

Dr. Moumita Malakar

*Assistant Professor, Ph.D (Floriculture)
Visiting PDF, Bulgaria & Visiting Scientist, ISI, Kolkata*

Department of Horticulture
School of Life Sciences
Central University of Tamil Nadu, Neelakudy Campus
Thiruvarur – 610 005
Tamil Nadu

Email: moumitamalakar@cutn.ac.in
moumitamalakar7@gmail.com

Mobile: +91-8777351481

**EDUCATIONAL QUALIFICATION**

Degree	Subject(s)/ Specialization	Year(s)	College/University
Ph.D. (INSPIRE Fellow, DST)*	Horticulture: Floriculture	2013-2018	University of Calcutta, West Bengal, India
M.Sc. (Gold Medalist)	Horticulture	2010-2012	University of Calcutta, India
M.Sc.	Botany	2015-2017	Vidyasagar University, West Bengal, India
B.Sc.	Botany (Hons.)	2010	University of Calcutta, India

 <https://scholar.google.com/citations?user=z59yGa0AAAAJ&hl=en>

 <https://orcid.org/0000-0002-1503-0072>

PAST RESEARCH & TEACHING EXPERIENCES

- **Visiting Post-Doctoral Fellow, Trakia University, Bulgaria (2018).**
- **Visiting Scientist, Indian Statistical Institute (ISI), Kolkata, India (2019).**
- **Assistant Professor (Pay scale: 15600-39100), Department of Horticulture, Centurion University of Technology & Management, Paralakhemundi, Odisha, India. (June-September, 2019) .**
- **Part-time Faculty, Department of Horticulture, School of Agricultural Sciences, University of Calcutta, West Bengal, India. (July-September, 2018).**
- **Guest Lecturer, Agri-Horticultural society of India (AHSI) [for teaching part of course curriculum of 1year certificate in Horticulture], Kolkata, West Bengal, India (March 2015 to Feb. 2016)**

AWARDS /FELLOWSHIPS/HONOURS

- Received *Foreign Travel Grant sanctioned by SERB-DST* to attend an ISHS (International Society of Horticultural Sciences) symposium at **Guadalajara, Mexico 2019.**

- **‘Diploma Golden Prize’ award** for outstanding contribution in science in World Agriculture Congress at **Timisoara, Romania in May, 2018.**
- **Best Oral presentation award** for the paper entitled “Consequences of divergent vase solutions on post-harvest durability and quality of *Heliconia* inflorescences” in **World Agriculture Congress at Timisoara, Romania** in May, 2018.
- Received **Overseas Endowment Travel Fellowship/ Scholarship** by Estate & Trust Officer of **University of Calcutta to travel Bulgaria**, 2018 (October).
- **Best Poster Presentation award** for the paper titling “An approach.....color preservation.....dehydrated flowers and foliage” in An International Symposium namely ‘Eco-efficiency in Agriculture & Allied’ (EEAAR’17) at Bidhan Chandra Krishi Viswavidyalaya (BCKV), Nadia, West Bengal, India held on January, 2017.
- **‘RAKTIM RANJAN BHAGOWATI MEMORIAL AWARD’ for ‘Outstanding Student’** on the eve of 3rd International Conference on ‘Bioresource & Stress Management’ at Jaipur, Rajasthan, India held on November, 2017.
- **INSPIRE Fellowship by DST, New Delhi, Gov. of India (Full-time National Doctoral Fellowship)** in 2013 (July).
- **Order of Merit ‘First’ rank holder at M.Sc level examination (Gold Medallist)** in 2012 (August).
- Received **Foreign Travel Grant** by the Organizing committee (**ISHS & University of Genoa**) of EUCARPIA, an International Symposium held at Genoa, Italy in 2023 (July).
- **Appreciation Certificate by Alumni Association of Institute of Agricultural Sciences for securing ‘First’ position at ‘Post- graduate Level Exam’** in the Dept. of Horticulture, **University of Calcutta** in 2012 (December).

