

Dr. IRANI BISWAS

Assistant Professor of Botany

M.U.C. Women's College, Burdwan – 713104, West Bengal, India

Permanent Address: 11 Golahat road, P.O. Sreepally, Dist. Burdwan, Pin 713103, India

E-mail: ibrarm@gmail.com



ACADEMIC QUALIFICATION

1. Educational Qualification :

- **Ph.D. (2014) Botany**

From B.U. on the topic “**Studies on certain Pharmacognostic aspects of *Nyctanthes arbor-tristis* Linn.**”

- **M.Sc. (1998) Botany**

From B.U.; 72.75% (Spl. Paper: Microbiology)

- **B.Sc. (Hons.) Botany**

Burdwan Raj College, under B.U.; (1996) – 66.5%

2. National Tests Qualified :

GATE

(2000) 84.21(Percentile Score)

UGC-CSIR NET

(2000 December) LS.

(2001 July) UGC-CSIR JRF

ACADEMIC ACHIEVEMENTS

3. Awards/ Achievements:

1. **Obtained National Scholarship of Government of India in the Academic Session 1996-1998**
2. **Stood 1st class 2nd at B.Sc. (Hons.) level under B.U.**
3. **Stood 1st class 1st (University Gold medal recipient) at M.Sc. level under B.U.**
4. **1st rank holder in merit panel of West Bengal College Service Commission, 2015**
5. **Placed in 2nd position in poster presentation of the paper entitled “Phytochemical investigation and antimicrobial activity of leaf extract of *Nyctanthes arbor-tristis* L.” in the National seminar organized by Department of Biotechnology, Burdwan University, 2015.**

ACADEMIC EXPERIENCE

4. Present Occupation :

Working as Assistant Professor of Botany at M.U.C. Women's college since 03.01.2017 till date

5. Teaching Experience:

Worked as Assistant Professor of Botany at Raja Rammohun Roy Mahavidyalaya, Hooghly from 01.02.2007 to 02.01.2017

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TEACHING MODULES

6. B.U. B.Sc. Botany

	Odd Sem.	Even Sem.
NEP	CC_BOTN1011 Plant Diversity & Evolution: Unit 3-4; SEC_BOTN1051 Biofertilizer: Unit 3	CC_BOTN2011 Biomolecules & Cell Biology: Unit 3-4; SEC_BOTN2051 Organic Cultivation And Protected Agriculture: Unit 1
CBCS	CCI_Microbiology & Phycology: Unit 4-7; CCVII_Economic Botany: Unit 3, 5, 8, 10; SECI_Agricultural Botany: Unit 1; CCXI_Plant Physiology: Unit 1; CCXII_Plant Metabolism: Unit 6; DSEI_Reproductive Biology: Unit 5-6.	CCIV_Anatomy: Unit 1-6; CCX_Mol Biol: Unit 1-2; CCIX_Biomolecules & Cell Biol.: Unit 1, 6; SECII_Herbal Technology: Unit 3 CCXIII_Genetics & Plant Breeding: Unit 5; CCXIV_Plant Biotechnol: Unit 1; DSEIII_Immunology: Unit 1-2.

PROFESSIONAL EXPERIENCE

7. Professional Experience in the College:

- **Departmental In-charge**

2024 onwards

- **Governing Body**

Member 2023 onwards

- **Finance Committee**

Member 2023 onwards

- **Convenor:**

Internal Assessment Exam. (2017-18), (Jt. Con.) Data Committee (2018-19), Seminar Committee (2019-2020), Vocational Course (2021-22), Grievance Redressal Cell (2019-23), Routine Committee (2022-23), Anti-Ragging Squad (2022-23), Anti-Ragging Cell (2023-24), Cultural Committee (2023-24)

- **Assistant-Convener:**

Cultural Committee (2018-23), Canteen Committee (2019-20), Envs. Exam. Incharge (2019-20); Routine Committee (2019-22), Seminar, Conference & Day Observation (2022-24), Hostel Committee (2023-24)

PROFESSIONAL TRAININGS

8. Participation in Faculty Development Programme:

1. Participation in the Refresher Course in Research Methods and Online Pedagogy organized by HRDC, B.U. from 31st January to 13th February, 2023
2. Participated in Refresher Course in Recent advancement in Biological Sciences organized by HRDC, B.U. from 16th August to 29th August, 2019
3. Participation in the 83rd Orientation Programme Programme, organized by Academic Staff College, B.U. from 10th Jan– 6th February, 2012.
4. Participation in the 4th Refresher Course in Life Sciences organized by Academic Staff College, B.U. from 3rd to 23rd November, 2012.

