

Dr. Bidyut Bandyopadhyay (M. Sc., Ph. D.)

Permanent Address:

74, Chandmari Road by
Lane, Kachipukur (N), Burdwan
West Bengal- 713 101, India
Email: bidyut2006@gmail.com
Mobile: +91-9733306660
+91-8373049064.

Office Address:

Post Graduate Departments of
Biotechnology and Biochemistry
**Oriental Institute of Science and
Technology**
(Affiliated to Vidyasagar University)
Dewandighi, Katwa Road, Burdwan,
West Bengal- 713 102, India
Phone: 0342 2622175
Email- principal@oist.edu.in
Website: www.oist.edu.in

Present Position:

- **Professor and Principal**, Oriental Institute of Science and Technology (Affiliated to Vidyasagar University), Dewandighi, Katwa Road, Burdwan, West Bengal- 713 102, India
- **Principal (Actg.)**, Oriental Institute of Health Sciences (Affiliated to West Bengal University of Health Sciences), Dewandighi, Katwa Road, Burdwan, West Bengal- 713 102, India
- **Course Co-ordinator**, Institute of Biomedical Sciences (Affiliated to West Bengal University of Health Sciences), Chandul, Near Talit Rail Gate, Burdwan, West Bengal- 713 101, India

Award/ Honours/ Recognition:

- **First Class First** in the M.Sc. Examination.
- **Ph.D. thesis examiner**, Department of Agriculture Biotechnology, Bidhan Chandra Krishi Viswavidyalaya, Mohanpur, Nadia, W.B.
- **Paper Setter/ moderator and Examiner** (Theory and Practical) of the Post Graduate Biotechnology and Biochemistry courses, Vidyasagar University from 2006.
- **Paper Setter/ moderator and Examiner** of the Post Graduate Biotechnology and Under Graduate Biotechnology and Biochemistry, The University of Burdwan from 2005.
- Member of **Board of Studies of Biotechnology**, Vidyasagar University from 2006.
- Member of **Ph. D. committee of Biotechnology**, Vidyasagar University from 2010.

Dr. Bidyut Bandyopadhyay (M. Sc., Ph. D.)

➤ Supervision of Dissertation/Project works of Undergraduate and Postgraduate students:

- Project/Dissertation supervised at Undergraduate level : **More than 30**
- Project / Dissertation supervised at Postgraduate level : **More than 40**

➤ Supervision of Research Project:

- Department of Science and Technology, New Delhi, has sanctioned a Project (WOS-B Scheme) entitled “**Application of Bioremediation with integration of animal husbandry in some selected sewage-fed bheries in East Kolkata wetland for enhanced fishery production and economic upliftment**”. Total Grant- **Rs. 20,00,000** for a duration of two years (2010-2012).
- **Ph.D. Supervisor : 06(Six) Ph.D students** have registered their Ph.D programme from Vidyasagar University, Midnapore, under my supervision and out of them, **four Ph.D students** have already been awarded their **Ph.D degree**.

Qualifications:

<i>Degree</i>	<i>Subject (s)</i>	<i>Year of Passing/Award</i>	<i>Board/ University</i>	<i>Division/ Class</i>
Doctor of Philosophy (Ph. D.)	Genetics and Plant Breeding	2002	Bidhan Chandra Krishi Viswavidyalaya, Mohanpur, Nadia, West Bengal, India	NA
Master of Science (M. Sc.)	Botany (Cytogenetics & Plant Breeding)	1992	University of Kalyani, West Bengal, India	1 st class 1 st
Bachelor of Science (B. Sc. Hons.)	Botany	1989	University of Kalyani, West Bengal, India	1 st class

Professional Experience:

- **1992-1994: Junior Research Fellow** at Bidhan Chandra Krishi Viswavidyalaya, Mohanpur, Nadia, West Bengal under Ministry of Environment and Forest, Govt.of India.

Dr. Bidyut Bandyopadhyay (M. Sc., Ph. D.)