PhD RESEARCH GUIDANCE:

Number of Scholars	Specialization	Batch	Status
Two (2)	Floriculture	2022-2023	Allotted in 2023

PUBLICATION AND CITATION INDEX (* represents role as Corresponding author)

Research & Scientific Review papers (Scopus Indexed Journals):

1. **Malakar, M^{1*},** Paiva, P. D. D. O., Beruto, M. I., & Rodrigues Da Cunha Neto, A. Review of recent advances in post-harvest techniques for tropical cut flowers and future prospects: *Heliconia* as a case-study. **Frontiers in Plant Science**, 14, 1221346. <https://doi.org/10.3389/fpls.2023.1221346>. (Impact factor: 6.627)
2. **Malakar, M^{1*},** Beruto, M & Gonzalez, RB. 2022. Biotechnological approaches to overcome hybridization barriers and use of micropropagation tool for further

improvement in *Heliconia* – A review. *Plant Cell, Tissue and Organ Culture*. 149: 503-522. <https://doi.org/10.1007/s11240-022-02300-w> (Impact factor: 3, Cite Score: 4.2)

3. **Malakar, M^{1*}.**, Acharyya, P & Biswas, S. 2020. Molecular characterization of ten *Heliconia* (*Heliconiaceae*) genotypes by means of RAPD markers. *Acta Horticulturae*. 1288: 95-102. doi:10.17660/ActaHortic.2020.1288.14. (Impact factor: 0.23, Cite Score: 0.5; Citations: 0, Reads:4)

4. **Malakar, M^{1*}.**, Acharyya, P & Biswas, S. 2020. Discernment of pollen grain fertility and stigma receptivity applying Hasty-Easy techniques of *Heliconia* L. species under optical microscope. *Acta Horticulturae*. 1288: 139-147. doi:10.17660/ActaHortic.2020.1288.21 (Impact factor: 0.23, Cite Score: 0.5; Citations: 0, Reads:7)

5. **Malakar, M^{1*}.**, Acharyya, P. and Biswas, S. 2019. Consequences of divergent vase solutions on post-harvest durability and quality of *Heliconia* inflorescences. *Acta Horticulturae*. 1256: 77-94. doi: 10.17660/ActaHortic.2019.1256.12 (Impact factor: 0.23, Cite Score: 0.5; Citations: 1, Reads:28)

6. **Malakar, M^{1*}.**, Acharyya, P. and Biswas, S. 2019. Effect of different media for dehydration of some ornamental flowers. *Acta Horticulturae*. 1255, 157-166. DOI: 10.17660/ActaHortic.2019.1255.25 (Impact factor: 0.23, Cite Score: 0.5; Citations: 0, Reads:26)

Research & Scientific Review papers (NAAS rated journals):

7. **Malakar, M¹.**, Acharyya, P. and Biswas, S. 2019. Rejoinder of diverse organic growth media on agro- morphological attributes of nine *Heliconia* species and varieties under West-Bengal condition. *Journal of Crop & Weed*. 15: 35-44. (NAAS Score: 5.28; Citations: 1, Reads:21)

8. **Malakar, M¹.**, Acharyya, P. and Biswas, S. 2019. Genetic variability and correlation studies in *Heliconia* genotypes for yield and floral biology allied attributes. *Journal of Crop & Weed*, 15:64-72.(NAAS Score:5.28;Citations:0, Reads:6)

9. **Malakar, M^{1*}.**, Acharyya, P. and Biswas, S. 2019. Effect of silver nitrate and sucrose on the vase life of Gerbera (*Gerbera jamesonii* H. Bolus) cut flowers. *Journal of Crop & Weed*. 15: 46-51. (NAAS Score: 5.28; Citations: 3, Reads: 184)

10. **Malakar, M^{1*}.**, Acharyya, P. and Biswas, S. 2018. Effect of different pulsing treatments on longevity and freshness of some decorative cut foliage. *Journal of Crop & Weed*. 14: 49-56. (NAAS Score: 5.28; Citations: 0, Reads:77)

11. **Malakar, M^{1*}.**, Acharyya, P. and Biswas, S. 2017. An approach to color preservation of some dehydrated flowers and foliage. *Journal of Crop & Weed*. 13: 118-125. (NAAS Score: 5.28; Citations: 0, Reads:1202)

