**, U.C. Ghosh and D. Chattopadhyay (2013). **Impacts of genetically modified foods on environment, economy and health: A comprehensive review.** *International Journal of Environmental Biology* 3: 64-70.
52. P. Bhattacharya, S. Ghosh and **A. Mukhopadhyay** (2013). **Efficiency of combined ceramic microfiltration and biosorbent based treatment of high organic loading composite wastewater: an approach for agricultural reuse.** *Journal of Environmental Chemical Engineering* 1: 38-49. [Elsevier]
53. S. Sengupta, P. Maity, P. Ray and **A. Mukhopadhyay** (2013). **Stearic Acid as Coupling Agent in Fly ash Reinforced Recycled Polypropylene Matrix Composites: Structural, Mechanical and Thermal Characterizations.** *Journal of Applied Polymer Science* 129:1-9. [Wiley International; IF: 1.768]
54. M.R. Goswami, U.K. Pati, A. Chowdhury and **A. Mukhopadhyay** (2013). **Studies on the effect of cypermethrin on soil microbial biomass and its activity in an alluvial soil.** *International Journal of Agricultural and Food Science* 3:1-9. [URP Journals]
55. P. Bhattacharya, P. Banerjee, K. Mallick, S. Ghosh, S. Majumdar, **A. Mukhopadhyay** and S. Bandyopadhyay (2013). **Potential of biosorbent developed from fruit peel of *Trewia nudiflora* for removal of hexavalent chromium from synthetic and industrial effluent analyzing phytotoxicity in germinating *Vigna* seeds.** *Journal of Environmental Science and Health, Part A* 48: 706-719. [Taylor and Francis; IF: 1.164].

56. P. Bhattacharya, S. Sarkar, S. Ghosh, S. Majumdar, **A. Mukhopadhyay** and S. Bandyopadhyay (2013). **Potential of ceramic microfiltration and ultrafiltration membranes for treatment of gray water for an effective reuse.** *Desalination and water treatment* 51(22-24): 4323-4332. [Taylor and Francis; IF: 1.173]
57. S. Bhattacharya, D. Chattopadhyay and **A. Mukhopadhyay** (2013). **Changing dimensions of food security in a globalized world: a review of the perspectives for environment, economy and health.** *International Research Journal of Environmental Sciences* 2: 67-73.
58. S. Sengupta, D. Ray and **A. Mukhopadhyay** (2012). **Thermal and structural characterization of furfuryl palmitate coated fly ash reinforced recycled polypropylene matrix composites.** *Advanced Material Research* 584: 551-555. [Trans Tech Publications]
59. S. Bhattacharya, A. Ganguli, S. Bose and **A. Mukhopadhyay** (2012). **Biodiversity, traditional practices and sustainability issues of East Calcutta Wetlands: a significant Ramsar site of West Bengal (India).** *Research Reviews in Biosciences* 6(11): 340-347.
60. S. Bhattacharya, N.D. Sarkar, P. Banerjee, S. Banerjee, S. Mukherjee, D. Chattopadhyay and **A. Mukhopadhyay** (2012). **Effects of Arsenic toxicity on germination, Seedling growth and Peroxidase activity in *Cicer arietinum*.** *International Journal of Agricultural and Food Science* 2: 131-137. [URP Journals]
61. S. Bhattacharya, N.D. Sarkar, D. Nandi, K. Gupta, U.C. Ghosh, D. Chattopadhyay and **A. Mukhopadhyay** (2012). **Study of hydrological characters of the ground water in an arsenic contaminated zone in West Bengal, India.** *International Journal of Institutional Pharmacy and Life Sciences* 2: 6-15.
62. S. Bhattacharya, M.R. Goswami, A. Dhar, **A. Mukhopadhyay**, D. Chattopadhyay and U. C Ghosh (2012). **Effects of arsenic stress on germination, seedling growth and**

