

## CURRICULUM VITAE



**Name: DR. SUNITA BANDOPADHYAY (MUKHOPADHYAY)**

**Designation: Assistant Professor**

**Address: Department of Botany, M.U.C. Women's College, Burdwan, W.B.**

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| <b>Academic qualification: M.Sc., M.Tech., Ph.D.</b>           |                        |
| <b>M. Sc. (Botany)</b> [Spl. Paper – Mycology & Pl. Pathology] | University of Burdwan  |
| <b>M. Tech (Applied Botany)</b>                                | <b>IIT., Kharagpur</b> |
| <b>Ph.D.</b>   | University of Burdwan  |

- Research experience:** Project work on tissue culture during M.Tech (1992–1994).  
From 1994 – 1999 as J.R.F. and S.R.F (U.G.C).
- Post Doctorate :** 2007 – 2010.  
Worked as Principal Investigator in a major project entitled "**Recycling of water hyacinth through mushroom cultivation**" under "**Women Scientist scholarship scheme** for societal programme" funded by Dept. of Sc. & Tech., Govt. of India, New Delhi.
- Scholarship / fellowship:** National scholarship (1990 – 1992)  
U.G.C. Fellowship (1992 – 1994 & 1994 – 1999)  
Women Scientist Scholarship (2007 – 2010)
- Teaching Experience:** **Assistant Professor in Botany (UG)**  
**29/4/2010 – 18/3/2020 Sonamukhi College, Sonamukhi, Bankura.**  
**19/3/2020 – onwards M.U.C. Women's College, Burdwan, W.B.**
- Awards :** \***Best paper** award in State Science & Technology Congress – 2009 and 2014.  
\***Best Program Officer of the year 2023-24.** NACO, WBSAP&CS (awarded by W.B. State AIDS Prevention and Control Society, Deptt. of Health & Family Welfare, Govt. of West Bengal).
- Publications :** Research paper – 14 in peer reviewed National & International journals.
- Book Chapters :** Eleven (11)
- Conference / Symposium:** 20 papers presented in National and International Conference and Symposium.

### **PUBLICATIONS OF DR. SUNITA BANDOPADHYAY (MUKHOPADHYAY)**

#### **A. Papers Published in peer-reviewed National and International Journals :**

- 1) Bandopadhyay Mukhopadhyay, S. (2023). Wild edible mushrooms in the Sal forest of Sonamukhi in Bankura district: an overview on their socioeconomical and ecological impact. *EIACP Newsletter* 28(2). Botanical Survey of India.

- 2) Bandopadhyay Mukhopadhyay, S. (2023). Cultivation of *Pleurotus citrinopileatus* on water hyacinth and effect of dietary *Pleurotus* mushroom on lowering of blood glucose and cholesterol in diabetic model rats. *J. Mycopathol. Res.* 61(3): 385-390. ISSN: 0971-3719 (Print). 2583-6315 (Online). doi.10.57023/JMycR.61.3.2023.385
- 3) Bandopadhyay Mukhopadhyay, S. (2023). Changes in nutrient and heavy metal content after vermicomposting of water hyacinth-based spent mushroom substrate. *Environmental and Experimental Biology.* 21, 1-9. ISSN 2255-9582. DOI: <https://doi.org/10.22364/eeb.21.01>
- 4) Bandopadhyay, S. (2014). Essential mineral and toxic elements in oyster mushroom (*Pleurotus florida*) cultivated on water hyacinth and rice straw. *Asian J. Agri. Biol.*, 2(3) 208-214.
- 5) Bandopadhyay, S. (2013). Effect of supplementing rice straw with water hyacinth on yield and nutritional qualities of oyster mushroom (*Pleurotus* spp.). *Micologica Applicada International*, 25(2), 15-21.
- 6) Bandopadhyay (Mukhopadhyay), Sunita and P.S. Mukherjee (2011). Recycling of spent mushroom substrate through vermicomposting. *Wesleyan J. of Research*, 4(2)special issue,41-45.
- 7) Mukhopadhyay, Sunita and N.C. Chatterjee (2010). Bioconversion of water hyacinth hydrolysate into ethanol. *Bioresources*, 5(2), 1301-1310.
- 8) Bandopadhyay (Mukhopadhyay), Sunita and Chatterjee, N.C. (2009) Water hyacinth, a lost-cost supplement for oyster mushroom (*Pleurotus florida*) cultivation. *Mushroom Research*, 18(1):5-9.
- 9) Mukhopadhyay, Sunita, Mukherjee, P.S., Nandi, B. and Chatterjee, N.C. (2008) Optimization of enzymatic hydrolysis of water hyacinth by *Trichoderma reesei* vis-a-vis production of fermentable sugars *Acta Alimentaria*, 37(3): 367-377.
- 10) Mukherjee, P.S. and Mukhopadhyay, Sunita, (2008) Microbiol production of ethanol from water hyacinth, *J. Mycopathol. Res.* 46(2): 136-139.
- 11) Mukherjee, P.S. and Mukhopadhyay, Sunita (2006) Study of morphological and cultural characteristics of some storage fungi. *J. Mycopathol, Res.*
- 12) Mukhopadhyay, S. and Nandi, B. (2001) Cellulase production by *Trichoderma reesei* on pretreated water hyacinth: effect of nutrients. *J. Mycopathol. Res.* 39(1): 57-60.
- 13) Mukhopadhyay, S. and Nandi, B. (1999) Optimization of cellulase production by *Trichoderma reesei* ATCC 26921 using a simplified medium on water hyacinth biomass. *J. Sc. & Ind. Res.* 58: 107-111. (I.F. 0.557 -2016\_
- 14) Mukhopadhyay, S. and Nandi, B. (1997) Cellulase production by strains of *Trichoderma* on water hyacinth biomass. *J. Mycopathol. Res.* 35 (1): 21-28.