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RESEARCH EXPERIENCE

9. Area of research interests:

Pharmacognosy, Phytochemistry

10. Completed Research Project :

UGC sponsored minor project entitled “Studies on Certain pharmacognostic and phytochemical aspects of some medicinal plants of Leguminosae with special reference to their fattyacids and epicuticular wax constituents”.

[UGC- MRP grant no. F.No.PSW-024/14-15(ERO)]

11. Researcher identity:

Vidwan ID: 540849

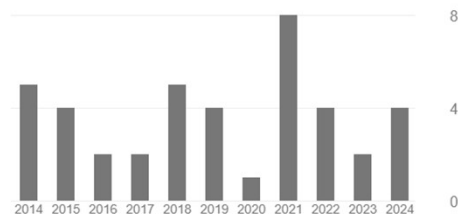
Google Scholar ID: [zB8D4vkAAAAJ](https://scholar.google.com/citations?hl=en&user=zB8D4vkAAAAJ)

12. Research Indices:

Total citations: 40 (Google Scholar)

H-index: 03 (Google Scholar)

i10-index: 02 (Google Scholar)



RESEARCH PROMOTION

13. Seminar/ Conference/ Webinar Conducted:

Convenor of a Four Days International Conference (On-line) entitled “Engineering Biotic Interactions in the Light of Social Applicability” conducted on 07-10.08.2020 at Department of Botany, M.U.C. Women's College.

RESEARCH TRAININGS

14. Work shop/ Training Attended:

1. **Attended Workshop** on “Preservation methods along with the practical techniques in Botany” held at Botany Department of Burdwan University from 3rd – 7th March, **2014**.
2. **Attended National Workshop** on Scanning Electron Microscopy held at USIC, Burdwan University from 1st to 4th February, **2005**.
3. **Attended Training Programme** on “Cultivation and Commercialization of medicinal and Aromatic Crops” held at Burdwan University on 3rd & 4th September, **2005**.



RESEARCH PUBLICATIONS

15. Book Editor:

1. Partha Sarathi Mukherjee, **Irani Biswas** and Prasanta Mallick (eds) (2012). Biodiversity The Natural Wonder: Issues and Concern (Proceedings of the National Seminar). Levant Books (Publisher), Kolkata. **ISBN: 978-93-80663-61-6.**

16. Paper Published in Journals:

1. Chattopadhyay, P., **Biswas, I.**, and Banerjee, G. (2024). Analysing the Metagenomic Dynamics of Soil Microbiota Affected by Tea Pruning and Skiffing Methods in Tea Plantations of Dibrugarh, Assam, India. *Indian Journal of Microbiology*, <https://doi.org/10.1007/s12088-024-01382-8> [Impact Factor: 2.8]
2. **Biswas, I.***, Mukherjee, A and Laskar, S. (2017). Nutritional attributes and Bioprospects of leaves, fruits and seeds of *Nyctanthes arbor-tristis* L. *International Journal of Ecology and Environmental Sciences*, 43(3):251-261. ISSN No. -2320-5199. (Online). [H-index 18].
3. **Biswas, I.***, Laskar, S. and Mukherjee, A. (2017). Determination of n-alkane constituents in the epicuticular wax of leaves and young pods of *Cassia alata* often infested by larvae of *Catopsila pyranthe*. *World Journal of Pharmaceutical Research*, 6(6): 1300-1306. ISSN No. 77-7105. [SJIF Impact factor-5.999, Global Impact Factor-0.997; H-index: 22.
4. **Biswas I.***, Seth, P. and Laskar S. (2017). Exploration of therapeutic potential of anthraquinones and flavonoids isolated from different species of *Cassia*: A promising journey from ethnomedicine to biomedicine. *Indian Journal of Scientific Research*, 13(1): 01-08. ISSN No. 0976-287
5. Ukil, S., **Biswas, I.** and Laskar, S. (2015). Variation of n-alkanes and micromorphological pattern of the epicuticular wax in different plant organs of *Crotalaria pallida*. *World Journal of Pharmaceutical Research*, 4(11): 1593-1608. [ISSN: 2277-7105]. **SJIF impact factor: 5.990**, GIF: 0.997; H-index: 22.
6. **Biswas, I.***, Ukil, S. and Mukherjee, A. (2014). Determination of n-alkane constituents and their phenological variation in the epicuticular wax of mature leaves of *Nyctanthes arbor-tristis* L. *Natural Product Research*, 28(5): 330-332. [ISSN: 1478 – 6419 (print); 1478 – 6427 (online)]. **Impact factor: 2.1. (As Corresponding author).**
7. Bandyopadhyay, D., **Biswas, I.**, Laskar, S. and Basak, B. (2013). Evaluation of single electron transfer reduction products of 3-oxoindoles as antibacterial agents. *International Journal of Pharmacy and Pharmaceutical Sciences*, 5(3): 447 – 450. [ISSN: 0975 – 1491]. **Impact factor: 1.1.**
8. **Biswas, I.** and Mukherjee, A. (2011). Pharmacognostic studies on the leaf of *Nyctanthes arbor-tristis*. *Acta Botanica Hungarica*, 53(3-4): 225-234. [ISSN 0236 – 6495] [H-index-10].



