

PROFILE

Name: Dr. I. Helen Diana, Assistant Professor

Qualification: M.Sc., B.Ed., M.Phil., Ph.D in Botany

Department: Botany



ACADEMIC QUALIFICATIONS

| S.No | Degree | Subject | Class | University/College | Year of Passing |
|------|--------|--------------------|--------------------------|--|-----------------|
| 1. | B.Sc | Botany | University First | Kundavai Naacchiyaar Government Arts College (W), Thanjavur-613007 | 2004 |
| 2. | M.Sc | Botany | College First | Kundavai Naacchiyaar Government Arts College (W), Autonomous, Thanjavur-613007 | 2006 |
| 3. | B.Ed | Biological Science | First-Distinction | Lady Willingdon Institute of Advanced Study in Education, Chennai-600 005. | 2007 |
| 4. | M.Phil | Botany | First-Distinction | Jamal Mohammed College (Autonomous), Tiruchirappalli - 20 | 2012 |
| 5. | Ph.D | Botany | Highly Commended | Jamal Mohammed College (Autonomous), Tiruchirappalli - 20 | 2019 |

Aided Shift I

Teaching Experience at Holy Cross College: 5 Years

Research Experience – 5 years

Total Teaching Experience: 5 Years

Academic Responsibilities Within College

- **Botany club-Association In-charge :2023-2024**
- **HRD In-charge: 2020-2022**
- **Time Table Incharge:2022-2023,2024-2025**
- **Fine-Arts In-charge: 2022-2023 in Centenary year**
- **NAAC Parameter: Curriculum Incharge-2021-till date**
- **Sports In-charge:2020-2021,2024- till date**
- **Rescapes In-charge:2022 –till date**
- **ERP: 2024 till date**
- **Website In-charge:2020-2021,2024 till date**

E-lessons developed:

| S.No | Title of e-lessons |
|-------------|---------------------------------------|
| 1. | Food Microbiology: Cheese production |
| 2. | Integrated Farming System |
| 3. | Structure of Chloroplast |
| 4. | Importance of Post-harvest Technology |

PH.D PROGRAMME TITLE

Bacterial Biopesticidal impact on *Leucinodes orbonalis* Guen. of *Solanum melongena* L.

PUBLICATIONS

1. Helen Diana I, Syed Jahangir H. 2019. Effect of secondary metabolites of actinobacteria strain on *Leucinodes orbonalis* Guen Research Journal of Life Sciences, Bioinformatics, Pharmaceutical and Chemical Sciences. 5(1):90-100.

2. Helen Diana I, Syed Jahangir H. 2019. Histological changes of *Leucinodes orbonalis* treated with action bacterial secondary metabolites. *Research Journal of Life Sciences, Bioinformatics, Pharmaceutical and Chemical Sciences*. 5(1):756-764.
3. Helen Diana I, Shanthi.P, Gnana deepa ruby.R. Synthesis of nanoparticles and phytochemical investigation of *Cyperus rotundus*. *Indian Journal of Applied Research* 2249-555.
4. Helen Diana.I, Shanthi.P, Anushya.S .2021. In vitro studies on seed germination and callus induction on *Cassia alata* Linn. *Research Journal of Biotechnology*. Volume 16(5)82-87.
5. I.Helen Diana A. Auxilia Evaluation of Antibacterial, Antioxidant and Phytochemical Analysis of *Amomum subulatum* Roxb. Seed extract. *Research Journal of Agricultural Sciences An International Journal* Volume: 13(05) : 1366–1369 October (2022) UGC CARE
6. I.Helen Diana A. Auxilia of Antibacterial, Antioxidant and Phytochemical Analysis of *Cereus jamacaru* D.C. seed extract. *International journal of Pharmaceutical Sciences and Research* Volume 14(6):1000-05. June 2023
7. I.Helen Diana Green synthesis of zinc oxide nanoparticles in the fruit extract of *Hylocereus undatus* Linn and its antiurolithiatic Activity Against Struvite Kidney stones. Volume 24(7):1505-1516. July 2024

PAPER PRESENTATIONS

1. Oral presentation in the International Conference on "**Emerging Trends in Botany (ICIETB - 2019)**" "**Biopesticidal impact of *Cellulosi microbium cellulans* on *Leucinodes orbonalis* (Guen)**" organized by the Department of Botany, Alagappa University, Karaikudi on 6th & 7th November, 2019.
2. Oral Presentation in the National seminar on "**Biopesticidal impact of *Micromonospora fulva* on *Leucinodes orbonalis* (Guen)**" organized by the PG and Research Department of Botany, Jamal Mohammed College (Autonomous) Tiruchirappalli. held on March 11, 2020
3. Poster presentation title on "Green synthesis of nanoparticles" in the Two days **National conference** on "Phytomedicine and nanomaterials in plant sciences (NCPNP 2022) Organized by the PG and Research department of Botany, Holy cross college (Autonomous) Tiruchirappalli held on 15th and 16th December 2022.

