

Curriculum Vitae/ Faculty Profile

- Name : DR. PALAS SAMANTA
- Designation: Assistant Professor
- Department: Environmental Science
- Date of Joining: 24/09/2019
- Nationality: INDIAN
- Address for Correspondence: Dept. of Environmental Science, Sukanta Mahavidyalaya, University of North Bengal, Dhupguri – 735210, Jalpaiguri, West Bengal, India
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- Mobile No.: +91-8327220799



ACADEMIC INFORMATION

- Qualification Details:

Examinations Passed	Institution/University	Year of Passing
M.Sc.	M.Sc. in Environmental Science	2010
Ph.D.	Ph.D. in Environmental Science	2015
NET	NET in Environmental Science	2012

- Subject(s) Specialization: Environmental Toxicology; Environmental Biotechnology; Pollution Monitoring and Risk Assessment; Remote Sensing and GIS

CAREER INFORMATION

- Professional Development Programs (FIP, RC, Short Course, Workshop)

Sl. No.	Title of the Professional Development Program	Venue	Date and Duration
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1	<i>FIP: 45th Online Faculty Induction Program</i>	UGC-HRDC, Punjabi University	October 3 to 31, 2020
2	<i>RC: Refresher Course in Environment Science</i>	UGC-HRDC, The University of Burdwan	August 20 to September 2, 2022
3	<i>FDP: ICT Tools for Effective Teaching and Learning</i>	Kamala Nehru Mahavidyalaya	May 23 to 28, 2022
4	<i>FDP: Research Methodology</i>	Kamala Nehru Mahavidyalaya	May 2 to 7, 2022
5	<i>FDP: ICT Tools for Effective Teaching Learning</i>	Kamala Nehru Mahavidyalaya	June 8 to 10, 2021
6	<i>FDP: Research Methodology</i>	Kamala Nehru Mahavidyalaya	April 26 to May 1, 2021
7	<i>FDP-Workshop: Sustainable Environmental Engineering Practices (SEEP 2020)</i>	National Institute of Technology Rourkela	September 21 to 25, 2020
8	<i>FDP: Online Teaching Tools</i>	Rajah Serfoji Government College	August 18, 2020
9	<i>FDP: E-Contents and ICT Tools for Innovative and Effective Teaching & Learning Process</i>	Roorkee College of Management & Computer Applications	August 8 to 14, 2020
10	<i>FDP: Quality Sustenance and Enhancement Parameters – NAAC and NIRF Ranking Framework</i>	MarudharKesari Jain College	August 6 & 7, 2020
11	<i>FDP: The Role of a Teacher in Nation Building</i>	Keshav Memorial Institute of Commerce and Sciences	August 3 to 9, 2020
12	<i>FDP: Bioresources</i>	K.R. College of Arts & Science	July 30 to August 1, 2020
13	<i>FDP: Gender Sensitization</i>	Barabazar Bikram Tudu Memorial College	July 25 to 31, 2020
14	<i>FDP: Current Environmental Impacts & Sustainable Research Solutions</i>	Sree Buddha College of Engineering	July 21 to 28, 2020
15	<i>FDP: Technology and Skill Development in Higher Education</i>	Radiant Group of Institution	July 18 to 20, 2020
16	<i>Workshop: Amino Acids, Peptides and Proteins</i>	Biodukator	July 3, 2022
17	<i>Workshop: Educational Framework for Global Citizenship in Higher Education</i>	HRDC-JNU	June 24, 2022
18	<i>Workshop: Tool and Eyes of Nanotechnology (TEN2022)</i>	Sant Baba Bhag Singh University Jalandhar	May 18 to 19, 2022

19	<i>Workshop: Statistics and Geospatial Techniques in Biology</i>	Durgapur Government College	January 17 to 22, 2022
20	<i>Training: National Intellectual Property Awareness Mission</i>	Intellectual Property Office, GoI	December 3, 2021
21	<i>Training: Media and Disaster Management</i>	NIDM, Ministry of Home Affairs, GoI	August 19 to 21, 2020
22	<i>Workshop: Significance and Application of ICT in Teaching Learning Process</i>	Vikrant Institute of Technology and Management	August 19, 2020
23	<i>Workshop: COVID-19: RT-PCR Diagnostics & Therapeutics</i>	University of Kalyani	August 5 to 7, 2020
24	<i>Workshop: Ethics in Research and Scholarly Publication</i>	Rani Channamma University	August 4-8, 2020
25	<i>Workshop: NAAC: Seven Assessment Criteria for Accreditation</i>	Govt. Post Graduate College	August 2 to 8, 2020
26	<i>Training: National Capacity Building Training on Marine Biodiversity and its Conservation</i>	Dr. Ambedkar Govt. Arts College	July 29 to 31, 2020
27	<i>Training: One Week Online GIS Training on Basics of GIS</i>	WWF India, ENVIS Resource Partner	July 27 to August 1, 2020
28	<i>Training: Environmental Impacts of COVID-19 Pandemic: Challenges and Remedies Through Science & Engineering</i>	Poornima Institute of Engineering & Technology	July 27 to 31, 2020
29	<i>Workshop: Easy Implementation of LMS in Your Institutions</i>	Skill to Hire, India	July 25 to 26, 2020
30	<i>Workshop: Research Patent & Development of Industry-Academia Collaborations</i>	University of Science & Technology Meghalaya	July 23, 2020
31	<i>Workshop: Introduction to Web Development</i>	Surya Sen Mahavidyalaya	July 17 to 19, 2020
32	<i>Workshop: Research Methodology in Social Sciences</i>	SiddhinathMahavidyalaya and Pailan College of Education	July 16 to 22, 2020
33	<i>Workshop: Curriculum Design & Evaluation Process in Higher Education as per CBCS</i>	University of Science & Technology Meghalaya	July 14 & 15, 2020
34	<i>Training: Psycho-social Care and Gender Based Violence (GBV) Issues</i>	NIDM, Ministry of Home Affairs, GoI	June 30, 2020

