

Curriculum Vitae

Name **Prof. (Dr.) Dipak Kumar Mandal**

Current Designation Professor and Head
Department of Zoology
Centre for Advanced Studies
Visva-Bharati

Employee Id **1997053**

Date of Joining at **10.05.1997**
Visva-Bharati

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<http://www.scopus.com/authid/detail.url?authorId=56185007000>

<http://scholar.google.co.in/citations?user=xNDHjtIAAAJ>

Date of Birth **10.11.1966**

Personal Details **Father:** Late Braja Gopal Mandal
Mother: Smt. Bhagabati Mandal
Indian, Hinduism, Married, Male

Office Address Fish Biology Laboratory
Department of Zoology
(Centre for Advanced Studies)
Visva-Bharati (A Central University)
Santiniketan-731235, Dist.-Birbhum
West Bengal, India

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Birbhum, West Bengal, India

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EDUCATION:

- B.Sc (Hons) in Zoology in 1987 2nd Class Burdwan University.
- M.Sc in Zoology (Fish and Fisheries special paper) in 1989 1st Class Burdwan University.
- Ph.D. in Science (Zoology) in 2001, Burdwan University.

Thesis title, "Effect of artificial feed on gonadal maturation of *Labeo bata* (Hamilton) and *Puntius javanicus* (Bleeker)." Supervisor: Prof. P. Chakrabarti, Department of Zoology, Burdwan University.

- NET JRF (CSIR) in Life Sciences in 1990
- GATE in Basic Sciences in 1990.

AWARD AND FELLOWSHIP

- Awarded research grant as JRF and SRF from the CSIR, New Delhi from 1991-1996.
- Awarded research fund as Major Research project from UGC in 2003.
- Awarded research fund as Major Research project from UGC in 2011.

ADMINISTRATIVE EXPERIENCE:

- Head of the Department 10.03.2022 to present

MEMBER IN ACADEMIC BODIES:

- Member of the Institute Board, Siksha-Bhavana, Visva-Bharati since 2013
- Member of the Academic Council, Visva-Bharati since 2013
- Member Board of Studies, Department of Zoology, Visva-Bharati since 1997
- Chairman Board of studies, Department of Zoology Visva-Bharati since 10.03.2022
- Adhyaksha's Nominee member of the Admission Committee, Siksha-Bhavana-Visva-Bharati
- Member Secretary, Institution Ethic committee for Human Research since 2022-2025.
- Member, Green Audit Committee, Visva-Bharati since 2023- till date
- External Member of the UG Board of Studies Burdwan University since 2010-2018
- External Member of the UG Board of Studies, Bankura University since 2020 to till date
- External member of the Doctoral Research Committee Burdwan University since 2018
- External Member of the Dissection Committee, Burdwan University since 2020
- Expert member in the Zoology Faculty Selection Committee, Panchanan Barma University
- Expert Member in the Zoology Faculty Selection Committee, Burdwan University.
- Expert member in the selection Committee, Fisheries in West Bengal College Service Commission.
- External member in the moderation Board of PG Examination in different Universities
- External Examiners and Paper setter in PG Examination in Different Universities
- External Examiner of Ph.D. Thesis and Viva-voce Examination in different Universities

ACADEMIC EXPERIENCES

TEACHING EXPERIENCES: 28 years at University

Teaching area:

- B.Sc (Hons) in Zoology: Non-chordate and chordate biology, comparative anatomy of vertebrates, Fish Biology and Fisheries and histology of animal tissues.
- M.Sc in Zoology: Animal tissue and histological techniques, microscopy, spectrophotometry, Fish Biology, Fish anatomy and physiology, aquaculture and fisheries
- Ph.D .Course Work: Animal tissue and histological techniques, Microscopy, spectrophotometry