- peroxidase activity in Pea seeds and Kidney Bean seeds. *International Journal of Institutional Pharmacy and Life Sciences*: 2: 760-770.**
63. S. Bhattacharya, D. Chattopadhyay, S. Raha, **A. Mukhopadhyay** (2012). **Multidimensional applications of heat shock proteins: A review of the perspectives for environment and health.** *International Journal of Institutional Pharmacy and Life Sciences* 2:345-355.
64. S. Sain, M. Bose, D. Ray, **A. Mukhopadhyay**, S. Sengupta, T. Kar, C.J. Ennis, P.KSM. Rahman, M. Misra (2012). **A comparative study of polymethylmethacrylate /cellulose nanocomposites prepared by in situ polymerization and ex situ dispersion techniques.** *Journal of Reinforced Plastics and Composites* 32:147-159. [SAGE Journals; IF: 1.188]
65. S. Sengupta, P. Maity, D. Ray and **A. Mukhopadhyay** (2012). **Development of stearic acid coated fly ash reinforced polypropylene matrix composites and their thermal analysis.** *International Journal of Scientific and Engineering Research* 3: 1-4.
66. M.R. Goswami, S. Tripathi, B. Das and **A. Mukhopadhyay** (2012). **Effect of repeated and sequential application of insecticides on whitefly (*Bemisia tabaci* Genn.) population in eggplant (*Solanum melongena* L.).** *Indian Biologist* 44:49-52.
67. (2012). **Water crisis and human rights: Changing dimensions and interactions in the third world countries.** *Psyche and Society* 10:24-32.
68. K. Gupta, **S. Bhattacharya**, D. J. Chattopadhyay, **A. Mukhopadhyay**, A. Maity and U. C. Ghosh (2012). **Arsenic(III) Sorption Behavior of Ceria Associated Manganese Oxide Nanoparticles.** *Journal of Colloid and Interface Science* 377: 269-276. [Elsevier; IF:3.39]
69. S. Sain, D. Ray, **A Mukhopadhyay**, S. Sengupta, T. Kar, C.J. Ennis, P. K. S. M. Rahman (2012). **Synthesis and characterization of PMMA-cellulose**

- nanocomposites by *in situ* polymerization technique.** *Journal of Applied Polymer Science* 126(S1): E127- E134. [Wiley International; IF:1.6].
70. M.R. Goswami, S. Tripathy, S. Ray and **A. Mukhopadhyay** (2012). **Impact of some insecticide application on soil respiration in an alluvial soil.** *Science and Culture* 78: 164-168. [Indian Science News Association]
71. S. Bhattacharya, K. Gupta, S. Debnath, U.C. Ghosh, D.J. Chattopadhyay. and **A. Mukhopadhyay** (2012). **Arsenic bioaccumulation in edible plants and subsequent transmission through food chain in Bengal basin: with special reference to rice.** *Toxicological and Environmental Chemistry Journal* 94(3): 429-441. [Taylor and Francis; IF:0.825]
72. K. Gupta, S. Bhattacharya, D.J. Chattopadhyay, **A. Mukhopadhyay**, H. Biswas, J. Dutta, N.R. Roy, U.C. Ghosh (2011). **Ceria supported manganese oxide crystalline nanoparticles agglomerate as adsorbent: Synthesis, Characterization and As(V) - Sorption behavior.** *Chemical Engineering Journal* 172(1): 219-229. [Elsevier; IF:5.310]
73. S. Sengupta, K. Pal, D. Ray and **A. Mukhopadhyay** (2011). **Furfuryl Palmitate coated fly ash used as filler in recycled polypropylene matrix composites.** *Composites Part-B Engineering* 42(7): 1834-1839. [Elsevier; 3.850]
74. M. S. Ghosh, **A. Mukhopadhyay** and U.K. Mukhopadhyay (2011). **Studies on the effect of mulberry leaves of Lune variety on silkworm (*Bombyx mori* L) rearing in polluted environment of Gangetic plains of West Bengal, India.** *Research Journal of Chemical Sciences* 1(4): 80-89. [International Science Congress Association]
75. P. Banerjee, S. Bhattacharya and **A. Mukhopadhyay** (2011). **Climate change and human health with special reference to vector-borne diseases.** *Journal of the Asiatic Society* 53(3):118-129.