35	<i>Training: WASH, Infection Prevention and Control including Biomedical Waste Management</i>	NIDM, Ministry of Home Affairs, GoI	June 23, 2020
36	<i>Training: Urban Issues and COVID-19 Management in Densely Populated Settings</i>	NIDM, Ministry of Home Affairs, GoI	June 16, 2020
37	<i>Training: Data Science and Role of Technology</i>	NIDM, Ministry of Home Affairs, GoI	June 9, 2020
38	<i>Training: COVID-19: Global and national Perspective – What we have learnt so far</i>	NIDM, Ministry of Home Affairs, GoI	June 2, 2020
39	<i>Workshop: Sustainable Development and Management of Ground Water Resources</i>	Central Ground Water Board, Eastern Region	February 23 to 27, 2015
40	<i>Workshop: Aspects and Prospects of Biofertilizer and Biomanure</i>	Raja Rammohun Roy Mahavidyalaya	December 5 to 6, 2014
41	<i>Workshop: Interaction Program for Research Scholars</i>	University of Burdwan	September 4 to 24, 2014
42	<i>Training: Electron Microscopy for Scientific Investigators (2013)</i>	AIIMS, New Delhi	October 17- 31, 2013
43	<i>Workshop: Genotoxicity Biomarkers in Fishes</i>	National Bureau of Fish Genetic Resources	04 to 09 th March, 2013
44	<i>Workshop: Fluorescence Microscopy</i>	University of Burdwan	November 22-23, 2012
45	<i>Workshop: Interaction Program for Research Scholars</i>	University of Burdwan	March 17 to 22, 2012
46	<i>Workshop: Hands-on-training on Histotechnology and Enzymological Techniques for Clinical and Analytical Laboratory</i>	University of Burdwan	8 to 17 th November, 2010

ADMINISTRATIVE EXPERIENCES(IF ANY)

- IQAC: Member, Session: 2022-23

ACHIEVEMENTS AND PUBLICATIONS

- Recognition/ Fellowship/ Award:

Date of Award	Name of the Award/ Recognition	Awarding Authority/Organization
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2021	International Scientist Awards 2021	VD Good Technology Factory
01/04/2015 – 31/03/2018	BK21 Plus Fellow	Korea University, South Korea
2013-2015	Senior Research Fellow	DST-INSPIRE Fellowship Program, GoI
2011-2015	Junior Research Fellow	DST-INSPIRE Fellowship Program, GoI
2011	University Gold Medalist	The University of Burdwan
2010	First Class First in M.Sc. in Environmental Science	The University of Burdwan
2008	First Class First in B.Sc. (H) in Environmental Science	The University of Burdwan
2008-2010	Post-Graduate Merit-cum-Means Scholarship	GoWB

- **Research Field:** Pollution Monitoring and Risk Assessment, Environmental Toxicology, Environmental Biotechnology, Environmental Impact Assessment, Environmental Remediation, Marine Isotope Biochemistry, Histopathology and Ultrastructure, Blue Carbon Biomass

- **Published Papers/Articles:**

1. **Samanta, P.,** Dey, S., Kundu, D., Dutta, D., Jambulkar, R., Mishra, R., Ghosh, A.R. and Kumar, S. 2022. An insight on Sampling, Identification and Characteristics of Microplastics in Solid Wastes. *Trends in Environmental Analytical Chemistry*, **36**: e00181, <https://doi.org/10.1016/j.teac.2022.e00181>
2. Choudhury, M., Sahoo, S., **Samanta, P.,** Tiwari, A., Tiwari, A., Chadha, U., Bhardwaj, P., Nalluri, A., Eticha, T.K. and Chakravorty, A. 2022. COVID-19: An Accelerator for Global Plastic Consumption and Its Implications. *Journal of Environmental and Public Health*, Volume 2022, Article ID 1066350. <https://doi.org/10.1155/2022/1066350>
3. Agarwal, S., Barman, D.R., Sharma, A., Choudhary, R., Choudhury, M., **Samanta, P.** and Singh, R.P. 2022. Managing Biomedical Waste Amidst Global Pandemic and Suggestive Measures in Achieving Sustainable Development Goals. *ESSENCE International Journal for Environmental Rehabilitation and Conservation*, **XIII (I)**: EOI: 10.11208/essence.22.13.1.
4. Kundu, D., Dutta, D., **Samanta, P.,** Dey, S., Sherpa, K.C., Kumar, S. and Dubey, B.K. 2022. Valorization of wastewater: A paradigm shift towards circular bioeconomy and sustainability. *Science of The Total Environment*, **848**: 157709, <https://doi.org/10.1016/j.scitotenv.2022.157709>
5. **Samanta, P.,** Dey, S., Ghosh, A.R. and Kim, J.K. 2022. Nanoparticle Nutraceuticals in Aquaculture: A Recent Advances. *Aquaculture*, **560**: 738494, <https://doi.org/10.1016/j.aquaculture.2022.738494>
6. Song, J., Kim, C., Na, J., Sivri, N., **Samanta, P.** and Jung, J. 2022. Transgenerational effects of polyethylene microplastic fragments containing benzophenone-3 additive in *Daphnia magna*. *Journal of Hazardous Materials*, **436**: 129225, <https://doi.org/10.1016/j.jhazmat.2022.129225>.