TEACHING POSITIONS HOLD AT VISVA-BHARATI

	Periods	Position	Assignment	Institution
1	10.5.97 to 21.8.01	Lecturer in Zoology (permanent post)	Teaching in UG &PG Courses in Zoology & Research	Visva-Bharati
2.	22.8.01 to 10 .5.06	Senior Lecturer in Zoology	do	Visva-Bharati
3.	11.5.06 to 10.5.09	Reader in Zoology	do	Visva-Bharati
4.	10.5.09 to30.04.13	Associate Professor	do	Visva-Bharati
5.	01.05.13 to present	Professor	do	Visva-Bharati

GUEST FACULTY

- Part time Lecturer in Zoology at TDB College Raniganj 1993-1996
- Part time Lecturer in Industrial fisheries, Burdwan Raj College 1994-1996
- Guest lecturer in Zoology, Department of Zoology, Burdwan University 2006
- Guest Lecturer in Biotechnology, Visva-Bharati 1998-2004

RESEARCH EXPERIENCES: 28 years

Research Area:

Fish Biology, Fish reproduction, Fish olfaction, Fish nutrition Aquatic Toxicology

RESEARCH PROJECTS HANDLED:

Sl. No.	Topics	Sponsoring agency	Duration	Amount of Grant	Status
1.	Effect of Lead and Cadmium toxicity on the structure and function of the olfactory organ of <i>Channa punctatus</i> (Bloch).	UGC 2003	01.07.2003 to 30.6.2006	7,46,400/-	completed
2.	Carp culture on the basis of insect feed.	UGC 2011	01.07.2011 to 30.06.2014	14,50,000/-	Completed

PH.D. SUPERVISION

Sl. No.	Name of the Scholars	Thesis title	Status
1	Debraj Roy	Cadmium induced toxicity responses in the olfactory epithelium of <i>Channa punctatus</i> (Bloch)	Awarded in 2011
2	Arijit Gangopadhyay (Ganguly)	Nutritional evaluation of acridids (Acrididae: Orthoptera) in supplementary diets for ornamental fish.	Awarded in 2013
3	Debasree Ghosh	Toxic effect of mercury on the olfactory epithelium of <i>Labeo rohita</i> (Hamilton)	Awarded in 2015
4	Koushik Roy	Effect of nonylphenol ethoxylate of the gonadal maturation of <i>Labeo bata</i> (Hamilton)	Awarded in 2017
5	Shubhasish Ghosh	Evaluation of nutrition of grasshopper <i>Oxya hyla hyla</i> meal in the diet formulation for <i>Labeo rohita</i> (Hamilton)	Awarded in 2017
6	Ishita Samajdar	Evaluation of toxic effects of organophosphate pesticides in the olfactory organ of <i>Labeo bata</i> (Hamilton)	Awarded in 2018
7.	Urmi Bhattacharya	Impact of Bisphenol-A on the metabolism and reproduction of <i>Labeo bata</i> (Hamilton, 1822)	Awarded in 2022

8.	Manisha Das	A study of 4-nonylphenol induced immunotoxic impacts in a snake head fish, <i>Channa punctatus</i> (Bloch)	Registered in 2019
9.	Ragini Sinha	Assessment of immunotoxic effects of an endocrine disrupting compound, Dibutyl phthalate on <i>Labeo bata</i> (Hamilton)	Registered in 2019
10	Nibedita Sharma	Octylphenol induced impact on fish reproduction	Registered in 2020
11	Rajat Das	Evaluation of Di-n-butyl phthalate (DBP) induced toxicity responses and its impact on thyroid hormone regulation in <i>Labeo rohita</i> (Hamilton, 1822)	Registered in 2022
12	Priya Tantubay	Evaluating Dragon flies as bioindicator on the heavy metal contamination and their effects on the community of the Ganga river at Katwa-Nayachar region: An ecological modeling approach.	Registered in 2022

PUBLICATIONS:

1. Ragini Sinha and **Dipak Kumar Mandal** (2024). Immune system of fish with special reference to estrogenic immune regulation: A review. *Acta Zoologica*, DOI: 10.1111/azo.12519.
2. Ishita Samajdar, Subhajit Saha and **Dipak Kumar Mandal** (2023) Chlorpyrifos induced oxidative stress responses and alteration of acetylcholinesterase activity in the olfactory organ of freshwater minor carp *Labeo bata*. *Iranian Journal of Ichthyology* 10(4) 248-263.
3. Arijit Ganguly, Parimalendu Haldar and **Dipak Kumar Mandal** (2021). On the biomass production of *Spathosternum prasiniferum prasiniferum* (Walker, 1871) (Orthoptera: Acrididae) as a potential insect to feed the livestock. *International Journal of Tropical Insect Science* 41, 1969-1976.
4. Mukherjee Urmi, Samanta Anwesha, Biswas Subhasri, Das Sriparna, Ghosh Soumyajyoti, **Mandal Dipak K**, Maitra Sudipta (2020). Bisphenol A-induced oxidative stress, hepatotoxicity and altered estrogen receptor expression in *Labeo bata*: impact on metabolic homeostasis and inflammatory response. *Ecotoxicology and Environmental Safety*, 202, doi.org/10.1016/j.ecoenv.2020.110944 (Elsevier, IF 4.525)
5. Ganguly Arijit, Haldar Parimalendu and **Mandal Dipak Kumar** (2020). On the biomass production of *Spathosternum prasiniferum* (orthoptera: Acrididae) as a potential

alternative protein source to feed live stock. *International journal of tropical Insect Science*, doi.org/10.1007/s2690-020-00328-z (Springer, IF 0.928)

6. Ghosh Subhasish and **Mandal Dipak Kumar** (2019). Nutritional evaluation of a short-horned grasshopper, *Oxya hyla hyla* (Serville) meal as a substitute of fishmeal in the compound diets of rohu, *Labeo rohita* (Hamilton). *The Journal of Basic and Applied Zoology* **80**: 28-36. doi.org/10.1186/s41936-019-0104-4. (Springer Open) ISSN: 2090-990X
7. Roy Kousik, **Mandal Dipak Kumar**, Ghosh Pinki and Majumdar Sandip (2018). Annual reproductive cycle of male Indian minor carp *Labeo bata* (Hamilton, 1822) *International Journal of Scientific Research and Reviews*. 7(8)556-564. (ISSN 2279-543X)
8. Roy K and **Mandal D.K** (2018). Acute toxicity study and behavioural response of Indian minor carp, *Labeo bata* by the exposure of nonylphenol ethoxylate *International Journal of Scientific Research in Biological Sciences*. 5(4), 55-60. doi.org/10.26438/ijrsrbs/v5i4.5560 (IF 1.013) (ISSN 2347 7520)
9. Roy Kousik, Majumdar Sandip and **Mandal Dipak Kumar** (2018). Seasonal variation on fish reproduction: A review. *International Journal of Scientific Research and Reviews*. 7(8), 452-466. (ISSN 2279-543X)
10. Samajdar Ishita and **Mandal Dipak Kumar** (2017). Histology and surface ultrastructure of the gill of a minor carp, *Labeo bata* (Hamilton). *Journal of Scientific Research* 9(2), 201-208.
11. Samajdar Ishita and **Mandal Dipak Kumar** (2016). Histological organization and ultra structures of the apical surfaces of the olfactory epithelium of a carp, *Labeo bata* (Hamilton). *International Journal of Pure and Applied Zoology* (Allied Academies, UK; IF 0.765; ISSN No. 2320-9577).
12. Ghosh Subhasish, Haldar Parimalendu and **Mandal Dipak Kumar** (2016). Nutritional evaluation of a short-horned grasshopper, *Oxya hyla hyla* Surville (Orthoptera: acrididae) in search of new protein source. *Journal of Entomology and Zoology Studies* **4(1):193-197** (ISSN 2349-6800).
13. Ghosh Subhasish, Haldar Parimalendu and **Mandal Dipak Kumar** (2015). Biotic potential of short- horned grasshopper, *Oxya hyla hyla* Servelli (Orthoptera: acrididae) to assess its biomass producing capacity. *Proceedings of Zoological Society*. DOI.10.1007/s12595-015-0159-2 (ISSN 0373-5893 Springer).