4. Poster presentation title on “Neuroceuticals from medicinal plant” in the Two days **National conference** on “Phytomedicine and nanomaterials in plant sciences(NCPNP 2022) Organized by the PG and Research department of Botany, Holy cross college(Autonomous) Tiruchirappalli held on 15th and 16th December 2022.
5. Poster presentation title on “Phytochemical investigation and anti diabetic activity in the leaf extract of Hybanthus enneaspermus(L.) in the **International conference** on Microbiome and synthetic biology(ICMSB 22) Organized by the department of microbiology, school of life sciences, Bharathidasan university, Tiruchirappalli and society of chemical and synthetic biology during September 22nd and 23rd 2022. Sponsored by DST-SERB & INSA.
6. Presented in the Under DBT STAR college scheme sponsored National seminar on “Innovative research approaches in biological sciences”(IRABS) “Phytochemical investigation and antidiabetic activity in the root extract of *Vetiveria zizanoides*” held during 25th and 26th May 2022, Jamal mohamed college, (Autonomous), Tiruchirappalli, Tamilnadu.

ORGANISED PROGRAMMES:

1. Organized the Workshop on “**Nursery Techniques in Horticulture**” by PG and Research Department Botany , Holy Cross College (Autonomous), Tiruchirappalli 620002. held on March 10, 2020
2. Organized the National Seminar on “**Bio innovations**” by PG and Research Department Botany , Holy Cross College (Autonomous), Tiruchirappalli 620002. held on 10th March 2020.
3. Organized the Webinar on “**In Vitro production of Secondary Metabolites**” by Dr.N.Komalavalli, Associate Professor and Head, Alagappa Government Arts College, Karaikudi Conducted by the PG and Research Department of Botany held on 16 th June 2020.
4. Organizing a webinar on "Our Land, Our Future, We Are #GenerationRestoration" by Dr. A. Daisy Caroline Mary, Assistant Professor, Department of Environmental Sciences, Bishop Heber College (Autonomous), Tiruchirappalli. The event was conducted by the PG and Research Department of Botany on 05.06.2024.

TRAINING PROGRAMMES / WORKSHOPS ATTENDED

1. Participated Two Day National Workshop on **Training in Animal Experimentation and Phytochemical Techniques (TAEPT - 2K18)** Organized by Department of Biochemistry, SrimadAndavan Arts and Science College, Tiruchirappalli-620 005, held from 23rd to 24th April 2018.
2. Participated One Day Workshop on "**Environmental Protection**" Organized jointly by Public Works Department, (WRO -Environmental Cell Division, Coimbatore - Government of Tamil Nadu) and National College; Tiruchirappalli-620 001, on 24th September 2010.
3. Participated in the Workshop on “**Nursery Techniques in Horticulture**” by PG and Research Department Botany , Holy Cross College (Autonomous), Tiruchirappalli 620002. held on March 10, 2020
4. Participated in the Science Academics Virtual Lecture Workshop –Proteins-Structure-, Function and Evolution organized on 23rd and 24th February, 2022 by Department of Botany, Telangana University, Dichpally, Nizamabad.

SEMINARS/CONFERENCES ATTENDED

1. Participated in the International Conference cum Webinar on "**Recent Innovations in Biosciences**" by PG and Research Department of Zoology, Holy Cross College (Autonomous), Tiruchirappalli 620002, held on 07.02.2018
2. Participated One Day Workshop on "**Environmental Protection**" Organized jointly by Public Works Department, (WRO -Environmental Cell Division, Coimbatore - Government of Tamil Nadu) and National College; Tiruchirappalli-620 001, on 24th September 2010.

