## CURRICULUM VITAE OF Dr. ISHITA BISWAS

Name : Dr. ISHITA BISWAS

Designation : Assistant Professor in Botany

(W.B.E.S), S. B. S Government College,

Hili

Permanent Address : Vill.- Ukilpara, P.O.& P.S.- Raiganj

Dist- Uttar Dinajpur, PIN-733134

West Bengal, India

Educational Qualification :Ph.D. (Microbiology), M. Sc (Botany), B.Ed

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| Examination passed | Board/ University  | Year of passing | Percentage of<br>marks<br>obtained | Division/Class |
|--------------------|--------------------|-----------------|------------------------------------|----------------|
| M.P.               | WBBSE              | 2006            | 81.25                              | I              |
| H.S.               | WBCHSE             | 2008            | 72.8                               | I              |
| B. Sc (Botany)     | NBU                | 2011            | 64.5                               | I              |
| M. Sc (Botany)     | NBU                | 2013            | 78.25                              | I              |
| B. Ed              | NBU                | 2015            | 72.78                              | I              |
| Ph.D.              | Raiganj University | 2024            |                                    |                |

QUALIFICATION RELATED TO NET/SLET/GATE/OTHERS:

| <b>Examination passed</b> | Year of passing                 | Rank           |
|---------------------------|---------------------------------|----------------|
| UGC JRF- NET              | June-2018, Dec-2018             | AIR 59, 65     |
| NET-LS                    | June-2016, June- 2017, Dec-2017 | AIR 28, 42, 34 |
| SET                       | 2015                            | Qualified      |
| GATE                      | 2017                            | 767            |

## **AWARDS**:

- 1. Received Silver Medal from Honorable Governor for securing first class second position in Master of Science in Botany in 2013 in the Department of Botany, University of North Bengal.
- 2. Achieved "Best Presenter Award" at in 7<sup>th</sup> Annual International Conference Biospecrum 2023 organized by University of Engineering and Management, Kolkata in collaboration with Universiti Sains Malaysis School of Health Sciences during 16<sup>th</sup> to 18<sup>th</sup> November, 2023.

3. Achieved "Outstanding Paper Award" at 6th Regional Science & Technology Congress (Region 2), 2023-24, held at Govt. College of Engineering & Textile Technology, Berhampore during January 18-19, 2024.

#### AREA OF SPECIALIZATION:

- 1. Plant Biochemistry and plant physiology (M.Sc.)
- 2. Microbiology (Ph. D.)

# PROFESSIONAL/ADMINISTRATIVE EXPERIENCE:

- 1. Convener: Students' Welfare & Disciplinary Sub-Committee, S.B.S. Government College, Hili.
- 2. Joint Convener: Routine Sub-Committee, Women Grievance & Redressal cell, S.B.S. Government College, Hili.
- 3. Committee Member: External Examination Sub-Committee, Sports Sub-Committee, Internal complaint Committee, UGC Sub-Committee, Website Sub-Committee, S.B.S. Government College, Hili (2023- 2024).
- 4. Committee Member: NIRF ranking committee, S.B.S. Government College, Hili (2022- 2023).

# SEQUENCES SUBMITTED TO GENEBANK (NCBI): 07

- 1. **Biswas, I.** and Das Mohapatra P.K. (2022) *Lactiplantibacillus plantarum* PKI15 16S ribosomal RNA gene, partial sequence of 1418 bp, Accession No. OP745694.1 <a href="http://www.ncbi.nlm.nih.gov">http://www.ncbi.nlm.nih.gov</a>
- 2. **Biswas, I.**, Mitra D, Das Mohapatra P.K. (2022) *Candida tropicalis* PKI14 5.8S ribosomal RNA gene, partial sequence of 250 bp, Accession No. OP605548 <a href="http://www.ncbi.nlm.nih.gov">http://www.ncbi.nlm.nih.gov</a>
- 3. **Biswas, I.**, Mitra D, Das Mohapatra P.K. (2022) *Klebsiella quasipneumoniae* PKI13 16S ribosomal RNA gene, partial sequence of 1368 bp, Accession No. OP456530.1. http://www.ncbi.nlm.nih.gov
- 4. **Biswas, I.**, Mitra D, Das Mohapatra P.K. (2022) *Klebsiella quasipneumoniae* PKI11 16S ribosomal RNA gene, partial sequence of 1438 bp, Accession No. OP048851. <a href="http://www.ncbi.nlm.nih.gov">http://www.ncbi.nlm.nih.gov</a>
- 5. **Biswas, I.**, Das Mohapatra P.K., Mitra D (2021) *Kosakonia arachidis* PKI8 16S ribosomal RNA gene, partial sequence of 1440 bp, Accession No. MZ127794. <a href="http://www.ncbi.nlm.nih.gov">http://www.ncbi.nlm.nih.gov</a>
- 6. Das Mohapatra P.K., **Biswas, I.,** Mitra D, Mitra D (2021) *Paraburkholderia tropica* PKI7 16S ribosomal RNA gene, partial sequence of 825 bp, Accession No. MW784720.1 <a href="http://www.ncbi.nlm.nih.gov">http://www.ncbi.nlm.nih.gov</a>
- 7. Das Mohapatra P.K., **Biswas, I.**, Mitra D (2020) *Bacillus cereus* strain PKID1 16S ribosomal RNA gene, partial sequence of 1399 bp, Accession No. MT158702. <a href="http://www.ncbi.nlm.nih.gov">http://www.ncbi.nlm.nih.gov</a>