## **B. Papers Published in Proceedings/as book chapter**

- 1) Bandopadhyay Mukhopadhyay, Sunita (2023). Water hyacinth, a sustainable source for phytoremediation and value addition through mushroom cultivation and vermicomposting: a

- review. Environmental pollution and biosafety. Ed. P. C. Mandal. Taurean Publication, Kolkata-New Delhi. Pp.:49-61. ISBN: 978-93-95202-54-1
- 2) Bandopadhyay Mukhopadhyay, Sunita (2023). Matir swastho Raksha o susanhato Krishi: vermicompost er Bhumika. Reflections and Revelations: A collection of critical essays. Ed. S.Hazra and M.K. Hazra. Book Syndicate (P) Ltd. pp. 80-85. ISBN: 978-81-952428-6-3
  - 3) Bandopadhyay Mukhopadhyay, Sunita (2021). Boosting immunity against viral infection with the sun-exposed mushroom as vitamin D supplement – a review. In: Proceeding of the 1<sup>st</sup> International E-Conference on “Revisiting Strategies for Sustainable Development”. E-ConSus (Ed. Basu, A.) Red’s shine publication Pvt. Ltd. in association with Red’Mac International Press & Media. INC, India, Sweden & UK. Pp. 86-97. **ISBN: 978-93-90937-61-5**
  - 4) Bandopadhyay Mukhopadhyay, Sunita (2020). Oyster mushroom cultivation on water hyacinth biomass: Assessment of yield performances, nutrient, and toxic element contents of mushrooms. An Introduction to Mushroom. Ed. A. K. Passari & S. Sanches. IntechOpen.86908. Pp.1-13. July 1<sup>st</sup>,2020. **ISBN: 978-1-78985-956-0**  
<https://www.intechopen.com/books/an-introduction-to-mushroom/oyster-mushroom-cultivation-on-water-hyacinth-biomass-assessment-of-yield-performances-nutrient-and->
  - 5) Bandopadhyay Mukhopadhyay, Sunita (2020). Macrofungal diversity in the Sal forest of Bankura district: a review. Local Biodiversity. Ed. P. Mallick & P.S. Mukherjee. Pub. Shilpa Nagari. Pp. 36-44. **ISBN:978-93-84487-24-9**
  - 6) Bandopadhyay Mukhopadhyay, Sunita and D.K. Hens (2017). Recycling of kitchen waste through vermicomposting. (Book chapter: Chapter-2, New Delhi Publishers, Pp.23-25. (**ISBN: 978-93-86453-07-5**)
  - 7) Bandopadhyay Mukhopadhyay, Sunita (2017). Cultivation of Mushroom, a protein rich Food on Aquatic Weed. Proc. UGC sponsored Natl. Workshop on “Food Security: A Challenge to Agriculture” Pp. 189-200. (**ISBN: 978-93-5300-427-9**)
  - 8) Bandopadhyay (Mukhopadhyay), Sunita (2015). Spent mushroom substrate of Pleurotus spp.- an organic manure for foliage crop. Proc. UGC sponsored Natl. Workshop on “Biofertilizer and biomanure”. Pp. 58-65. (**ISBN: 978-81-88391-32-5**)
  - 9) Bandopadhyay (Mukhopadhyay), Sunita (2014). Jaibo borjer paribesbandhab byabohar Manual of UGC sponsored Natl. Workshop on “Aspects and Prospects of Biofertilizer and biomanure” Pp. 45-48. (**ISBN: 978-81-925800-7-4**)
  - 10) Bandopadhyay (Mukhopadhyay), Sunita (2011). Vermicomposting – a component of organic farming to enhance soil microbial biodiversity. Proc. Of the UGC sponsored National Seminar on ‘Biodiversity the natural wonder, Issues and concern’. pp. 143-147. (**ISBN: 978-93-80663-61-6**)
  - 11) Bandopadhyay, Sunita (2009). Mushroom Cultivation – an alternative approach towards

empowerment of rural women. Proc. of State level seminar on 'Role of Science in Rural Development'. Pp.76-79. ISBN : 978-81-930138-0-9.