14. Samajdar Ishita and **Mandal Dipak Kumar** (2015). Acute toxicity and impact of an organophosphate pesticide, chlorpyrifos on some haematological parameters of an Indian minor carp, *Labeo bata* (Hamilton 1822). ***International Journal of Environmental Sciences* 6 (1): 106-113** (ISSN 0976-4402, Integrated Publishing Association).

15. Mandal Sandip, Banerjee Arnab, Ghosh Debasree, **Mandal Dipak Kumar**, Safin Damir A., Babashkina Maria G., Robeyns Koen, Mitoraj Mariusz P., Kubisiak Piotr, Garcia Yann and Das Debasish (2015). Anion induced multisignaling probe for Hg²⁺ and its application for fish kidney and liver tissue imaging studies. ***Dalton Transactions* 44:13186-13195. DOI 10.1039/C5DT01854D (Impact factor 4.197).**

16. Roy Kousik and **Mandal Dipak Kumar** (2015) Annual changes in the ovarian development in a minor carp, *Labeo bata* (Hamilton-Buchanon, 1822). ***International Journal of Fisheries and Aquatic Studies* 2(6): 19-24.** (Impact Factor 0.353).

17. Ganguly A, Chakravorty R, Sarkar A, **Mandal DK**, Haldar P, et al. (2014) A Preliminary Study on *Oxya fuscovittata* (Marschall) as an Alternative Nutrient Supplement in the Diets of *Poecillia sphenops* (Valenciennes). ***PLoS ONE* 9(11): e111848.** doi:10.1371/journal.pone.111848 (Impact Factor 3.620).

18. Subhasish Ghosh, Parimalendu Haldar and **Dipak Kumar Mandal** (2014). Suitable food plant for rearing of a short horn grasshopper, *Oxya hyla hyla* (Orthoptera: Acrididae). ***European Journal of Entomology* 111(3):448-452** (ISSN 1210-5759, Impact Factor: 1.076).

19. Debasree Ghosh and **Dipak Kumar Mandal** (2014) Mercury induced toxicity responses in the olfactory epithelium of *Labeo rohita* (Hamilton) ***J. Fish Physiology and Biochemistry* 44 (1): 83-92 DOI 10.1007/s10695-013-9826-2** (ISSN No. 0920-1742 (print) Springer, Impact factor 1.616).

20. Debraj Roy, Debasree Ghosh and **Dipak Kumar Mandal** (2013). Cadmium induced histopathology in the olfactory epithelium of a snakehead fish, *Channa punctatus* (Bloch). ***International Journal of Aquatic Biology* 1(5):221-227** (ISSN 2322-5270).

21. Debasree Ghosh and **Dipak Kumar Mandal** (2013) Median tolerance limit (TLM) and safe concentration of Mercuric chloride for an Indian major carp, *Labeo rohita* (Hamilton). ***Asian Journal of Experimental Biological Sciences* 4(2):310-314** (ISSN No. 0975-5845).

22. Arijit Ganguly, Ranita Chakravorty, Mousumi Das, Moumita Gupta, **Dipak Kumar Mandal**, Parimalendu Haldar, Julieta Ramous-Elorduy and Jose Manuel Pino Moreno