- **1994-1995** : **Senior Research Fellow** at Bidhan Chandra Krishi Viswavidyalaya, Mohanpur, Nadia, West Bengal under Ministry of Environment and Forest, Govt. of India.
- **Dec.1995-June1997** : Titagarh Paper Mills, Kolkata as **Scientist-Tissue Culture** in their Forestry division.
- **July1997-March2001** : Zeolite Tissue Culture Laboratory and Zeolite India Pvt.Ltd., Kolkata as **Technical Executive**.
- **May 2001-August2003** : Sachdeva New P.T.college , Kolkata as a **Faculty in Biological Science**.
- **Sept.2003-August2004** : **Research Associate** at Bidhan Chandra Krishi Viswavidyalaya, Mohanpur, Nadia, West Bengal.
- **Sept.2004-Sept.2006** : **Lecturer**, Department of Biotechnology & Biochemistry, Burdwan Institute Of Management and Computer Science, (Affiliated to University of Burdwan), Burdwan.
- **July 2004-June,2007** : **Guest Lecturer**, Department Of Biotechnology, University of Burdwan, Golapbag, Burdwan.
- **Sept.2006 -Dec.2007** : **Assistant Professor**, Post Graduate Departments of Biotechnology & Biochemistry, Oriental Institute of Science and Technology (Affiliated to Vidyasagar University), Burdwan.
- **January 2008 - February,2020** : **Associate Professor and Teacher-in-Charge**, Post Graduate Department of Biotechnology and Biochemistry, Oriental Institute of Science and Technology (Affiliated to Vidyasagar University), Burdwan.
- **March,2020 - Till date** : **Professor and Principal**, Oriental Institute of Science and Technology (Affiliated to Vidyasagar University), Burdwan.
- **July 2017 - Till date: Principal (Actg.)**, Oriental Institute of Health Sciences (Affiliated to West Bengal University of Health Sciences),

Research Interests:

- Molecular and Microbial Biotechnology, Probiotics and Prebiotics, Bioremediation, Plant tissue culture and *In silico* analysis of genomics, proteomics and evolutionary bioinformatics
- Working on effect of **Fluoride** on human health through nanocapsulated drug delivery system.
- Working on Extraction of **Polyphenols** from different plant sources and concentrates by ultrafiltration.

Dr. Bidyut Bandyopadhyay (M. Sc., Ph. D.)

- Studies on Inhibition of Polyphenol oxidase activity of some fruits, vegetables and mushrooms.
- Working on Bioremediation in some selected sewage-fed bheries in East Kolkata wetland.

Research Publications: (From 2010 onwards)

1. Saha M, Sarkar A, **Bandopadhyay B (2010)**. East Kolkata Wetland-A rich source of microbes for bioremediation and environmental protection, *J Pl Sci Res*. 26(2): 145-149.
2. Maiti S, Patra S, Nandi D, **Bandyopadhyay B**, Mondal KC, Pati BR (2010). Tuberculosis: Studies on role of Gender, Age and Drug addiction in Eastern part of India. *SAARC J Tuberculosis, Lung Diseases and HIV/AIDS*. 7(2): 01-09.
3. Samanta A, Das S, Bhattacharyya P, **Bandyopadhyay B (2010)**. Inhibition of Polyphenol Oxidase in Banana, Apple and Mushroom by using different anti-browning agents under different conditions, *Int J Chem Sci*. 8(5): 550-558.
4. Saha M, Sarkar A, **Bandopadhyay B (2012)**. Survival of Biocontrol Agent in Bioformulation by using Alginate Prills. *J Soil Biol Ecol*. 32(1&2): 66-70.
5. Saha M, Sarkar A, **Bandopadhyay B (2012)**. Study of susceptibility to oral submucous fibrosis (OSF) in the population of West Bengal at XRCC 1 (Arg399Gln) by RFLP. *J Physiol Pathophysiol*. 3(2): 20-24.
6. Mukherjee S, **Bandyopadhyay B**, Basak B, Mandal N, Dey A, Mondal B (2012). An improved method of optimizing the extraction of polyphenol oxidase from potato (*Solanum tuberosum* L.) peel. *Notulae Scientia Biologicae*. 4(1): 98-107.
7. Samanta A, **Bandyopadhyay B (2012)**. Effect of Fluoride toxicity on some clinical, biochemical and physiological aspects of albino rats", *Int J Res Chem Environ*. 2(1): 160-165.
8. Saha M, Sarkar A, **Bandopadhyay B (2013)**. Development of molecular identification of nitrifying bacteria in water bodies of East Kolkata Wetland, West Bengal. *J Bioremed Biodegrad*. 4: 211.doi: 10.4172/2155-6199.1000211.
9. Saha Mousumi, Sarkar Agniswar, **Bandyopadhyay Bidyut** "Development of molecular identification of nitrifying bacteria in water bodies of east Kolkata wetland, West Bengal". *J Bioremed Biodeg*. 5(2013) 211.
10. Roy A, **Bandyopadhyay B (2013)**. Partial optimization and study of antimicrobial activity of polyphenol oxidase (PPO) and peroxidase (POD)

Dr. Bidyut Bandyopadhyay (M. Sc., Ph. D.)