RESEARCH PUBLICATIONS

10. **Biswas, I.** and Mukherjee, A. (2011). Micromorphology of leaf of *Nyctanthes arbor-tristis*. **Indian Journal of Applied and Pure Biology**, **26(2)**:247 – 250 [ISSN: 0970–2091].
11. Banerjee, G., **Biswas, I.** and Mukherjee, A. (2006). Therapeutic value of certain chemical substances presents in *Trianthema portulacastrum* L. **Indian Journal of Applied and Pure Biology**, **21(1)**: 19 – 22. [ISSN: 0970 – 2091].
12. **Biswas, I.** and Mukherjee, A. (2004). Leaf form and venation pattern of *Nyctanthes arbor-tristis* L. **Flora and Fauna**, **10(2)**: 125 – 127. [ISSN: 0971 – 6920]
13. Das, D., Bhattacharjee, A., **Biswas, I.** and Mukherjee, A. (2004). Foliar characteristics of some medicinal plants of Zingiberaceae, **Phytomorphology**, **54(3 &4)**: 291 –302. [ISSN: 0031–9449].

17. Book Chapter Published:

1. Bandopadhyay, B., **Biswas, I.**, Laslar, S., and Basak, B. (2021). An evaluation of single electron transfer reduction products of 3-Oxoondoles as antibacterial agents in Chaitanya M.V.N.L. (Ed) "Technological Innovation in Pharmaceutical Research" Vol. 8. B.P. International, United Kingdom. pp 99-108. ISBN 978-93-91473-52-5.

18. Paper Presentation:

1. **Oral presentation of the paper entitled** “Pharmacognostic characterization and phytochemical investigation of three common weed species of *Cassia* having therapeutic properties” in the National Seminar organised by Department of Botany, Ramananda Centenary College, Purulia on the topic “A Glimpse of Plant Science” on 17th March, **2023**.
2. **Poster presentation of the paper entitled** "Biochemical and ecological impact on diversity of micromorphological patterns of certain plant cuticular surfaces: An overview" in the **International seminar** organized by the Department of Botany, Vivekananda Mahavidyalaya, Purba Bardhaman on the topic "Life and Environment: Issues and Concern" on 9th March, **2023**.
3. **Oral presentation of the paper entitled** “Determination of n-alkane constituents in the epicuticular wax of leaf and young pods of three species of *Cassia* often victimized by insect herbivory” in the **National seminar** organized by Botany Department of Sonamukhi college on the topic “Plants, The Natural Wonder: Issues and Concern” on 4th-5th October, **2016**.
4. **Oral presentation of the paper entitled** “Therapeutic potential of anthraquinones and flavonoids isolated from different species of *Cassia*: A promising journey from ethnomedicine to biomedicine" in the **National seminar** organized by Botany Department of Visva- Bharati, Shantiniketan on the topic “Plant and Microbe Diversity and Utilization’ on 19th -20th March, **2016**.
5. **Poster presentation** of the paper entitled “Phytochemical investigation and antimicrobial activity of leaf extract of *Nyctanthes arbor-tristis* L. in the **National seminar** organized by Department of Biotechnology, Burdwan University on the topic “Biotechnology in sustainable development” on 13th –14th March, **2015**. [placed in **2nd position**].