- (2013) A preliminary study on the estimation of nutrients and antinutrients in *Oedaleus abruptus* (Thunberg) (Orthoptera: Acrididae). **International Journal of Nutrition and Metabolism** 5(3): 50-65. (ISSN 2141-2499 Academic Journal).
23. Debasree Ghosh and **Dipak Kumar Mandal** (2012) Histopathological effects and Bio accumulation of Mercury in the kidney of an Indian major carp, *Labeo rohita* (Hamilton). **Bulletin Environmental Contamination and Toxicology** 89: 479-483. (ISSN No.0007-4861, Springer) (Impact factor: 1.216).
24. Debraj Roy, Debasree Ghosh and **Dipak Kumar Mandal** (2012) Induction of metallothionein in the olfactory epithelium of *Channa punctatus* (Bloch) in response to Cadmium exposure: An Immunohistochemical study. **Proceedings of Zoological Society** 65: 40-44. (ISSN 0373-5893 Springer).
25. Arijit Ganguly, Hena Anand, Mousumi Das, **Dipak Kumar Mandal** and Parimalendu Halder (2009). Potential value of a short horned grasshopper (*Oxya fuscovittata*) as a high protein alternative diet for black molly, *Poecilia sphenops*. **Research and Reviews of Biosciences** 3(1):34-38. (ISSN 0974- 7532 Trade Science Inc journal).
26. **Dipak Kumar Mandal** (2007) Annual histological changes in the testes of a minor carp, *Labeo bata* (Hamilton) **J. Inland Fisheries Society of India** 39(1):1-6. (ISSN 0379-3435).
27. Subhasis Pal and **Dipak Kumar Mandal** (2006) Seasonal Histological changes in the liver cells *Mastacembelus pancalus* (Hamilton). **J. Environment and Sociobiology** 3(1):25-32. (ISSN 0973- 0834).
28. **Dipak Kumar Mandal**, Debraj Roy and Leena Ghosh (2005). Structural organization of the olfactory epithelium of a spotted snakehead fish, *Channa punctatus*. **Acta Ichthyologica et Piscatoria** 35 (1): 45-50. (ISSN 0137-1592) (Impact factor: 0.691).
29. Subhasis Pal and **Dipak Kumar Mandal** (2005). Cyclic activities of adrenal tissue and their relation with annual ovarian cycle in spiny eel, *Macrognathus pancalus* (Hamilton). **J. Inland Fish. Soc. India**. 37 (1): 40-46. (ISSN 0379-3435).
30. **Dipak Kumar Mandal** (2004). Annual histological changes in the ovary of a freshwater minor carp, *Labeo bata* (Hamilton). **J. Environment & Sociobiology**: 1 (1&2): 13-20. (ISSN 0973-0834).
31. **Dipak Kumar Mandal** and Padmanabha Chakrabarti (1996): Architectural pattern of the mucosal epithelium of the alimentary canal of *Notopterus notopterus* (Pallus) and *Oreochromis mosasmbicus* (Peters): A comparative study. **Acta Ichthyologica et**

***Piscatoria*, Vol. XXVI, Fasc-1; 15-21. (ISSN 0137-1592) (Impact factor: 0.691).**

32. Padmanabha Chakrabarti, and **Dipak Kumar Mandal**, (1995): Seasonal histological changes in the ovary of *Puntius javanicus* (Bleeker). ***J Freshwater Biology***. 7(3) 195-201. (ISSN 0970-9517).
33. Padmanabha Chakrabarti, Swapna Ganguli and **Dipak Kumar Mandal** (1994): Histochemical studies of the digestive system of the freshwater cichlid fish, *Oreochromis mossambicus* (Peters) ***J. Freshwater Biology***. 6(1) 63-69.
34. Padmanabha Chakrabarti, Manju Ghosal and **Dipak Kumar Mandal** (1994): Micro anatomical and histopathological sequels of Cadmium intoxication on the olfactory epithelium of *Mystus vittatus* (Bloch). ***J Environment and Ecology***. 12(3): 540-544.
35. Padmanabha Chakrabarti, Apurba Ratan Ghosh and **Dipak Kumar Mandal** (1993): A Scanning Electron Microscopy examination of the mucosal epithelium of the alimentary canal of *Notopterus notopterus* (Pallus). ***J. Inland Fisheries Society of India*** 25(1): 7-15 (ISSN 0379-3435).
36. Padmanabha Chakrabarti, Manju Ghosal and **Dipak Kumar Mandal** (1993): Cadmium induced micro anatomical and histological alteration on the olfactory epithelium of *Anabas testudineus* (Bloch). ***J. Freshwater Biology*** 5(3): 253-262. (ISSN 0970-9517).
37. Padmanabha Chakrabarti, **Dipak Kumar Mandal**, and Swapna Ganguli (1992): A Scanning Electron Microscopy study of the mucosal epithelium of the alimentary canal of a stomach bearing fish *Oreochromis mossambicus* (Peters). ***European Archive of Biology*** 103; 265-270.