### C. Papers Presented in National/International Conference, Symposium :

- 1) Bandopadhyay (Mukhopadhyay), Sunita (2023). Effect of dietary oyster mushroom (*Pleurotus* spp.) on lowering of blood glucose and cholesterol in alloxan induced diabetic model rats. In: Intl Conference on "Opportunities and Challenges in Biological Science and Sport Science" 5-6 March, 2023. Gushkara Mahavidyalaya.
- 2) Bandopadhyay (Mukhopadhyay), Sunita (2022). 10-11 March. State level Seminar. Recycling through mushroom cultivation. Sonamukhi College.
- 3) Bandopadhyay (Mukhopadhyay), Sunita (2022). Aquatic weed water hyacinth: sustainable source for phytoremediation and value addition. Natl Conf. on Bioremediation. R.R.R. Mahavidyalaya
- 4) Bandopadhyay (Mukhopadhyay), Sunita (2020). "Boosting immunity against viral infection with sun-dried mushroom, a source of vitamin D" paper presented in the "International e-Conference on "Revisiting strategies for sustainable development", E-ConSus 2020 By Asansole B.B. College. 13-14 June, 2020.
- 5) Bandopadhyay (Mukhopadhyay), Sunita (2019). "Biodiversity Values: Poetic Approaches. Paper presented in the International Seminar on " Environment & Literature: Depicting the Co-existence of Civilization and Sustainability. Galsi Mahavidyalaya & Intl. association for the study of Australia. 06/12/2019.
- 6) Bandopadhyay (Mukhopadhyay), Sunita (2019). "Natural UV irradiated wild mushroom-the source of vitamin D" Paper presented in the International Research Conference on "Recent Trends in Life Sciences" organized by SKBU and Intl. Academy of Science and Research. 29<sup>th</sup> Nov., 2019.
- 7) Bandopadhyay (Mukhopadhyay), Sunita (2015). Vermicompost from spent mushroom substrate with aquatic weed- an organic manure for leafy vegetable. Natl. Seminar on "Contemporary Progress in Plant Sciences". March, 2015.
- 8) Bandopadhyay (Mukhopadhyay), Sunita (2014). Eco-friendly utilization of aquatic nuisance – water hyacinth. 21<sup>st</sup> W.B. State Sc. and Tech. Congress (Best poster award).
- 9) "Recycling of spent mushroom substrate through vermicomposting." (2011). UGC sponsored Nat. Seminar on "Exploitation of Biofertilizers and Biopesticides for Sustainable Development of Modern Agriculture". Bankura Christian College.
- 10) Bandopadhyay, Sunita, De, P.S., and D. Hens (2011) 'Oyster mushroom – a herbal medicine'. National Seminar on 'Recent Trend in Herbal Research'.
- 11) Bandopadhyay (Mukhopadhyay), Sunita (2009) Low cost cultivation of oyster mushroom (Paper presented in XVI<sup>th</sup> West Bengal State Science and Technology Congress) [Best paper

award].