## **FULL LENGTH RESEARCH PAPERS = 13**

- 1. **Biswas I.**, Soren J. P., and Das Mohapatra P. K. **(2024)**. Preparation of metabiotic curd and optimization of tannase and gallic acid production by probiotic Lactiplantibacillus plantarumPKI15. *Biocatalysis and Agricultural Biotechnology* **(ELSEVIER)**. **IF-4.0**.
- 2. **Biswas I.**, and Mitra D. **(2024)**. Comparative analysis of RuBisCO evolution and intrinsic differences: insights from in silico assessment in cyanobacteria, 3 monocot and dicot plants. *Biology and Life Sciences Forum* **(MDPI)**. **ISSN:** 2673-9976. https://doi.org/10.3390/IECAG2023-15820.
- 3. **Biswas I.**, and Das Mohapatra P. K. **(2023)**. Recent advancement in metabiotics: A consortium with bioactive molecules after fermentation by probiotic bacteria with multidisciplinary application potential and future solution in health sector. *Bioresource Technology Reports*. 23: 101583 **ELSEVIER. ISSN:** 2589-014X.
- 4. **Biswas I.**, and Das Mohapatra P. K. **(2023)**. *Paraburkholderia tropica* PKI7 and *Kosakonia arachidis* PKI8: Two newly reported tannase producing bacteria isolated from forest soil and study of their tannase producing potentiality. *Notulae Scientia Biologicae*. 15 (1): 11379.
- 5. **Biswas I.**, Mitra D., and Das Mohapatra P. K. **(2022)**. Structural and catalytic advancement of Fungal Tannase: A proteomic contribution in industrial applicability. *Bioresource Technology Reports*. 19: 101103. **ELSEVIER. ISSN:** 2589-014X.
- 6. Rath B.P., **Biswas I.**, Jana A, Thatoi H. N., Das Mohapatra P.K. **(2022)**. Purification and characterization of extracellular Cr(VI) reductase from *Bacillus amyloliquefaciens* (CSB 9) isolated from chromite mine soil for detoxification of hexavalent chromium. *Research Journal of Biotechnology*. 14(4): 107-113. **ISSN**: 2278-4535 **IF- 0.233**.
- 7. **Biswas I.**, Mitra D., Mitra D., Chattaraj S., Senapati A., Chakraborty A., Basak G., and Das Mohapatra P. K. (2022). Application of egg shell with fortified vermicompost in *Capsicum* cultivation: A strategy in waste management. *International Journal of Recycling of Organic Waste in Agriculture*. Islamic Azad University- Isfahan Branch. 11(4):451-461 **ISSN**: 2251-7715. **IF-1.541**.
- 8. **Biswas I.**, Mitra D., Mitra D., Chakraborty A., Basak G., Bhuimali A., Das Mohapatra P. K. **(2021).** Problems and prospects of cultivation of indigenous rice landraces of Uttar Dinajpur, West Bengal, India with special reference to

- Tulaipanji. *Oryza*. ACS publisher. 58(4): 449-462. **ISSN:** 2249-5266. (NAAS) Rating 2013: 4.44.
- 9. **Biswas I.**, Mitra D., Senapati A., Mitra D., Chattaraj S., Ali M., Basak G., Panneerselvam P. and Das Mohapatra P. K. **(2021).** Valorization of vermicompost with bacterial fermented chicken feather hydrolysate for the yield improvement of tomato plant: A novel organic combination. *International Journal of Recycling of Organic Waste in Agriculture*. Islamic Azad University- Isfahan Branch. 10(1): 29-42. **ISSN:** 2251-7715. **IF-1.541**.
- 10. Mitra D., Dey A., **Biswas I.**, Das Mohapatra P. K. **(2021)**. Bioactive compounds as a potential inhibitor of colorectal cancer; an *insilico* study of Gallic acid and Pyrogallol. *Annals of Colorectal Research* **(Iranian Journal of** *Colorectal Research***)**. 9(1):32-39. **ISSN:** 2783-2430.
- 11. Das Mohapatra P. K., **Biswas I.**, Mondal K. C., Pati B. R. **(2021)**. Concomitant yield optimization of tannase and gallic acid by *Bacillus licheniformis* KBR6 through submerged fermentation: An industrial approach. *Acta Biologica Szegediensis*. University of Szeged. **ISSN:** 1588-4082. **IF- 0.517**.
- 12. **Biswas I.,** Mitra D., and Das Mohapatra P. K. **(2020)**. Contributions of protein microenvironment in tannase industrial applicability: An in-silico comparative study of pathogenic and non-pathogenic bacterial tannase. *Heliyon*, **CellPress** 6(1): e05359. **ISSN:** 2405-8440. **IF-4.0**.
- 13. **Biswas I.**, Banerjee A., Maity S., Pradhan S., Basak G K., Mohapatra P.K.D. (2020). Study of Prospective applications of tannin isolated from medicinally important plants against broad spectrum bacteria. *NOU journal of science and technology* 5 & 6 (I): 47-59.