7. Anonna, T.A., Moniruzzaman, M., Khan, A.H.A.N., Sarker, A.K., **Samanta, P.**, Naser, M.I., Ahmed, S., Al Asad, H. 2022. Why pandemic coronavirus (SARS-CoV-2) hit different age groups of people in Southeast Asia? a case study in Bangladesh. *Journal of Ideas in Health*, **5(2): 655-663**. <https://doi.org/10.47108/jidhealth.Vol5.Iss2.207>,
8. **Samanta, P.** and Ghosh, A.R. 2021. Evaluation of Health Status of *Oreochromis niloticus* Based on Brain Optic Tectum Morphopathology. *Indian Journal of Experimental Biology*, **59: 877-883**. Doi: 10.56042/ijeb.v59i12.57834
9. Singh, B.P., Choudhury, M., **Samanta, P.**, Gaur, M., Kumar, M. 2021. Ecological Risk Assessment of Heavy Metals in Adjoining Sediment of River Ecosystem. *Sustainability*, **13: 10330**. <https://doi.org/10.3390/su131810330>
10. **Samanta, P.** and Ghosh, A.R. 2021. Environmental Perspectives of COVID-19 Outbreaks – A Review. *World Journal of Gastroenterology*, **27(35): 5822-5850**. <https://dx.doi.org/10.3748/wjg.v27.i35.5822>
11. **Samanta, P.**, Dey, S. and Ghosh, A.R. 2021. Are population size and diverse climatic conditions the driving factors for next COVID-19 pandemic epicenter in India? *Results in Physics*, **26: 104454** <https://doi.org/10.1016/j.rinp.2021.104454>
12. Dey, S., Pal, S., Ghosh, A.R. and **Samanta, P.** 2021. Recurrence Possibility of COVID-19 in India (Editorial). *Austin Journal of Plant Biology*, **7(1): 1027**.
13. Dey, S., Pal, S., Ghosh, A.R. and **Samanta, P.** 2021. COVID-19 and Its Consequences among Medical Workers (Editorial). *JSM Environmental Science & Ecology*, **9(1): 1073**.
14. Park, J.S., **Samanta, P.**, Lee, S., Lee, J., Cho, J.W., Chun, H.S., Yoon, S., and Kim, W.K. 2021. Developmental and Neurotoxicity of Acrylamide to Zebrafish. *International Journal of Molecular Sciences* **22: 3518** <https://doi.org/10.3390/ijms22073518>
15. Park, M.S., Kim, J.K., Shin, S.K., Min, B.H., and **Samanta, P.** 2021. Trophic Fractionation in an Integrated Multi-Trophic Aquaculture (IMTA) off Tongyoung Coast: A Stable Isotope Approach. *Aquaculture* **536: 736454** <https://doi.org/10.1016/j.aquaculture.2021.736454>
16. Dey, S., **Samanta, P.**, and Ghosh, A. R. 2020. COVID-19 Pandemic - A Global Emergency. *Disaster & Development* **9(1): 85-88**.
17. Dey, S., Ballav, P., **Samanta, P.**, Mandal, A., Patra, A., Das, S., Mondal, A.K., and Ghosh, A. R. 2020. Time-Dependent Naphthalene Toxicity in *Anabas testudineus* (Bloch): A Multiple Endpoint Biomarker Approach. *ACS OMEGA*, **6, 317–325**. <https://dx.doi.org/10.1021/acsomega.0c04603>
18. **Samanta, P.**, Im, H., Shim, T., Na, J. and Jung, J. 2020. Linking Multiple Biomarker Responses in *Daphnia magna* under Thermal Stress. *Environmental Pollution*, **263: 114432** <https://doi.org/10.1016/j.envpol.2020.114432>
19. Dey, S., Ballav, P., Mandal, A., **Samanta, P.**, Patra, A., Das, S., Mondal, A.K. and Ghosh, A.R., 2020. Blood Biochemical and Erythrocytic Morpho-pathological Consequences of Naphthalene Intoxication in Indian Teleost, *Anabas testudineus* (Bloch). *Environmental Toxicology and Pharmacology* **80: 103490** <https://doi.org/10.1016/j.etap.2020.103490>
20. **Samanta, P.**, Pal, S., Mukherjee, A.K. and Ghosh, A.R. 2020. Acute Toxicity Assessment of Arsenic, Chromium and Almix 20WP in *Euphylectiscyanophlyctis* Tadpoles. *Ecotoxicology and Environmental Safety*, **191: 110209** <https://doi.org/10.1016/j.ecoenv.2020.110209>
21. **Samanta, P.**, Shin, S.K., Jang, S. and Kim, J.K. 2019. Effects of pH on Growth and Biochemical Responses in *Agarophytonvermiculophyllum* under Different Temperature Conditions. *Journal of Applied Phycology*, **32, 499–509** <https://doi.org/10.1007/s10811-019-01933-3>
22. **Samanta, P.**, Shin, S.K., Jang, S., Song, Y.C., Oh, S., and Kim, J.K. 2019. Stable Carbon and Nitrogen Isotopic Characterization and Tracing Nutrient Sources of *Ulva* Blooms Around Jeju Coastal Areas. *Environmental Pollution*, **254: 113033** doi: <https://doi.org/10.1016/j.envpol.2019.113033>