REVIEWER OF JOURNAL ARTICLES

- Ecotoxicology and Environmental safety
- Environmental Biology
- Emerging contaminants

MEMBERSHIP OF SCIENTIFIC BODIES

- Life member of Inland Fisheries Society of India, Barrackpore
- Life member of the Zoological Society of India, Kolkata

- Life member of the Environmental, Social and Biological Association of India, Kolkata

EXAMINER OF Ph.D. THESIS

1. Debraj Roy, Department of Zoology, Visva-Bharati, 2011
2. Arijit Ganguly Department of Zoology, Visva-Bharati 2013
3. Debasree Ghosh, Department of Zoology, Visva-Bharati 2015
4. Bishnupriya Saikia, Department of Zoology, Gauhati University, Gowhati, Assam 2016
5. A. Nanisole, Depart. of Fisheries Science, Kerala University, Trivanthapuram 2016
6. Asit Kumar Shit Department of Environment Science, Burdwan University 2017
7. Subhasis Ghosh, Department of Zoology, Visva-Bharati 2017
8. Kousik Roy, Department of Zoology, Visva-Bharati, 2017
9. Nilanjana Chatterjee, Department of Zoology, Burdwan University in 2017
10. Ishita Samajdar, Department of Zoology Visva-Bharati in 2018
11. Sandipan Talukdar, Department of Zoology, Burdwan University 2019
12. Sandip Giri, Department of Oceanography, Jadavpur University in 2020
13. Souryadeep Mukherjee, Department of Zoology, Burdwan University in 2020
14. Saida Parveen, Department of Zoology, Burdwan University in 2020
15. Prof. Nimai Chandra Saha, Burdwan University, Raiganj University in 2020
16. Lucky Nandi, Department of Zoology, Kalyani University in 2021
17. Pranesh Paul Department of Zoology, Calcutta University 2021
18. Himangsu Barman, Department of Calcutta University 2023
19. Suman, Department of Zoology, Banaras Hindu University 2024
20. Priyanjali Roy, Department of Biodiversity, Koraput Central University 2024
21. Monika Ghosh, Department of Zoology, Calcutta University 2025
22. Tuhina Department of Zoology, Banaras Hindu University 2025

ORGANIZER OF SEMINARS

1. Chairman, ' National Seminar on Recent Advances in Animal Sciences' held at Department of Zoology, Visva-Bharati during March 7-8, 2024.

2. Treasurer and member of the organizing committee in 'Advancement of Biology in the 21st Century' held at Department of Zoology, Visva-Bharati during February 28-29, 2020
3. Organizing member in Trends in Modern Biology: Techniques and Applications held at the Department of Zoology, Visva-Bharati during March 23-24, 2019
4. Organizing member in 'National Symposium on Comparative Endocrinology and Reproductive Biology (CERB 2015)' held at the Department of Zoology, Visva-Bharati during October 1-3, 2015
5. Treasurer, International Conference on "Environmental Biology and Ecological Modeling" during February 24-26, 2014 at the Department of Zoology, Visva-Bharati
6. Member of the organizing committee of the "International Symposium on Molecular Signalling" at Department of Zoology, Visva-Bharati in 2013
7. Organizing member of the National Seminar on 'Science and Nature: Tagore's vision and its relevance.' held at Siksha-Bhavana, Visva-Bharati during March 12-13, 2011.
8. Organizing member in the 'National workshop on "Interaction of ionizing radiation with Biological system' organized by UGC-DAE consortium for Scientific Research, Kolkata and Visva-Bharati at the Dept. Zoology, Visva-Bharati from March 29-30, 2010.
9. Organizing member in the 'National seminar of Environmental Biology and Fish Biology' held at Visva-Bharati from February 01-03, 2002.
10. Organizing member in the 'National Seminar on Emerging issues in Biotechnology' held at Visva-Bharati from March 26-28, 2001.
11. Joint Secretary of the organizing committee of the National seminar on "Environment Biology and Fish Biology" at Department of Zoology, Visva-Bharati in 1999