## **BOOK CHAPTERS=01**

1. Mitra D, **Biswas I**., Das Mohapatra P. K. **(2023)**. *In-silico* comparative sequence and structure analysis of fungal tannase for industrial suitability: An environment friendly enzyme technology. *Asterl International Pvt. Ltd.* **(ISBN: 978-93-5461-379-1)**.

## WORKSHOP/TRANNING PROGRAMME ATTENDED:

1. Participated in one-week online course on ""Besics of Bioinformatics"" during 23<sup>th</sup> to 30<sup>h</sup> December, **2023** organized by DNA experts Pvt. Ltd., Noida, Uttar Pradesh.

- 2. Participated in two-day workshop on ""Genomics and Bioinformatics in High throughput Era"" during 26<sup>th</sup> and 27<sup>th</sup> March, **2022** organized by Bioinformatics Facility Center of University of North Bengal, Siliguri.
- 3. Participated in ten-days Virtual Workshop on "Applications of Bioinformatics Tools in Agricultural Research" during 20<sup>th</sup>- 30<sup>th</sup> September, **2021** under Niche Area of Excellence Programme, Uttar Banga Krishi Viswavidyalaya, Pundibari, Cooch Behar in collaboration with ICAR- Indian Agricultural Statistics Research Institute (ICAR-IASRI), New Delhi.
- 4. Participated in three-day online training program on "Computational tools used in life science research" during 9<sup>th</sup> to 11<sup>th</sup> October, **2020** organized by Department of Bioinformatics, University of North Bengal, Siliguri.
- 5. Participated in three-day workshop on "National seminar cum workshop on Bioinformatics" during 9<sup>th</sup> to 11<sup>th</sup> March, **2018** organized by Bioinformatics Facility Center of University of North Bengal, Siliguri.

# SEMINAR/CONFERENCE/SYMPOSIUM ATTENDED: CONFERENCE ATTENDED:

- 1. Oral presentation at 6<sup>th</sup> Regional Science & Technology Congress (Region 2) 2023-24 held at Govt. College of Engineering & Textile Technology, Berhampore organized by Department of Science & Technology and Biotechnology, Government of West Bengal during January 18-19, 2024.
- 2. Oral presentation entitled "Isolation and identification of new probiotic tannase producer Lactiplantibacillus plantarum PKI15 and optimization of tannase and gallic acid production through Response Surface Methodology" in 7th Annual International Conference Biospecrum 2023 organized by University of Engineering and Management, Kolkata in collaboration with Universiti Sains Malaysis School of Health Sciences during 16th to 18th November, 2023.
- 3. Oral presentation entitled "Paraburkholderia tropica PKI7 and Kosakonia arachidis PKI8: Two newly reported tannase producing bacteria isolated from forest soil and study of their tannase producing potentiality" in IDP-OHEPEE sponsored International Conference on Biotechnology And Bioinformatics: Perspectives and Challenges organized by Department of Biotechnology, Maharaja Sriram Chandra Bhanja Deo University (MSCB University) during 8th to 9th December, 2022.
- 4. Oral presentation entitled "Present day food habits, contaminants, and diabetes: A possible treatment therapy by natural tannins and phenolic acids

of *Terminalia* spp. through bioinformatics analysis" in 6<sup>th</sup> Annual International Conference Biospecrum 2022 organized by University of Engineering and Management, Kolkata in collaboration with IUCN during 5<sup>th</sup> to 7<sup>th</sup> November, 2022.