23. **Samanta, P.**, Shin, S.K., Jang, S. and Kim, J.K. 2019. Comparative Assessment of Salinity Tolerance Based on Physiological and Biochemical Performances in *Ulva australis* and *Pyropiayezoensis*. *Algal Research*, **42**: 101590. <https://doi.org/10.1016/j.algal.2019.101590>
24. Im, H., **Samanta, P.**, Na, J. and Jung, J. 2019. Time-Dependent Responses of Oxidative Stress, Growth, and Reproduction of *Daphnia magna* Under Thermal Stress. *Bulletin of Environmental Contamination and Toxicology*, **102** (6): 817-821.
25. Dey,S., **Samanta, P.**, Mondal, N. S., Kole, D., Mandal, A., Patra, A. and Ghosh, A. R. 2019. Dose Specific Responses of *Anabas testudineus* (Bloch) to Anthracene (PAH): Haematological and Biochemical Manifestation. *EmergingContaminants*, **5**: 232–239.
26. Mondal, A. K., Goswami, K., Pal, S., Mukherjee, A. K., **Samanta, P.**, Kole, D., Ghosh, S. and Ghosh, A. R. 2019. Toxicity Analysis of Ferterra (Chlorantraniliprole 0.4% GR) on Tilapia (*Oreochromis niloticus*(Linn.): Histological and Ultrastructural Observations. *Proceedings of Zoological Society*,<https://doi.org/10.1007/s12595-019-00290-w>
27. **Samanta, P.**,Im, H., Yoo, J., Lee, H., Kim, N.Y., Kim, W., Hwang, S.J., Kim, W.K. and Jung, J. 2018. Comparative assessment of the adverse outcome of wastewater effluents by integrating oxidative stress and histopathological alterations in endemic fish. *Journal of Hazardous Materials*, **344**: 81–89.
28. **Samanta, P.**,Im, H., Na, J. and Jung, J. 2018. Ecological Risk Assessment of a Contaminated Stream using Multi-Level Integrated Biomarker Response in *Carassius auratus*. *Environmental Pollution*, **233**: 429–438.
29. **Samanta, P.**, Pal, S., Mukherjee, A. K., Senapati, T., Jung, J., and Ghosh, A. R. 2019. Assessment of Adverse Impacts of Glyphosate-Based Herbicide, Excel Mera 71 by Integrating Multi-Level Biomarker Responses in Fishes. *International Journal of Environmental Science & Technology*,**16**: 6291–6300 <https://doi.org/10.1007/s13762-018-2013-3>
30. **Samanta, P.**, Das, R., Pal, S., Mukherjee, A. K., Senapati, T., Kole, D. and Ghosh, A. R. 2018. Toxicity Assessment of Agrochemical Almix in *Heteropneustesfossilis* through Histopathological Alterations. *Interdisciplinary Toxicology*, **11**(2): 101-110.
31. **Samanta, P.**, Pal, S., Senapati, T., Mukherjee, A. K. and Ghosh, A. R. 2018. Assessment of Adverse Outcome of Excel Mera 71 in *Anabas testudineus* by Histological and Ultrastructural Alterations. *Aquatic Toxicology*, **205**: 19-24
32. **Samanta, P.**,Im, H., Na, J. and Jung, J. 2018. Integrated biomarker responses in livers of the pale chub *Zacco platypus* for risk assessment of a stream contaminated by wastewater effluents. *Bulletin of Environmental Contamination and Toxicology*, **101**: 580–585.
33. Pal, S., **Samanta, P.**, Kole, D., Mukherjee, A.K. and Ghosh, A.R. 2018. Acute Toxicity and Oxidative Stress Responses in Tadpole of Skittering Frog,*Euphlyctiscyanophlyctis* (Schneider, 1799) to Sodium Fluoride Exposure. *Bulletin of Environmental Contamination and Toxicology*, **100**(2): 202-207
34. **Samanta, P.**, Pal, S., Mukherjee, A. K., Senapati, T. and Ghosh, A. R. 2019. Effects of Glyphosate-Based Herbicide (Excel Mera 71) on Digestive Enzymes and Recovery Pattern in Teleostean Fishes. *Proceedings of Zoological Society*, **72**(1): 54-60.
35. **Samanta, P.**, Pal, S., Mukherjee, A. K., Senapati, T., Jung, J., and Ghosh, A. R. 2017. Multi-level Integrative Biomarker Responses in Freshwater Teleostean Fishes Exposed to Almix Herbicide. *International Journal of Environmental Research*, **11**(4): 475–487.
36. **Samanta, P.**,Bandyopadhyaya, N., Pal, S., Mukherjee, A. K. and Ghosh, A. R. 2015. Histopathological and Ultramicroscopical Changes in Gill, Liver and Kidney of *Anabas testudineus*After Chronic Intoxication of Almix (metsulfuron methyl 10.1% + chlorimuron ethyl 10.1%) Herbicide. *Ecotoxicology and Environmental Safety*. **122**: 360–367.
37. **Samanta, P.**, Pal, S., Mukherjee, A. K. and Ghosh, A. R. 2014. Biochemical Effects of Glyphosate Based Herbicide, Excel Mera 71 on Enzyme Activities of Acetylcholinesterase (AChE), Lipid Peroxidation (LPO), Catalase (CAT),