3. Participated in the International Seminar on "**Emerging Trends in biological Research (ETBR 2018)**" organized by P.G & Research Department of Biotechnology & Microbiology, Jamal Mohamed College, Tiruchirappalli 620 020 held on 3rd March 2018.
4. Participated in the International Conference "**Indian Traditional Medicine- A Conglomeration of Ancient Knowledge and Modern Science**" organized by Sastra University, Thanjavur, held on 21 & 22, July, 2016.
5. Participated UGC Sponsored National Seminar on **Recent Trends in Botany (RTB-2016)**, Organized by P.G & Research Department of: Botany, Jamal Mohamed College, Tiruchirappalli- 620020 on 24th February 2016.
6. Participated in the National Seminar on "**Frontiers in Biosciences**" (FIB- '2016), organized by P.G and Research Departments of Microbiology & Biotechnology, Jamal Mohamed College (Autonomous), Tiruchirappalli - 20, held on 5th March, 2016.
7. Participated UGC Sponsored National Seminar on "**Advances in animal science for sustainable development**" (**AASSD-2018**) Organised by the PG and Research Department of Zoology, Jamal Mohamed College, Tiruchirappalli-620 020, Tamil nadu, India. held on 15th February 2018.
8. Participated UGC Sponsored National Seminar on **Intellectual Property Rights and Patenting in Life Sciences** Organized by P.G & Research Department of: Botany, Jamal Mohamed College, Tiruchirappalli- 620020 on March 1st 2018.
9. Oral presentation in the International Conference on "**Emerging Trends in Botany (ICIETB - 2019)**" "**Biopesticidal impact of Cellulosimicrobium cellulans on Leucinodes orbonalis (Guen)**" organized by the Department of Botany, Alagappa University, Karaikudi on 6th & 7th November, 2019.
10. Participated in "**ONLINE TRAINING ON ELECTROPHORESIS**" organized by the P.G and Research Department of Zoology, Jamal Mohamed College, Thiruchirappalli - 620020, conducted on 9th July 2020.
11. Participated in the National Webinar on "**Diversity and Distribution of Pteridophytes in India**" by Dr. A. Benniamin, Scientist 'E', Botanical Survey of India, Western Regional Centre, Pune, Ministry of Environment & Forests, Government of India held on 6th August 2020
12. Participated in the webinar on "**The Implications of the NEP 2020 for Higher Education and Role of Teachers**" organised by IQAC, Holy Cross College (Autonomous), Tiruchirappalli, on 25th August 2020.
13. Participated in the Webinar on "**Marine Bio-Propecting**" by Dr.T.Citarasu, Associate Professor, Centre for Marine Science and Technology, Manonmaniam Sundaranar University, Rajakkamangalam, Kanyakumari held on 6th October 2020.
14. Participated in One week online International Faculty Development Program (FDP) on "**Artificial Intelligence and IoT- Heuristic Transdisciplinary perspectives**" organized by CICRSD, Holy Cross College (Autonomous) held during 4th – 10th July 2020.