5. Presented a poster entitled "Enhanced antibacterial effect of natural tannin stabilized silver nano particles against human pathogens: A target toward FtsZ proteins" in 62<sup>nd</sup> Annual International Conference on Microbes & Society: Current Trends & Future organized jointly by University of Mysore (UOM), CSIR –Central Food Technological Research Institute (CFTRI), DRDO - Defense Food Research Laboratory (DFRL) & Karnataka Science and Technology Academy (KSTA) under the aegis of Association of Microbiologists of India (AMI) during 21<sup>th</sup> to 23<sup>th</sup> September, 2022.

## **SEMINAR/ SYMPOSIUM ATTENDED:**

- 1. Presented a poster entitled "Antioxidant property of the artificial diet components supplied with mulberry leaf used for feeding silkworms and their impact in sericulture" in the National Seminar on "Emerging Areas of Sericulture: Issues, Challenges and Industrial Application for Sustainable Development and Eco-restoration" organized by Department of Sericulture (centre for Applied Biology), Raiganj University, Raiganj, West Bengal, India during 30th-31st January, 2018.
- 2. Participated in National Seminar on "Current trends in Plant and Microbial Research" organized by Department of Botany, Raiganj University, Raiganj, West Bengal, India during 23<sup>rd</sup> March, 2017.
- 3. Participated in National Seminar on "Current trends in Plant and Microbial Research" organized by Department of Botany, Raiganj University, Raiganj, West Bengal, India during 16<sup>th</sup> and 17<sup>th</sup> March, 2016.
- Participated in National Symposium on "Recent trends in Plant and Microbial Research" organized by DST (FIST) & UGC- SAP Department of Botany, University of North Bengal, Siliguri, Darjeeling, West Bengal, India during 22-23<sup>rd</sup> March, 2013.

# **WEBINAR ATTENDED:**

1. Participated in one day National Level Webinar on "Bioinformatics 2- Direct to practical applications" Organized by Department of Botany, GGDC Lalgarh, Jhargram, W.B. on 16<sup>th</sup> September, 2022.

- 2. Participated in one day National Level Webinar on "Recent trends of climate change and its impacts on mankind and it's biosphere" Organized by Government General Degree College, Chapra in collaboration with IQAC on 5th June, 2021.
- 3. Participated in State Level Webinar on "Mucormycosis: The 'Black Fungus" infection maiming Covid-19 patients in India Organized by Government General Degree College, Chapra on 3<sup>rd</sup> June, 2021.
- 4. Participated in State Level Webinar on "Awareness for Prevention of HIV/ AIDS" Organized by Under the wings of Red Ribbon Club of National Service Scheme, Government General Degree College, Chapra on 27th April, 2021.
- 5. Participated in National Webinar on "Opportunity of Microbiologists in the new normal era" Organized by Department of Microbiology, Vidyasagar University in collaboration with the Biotech Research Society, India -VU unit & Alumni Association, Department of Microbiology, Vidyasagar University held during 26-27th September, 2020.
- Participated in National Level Lecture entitled "Cytokine storm: Body's Own Immune System Leads to COVID-19 Deaths?" Organized by a Joint venture of Department of Zoology, Jhargram Raj College & Department of Zoology, Garhbeta on 23th September, 2020.
- 7. Participated in one-day International Webinar on "Plant Diseases of Past, Present and Control Measures" Organized by Department of Botany, Vivekananda College, Tiruvedakam West 625 234, Madurai District on 10<sup>th</sup> September, 2020.
- 8. Participated in International Webinar on "Nutrition, health and stress management in the context of COVID-19 Pandemic" organized by Department of Microbiology and Department of Nutrition in collaboration of IQAC, Bankura Sammilani College, Bankura, West Bengal, India on 7<sup>th</sup> September, 2020.
- 9. Participated in International Webinar on "COVID-19 Pandemic and Co-infections: Challenges, Prospective Treatments and Societal Impact", organized by Department of Microbiology, Raiganj University West Bengal, India held on 31st August, 2020.

## **RESEARCH INTEREST:**

Microbial fermentation; Enzyme technology; Probiotics; Nano technology; Bioinformatics.

# **TEACHING EXPERIENCE:**

- 1. From 1<sup>st</sup> June, 2022 continuing as Assistant Professor (W.B.E.S) in Botany in S. B. S. Government College, Hili, Dakshin Dinajpur, West Bengal 733126.
- 2. 24<sup>th</sup> September, 2018 31<sup>st</sup> May, 2022: Assistant Teacher (P.G.) at Rampur Indira Uchcha Vidyapth (H.S.), Rampur, Lohanda, Raiganj, Uttar Dinajpur, West Bengal 733134.
- 3. 21st September, 2013 23rd September, 2018: Guest Lecturer in the Department of Botany, Raiganj University [former Raiganj College, University College)], Raiganj, Uttar Dinajpur, West Bengal 733134.

The above information is correct to the best of my knowledge.

Signature Ishita Biswas

Date:

Place: Raiganj

(Ishita Biswas)