Glutathione-S-transferase (GST) and Protein Content on Teleostean Fishes. *Ecotoxicology and Environmental Safety*. **107**: 120–125.

38. Kim, S., **Samanta, P.**, Yoo, J., Kim, W.K. and Jung, J. 2017. Time-dependent toxicity responses in *Daphnia magna* exposed to CuO and ZnO nanoparticles. *Bulletin of Environmental Contamination and Toxicology*, **98**: 502–507.
39. **Samanta, P.**, Pal, S., Mukherjee, A. K. and Ghosh, A. R. 2014. Evaluation of Metabolic Enzymes in Response to Excel Mera 71, a Glyphosate-Based Herbicide, and Recovery Pattern in Freshwater Teleostean Fishes. *BioMed Research International*. Volume 2014, 1–6, Article ID 425159. doi:10.1155/2014/425159
40. Bae, E., **Samanta, P.**, Yoo, J. and Jung, J. 2016. Effects of multigenerational exposure to elevated temperature on reproduction, oxidative stress, and Cu toxicity in *Daphnia magna*. *Ecotoxicology and Environmental Safety*. **132**: 366–371.
41. **Samanta, P.**, Pal, S., Mukherjee, A. K., Senapati, T., Kole, D. and Ghosh, A. R. 2014. Effects of Almix Herbicide on Profile of Digestive Enzymes of Three Freshwater Teleostean Fishes in Rice Field Condition. *Toxicology Reports*. **1**: 379–384.
42. **Samanta, P.**, Kumari, P., Pal, S., Mukherjee, A. K. and Ghosh, A. R. 2018. Histopathological and Ultrastructural Alterations in Some Organs of *Oreochromis niloticus* Exposed to Glyphosate-Based Herbicide, Excel Mera 71. *Journal of Microscopy and Ultrastructure*, **6**: 35-43.
43. **Samanta, P.**, Im, H., Lee, H., Hwang, S.J., Kim, W., Ghosh, A.R., Jung, J. 2016. Impact assessment of sewage effluent on freshwater crucian carp *Carassius auratus* using biochemical and histopathological biomarkers. *Journal of Korean Society on Water Environment*. **32(5)**: 419–432.
44. Dey, S., **Samanta, P.**, Pal, S., Mukherjee, A. K., Kole, D. and Ghosh, A. R. 2016. Integrative Assessment of Biomarker Responses in Teleostean Fishes Exposed to Glyphosate-Based Herbicide (Excel Mera 71). *Emerging Contaminants*, **2(4)**: 191-203.
45. **Samanta, P.**, Pal, S., Mukherjee, A. K., Kole, D. and Ghosh, A. R. 2016. Toxic Effects of Glyphosate-Based herbicide, Excel Mera 71 on Gill, Liver and Kidney of *Heteropneustes fossilis* under Laboratory and Field Conditions. *Journal of Microscopy and Ultrastructure*, **4**: 147–155.
46. **Samanta, P.**, Pal, S., Mukherjee, A. K., Senapati, T. and Ghosh, A. R. 2016. Alterations in Digestive Enzymes of Three Freshwater Teleostean Fishes by Almix Herbicide: A Comparative Study. *Proceedings of the Zoological Society*. **69(1)**: 61–66.
47. **Samanta, P.**, Pal, S., Mukherjee, A. K., Senapati, T. and Ghosh, A. R. 2015. Evaluation of Enzymatic Activities in Liver of Three Teleostean Fishes Exposed to Commercial Herbicide, Almix 20 WP. *Proceedings of the Zoological Society*. **68(1)**: 9–13.
48. **Samanta, P.**, Pal, S., Mukherjee, A. K. and Ghosh, A. R. 2016. Pathological (Histological and Ultrastructural) Study in Stomach and Intestine of *Heteropneustes fossilis* (Bloch) to Excel Mera 71, a Glyphosate-Based Herbicide. *Journal of Gastrointestinal and Digestive System*, **6**: 479. doi:10.4172/2161-069X.1000479
49. **Samanta, P.**, Pal, S., Mukherjee, A. K., Senapati, T. and Ghosh, A. R. 2016. Ultrastructural Alterations in *Oreochromis niloticus* Exposed to Glyphosate-Based Herbicide, Excel Mera 71. *Austin Journal of Environmental Toxicology*, **2(2)**: 1016.
50. **Samanta, P.**, Pal, S., Mukherjee, A. K., Senapati, T., Kole, D. and Ghosh, A. R. 2016. Gastrointestinal Pathology in Freshwater Fish, *Oreochromis niloticus* (Linnaeus) Under Almix Exposure. *Journal of Environmental and Analytical Toxicology*. **6**: 399. doi:10.4172/2161-0525.1000399.
51. **Samanta, P.**, Pal, S., Mukherjee, A. K., Kole, D. and Ghosh, A. R. 2016. Histopathological Study in Stomach and Intestine of *Anabas testudineus* (Bloch) under Almix Exposure. *Fisheries and Aquaculture Journal*. **7**: 179. doi:10.4172/2150-3508.1000179.