SEMINAR/ SYMPOSIUM ATTENDED AND INVITED TALK:

1. Delivered Prof. S.K.Maitra memorial lecture in the 'Golden jubilee international conference on Trends of research in Zoology' on organized by the Department of Zoology, Burdwan University, Burdwan January 4-5 2019
2. Subhasish Ghosh and Dipak Kumar Mandal presented a paper in the 'Golden jubilee international conference on Trends of research in Zoology' organized by the Department of Zoology, Burdwan University, January, 4-5 2019.
3. Chaired a scientific session in Two days Workshop cum National Seminar on "Trends in Modern Biology: Techniques and Applications, Organized by Visva-Bharati University, Santiniketan, India and NIPER, Kolkata. March, 23-24, 2019.

4. Deliver an invited talk in the International symposium of Insects and food feed and medicine' at Achharam Memorial College Jhalda, Purulia on 17.07.2019
5. Presented poster in Two days Workshop cum National Seminar on "Trends in Modern Biology: Techniques and Applications, Organized by Visva-Bharati University, Santiniketan, India and NIPER, Kolkata. March, 23-24, 2019.
6. Attended and acted as an evaluator in the West Bengal State regional Science congress organized by the West Bengal Department of Science and Technology and Burdwan University at Golapbag Campus, Burdwan University from January 4-5, 2020.
7. Organizing member and treasurer in the National Seminar on "Advancement of Biology in the 21st Century", Organized by Visva-Bharati University, Santiniketan, India in collaboration with Zoological Society, Kolkata from February 28-29, 2020.
8. Chaired a scientific session in the National Seminar on "Advancement of Biology in the 21st Century", Organized by Visva-Bharati University, Santiniketan, India in collaboration with Zoological Society, Kolkata from February 28-29, 2020.
9. Participated and presented paper in the 'International Conference on Aquatic Resources and Sustainable Management' organized by Central Calcutta Science and Culture Organisation for Youth and the University of Calcutta at Science City, Kolkata from 17-19 February, 2016
10. Organizing member of the 'National Symposium on Comparative Endocrinology and Reproductive Biology (CERB 2015)', organized by the Department of Zoology, Visva-Bharati, Santiniketan. 01-03 October, 2015
11. Paper presented in the 'International Conference Environmental Biology and Ecological modeling' held at Visva-Bharati during February 24-26, 2014.
12. Paper presented in 'International level Seminar on the Problems and Prospects in Aquaculture' at Vidyasagar University during March 1-3, 2013.
13. Participated in the National Seminar on "Application of statistics in the Biological Sciences and Engineering" held at PSB, Visva-Bharati from 10-11 December 2011.
14. Participated in UGC sponsored National Symposium on 'Pollution: Disbalancing the Global Environment: Treats and prevention" held at Bolpur during 05-06 March 2011.
15. Presented paper in the UGC sponsored National level Seminar on "Recent Trends in Zoology with special emphasis on animal diversity, fishery and genetics" at Kulti College, Burdwan from 28-29 November 2011.
16. Participated in National Seminar on 'Science and Nature: Tagore's Vision and its Relevance." Held at Siksha-Bhavana, Visva-Bharati during March 12-13, 2011.
17. Participated in National Seminar cum exposition 'Modern microscopes and their

application' held at USIC, Burdwan University from April 08 - 09, 2010.