12. **Malakar, M^{1*}.**, Acharyya, P. and Biswas, S. 2017. Effect of certain chemicals on post-harvest life of some cut foliage. *International Journal of Agriculture Environment & Biotechnology*. 10: 199-207. (NAAS Score: 4.69; Citations: 2, Reads:24)

13. **Malakar, M^{1*}.**, Acharyya, P. and Biswas, S. 2016. Effect of different chemicals on the post-harvest life of three ornamental palms. *International Journal of Agriculture & Environmental Research*. 2: 487-498. (Impact Factor: 1.3, Citations: 0, Reads:94)

14. **Malakar, M^{1*}.**, Acharyya, P. and Biswas, S. 2016. Evaluation of *Heliconia* species

based on agro- morphological traits. *International Journal of Agriculture Environment & Biotechnology*. 8: 957-964. (NAAS Score: 4.69; Citations: 3, Reads:109)

15. **Malakar, M^{1*}.**, Acharyya, P. and Biswas, S. 2016. Standardization of dehydration techniques of some ornamental foliage. *International Journal of Agriculture Environment & Biotechnology*. 9: 555-562. (NAAS Score: 4.69; Citations: 0, Reads: 386)

16. **Malakar, M^{1*}.**, Acharyya, P. and Biswas, S. 2016. Micropropagation of commercially feasible foliage ornamental plants. *Indian Agriculturist*. 60:39-44. (NAAS Score: 4.11; Citations: 0, Reads:102)

17. **Malakar, M^{1*}.**, Acharyya, P. and Biswas, S. 2015. Evaluation on storage materials and pre-sowing treatments on the germination of some flowering annual seeds. *Indian Agriculturist*. 58: 161-167. (NAAS Score: 4.11; Citations: 0, Reads:97)

18. **Malakar, M^{1*}.**, Acharyya, P. and Biswas, S. 2017. Vertical gardening for enlivening the ambiance. *Journal of Crop & Weed*. 13: 89-93. (NAAS Score: 5.38; Citations: 2, Reads:1691)

19. **Malakar, M^{1*}.**, Acharyya, P. and Biswas, S. 2016. Environment friendly natural turf for more comfort for users: A Review. *IOSR: Journal of Agriculture & Veterinary Sciences*. 9: 9-15. (Impact factor: 3.26, Citations: 0, Reads:191)

20. **Malakar, M^{1*}.**, Acharyya, P. and Bhargava, R. 2015. Xeriscaping in arid climate: A Review. *Journal of Arid Horticulture*. 10: 1-12. (NAAS Score: 3.11; Citations: 0, Reads:69)

Book Chapters & Popular Articles:

21. **Malakar, M^{1*}.**, and Mandal, D. 2023. *Ocimum* Spp. (Basil): An Incredible Plant. In: *Advances in Medicinal and Aromatic Plants- Production, Processing, and Pharmaceutics*. Vol 1: **New York: Apple Academic Press**; distributed by-**CRC Press Taylor & Francis** Group, ISBN:9781774914885 (Link: <https://www.appleacademicpress.com/advances-in-medicinal-and-aromatic-plants-production-processing-and-pharmaceutics-2-volume-set/9781774914885>)

22. **Malakar, M^{*}.** 2023. *Eucalyptus* Spp.: A Wonder Tree. In: *Advances in Medicinal and Aromatic Plants- Production, Processing, and Pharmaceutics*. Vol 1: **New York: Apple Academic Press**; distributed by – **CRC Press Taylor & Francis** Group, ISBN:9781774914885. (Link: <https://www.appleacademicpress.com/advances-in-medicinal-and-aromatic-plants-production-processing-and-pharmaceutics-2-volume-set/9781774914885>).

23. **Malakar, M^{*}.** 2023. *Lavandula* Spp. (Lavender): A Herb More Than Just a Relaxing Scent. In: *Advances in Medicinal and Aromatic Plants- Production, Processing, and Pharmaceutics*. Vol 1: **New York: Apple Academic Press**; distributed by- **CRC Press Taylor & Francis** Group, ISBN:9781774914885 (Link: <https://www.appleacademicpress.com/advances-in-medicinal-and-aromatic-plants-production-processing-and-pharmaceutics-2-volume-set/9781774914885>).