- extracted from chilly pepper pericarp. *Int J Appl Biol Pharm Technol.* 4(2): 128-135.
11. Sen SK, Sangeeta R, Satpathy S, Rout P, **Bandyopadhyay B**, Das Mahapatra PK (2013). Characterization of novel thermophilic amylase producing bacteria from Taptapani Hot Spring, Odisha, India. *Jundishpur J Microbiol.*
 12. Saha M, Sarkar A, **Bandhophadhya B** (2014). Introduction to establish the comparative analyses of 16S rRNA gene sequences with *amoA* and *nxrA* for nitrifying bacterial community in East Kolkata Wetland (an International Ramsar Site). *J Aquacult Res Dev.* 5(6): 270. doi:10.4172/2155-9546.1000270.
 13. Sen SK, Dora TK, **Bandyopadhyay B**, Das Mahapatra PK, Raut S (2014). Thermostable alpha-amylase enzyme production from hot spring isolates *Alcaligenes faecalis* SSB17-Statistical Optimization. *Biocat Agri Biotechnol.* 3: 218-226. doi.org/10.1016/j.bcab.2014.03.005.
 14. Panja S.Anindya, Rahman Shakilur, **Bandyopadhyay Bidyut**, Maity Smarajit "In silico prediction of three dimensional structure of Q699Z2, B5TGP9, D3JXJ8, F6K704 carboxypeptidases from some lepidopteran pests and analysis of biopesticidal activity of Kunitz-type chymotrypsin inhibitor protein WCI-5 by molecular docking approach". **International journal of Advanced Biotechnology and Research.** 5(4) (2014) 755-761.
 15. Sen Sudip Kumar,Raut Sangeeta, Soumya Satpathy, Rout Prangya Ranjan, **Bandyopadhyay Bidyut**, Das Mohapatra Pradeep Kumar "Characterizing novel thermophilic amylase producing bacteria from Taptapani hot spring, Odisha, India". **Microbiol.** 7(12) (2014) e11800.
 16. Sen Sudip Kumar, Dora Tapas Kumar, **Bandyopadhyay Bidyut**, Das Mohapatra Pradeep Kumar, Raut Sangeeta "Thermostable alpha-amylase enzyme production from hot spring isolates *Alcaligenes faecalis* SSB17-Statistical optimization". **Biocatalysis and Agricultural Biotechnology.** 3(2014) 218-226.
 17. Saha Mousumi, Sarkar Agniswar, **Bandyopadhyay Bidyut**, "Introduction to establish the comparative analyses of 16S rRNA sequences with *amoA* and *nxrA* for nitrifying bacterial community in East Kolkata wetland (an international ramsar site)". **J Aquacult Res Dev.** 5(6) (2014) 270.
 18. Panja S.Anindya, **Bandyopadhyay Bidyut**, Maity Smarajit 'Protein thermostability is owing to their preferences to non-polar smaller volume amino acids, variations in residual physico-chemical properties and more salt bridges. **PLoS One** 10(2015) e0131495.
 19. Sen Sudip Kumar, Raut Smita, Satpathy Soumya, **Bandyopadhyay Bidyut**, Das Mohapatra Pradeep Kumar, Raut Sangeeta 'Exploration of microbial diversity of

Dr. Bidyut Bandyopadhyay (M. Sc., Ph. D.)