- 12) Bandopadhyay Sunita (2008) Water hyacinth - an eco-friendly supplement for oyster mushroom cultivation. ( National Seminar on Medicinal Plants : Aspects and Prospects).
- 13) Mukhopadhyay Sunita (2007) Single-batch bioconversion of Water Hyacinth (National Seminar on Environment & Sustainable Development - The Indian Context.) B.B. College, Asansol, West Bengal.
- 14) Mukherjee, P.S. and Mukhopadhyay, Sunita (2006) Seed deterioration by insect-fungus interaction, 45 (Abstr. of paper presented in Intl. Symp. in Ind. Mycological Soc.).
- 15) Mukhopadhyay, Sunita (2005) Bioconversion of water hyacinth into fuel, food and feed 99-100 (Abstr of paper, presented in Natl. Conf. on Cur. Res. in Pl. & Microbiol. Sc.)
- 16) Mukherjee, PS and Mukhopadhyay, Sunita (2005) Seed protection in natural storage A-1 (Abstr of paper, presented in XII<sup>th</sup> W.B. Sc. & Tech. Congress).
- 17) Mukherjee, P.S., Mukhopadhyay, Sunita and Nandi, B (2003) Changes in the physico-chemical properties of the oil from deteriorated seeds by storage fungi, 53 (Abstr. of paper, presented in V<sup>th</sup> Natl. Symp on Cur Tr. In Res. on Microorganisms)
- 18) Mukherjee, P.S., Mukhopadhyay, Sunita and Nandi, B. (2002) Spoilage of Seeds in storage by Ag. Sc.-46 ( paper, presented in IX<sup>th</sup> West Bengal State Science and Technology Congress).
- 19) Mukhopadhyay, Sunita (2000) Cellulase prodction and protein enrichment by *Trichoderma reesei* on water hyacinth, 52-53. (Abstr. of paper presented in Natl. Conf. on Plants, Microbes & Environment)
- 20) Mukhopadhyay, S. and Nandi, B. (1997) Enzymatically saccharified water hyacinth cellulose – a source of ethanol production. Proc. Rec. Tr. Res. Microbiol. Pl. Physiol. Ind. 28-32.

#### **D. OP, RC, STC, FDP, Training/Workshop (Offline/Online)**

- Orientation Programme (OP) (04/6/2013 -01/7/2013)
- Refresher Course (RC) on Biological Sciences (10 -30/10/14), UGC-HRDC, B.U.
- Winter School on “Environmental Planning and Management” 04-24 December, 2018, UGC-HRDC, B.U.
- Online Training Program on “Educational Video Creation: E-Content Development”, 11-13 May, 2020.
- Three day online FDP on “Hybrid Classroom: ICT Tools for Teaching and Learning”, 29-31 May, 2020
- National Level Online Faculty Development Programme (FDP) Entitled “Paradigm Shift in Teaching-Learning Pedagogy & Scope of Research Methods in Post COVID Era”, 9<sup>th</sup> June to 15<sup>th</sup> June, 2020. Department of Education & IQAC, East Calcutta Girls’ College, Kolkata
- Short Term Course (STC) in ‘MOOCs and E-Content Development (Online Mode)’, from 24<sup>th</sup> August to 29<sup>th</sup> August 2020, UGC-HRDC, JNU, New Delhi.
- 25<sup>th</sup> Refresher Course (RC) on “Life Sciences and Biotechnology (Online Mode)”, UGC-HRDC,

**JNU, New Delhi. Dec., 2020.**

- 130<sup>th</sup> Online Short-Term Course (STC) On E-Content Development. UGC-HRDC, Gujarat University. 2021.
- Online FDP on “How to Use ICT in Teaching, Learning and Administrative Practices in Higher Education Institutions”. Surrendranath College, Kolkata. 2021
- E-Workshop on “Molecular Taxonomy – DNA Barcodes”. 2022
- High-End one day Faculty Development Programme on “Emergence of ICT based application. 30<sup>th</sup> November, 2022”, M.U.C. Women’s College.

**Editor of Book**

- Editor of Book “Plants The Natural Wonder: Challenges and Avenues” (ISBN:978-93-85775-06-2) March, 2017.

**Acted as Resource person/Convenor:**

- Resource Person in "Work-shop cum Training Programme on Mushroom Cultivation" (2006, 2007, 2008, 2009, 2010) Organised by B.K.C.R.T.C, Burdwan University and Department of Botany, B.U.
- Resource person in ‘Workshop on Vermicomposting’ organised by B.K.C.R.T.C. and Department of Biotechnology, B.U, 2009, 2010.
- Given hands on training on Mushroom Cultivation in villages and supplied 'mushroom spawn inoculated bags' to the villagers for promotion of mushroom cultivation among them,2009.
- Resource person in UGC sponsored career orientation course on “Mushroom Cultivation and Production” during 2010, 2011, 2012.
- Resource person in one-day seminar on Mushroom cultivation, Bankura Christian College, 2014.
- Resource person in two days workshop on “Mushroom cultivation and Vermicomposting” Sonamukhi College. 2022.
- **Organizing Secretary in UGC-sponsored Natl. Seminar**, “Plants The Natural Wonder: Challenges and Avenues” 4-5<sup>th</sup> October, 2016.
- **Convenor in International Webinar** on “Nurturing Nature for Sustainable New Normal beyond Pandemic” 4<sup>th</sup> July, 2020 organized by Deptt. Of Botany, M.U.C. Women’s College.

**Life membership of learned society:**

- Mushroom Society of India, Natl. Res. Center for Mushroom, Solan, India.
- Probir Chatterjee Research Foundation, University of Calcutta.