15. Participated in one day **“ONLINE WORKSHOP ON VERMITECHNOLOGY”** organized by the **P.G and Research Department of Zoology, Jamal Mohamed College, Thiruchirappalli - 620020**, Conducted on 11th July 2020.
16. Participated in the International Webinar on **“Phytochemicals as an Antibiotic Alternative to Combat MDR”** by Dr. NagarajaSuryadevara, Faculty of Medicine, School of Biosciences, MAHSA University,, Malaysia, held on 16th July 2020, conducted by the PG and Research Department of Botany.
17. Participated in the **‘Online National Level Quiz Competition for Plant Science - 2020’** organized by Department of Botany, E.S. Arts and Science College (Co-Ed), Villupuram, Tamil Nadu.
18. Participated in the the webinar on **"Obesity and its role in Breast Cancer"** presented by Dr.RamaBalaraman, Florida Cancer Affiliates (FCA) Medical Oncology, Hematology, USA organised by CICRSD held on June 6th 2020.
19. Participated in A One day Webinar on **BIODIVERSITY - URGENT AND EXISTENTIAL CONCERNS** organized by the PG and Research Department of Botany, **St. Mary’s College (Autonomous), Thoothukudion 10.06.2020**.
20. Participated in the Webinar on **Discover Your Values - COVID-19** organised by the Department of Value Education Holy Cross College (Autonomous), Tiruchirappalli, on 10th June 2020.
21. Participated in the National webinar on **“Diversity and Distribution of pteridophytes in India”** by Dr.A.Benjamin, Scientist ‘E’, Botanical survey of india, Western Regional centre, Pune, Ministry of environment & Forests, Government of india held on 6th August 2020 by PG and Research Department Botany , Holy Cross College (Autonomous), Tiruchirappalli 620002,
22. Participated in the webinar on **‘Compat the pandemic stress through Yoga’** by ArulnithiMr.s.Muthukumar, Psychiatric counsellor , Sunrise foundation (IRCA), Trichy held on 21 st June 2020.
23. Participated in Faculty Orientation Webinar series on **“Risk management in times of crisis”** by Mr. Glenn Roger carr, Founder and Director, Finmark, leaders in Financial market education for the teaching faculty of Holy Cross College.
24. Participated in the webinar on **“Protecting research innovations through intellectual property rights”** by Professor T.Parimelezhan, Department of Botany, Director, IPR cell, Bharathiyar University, Coimbatore, held on 17 th June 2020, conducted by the PG and Research Department of Botany, Holy Cross College (Autonomous), Tiruchirappalli 620002.
25. Participated in the HCC ares Webinar series on the topic **“Seed and Weed-Nurturing Relationships”** by MS.Aartirajaratnam, Psychologist and author for the Teaching faculty of Holy Cross College (Autonomous), Tiruchirappalli 620002.
26. Participated in the Hccares webinar series on the topic **“Healthy Parenting Styles”** by Ms.D.Leemapeter, Psychologist and counselor, K.Ramakrishnan College of Engineering, Tiruchirappalli.

27. Participated in the Webinar series on **“In Vitro production of Secondary Metabolites”** by Dr.N.Komalavalli, Associate Professor and Head, Alagappa Government Arts College, Karaikudi Conducted by the PG and Research Department of Botany held on 16 th June 2020.
28. Participated in the Webinar on **“Dr.R.M.Meenakshi Endowment lecture on DNA BARCODING AND HERBAL PRODUCT AUTHENTICATION”** by Dr.R.Sathishkumar, Professor and Head, Department of Biotechnology, Bharathiar University, Coimbatore Conducted by the PG and Research Department of Botany held on 13 th March 2021.
29. Participated in the National Webinar on **“Why should we care for the Environment?”** held on 29 th June 2021, Organised by the Enviroclub of Guru nanak College (Autonomous), Guru nanak Salai, Velachery, Chennai-600 042.
30. Participated in Faculty Development Programme on **“TO SEEK & TO FIND”** organized by IQAC-Dr.R.K.Shanmugam College of Arts and Science in Association with Indian Academic Researchers Association Tiruchirappalli held on 17 th June 2021.
31. Participated in the **INTERNATIONAL WEBINAR ON TRANSMISSION, PATHOGENESIS OF SARS-COV-2 & ITS HOST IMMUNE RESPONSE** organized by the PG and Research Department of Microbiology, Sadakathullah Appa College (Autonomous) held on 11 June 2021.
32. Participated in International Conference on **“Consortium of Higher Education Researchers “** Organized by IQAC of Dhanalakshmi Srinivasan College of Education on 12.06.2021
33. Participated in online webinar on **“COVID-19 DEFENCE AGAINST PANDEMIC CRISIS”** organized by National service scheme and Youth red Cross of Veltechrengasanku Arts College, Avadi, Chennai. Held on 11th June 2021.
34. Participated in the National Webinar on **“INDUSTRIAL SPIRULINA PRODUCTION TECHNOLOGY”** organized by Department of Microbiology, Ayya Nadar Janaki Ammal College, Sivakasi held on 2nd June 2021.
35. Participated in a Faculty development programme, International webinar on **“Biological innovations for resource management and sustainable Development”** organized by the PG and Research Department of Botany, Jamal Mohamed College (Autonomous), Tiruchirappalli, Tamilnadu, India on 24th to 26 th August 2021 Under DBT Star College Scheme.
36. Participated in the Fifteen day International online Faculty Development programme on **“Gender Equality and Empowerment today for a sustainable tomorrow”** Organized by the Department of women’s studies, Tiruchirappalli and PG and Research Department of Rehabilitation science, Holy cross college, Tiruchirappalli from 16.03.2022 to 31.03.2022.
37. Participated in the Two days national conference on **“Global marine Diversity- Status, Threats and conversation-(NCGMB, 2022)** organized by the department of Zoology, Under DBT star college scheme from 09.03.2022 to 10.03.2022. V.V.Vanniyaperumal college for Women, Virudunagar, Tamilnadu.