- Taptapani (India) hot spring through molecular phylogenetic analysis". **Arab J Sci Eng.** 1(40) (2015) 51-61.
20. Samanta, Arpita, **Bandopadhyay Bidyut**, Das Nirmalendu "Formulation of catechin hydrate nanocapsule and study of its bioavailability." **Medicinal Chemistry** 6(6) (2016) 399-404.
 21. Samanta Arpita, Chanda Soumen, **Bandyopadhyay Bidyut**, Das Nirmalendu "Establishment of drug delivery system nanocapsulated with an antioxidant (+)-catechin hydrate and sodium meta borate chelator against sodium fluoride induced oxidative stress in rats." **Journal of Trace Elements in Medicine and Biology** 33 (2016): 54-67.
 22. Panja S.Anindya, Majee Subhasish, **Bandyopadhyay Bidyut**, Maity Smarajit "Antifungal signature: physiochemical and structural in silico analysis of some antifungal peptides. **International Journal of peptide research and therapeutics.** 22(2) (2016) 163-169.
 23. Maiti Smarajit, Panja Anindya Sundar, **Bandopadhyay Bidyut**. Higher peptide nonplanarity (ω) close to protein carboxy-terminal and its positive correlation with Ψ dihedral-angle is evolved conferring protein thermostability. **Prog Biophys Mol Biol.** pii S0079-6107(18) (2018) 30185-8.
 24. Panja Anindya Sundar, Sarkar Aniket, Biswas Raju, **Bandyopadhyay Bidyut**, Bandopadhyay Rajib. Modification of drug-binding proteins associated with the efflux pump in MDR-MTB in course of evolution: an unraveled clue based on in silico approach. **The Journal of Antibiotics.** 72 (2019): 282-290.
 25. Panja Anindya Sundar, **Bandopadhyay Bidyut**, Nag Akash, Maiti Smarajit. Protein Secondary Structure Determination (PSSD): A New and Simple Approach. **Current Proteomics.** 16(3) (2019) 246-253.
 26. Atrayee Roy, Madhumita Maitra and **Bidyut Bandyopadhyay**. Phenotypic Characterization and Genotypic Identification of Local Milk Fermented Probiotics. **Biotechnology: An Indian Journal.** Volume 15, Issue 4, 2019, PP: 1-10.
 27. Anindya Sundar Panja, Shiboprosad Mandal, **Bidyut Bandyopadhyay** and Smarajit Maity. Structural Paradigm Shift of Proteins against Thermal Stress through Evolutionary Proteome. **Biotechnology: An Indian Journal.** Volume 15, Issue 4, 2019, PP: 1-9.
 28. Atrayee Roy, Anindya S. Panja, Madhumita Maitra, **Bidyut Bandyopadhyay**. Isolation and Characterizations of Probiotics from Bovine (Cow) Milk. **Research & Reviews in Biotechnology & Biosciences.** Volume: 6, Issue: 2, 2019 PP: 12-20.

Dr. Bidyut Bandyopadhyay (M. Sc., Ph. D.)

29. Ayan De, Deepanjan Mridha, **Bidyut Bandopadhyay**, Tarit Roychowdhury and Anindya Sundar Panja. Arsenic and Its Effect on Nutritional Properties of Oyster Mushrooms with Reference to Health Risk Assessment. **Biological Trace Element Research (Springer)**. <https://doi.org/10.1007/s12011-020-02224-6>. (2020).
30. Atrayee Roy, Madhumita Maitra, **Bidyut Bandyopadhyay**. Genotypic and phenotypic characterization of human milk isolates and its therapeutic role on colitis-induced mice model. **Journal of Applied Biology & Biotechnology**. DOI: 10.7324/JABB.2019.70103. (2020)

Book Chapter (s) Published:

1. Saha M, Sarkar A, Saha MN, **Bandyopadhyay B**, Dhimani M, Mishra SS (2010). Fish Production Enhancement and Sustainable Development using Fish cum Livestock Farming in Sewage fed bheries in East Kolkata Wetland, W.B.: An Integrated Farming Approach. *Bioresources for Food Security and Rural Livelihood*, 251-258, Edited by: G.K. Kulkarni and B.N. Pandey, Copyright © 2010, Narendra Publishing House.
2. Saha M, Sarkar A, **Bandopadhyay B** (2011). Study of Saltwater Crocodile (*Crocodylus porosus*) in Mangrove forest at Sundarban in West Bengal for Conservation and Management. *Perspectives in Animal Ecology and Reproduction*. 1: 227- 240. Daya Publishing House, New Delhi, India.
3. **Bandyopadhyay B**, Banerjee A (2013). Isolation and characterization of erythromycin resistant gram-negative bacteria. *Biology of useful plants and microbes*. 26: 381-387. Edited by Arnab Sen. Copyright © 2013, Narosa Publishing House, New Delhi, India.

Place: Burdwan

Date: 04.08.2020



(BIDYUT BANDYOPADHYAY)