76. M. R. Goswami, S. Dutta and **A. Mukhopadhyay** (2011). **A revisit to the evaluation of ecosystem services of forest in the context of climate change regime** *Comsomath* 14(2): pp 38-53.
77. S. Roy, M. R. Goswami, U. Bhattacharya and **A. Mukhopadhyay** (2011). **Evaluation of genotoxic and cytotoxic effects of a botanical insecticide on root meristematic cells of *Allium cepa***. *Journal of Environment and Sociobiology* 8(2):161-168.
78. M.R. Goswami, U. Bhattacharya, S. Tripathi and **A. Mukhopadhyay** (2011). **The antioxidative response system in Eggplant (*Solanum melongena* L.) exposed to an Organophosphorus insecticide**. *Indian Biologist* 43(1-2): 95-102.
79. M.R. Goswami, U. Bhattacharya, S.S. Roy, C.B. Mallik, S.N. Talapatra and **A. Mukhopadhyay** (2010). **Effect of effluent from an oil blending industry on Guppy fish, *Poecilia reticulata* : A bioassay approach** *Journal of Environment and Sociobiology* 7 (2): 113-120.
80. M.S. Ghosh, **A. Mukhopadhyay**, N. Das and U. K. Mukhopadhyay (2010). **Studies on the Economic Viability of rearing of Nistari x (SK6 x SK7) a Multivoltine x Bivoltine hybrid over Nistari strain of *Bombyx mori* L in the climatic conditions in the Gangetic plains of West Bengal**. *Journal of Natural and Environmental Sciences* 1(1): 21-26. (Academy Journals)
81. S.N. Talapatra, S. Dasgupta, G. Guha, M. Auddy and **A. Mukhopadhyay** (2010). **Therapeutic efficacies of *Coriandrum sativum* aqueous extract against metronidazole – induced genotoxicity in *Channa punctatus* peripheral erythrocytes**. *Food and Chemical Toxicology* 48(12): 3458-3461. [Elsevier; IF:2.89]
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- S. Bhattacharya, S. Chatterjee, D. Chattopadhyay and A. Mukhopadhyay (2011). **Privatization of water resources in India: Environmental, economical and ethical perspectives.** Proceedings of National Conference “SCIENVIRON-2011’, Calcutta School of Tropical Medicine, November 24-26, 2011, pp. 86.
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- P. Banerjee and **A. Mukhopadhyay** (2011). **Climate Change: current perspectives and projected impacts in North-East India.** Proceedings of National Seminar on Management of Environment : North – East India Perspective, Belonia, Tripura, Sept 11-12, pp 1-28.
- **A. Mukhopadhyay** and A. Chowdhury (2011). **Upsurgence of Environmentalism through ages: The current Indian Scenario.** Proceedings of 88th Orientation Program UGC-ASC Edt. U. Basu, I. Chatterjee and M. Dutta, University of Calcutta pp 39-78.
- **A. Mukhopadhyay** and P. Banerjee (2011) **Climate Change Impacts : An Indian Context** Proceedings of the Refresher Course in Environmental Studies UGC-ASC, University of Calcutta, pp 44-55, Edt. M. Ghosh, S. Ghosh, **A. Mukhopadhyay**.
- A. Chowdhury and **A. Mukhopadhyay**(2011). **Genotoxicity in the context of everyday life** Proceeding of UGC sponsored National Seminar on Advances in Environmental Science and Technology, Feb 5-6, Kolkata, pp 37-46.
- S. Bhattacharya and **A. Mukhopadhyay** (2011). **Climate change: Causes, Adaptations and Mitigations.** Proceeding of UGC sponsored National Conference on “Global Warming; Issues, Concerns and Impact- An Interdisciplinary Approach, Rishi Bankim Chandra College, West Bengal, 6-7th April, 2010, pp. 19-36.
- **A. Mukhopadhyay** and A. Chowdhury (2011). **Genesis of global environmentalism vis-à-vis Indian perspectives of environmental activism** Proceedings of 86th Orientation Program UGC-ASC University of Calcutta Edt. S. Mukherjee. (in press).
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- S. Bhattacharya, T. Basu, K. Gupta, K. Biswas, D. Chattopadhyay, U.C. Ghosh and **A. Mukhopadhyay** (2011) **Use of nanostructured mixed metal oxides for ground water treatment.** Proceedings of World Congress on Biotechnology, Hyderabad, India organised by OMICS Publishing Group, USA, March, 21-23, pp 591.