24. **Malakar, M¹***, and Mandal, D. 2023. Neem: A Drug Cabinet of Mother Nature. In: Advances in Medicinal and Aromatic Plants- Production, Processing, and Pharmaceutics. Vol II: **New York: Apple Academic Press**; distributed by-**CRC Press Taylor & Francis** Group, ISBN:9781774914885. (Link: <https://www.appleacademicpress.com/advances-in-medicinal-and-aromatic-plants-production-processing-and-pharmaceutics-2-volume-set/9781774914885>)
25. Chowdhuri, T.K., Das, S., Das, P.K. and **Malakar, M.** 2021. Gladiolus. In: Co-author. Chapter 7 Jaya Publishing House, Delhi (India), ISBN. 9789390309566 (2021), Textbook on Floriculture Volume: 1.
26. **Malakar, M¹***, and Biswas S. (2021). *Heliconias*: Dramatic Flowers of the Tropics and Subtropics. In: Datta S.K., Gupta Y.C. (eds) Floriculture and Ornamental Plants. Handbooks of Crop Diversity: Conservation and Use of Plant Genetic Resources. **Springer, Singapore**. https://doi.org/10.1007/978-981-15-1554-5_26-1.
27. **Malakar M¹***, and Biswas S. (2021). *Mirabilis*: Medicinal Uses and Conservation. In: Datta S.K., Gupta Y.C. (eds) Floriculture and Ornamental Plants. Handbooks of Crop Diversity: Conservation and Use of Plant Genetic Resources. **Springer, Singapore**. https://doi.org/10.1007/978-981-15-1554-5_28-1.
28. **Malakar, M.** 2021. Dried rose petals: from kitchen to boudoir. *Indian Horticulture* (Magazine) Vol. 66 No. 5, ISSN: 0019-4875.
29. **Malakar, M.** 2020. False Bird-of-Paradise: A Striking Bloom. *Indian Horticulture* (Magazine) Vol. 65 No. 6, ISSN: 0019-4875.
30. **Malakar, M***, S Divyagana, S Sankavi, S Shivabalan, V Allwin. 2022. Versatility of orchids – Exotic bloom. *Indian Horticulture (Magazine) Vol. 67 No. 1, ISSN: 0019-4875*.
31. **Malakar, M¹***, Acharyya, P., and Biswas, S. 2018. Standardization of dehydration techniques of some ornamental foliage. In: Author. Chapter 11 **New York: Apple Academic Press**; distributed by- **CRC Press Taylor & Francis** Group, ISBN: 9781771886475, (2018), Sustainable Horticulture, Volume 2:: Food, Health, and Nutrition, p. 139-149 (Link: https://www.appleacademicpress.com/sustainable-horticulture-2-volume-set-volume-1_diversityproduction-and-crop-improvementbrvolume-2-food-health-andnutrition/9781771886499)
32. **Malakar, M¹***, and Acharyya, P. 2017. Versatility of rambling rose thickets. The Indian Rose Annual XXXIII 2017; The Indian Rose Federation. p. 111-117. ISSN:0567-7572.
33. **Malakar, M¹***, and Beruto, M. 2023. The benefits of ornamental plants on

human health in the context of the COVID-19 pandemic. *Chronica Horticulturae (Belgium)*. 63(1): 8-15.