52. **Samanta, P.**, Pal, S., Mukherjee, A. K., Senapati, T. and Ghosh, A. R. 2016. Effects of Almix Herbicide on Histopathological and Ultrastructural Alterations in Freshwater Fish, *Heteropneustesfossilis*: A Comparative Study. *Annals of Biological Research*. **7(2)**: 24–32.
53. **Samanta, P.**, Pal, S., Mukherjee, A. K., Senapati, T. and Ghosh, A. R. 2016. Histopathological and Ultrastructural Alterations in *Anabas testudineus* Exposed to Glyphosate-Based Herbicide, Excel Mera 71 under Field and Laboratory Conditions. *Journal of Aquaculture Research and Development* **7**: 436. doi:10.4172/2155-9546.1000436.
54. **Samanta, P.**, Pal, S., Mukherjee, A. K., Senapati, T. and Ghosh, A. R. 2016. Cytopathological Effects of Almix Herbicide on Gill, Liver and Kidney of *Oreochromis niloticus* under Field and Laboratory Conditions. *Toxicology: Open Access*. **2**: 112. doi:10.4172/tyoa.1000112.
55. **Samanta, P.**, Pal, S., Mukherjee, A. K., Senapati, T., Kole, D. and Ghosh, A. R. 2016. Effects of Almix® Herbicide on Oxidative Stress Parameters in Three Freshwater Teleostean Fishes in Natural Condition. *Biochemistry and Pharmacology: Open Access*. **5**:209.doi:10.4172/2167-0501.1000209.
56. Khatun, A., Pal, S., Mukherjee, A. K., **Samanta, P.**, Mondal, S., Kole, D., Chandra, P. and Ghosh, A. R. 2016. Evaluation of Metal Contamination and Phytoremediation Potential of Aquatic Macrophytes of East Kolkata Wetlands, West Bengal, India. *Environmental Health and Toxicology*. **31**, 1-7.
57. **Samanta, P.**, Pal, S., Mukherjee, A. K., Senapati, T. and Ghosh, A. R. 2014. Effects of Almix Herbicide on Metabolic Enzymes in Different Tissues of Three Teleostean Fishes *Anabas testudineus*, *Heteropneustesfossilis* and *Oreochromis niloticus*. *International Journal of Scientific Research in Environmental Sciences*. **2 (5)**: 156–163.
58. **Samanta, P.**, Pal, S., Mukherjee, A. K., Senapati, T., Kole, D. and Ghosh, A. R. 2014. Effects of Almix Herbicide on Alanine Aminotransferase (ALT), Aspartate Aminotransferase (AST) and Alkaline Phosphatase (ALP) of Three Teleostean Fishes in Rice Field Condition. *Global Journal of Environmental Sciences and Research*. **1 (1)**: 1–9.
59. **Samanta, P.**, Pal, S., Mukherjee, A. K. and Ghosh, A. R. 2014. Biochemical Effects of Almix Herbicide in Three Freshwater Teleostean Fishes. *HydroMedit - 2014, 1st International Congress of Applied Ichthyology & Aquatic Environment*, Volos, Greece. November 13-15, **1**, 162–167.
60. Kole, D., Pal, S., Mukherjee, A. K., **Samanta, P.** and Ghosh, A. R. 2014. Effects of Chromium on Tissue-Specific Biochemical Parameters in Freshwater Catfish, *Anabas testudineus* (Bloch). *HydroMedit - 2014, 1st International Congress of Applied Ichthyology & Aquatic Environment*, Volos, Greece, November 13-15, **1**, 169–174.
61. Kole, D., **Samanta, P.**, Pal, S., Mukherjee, A. K., and Ghosh, A. R. 2014. Limnobiological Status of Hospital Wastefed Pond within the Burdwan Medical College and Hospital Premises at Burdwan Town, W.B. *The Ecoscan*. **8 (1&2)**: 11–16.
62. Pal, S., Mukherjee, A. K., Senapati, T., **Samanta, P.**, Mondal, S. and Ghosh, A. R. 2014. Study on Littoral Zone Sediment Quality and Aquatic Macrophyte Diversity of Opencast Coal Pit-Lakes in Raniganj Coal Field, West Bengal, India. *International Journal of Environmental Sciences*. **4 (4)**: 575–588.
63. **Samanta, P.**, Mukherjee, A. K., Pal, S., Senapati, T., Mondal, S. and Ghosh, A. R. 2013. Major Ion Chemistry and Water Quality Assessment of Waterbodies at Golapbag Area Under Barddhaman Municipality of Burdwan District, West Bengal, India. *International Journal of Environmental Sciences*. **3 (6)**: 1954–1972.
64. Pal, S., Mukherjee, A. K., Senapati, T., **Samanta, P.**, Mondal, S. and Ghosh, A. R. 2013. Surface Water Quality Assessment of Abandoned Opencast Coal Pit-lakes in Raniganj Coalfields Area, India. *The Ecoscan*. Special issue (Vol. IV): 175–188.
65. Senapati, T., **Samanta, P.**, Mandal, S., and Ghosh, A. R. 2013. Study on Histopathological, Histochemical and Enzymological Alterations in Stomach and Intestine of *Anabas testudineus*(Cuvier) Exposed to Almix 20WP Herbicide. *International Journal of Food, Agriculture and Veterinary Sciences*. **3 (2)**: 100–111.