- S.Dutta, M.Mukherjee, J.Basu and **A. Mukhopadhyay** (2010). **Impact of urbanization and climatic changes and urban biodiversity: case study Kolkata** Proceedings of International Workshop on Biodiversity and Climate Change, IIT, Kharagpur. pp 95-96.
- S. Bhattacharya, T. Basu, K. Gupta, K.Biswas, D. Chattopadhyay, U.C. Ghosh and **A. Mukhopadhyay** (2010). **Estimation and removal of arsenic contaminated ground water using NHICO adsorbent.** Proceedings of International Conference on Frontiers in Biological Sciences, Department of Life Science, National Institute of Technology, Rourkela, India, October 1-3, pp 184.
- M. R. Goswami, S. Ray, and **A. Mukhopadhyay** (2009). **Invitro study on the effect of three pesticides on microbial biomass carbon of soil from an agro ecosystem** Proceedings of *International* conference on Changing Environmental Trends and Sustainable developments. CETAS, pp 213-216.
- S.Bhattacharya and **A. Mukhopadhyay** (2009) **Ecological and environmental dimensions of some ancient Indian texts.** Proceeding of National Conference on Biodiversity: Threats and Conservation, Serampore College, Hooghly, West Bengal, Feb 13-14, pp 11-14.
- S. Bhattacharya, K. Gupta, D. J. Chattopadhyay and **A. Mukhopadhyay**(2009). **Bioaccumulation of arsenic in rice and jute irrigated by arsenic contaminated water in Nadia, West Bengal.** Proceedings of 46th Annual Convention of Chemists 2009 and International Conference on Recent Research Trends in Chemical Sciences, Indian Chemical Society, Dec 2-6, VIT University, Vellore, Tamilnadu, India, pp A1.
- K. Gupta, S. Bhattacharya, **A. Mukhopadhyay**, and D. Chattopadhyay (2009). **Synthesis and characterization of hydrous Ce-Mn binary mixed oxides nanoparticles agglomerate for the AS (III) removal from aqueous solutions.** Proceedings of 46th Annual Convention of Chemists 2009 and International Conference on Recent Research Trends in Chemical Sciences, Indian Chemical Society, Dec 2-6, VIT University, Vellore, Tamilnadu, India, pp A1.
- S. Dutta, **A. Mukhopadhyay** and T. Saha (2008). **Circadian variation of physicochemical factors vis-à-vis zooplankton abundance at different seasons in a freshwater lake, at SahebBundh, Purulia, West Bengal** Proceedings of *Lake 2008: Conservation and Management of River and Lake Ecosystems at Indian Institute of Science, Bangalore*, 22nd –24th December, 2008 : pp25-30.

- S. Bhattacharya and **A. Mukhopadhyay**(2008). **Biological perspectives of Global warming and Climate Change**. Proceeding of National Conference on Global Warming: A threat to the world. Muralidhar Girl's College, Kolkata, March 25, pp 82-96.
- S. Dutta, **A. Mukhopadhyay** and T. Saha (2007). **Zooplankton Diversity in relation to Heavy Metal Toxicity in a Freshwater Lake Ecosystem at Saheb bundh, Purulia, West Bengal** Proceedings of TAAL 2007: 12th World Lake Conference organized by Ministry of Environment and Forest, Govt. of India and International Lake Environment Committee, Japan at Jaipur, 28th Oct - 2nd Nov, 2007.