18. Participated in National workshop on "Interaction of ionizing radiation with Biological system' organized by UGC-DAE consortium for Scientific Research, Kolkata centre held at the Department Zoology, Visva-Bharati from March 29-30, 2010.
19. Paper presented in Golden Jubilee International conference on 'Researches in Zoology- Basic and Applied' held at the Department of Zoology, Burdwan University from March 17-19, 2010.
20. Paper presented in International conference on 'Mother Earth: Save it for Future generation' held at Environmental Science Department, Burdwan University from February 13-15, 2010.
21. Paper presented in '8th Indian Fisheries Forum' held at Kolkata from November 22-26, 2008.
22. Paper presented in the '14th West Bengal State Science and Technology congress held at Jadavpur University from February 28 to March 1, 2007
23. Paper presented in the 13th West Bengal State Science and Technology Congress held at Calcutta University from February 28-March 1, 2006
24. Paper presented in the 'National seminar on Molecules to Man' held at Burdwan University from February 24-25, 2005.
25. Paper presented in 'National seminar of Environmental Biology and Fish Biology' held at Visva-Bharati from March 20-21, 2002.
26. Paper presented in 'National seminar of Environmental Biology and Fish Biology' held at Visva-Bharati from February 01-03, 2002.
27. Participated in the National Seminar on Emerging issues in Biotechnology held at Visva- Bharati from March 26-28 2001.
28. Participated in the National Seminar on Environmental Biology and Fish Biology held at Visva-Bharati from held at Visva-Bharati from April 6-7, 1999.
29. Presented paper in 'Nineth All India Congress of Zoology' held at Burdwan University from September 26-28, 1995.
30. Presented paper in 'Third Indian Fisheries Forum' held G.B Panth University of Agriculture and Technology from October 11-14, 1993.
31. Presented paper in 'National seminar on Freshwater biological Research' held at Bhagalpur University from October 14-15, 1992

REFRESHER COURSE/ ORIENTATION PROGRAMME/WORKSHOP ATTENDED

1. UGC sponsored 'Fourth Refresher Course in Life Sciences' held at Academic Staff College, Burdwan University, Burdwan from November 3- 23, 2012.
2. Participated in 'One day workshop on National e-Governance Plan (NeGP)' held at Visva- Bharati on December 03, 2012.
3. Hands on training on Disease management and Diagnostic in Brackish water Aquaculture' held at Kakdwip Research Centre, CIBA (ICAR) Kakdwip February 13-17, 2012.
4. 1st National Workshop for College teachers on the Application of Flow cytometry, cell sorting & Imaging in Biological held at Centre for Modern Biology, & centre for Nano- science and Nanotechnology, C.U. Salt Lake, Kolkata from December 18-24, 2011.
5. National Workshop on Scanning Electron microscopy held at USIC, Burdwan University from March 24-27 2009.
6. UGC sponsored 9th Refresher Courses in Life Sciences (Botany/Zoology) held at School of Life Sciences, Visva-Bharati, Santiniketan from Feb 12 to March 04, 2005.
7. UGC sponsored 7th Refresher Course in Life Sciences (Botany/Zoology) held at School of Life Sciences, Visva-Bharati, Santiniketan from Jan, 12 to Feb 01, 2003.
8. Workshop on Electron Microscopy for beginners held at USIC, Jadavpur University July 23-24, 2002.
9. UGC sponsored 35th Orientation programme held at Academic Staff College, Burdwan University, Burdwan from November 02-29, 2001.
10. UGC sponsored 4th Refresher Course in Life Sciences (advances in Life Science) held at School of Life Sciences, Visva-Bharati, Santiniketan from 20.02.1999 to 12.03.1999.
11. 15 days DST sponsored workshop on the "Vertebrate Reproduction Dept. of Zoology, Karnataka University, Dharwad, Karnataka from 29.12.1997 to 12.01.1998.