66. **Samanta, P.**, Senapati, T., Mukherjee, A. K., Mondal, S., Haque, S. and Ghosh, A. R. 2010. Effectiveness of Almix in Controlling of Aquatic Weeds and Fish Growth and Its Consequent Influence on Water and Sediment Quality of a Pond. *The Bioscan*. Special issue (3): 691–700.

• **Published Textbooks, Edited Books, and Book Chapters in Edited Volumes:**

Sl. No.	Title of the Chapter	Title of the Book/ Edited Book	Publishers
1	--	Herbicide Toxicity on Fish: Emphasis on Glyphosate & Almix	LAP LAMBERT Academic Publishing (Germany)
2	Microbe-Mediated Remediation of Heavy Metal Contamination	Microbes, Environment and Human Welfare	NOVA Science Publishers, Inc, New York
3	Biomarker Analysis in Ichthyotoxicological Paradigm: Electron Microscopic Observations of Almix and Glyphosate Exposures	Vision Towards Environmentally Sustainable Future	New Delhi Publishers, New Delhi
4	Artificial Neural Network: An Alternative Approach for Assessment of Biochemical Oxygen Demand of the Damodar River, West Bengal, India	Intelligent Environmental Data Monitoring for Pollution Management	Academic Press, USA
5	Dominative Activity on Social-Media of India and Bangladesh during COVID-19: Evidence of a Scalable Accuracy-Nose Intervention	Innovative Approaches on Environmental Sustainability and Toxicology	LAP LAMBERT Academic Publishing (Germany)
6	Mechanism of Metal Sorption by Biochar	Biochar - Applications for Bioremediation of Contaminated Systems	DE GRUYTER, Germany
7	Second-Generation Biofuels Towards Environmental Sustainability	Encyclopedia of Green Materials	Springer Nature Singapore Pte Ltd
8	Third Generation Biofuels Using Green Algae	Encyclopedia of Green Materials	Springer Nature Singapore Pte Ltd
9	Green Electrospun Nanofibers	Encyclopedia of Green Materials	Springer Nature Singapore Pte Ltd
10	Green Nanomaterials Synthesis from Third-Generation Algae	Encyclopedia of Green Materials	Springer Nature Singapore Pte Ltd
11	Bioplastic as Potential Food Packaging Materials	Encyclopedia of Green Materials	Springer Nature Singapore Pte Ltd

12	Life Cycle Assessment of Bioplastics	Encyclopedia of Green Materials	Springer Nature Singapore Pte Ltd
13	Impacts of Low Carbon Economy (LCE) in India: A Review	Economic, Environmental and Health Consequences of Conservation Capital-A Global Perspective	Springer Nature
14	Effect of Co-Digestion and Pretreatment on the Bio-Hythane Production	Biofuels: Technologies, Policies, and Opportunities	CRC Press
15	COVID-19 Pandemic Waste Management: A Recent Advances	Waste Management and Treatment: Advances and Innovations	CRC Press
16	An overview of Biomass Conversion from Agricultural Waste: Address on Environmental Sustainability	Agriculture Waste Management and Bioresource: The Circular Economy Perspective	Wiley UK
17	Agro-Wastes as Low-Cost Bio-sorbent for Dyes Removal from Wastewater	Agriculture Waste Management and Bioresource: The Circular Economy Perspective	Wiley UK
18	Green Material Production from Different Plants Oils	Encyclopedia of Green Materials	Springer Nature Singapore Pte Ltd
19	Chitosan-Based Composites as Sustainable Food Packaging Materials	Encyclopedia of Green Materials	Springer Nature Singapore Pte Ltd
20	Life Cycle Assessment of Biohydrogen from Biomass	Encyclopedia of Green Materials	Springer Nature Singapore Pte Ltd

• **Participation in Seminars/ Conferences (State/ National/ International):**

Sl. No.	Name of Seminar/ Conference	Level of Seminar	Attended as Participant only/ Paper Presented	Name of the Paper/ Lecture Topic
1	WORLD ENVIRONMENT SUMMIT 2022	International	Participated and presented	Neurotoxicity Assessment of Almix and Excel Mera 71 Herbicides in <i>Anabas testudineus</i>
2	International Conference on Applications of Nanotechnology in Biology, Biotechnology and Biopharmaceuticals (ICNB3)	International	Participated and presented	Neurotoxicity Induced by Almix and Excel Mera 71 in <i>Anabas testudineus</i>