d) *Other publications:*

- S. Bhattacharya and **A. Mukhopadhyay** (2010). **Climate Change Summits: What Lessons Should be Learnt?** Business Economics, December issue, Pp 32-33.
- S. Dasgupta and **A. Mukhopadhyay** (2009). **The carbon debate: the needs of Carbon sequestration and Carbon budget**. Bodhi Bijnan, 1(3) : pp 17-23, V C, Kolkata

11. **Membership of Learned Societies:**

- Fellow, West Bengal Academy of Science and Technology
- International Society for Waste Management, Air and Water.
- Indian Science News Association
- Indian Science Congress Association
- Zoological Society, Kolkata
- National Environmental Science Academy

12. **Patents :**

.....N/A.....

13. **Invited lectures delivered :**

S.No.	Title of Lecture/Academic Session	Title of conference/ Seminar etc.	Organized by
1	Application of remediation technologies for wastewater treatment (2016)	UGC Sponsored National Seminar on Industrial Pollution Control Using Emerging Technologies	Department of Chemical Engineering, Jadavpur University, Kolkata
2	Green attitude for a sustainable future. (2016).	National seminar on Public policies for inclusive development.	Department of Economics, Loreto College, Kolkata in collaboration with Department of Economics, University of Calcutta
3	Approach to reach sustainable development in climate change regime. (2016)	National seminar on Industry and Environment: EIA as a tool for sustainable development.	City college of Commerce and Business Administration and WBPCB
4	Green solution for a sustainable future (2015)	Centenary lecture series, Asutosh College	PG Department of Environmental Science, Asutosh College
5	Inter-Linkages between Environment and Health Economics: Impacts On Sustainable Development (2014)	UGC Sponsored National Seminar	Muralidhar Girl's College, Kolkata
6	Chairmanship (2014)	India Biodiversity Meet	Indian Statistical Institute ,Kolkata in association with Biomathematical Society of India
7	Sunderban Mangroves: A Kaleidoscope of Pristine Nature, Vibrant Culture and Intriguing Mythology (2014)	Bharat-Nepal Shiksha Maitri Karyakram	Center For Foreign Policy Studies, University of Calcutta, Kolkata
8	Climate Security: Perceptions, Challenges and Beyond (2014)	UGC Sponsored National Seminar	Shimurali Sachinandan College of Education, Shimurali, Nadia, West Bengal in collaboration with Chakdaha College, Chakdaha, Nadia, West Bengal.
9	Mission Green Environment: Problems and Remediation (2013)	100th Indian Science Congress	Indian Science Congress Association

10	Sunderban Resources and Prospects (2012)	Trans Boundary Sundarban Workshop	State Project Management Unit (SPMU), ICZM Project, West Bengal Institute of Environmental Studies & Wetland Management (IESWM), WWF-India & Environment Governed Integrated Organisation (EnGIO)
11	Environment and Environmentalism: A glimpse from Literature (2012)	Proceedings of National Seminar on Environment and Literature	Dinabandhu Andrews College, Kolkata
12	Potential and prospects of animal models vis a vis issues of current biological research (2011)	Proceedings of the national level seminar titled "Recent trends in Zoology"	Dept. of Zoology, Netaji Nagar College for Women in collaboration with Surendranath College, Kolkata
13	Genotoxicity in the context of everyday life. (2011)	Proceeding of UGC sponsored National Seminar on Advances in Environmental Science and Technology	
14	Climate change: Current perspectives and projected impacts in North East India. (2010)	Management of Environment: North East India perspective	UGC – NERO and Belonia College, Tripura
15	Global Climate change: Causes, Adaptations and Mitigations. (2010)	Proceeding of UGC sponsored National Conference on “Global Warming; Issues, Concerns and Impact- An Interdisciplinary Approach”	Rishi Bankim Chandra College, West Bengal
16	Environmental security and Natural resources in India (2009)	Natural resource management in India	UGC – NERO and Dharmanagar College, Tripura
17	Introduction to Environment: An Indian Perspective (2009)	Future Prospect and Retrospect of Environment	DST, National Academy of Environment, New Delhi and CPCB Kolkata
18	Prospects of Bioenergy and Energy Security in India (2008)	Energy and Environment	DST, National Academy of Environment, New Delhi
19	Biological perspectives of Global warming and Climate Change (2008)	UGC Sponsored National Seminar on Global Warming: A threat to the world.	Muralidhar Girl’s College, Kolkata