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RESEARCH PUBLICATIONS

6. **Oral presentation of the paper entitled** “N-alkane constituents from surface wax of leaves, flowers and seeds of *Crotalaria pallida* serving as probable cues for host plant recognition” in the **National seminar** on the topic “Advanced Spectroscopy, Theoretical Chemistry, Synthesis, Reactivity and Structural Evaluation” held at Chemistry Department, Burdwan University on 19th –21st February, **2015**.
7. **Oral presentation** of the paper entitled “Role of n-alkanes in leaf epicuticular wax of *Nyctanthes arbor-tristis* L. in understanding phonological variation and leaf micromorphological pattern” in the **National seminar** organized by Department of Botany, Burdwan University on the topic “Contemporary Progress in Plant Sciences” on 20th–21st March, **2015**.
8. **Oral presentation** of the paper entitled “Nutritional attributes and bioprospects of leaves, fruits and seeds of *Nyctanthes arbor-tristis* L.” in the **International “Tropical Ecology Congress 2014”** held at JNU, New Delhi on 10th –12th December, **2014**.
9. **Oral presentation** of the paper entitled “Protective effect of *Nyctanthes arbor-tristis* leaf on CCl₄ induced hepatotoxicity in male albino rats” at UGC sponsored **National Level Seminar** on the topic “Botanical Resources and human welfare” conducted by the Department of Botany, Ramkrishna Mission, Vivekananda Centenary College, Rahara on 6th September, **2013**.
10. **Oral Presentation in the National Conference** on “Current Researches in Plants and Microbial Sciences” held at Burdwan University on 26-27th November, **2005** on the topic “Foliar Anatomy of *Nyctanthes arbor-tristis*”.
11. Scientific Abstract entitled “Hepatoprotective action of leaf of *Nyctanthes arbor-tristis* L.” as **poster presentation** in the Souvenir of the **International Conference** on Biosciences, Biotechnology and Biodiversity Analysis” held at Pune on 8th-10th August, **2005**.
12. **Oral Presentation in the National Conference-Cum-Workshop** on “Scientific growing, Socio-Economic Value and Proper Utilization of Medicinal and Aromatic Plant for the Welfare of the Rural People” held at Bejoynarayan Mahavidyalaya, Itachuna, Hooghly on 25-27 February, **2005** on the topic “Micro- and Internal Morphology of leaves of *Naringi crenulata* (Roxb.) Nicolson”.
13. **Oral Presentation of the paper entitled** “Antibacterial activity of *Nyctanthes arbor-tristis* L.: Evaluation of its leaves and fruits”.in the **National Seminar** on “Medicinal Plants, Plant Products & Patents” held at Kolkata on October, **2004**.

INDUSTRIAL EXPERIENCE

19. Scientific Advisor:

PritMit Biotech Private Limited since 2022

Website: www.pritmit.com

CIN: U15549WB2022PTC253850

Start-up India Certificate No.: DIPP135803

Registered Office: Gurupally (Dakshin), Santiniketan 731235, Birbhum, WB, India



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CO-CURRICULAR ACTIVITIES

20. Co-curricular activities:

- a. Placed in first position in **Bengali recitation** competition organised by Students' Health Home regional clinic, Burdwan in the year 1986.
- b. Placed in third position in **Bengali recitation** competition organised by Rittik Youth Coir in the district level cultural competition, 1987.
- c. Awarded **Sangeet Bhusan Diploma** in the year 1990 by Pracheen Kala Kendra, Chandigarh in Nazrul Geeti (Vocal).
- d. Awarded **Sangeet Visharad Pratham Khand Diploma** in 1991 by Pracheen Kala Kendra, Chandigarh in Nazrul Geeti (Vocal).
- e. Consistently involved in different cultural activities of college as Convener of cultural committee, also acted as cultural programme organizer and performer during NAAC peer team visit on March 2007; often took the responsibility for judgement in recital and vocal music competitions annually organized by the college.

RECOGNITION FOR CO-CURRICULAR ACTIVITIES

21. Judge/ Special Guest:

1. Acted as judge in Inter-school Debate Competition organised by East-West Model School, Burdwan on 29.09.2022
2. Invited as Special Guest at Burdwan Zonal Convocation 2024 at Sanskriti Lok Mancha, Purba Bardhaman, organised by Surobharati Sanjeet Kalakendra on 16.07.2024.

Irani Biswas

Date: 01.01.25

Place: Burdwan