3	International Conference on Toxicology	International	Participant	--
4	National E-Conference on Environmental Problems and Their Mitigation Strategies to Achieve Sustainable Development	National	Participant	--
5	<i>International Conference on Biotechnology for Sustainable Agriculture, Environment and Health (BASEH-2021)</i>	International	Participated and presented	<i>Evaluation of Health Status of Oreochromis niloticus Based on Brain Optic Tectum Morphopathology</i>
6	<i>International E-Conference on Bioprospecting (ICONBIO)</i>	International	Participated and presented	<i>Assessment of Herbicide-Induced Histopathological Alterations in Brain Optic Tectum of Heteropneustes fossilis</i>
7	<i>4th World Clean environment Summit 2020</i>	National	Participated and presented	<i>Effects of Almix and Excel Mera 71 Herbicides on Brain Morphology of Oreochromis niloticus</i>
8	<i>4th International Conference (Webinar) on “Mother Earth: Save it to Achieve a Sustainable Future for All</i>	International	Participated and presented	<i>Histopathological Manifestations in Brain Optic Tectum: A Good Tool to Assess Neurotoxicity of Environmental Stressors</i>
9	<i>National Web Conference on “Challenges and Opportunities in Life Science for Self-Sustaining Life Security</i>	National	Participated	--
10	<i>National Web Conference on “Plastic and E-waste Management: A Challenge to Clean Environment</i>	National	Participated	--
11	<i>International Web Conference on “Innovative Technologies, Entrepreneurship Avenues, Livelihood Enhancement in Sustainable Management of Animal Farming</i>	International	Participated	--

12	<i>National Conference on Socio-Economic Challenges & Possibility of Rural, Agriculture, Biodiversity, Environment, Tourism & Sustainable Resource Management Development</i>	National	Participated	--
13	<i>National Conference on Entrepreneurship Development: Challenges & Possibilities</i>	National	Participated	--
14	<i>4th Regional Science & Technology Congress (Western Region), 2019</i>	State	Participated and presented	<i>Histopathological Manifestations of Sub-Chronic Toxicity of Almix and Excel Mera 71 Herbicides in Brain (Optic Tectum) of Anabas testudineus</i>
15	<i>23rd International Seaweed Symposium</i>	International	Participated and presented	<i>Assessment of Salinity Tolerance Based on Physiological and Oxidative Stress Responses in Ulva and Pyropia</i>
16	<i>2017 International Environmental Engineering Conference</i>	International	Participated and presented	<i>Toxicity Assessment of a Contaminated Stream by Industrial Effluents using Wild Fish Zacco platypus</i>
17	<i>Resilience Thinking in a Changing World</i>	National	Participated	--
18	<i>Modern Trends in Biotechnology</i>	National	Participated	--
19	<i>Mother Earth: Save it to Achieve a Sustainable Future for All</i>	International	Participated and presented	<i>Chronic Cytopathological Effects of Almix Herbicide under Field and Laboratory Conditions</i>
20	<i>Anthropogenic Impact on Environment and Conservation Strategy</i>	International	Participated and presented	<i>Comparative Study on Total Protein Content and Aminotransferases Activities (AST and ALT) in Liver of Three Almix Intoxicated Teleostean Fishes, Anabas testudineus, Heteropneustes fossilis, and Oreochromis niloticus</i>
21	<i>Aquaculture & Probiotics</i>	National	Participated	--
22	<i>Mother Earth: Save it to Achieve a Sustainable Future for All</i>	International	Participated	--

- **Participation as Resource Person/ Guest Speaker:**

1. Invited as **Resource Person** and delivered talk on “Almix-Induced Histochemical Alterations in Intestine and Stomach of Three Indian Teleostean Fishes” in the National Conference on Environment & Energy Materials (NCEEM 2020) organized by Sharda University, Uttar Pradesh held on June 27 & 28, 2020
2. Invited as **Resource Person** in the National Workshop cum Hands-on Training Programme on Transmission Electron Microscopy organized by University Science Instrumentation Centre, the University of Burdwan held from February 5 to 11, 2019
3. Invited as **Practical Demonstrator** in the DST, GoI Sponsored “*INSPIRE INTERNSHIP Program-2014*” organized by Dept. of Environmental Science, the University of Burdwan held from August 18 to 22, 2014
4. Invited as **Practical Demonstrator** in the DST, GoI Sponsored “*INSPIRE INTERNSHIP Program-2013*” organized by Dept. of Environmental Science, the University of Burdwan held from July 9 to 13, 2013
5. Invited as **Practical Demonstrator** with the DST, GoI Sponsored “*INSPIRE INTERNSHIP Program-2012*” organized by UGC-Academic Staff College, the University of Burdwan held from July 6 to 10, 2012
6. Invited as **Practical Demonstrator** with the DST, GoI Sponsored “*INSPIRE INTERNSHIP Program-2011*” organized by UGC-Academic Staff College, the University of Burdwan held from July 11 to 15, 2011

- **Participation in Corporate life other than Academic Field:** Involved in Consultancy Firm.