- Participated as invited speaker in national and state level events organized by:
 - Asutosh College
 - Techno India College (Salt Lake)
 - East Calcutta Girls' College
 - Bhawanipore Education Society
 - Shri Shikshayatan College
 - Burdwan Raj College
 - Alipurduar College
 - Howrah Bijoy Krishna Girls College and
 - Satyapriya Ray B.Ed. College
 - University of engineering and management
 - A.P.C Roy College
 - B.C. Roy Engineering College
 - Dinabandhu Andrews College
 - Vijaygarh J. R. College
 - Vivekananda College, Thakurpukur
 - Bethune College
 - A.K.P.C. College, Hooghly
 - ISWMAW, JU.
 - Bangabasi Morning College
 - Singur College
 - Vidyasagar College
 - Netaji Nagar College (for women)
 - Deshbandhu College
 - Muralidhar Girls' College
 - Loreto college.
 - **and many others.**

14. Awards :

- FELLOW of West Bengal Academy of Science and Technology (FAScT), 2013.
- Certificate of Honour for securing First position in the Refresher Course on Environmental Studies conducted by UGC-ASC, Calcutta University in 2002.

- Awarded Post-doctoral fellowship from USA
- Awarded UGC JRF and SRF
- D. N Roy Chowdhury Gold Medal for M.Sc results by Zoological Society, Calcutta.
- Certificate of honor for completion of radioactive users staining course, University of Texas, Health Science center, 1991.

15. Other notable activities :

- Member of the Governing Body, WEBREDA, Govt of West Bengal. 2020.
- Selected as a Member of State Environment Appraisal Committee (with Gazette notifications from M of E & F CC Govt of India). 2019-2020.
- Chairman, High Power Advisory Committee set up by Kolkata Municipal Corporation on Air Pollution in Kolkata. 2019-2020.
- Member of the Advisory Committee for urban Afforestation plan in Kolkata, Environment Department, Government of West Bengal. 2020.
- Nominated as a member of Expert Delegation for Sustainable Management and Appropriate Cleaning of Santragachhi Jhil, Howrah by Howrah Municipal Corporation. 2020.
- Acting in the international working group of the 10th international conference of Solid waste management to be held at Jadavpur University. 2019-2020.
- Convener of Environmental Science section WB Academy of Science and Technology (WAST). 2019-2020.
- Served as a Senate member of University of Calcutta
- Coordinator of UGC Sponsored Academic Staff College, University of Calcutta, for Environmental Science – 5 times.
- Reviewer of scientific articles for national and international peer reviewed research journals.
- Member of the jury team for Environmental Excellence Award sponsored by Department of Environment, Govt. of West Bengal.
- Member of the jury team for the Green Puja Award organized by Department of Environment, Govt. of West Bengal.
- Member of the different responsible committees (ethical, heritage, etc.) relating to environment set up by Government agencies

- Acted as an organizing secretary and member of the organizing committee of the National and International level seminar at Kolkata and New Delhi.
- Acted as Local Secretary, Environmental Science Section, 100th Indian Science Congress, Kolkata, January 2013.
- Participated in field-based community outreachment programmes and environmental awareness campaign in print and electronic media.
- Editorial member for the preparation of ‘Vigyan Kosh’ – a Govt. initiated endeavor for the preparation of a scientific dictionary.
- Joined and completed radioactive users training course, University of Texas, USA (1991).
- Qualified in the Forest Service (State) as Assistant Conservator of Forest (in the Class I Gazetted) in 1990-1991 but did not join.
- Member, academic expert committee, Center for Urban Studies, University of Calcutta.