38. Participated in the seven days **National level faculty development program** “**The Art of teaching in HEI’s** held from 1st to 9th June,2022 organized by IOT Academy,Coimbatore,Tamilnadu,India.
39. Participated in the “**Faculty Development Programme** for Young Faculty of colleges and universities” funded by United board and organized by St.Christopher’s college of Education,Chennai-7,on July 12th to 16th ,2022.
40. Participated in the UGC sponsored **Twelfth online Faculty induction Programme** from 28.10.2022 to 26.11.2022 and obtained the grade’ A’organized by the University grants commission Human Resource Development Centre,BharathidasanUniversity,Tiruchirappalli.Tamilnadu.
41. Participated in the Under DBT STAR college scheme sponsored **National seminar** on “Innovative research approaches in biological sciences”(IRABS) held during 25th and 26th May 2022,Jamal mohamed college,(Autonomous),Tiruchirappalli,Tamilnadu.
42. Participated in the **International conference** on Microbiome and synthetic biology(ICMSB 22) Organized by the department of microbiology,school of life sciences,Bharathidasanuniversity,Tiruchirappalli and society of chemical and synthetic biology during September 22nd and 23rd2022. Sponsored by DST-SERB & INSA.
43. Participated in the **International conference** on articulating multidisciplinary research and grant proposal(ICAMRGP-2022) held on October 19th& 20th ,2022 in Srinivasan college of arts and science,Perambalur-621 212.
44. Participated in the Two days **National conference** on “Phytomedicine and nanomaterials in plant sciences(NCPNP 2022) Organized by the PG and Research department of Botany,Holy cross college(Autonomous) Tiruchirappalli held on 15th and 16th December 2022.
45. Participated in the International conference on “Environmental management and sustainable development” organized by PG Department of Environmental science, Holy cross college(Autonomous) Tiruchirappalli held on 24th January 2022.
46. Participated in the International conference on “**The Transformative power of Value Education for the Development of Youth Today**”,Organised by the Department of Value education,Holy Cross College (Autonomous),Tiruchirappalli,on 8th February,2023.
47. Participated in One day Conference on “Challenges and Opportunities in Life Sciences” organized by the School of Life Sciences. Holy Cross College (Autonomous), Trichy on 15th February 2023.
48. Participated in One week Online National Faculty Development program,Organised by Holy cross college and Guru angad dev Teaching Learning centre under the Pandit mohan Malaviya National mission on Teachers and Training of Ministry of education ,SGTB Khalsa college, University of Delhi on April 29th to May 5th 2023.
49. Participated in One day International symposium Confe on “Microbiome and transformative Biology: Exploring the future of Life Sciences” organized by the PG and Research Department of Botany, Holy Cross College (Autonomous), Trichy on 30th August 2024.

FIELD OF INTERESTS

Biotechnology and Environmental Microbiology .

TECHNICAL EXPERTISE

Soil Microbiology:Besides routine laboratory work,Isolation,Characterization, Identification of Actinobacteria and Bacteria.

Molecular Biology: DNA and PCR amplification16SrDNA.

Bioactive compounds:Separation and purification of bioactive substances from medicinal plants.

Cultures registered in NCBI

The National Center for Biotechnology Information (NCBI) USA.

| S.NO | CULTURE NAME | ACCESSION NUMBER |
|-------------|-------------------------------------|---|
| 1 | <i>Cellulomonas massiliensis</i> | MK600520 |
| 2 | <i>Micromonospora fulva</i> | MK652881 |
| 3 | <i>Cellulosimicrobium cellulans</i> | MK640644 |
| 4 | <i>Pantoea dispersa</i> | JMCHB26 accession number were still in progress. |

Official Address:

Dr. I.Helen Diana
Assistant Professor,
Department of Botany, Holy Cross College (Autonomous), Tiruchirappalli – 620 002,
Tamil Nadu,India.

Residential Address:

Dr.I.Helen Diana
Sixth computers,
4A/3, Willimas Road,
Cantonment,
Trichy - 620001.

Mobile No :+91 99653 61487

Email ID : helendiana1981@gmail.com