MAJOR RESEARCH INTERESTS

- Cutting-edge methods of development of dried ornamentals
- Value-addition to ornamental flora resorting the principles of Sustainability
- Post-harvest improvement of tropical ornamentals (Specialty Cut Flowers) adopting frontier methods
- Biotechnological intervention to evaluate hybridization issues principally hinder in breeding approaches of tropical ornamentals (Specialty Cut Flowers)

OTHER RESPONSIBILITIES

- Hindi Language Coordinator (Departmental)** – Central University of Tamil Nadu, India (from 2021 to till date)
- Swachh Bharat Coordinator (Departmental)** - Central University of Tamil Nadu (from 2021 to till date)
- Academic Coordinator (Departmental)** – Central University of Tamil Nadu, India (from 7th August, 2023)
- Member, Board of Studies (BoS)** - Department of Horticulture, Central University of Tamil Nadu (from August 2023)

SELECTED SEMINARS (NATIONAL & INTERNATIONAL) / SYMPOSIUM / WORKSHOP ATTENDED (FROM 2019 TO TILL DATE)

1. Served as **Co-Chairperson** in the international conference on “Recent Trends in Agriculture Towards Food Security and Rural Livelihood” held on 3rd-4th of January, **2020** in the Faculty of Agriculture, **Annamalai University**, Annamalainagar, Tamil Nadu, India- 608002 (**NATIONAL**).
2. Delivered an **Oral** presentation (Virtual) on the topic entitled “Comparative Study of Intact and Husked Seeds of Sunflower (*Helianthus annuus* L.) Summoned from India and Bulgaria for the Estimation of Qualitative Factors Using Near-Infrared Reflectance Spectroscopy” at IV. **International Symposium on Horticulture in Europe (SHE)** at **Stuttgart, Germany** during **March, 2021** (**INTERNATIONAL**).
3. Delivered an **Oral** presentation (Online) on the topic entitled “Evaluation of skeletonizing agents for separation of leaf vein skeletons of *Polyalthia longifolia* var. ‘Pendula’ at **9th Indian Horticulture Congress (IHC) - 2021** at **Chandra Shekhar Azad University of Agriculture & Technology, Kanpur, UP** during 18th - 21st November, 2021 (**NATIONAL**).
4. Delivered an **Oral** presentation (Online) on the topic entitled “Importance of flowers in regulating mental health of human under the pandemic crisis” at **National Symposium** on Ornamental & Edible Horticulture: Emerging challenges

& sustainable goals at *Bidhan Chandra Krishi Viswavidyalaya, Mohanpur, West Bengal* during February, 2022 (NATIONAL).

5. Delivered an *Oral* presentation (Offline) on the topic entitled “Molecular characterization of ten *Heliconia* (Heliconiaceae) genotypes by means of RAPD markers” at IX *International Symposium on New Ornamentals* at *Guadalajara, Mexico* during *October, 2019* (INTERNATIONAL).
6. Delivered an *Oral* presentation (Offline) on the topic entitled “Discernment of pollen grain fertility and stigma receptivity applying Hasty-Easy techniques of *Heliconia* L. species under optical microscope” at IX *International Symposium on New Ornamentals* at *Guadalajara, Mexico* during *October, 2019* (INTERNATIONAL).
7. Received *Invitation with ‘Partial Travel Assistance’* as *‘Invited Young Research’* to deliver *Oral* presentation on “Drying, a sustainable way of bringing diversity in the ornamental sector” at *‘XXVII International EUCARPIA Symposium* Section ornamentals – From Nature to Culture: Breeding Ornamentals for Sustainability’ will be held in *Genoa (Italy)* will be held on 2nd – 5 th July, 2023 (INTERNATIONAL).

**Attended and presented more than 20 POSTER & ORAL presentations at National (8), International (19) and State (1) levels from 2013 to 2019.*

INVITED LECTURE(S):

1. Delivered *Oral* presentation as an *‘Invited Speaker’* on the topic entitled *‘Flowers soothe mental health under pandemic condition’* in a *‘Webinar on Plant Science’* (virtually) at *Tokyo, Japan* during Sep., 2020 (INTERNATIONAL).
2. Delivered a lecture as a *‘Resource Person’* on the topic entitled *‘The role of green chemistry in controlling environmental pollution’* at the event of *UGC STRIDE Free Virtual FDP on “Mitigating Climate Change”* From 26thApril 2021 to 6thMay 2021.
3. Delivered an *‘Invited Special Lecture’* on *‘Post-harvest handling of major cut & loose flowers’* during May, 2021 virtually to the students of *B.Sc in Botany (Honours)* of *Shyampur Shiddheswari Mahavidyalaya, Howrah, West Bengal*.

PROFESSIONAL TRAININGS ATTENDED:

1. Training program on “Organic farming” from 23rd to 24th February, 2015 at Institute of Agricultural Science, University of Calcutta (IAS, C.U), Kolkata, W.B organized by West Bengal Academy of Science & Technology (WAST).
2. Participation in discussion on “Sustaining Soil Health in Ensuring Food Security” held at National Institute of Research on Jute & Allied Fibre Technology (NIRJAFT), Kolkata during 21st– 22nd November, 2013.
3. Participation in discussion on “Botanical Resources & Human Welfare” held at Dept. of Botany, Ramakrishna Mission Centenary College, Rahara in collaboration with Dept. of Botany, Brahmananda Kesab Chandra College on

*Dr. Moumita Malakar
Thiruvavur, Tamil Nadu*

6thSeptember, 2013.

MEMBERSHIP IN ACADEMIC BODIES

- Life Member in Indian Science Congress Association of India
- Life Member in International Society of Horticultural Sciences, Belgium.

JOURNAL REVIEWER OF THE FOLLOWING JOURNALS:

1. Reviewer of Environmental Sustainability, Springer Nature, Singapore
2. Reviewer of African Journal of Biotechnology, Academic Journals

Brief Biography:

Dr MOUMITA MALAKAR (Ph.D [Ag.] [Specialization: Floriculture], University of Calcutta, India, 2018) is an Assistant Professor at the Department of Horticulture & Floriculture, Central University of Tamil Nadu. She had obtained 'Gold Medal' as 1st rank holder at post-graduate level of study in 2012. Her area of specialization is Dry flower production, Post-harvest study and Value-addition in ornamental tropical flowering crops and Genetic relatedness study in ornamentals. She had also completed her M.sc in Botany from Vidyasagar University in 2017 securing 1st class. She had worked as Visiting Post-Doctoral Researcher at Trakia University, Stara Zagora, Bulgaria from September to December, 2018 and Visting Scientist at Indian Statistiocal Institute (ISI), Kolkata, West Bengal from January to April, 2019. She has written more than 20 research papers and articles, published in different National and International reputed, referred and peer reviewed research journals and also has penned 4 book chapters under International and National publishers. She is the peer reviewer of a few International peer reviewed research journals and has attended more than 30 International and National Seminars, 1 Orientation Course, and 1 Refresher Course. She has delivered several Special and Invited Lecture(s) and also got invitation(s) as Resource Person. She has received Foreign Travel Grant sanctioned by SERB-DST to attend an ISHS (International Society of Horticultural Sciences) symposium at Guadalajara, Mexico 2019 (October), Foreign Travel Grant (FTR) sanctioned by CSIR-HRDG to attend an International Conference at Timisoara, Romania in May, 2018, 'Diploma Golden Prize' award for outstanding contribution in science in World Agriculture Congress at Timisoara, Romania in May,2018,best Oral presentation award in World Agriculture Congress at Timisoara, Romania in May,2018, Overseas Endowment Travel Fellowship/ Scholarship by Estate & Trust Officer of University of Calcutta to travel Bulgaria, 2018 (October),best Poster Presentation award in an International Symposium namely 'Eco-efficiency in Agriculture & Allied Sciences' Nadia, India (EEAAR'17) at Bidhan Chandra Krishi Viswavidyalaya (BCKV) held on January, 2017, 'RAKTIM RANJAN BHAGOWATI MEMORIAL AWARD' for 'Outstanding Student' on the eve of 3rd International Conference on 'Bioresource & Stress Management' at Jaipur, Rajasthan, India held on November, 2017, INSPIRE Fellowship by DST, New Delhi, Gov. of India (Full-time National Doctoral Fellowship) in 2013 (July), order of Merit 'First' rank holder at M.Sc level examination (Gold Medalist) in 2012,appreciation Certificate by Alumni Association of Institute of Agricultural Sciences for securing 'First' position at 'Post- graduate Level Exam' in the Dept. of Horticulture University of Calcutta in 2012.