


Profile

Name : Dr B. HELENMARY PIRAMILA Designation: Assistant Professor Department: PG & Research Department of Botany Institution : Holy Cross College (Autonomous) Tiruchirappalli- 620 002 Educational Qualification: M.Sc., B.Ed., M.Phil., Ph.D Teaching Experience: 9 years E-mail ID : helansoft@gmail.com	
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Professional Summary

A passionate Professor with a focus on imparting excellent learning strategies in the field of Life Sciences along with entrepreneurship skills. As a nature lover, she highlights the importance of environment and its current issues in the young minds and encouraging them to conserve our mother nature.

Academic Qualifications: M.Sc., B.Ed., M.Phil., Ph. D

S. No.	Degree / Diploma	Subject / Main	Name of the College / University
1.	B. Sc	Botany	Holy Cross College, Tiruchirappalli
2.	M. Sc	Botany	Holy Cross College, Tiruchirappalli
3.	M.Phil.	Botany	St. Joseph's College, Tiruchirappalli
4.	Ph.D.	Botany	Bharathidasan University, Tiruchirappalli
6.	B. Ed	Biological Science	Madras University
7.	DCA	Computer	Aptech Computer Centre
8.	Certificate Course	Innovative Teaching and Skills for Online Classroom	Tamil Nadu Open University, Chennai

Subjects of Expertise

- ✦ Plant - Diversity, Anatomy, Embryology, Pathology and Taxonomy
- ✦ Cell Biology, Plant Foods, Pharmacognosy & Herbal Remedies
- ✦ Plant tissue culture & Phytochemistry
- ✦ Plant Biotechnology
- ✦ Environmental Science
- ✦ Genetic Engineering- Recombinant DNA technology






Practical Skills

- ✦ Plant Anatomy- Sectioning techniques
- ✦ Plant tissue culture techniques
- ✦ Biochemical Estimation techniques
- ✦ Plant Physiology experiments
- ✦ Water and soil sample estimation techniques
- ✦ Antimicrobial techniques
- ✦ Silver Nanoparticle synthesis

Research Supervision / Guidance

Program of Study		Completed	Ongoing
Project	PG	9	-
	UG	8	-

Publications

	Papers published	6
	Seminars attended	36
	Conferences attended	10
	Symposia attended	1
	Workshop attended	4

Project & Thesis

M.Sc : Effect of Heat Treatment on Germination, Seedling Growth and Some Biochemical Parameters of Dry Seeds of Black Gram

M.Phil : An Investigation on *in vitro* propagation of *Jatropha*

Ph.D : *In vitro* callus production, Phytochemical analysis and Green synthesis of silver nanoparticles using *Trichosanthes cucumerina* L. and its anticancer activity

Other Achievements

1. Designed a new oxygen producing Indoor plants Micro tower through Seed grant received from Holy Cross College (Autonomous), Tiruchirappalli.

Journal / Articles Published: (Attach the list using the format given below)

1. B.Helen Mary Piramila , A.Lakshmi Prabha, V.Nandagopalan and Leo Stanley A(2012). Effect of Heat Treatment on Germination, Seedling Growth and Some Biochemical Parameters of Dry Seeds of Black Gram *Int.J.Pharm.Phytopharmacol.Res.* 2012, 1(4): 194-202
2. B.Helen Mary Piramila, A.Lakshmi Prabha, and V.Nandagopalan (2014). An Investigation on the *in vitro* Propagation of *Trichosanthes cucumerina* L. - An Important medicinal plant. *International Journal of Pharmaceutical Research Scholars*, V-3, 1-3, pp 8-13.
3. B.Helen Mary Piramila, A.Lakshmi Prabha, and V.Nandagopalan (2014). Novel Approach to Synthesis Silver Nanoparticles using Leaf Extract of *Trichosanthes cucumerina* L. and its Antibacterial Activity. *International Journal of Pharmaceutical Research Scholars*, V-3, 1-2, pp 809-813.
4. Karthika. J, M. Yasodha, B. Helen Mary Piramila, A. Freeda Rose and H.D. Subashini, 2019. Effect of Silver Nanoparticles in Sewage Water Treatment. *Journal of Emerging Technologies and Innovative Research*. Volume 6, Issue 1, ISSN: 2349-5162; Pg. 271-274. Impact factor: 5.87.
5. R. Kavitha, Claudio Medoona Rigley, S. Rebekka Salomy, B.Helen Mary Piramila and A. Freeda Rose, 2021. *In vitro* analysis of antidiabetic and anti-inflammatory activities of selected medicinal plants. *J. Pharm. Sci & Res.* Vol. 13(5), 2021, 259-270.
6. Helen Mary Piramila B, Agnes Priya S, Deepika M, Nandhini G and Reeta Jenifer S. 2021. Indoor Plants- A novel approach to reduce the risk of atmospheric pollution. *International Journal of Botany Studies*, Vol. 6, Issue 4.474-480.
7. Helenmary Piramila B, Kavitha R and Brijith Oviya M. 2024(Aug 2024). Green synthesis of Silver Nanoparticles using *Pisonia alba* L. and its Antioxidant Activity. *Research Journal of Agricultural Sciences*. Volume 15; Issue 04; pp1033-1036.

Conference/Seminar/Workshop/Training Programme Attended- Academic & General:

S. No.	Theme	Place	International / National / State level	Year	Resource Person / Paper Presentation / Participation
1.	Advances in Biology” Department of Botany, Biochemistry & Biotechnology	St.Joseph’s College, Tiruchirappalli, Tamil Nadu, India	National Seminar	19 th and 20 th January 2005.	Participated

2.	Recent Trends in Secondary Metabolic Engineering	Department of Plant Science, Bharathidasan University, Tiruchirappalli	National Seminar	5 th January 2010	Participated
3.	Research Methodology and Opportunities in Traditional Medicine Research	Periyar College of Pharmaceutical Sciences, Tiruchirappalli	Workshop	9 th December 2011	Participated
4.	Biosynthesis of Silver nanoparticle using <i>Trichosanthes cucumerina</i> L. Leaf Extract and its Anti Bacterial Activity	Indian Institute of Technology, Chennai	International Conference	17 th to 19 th October 2012	Paper Presented
5.	Green Synthesis of Silver Nanoparticles using <i>Trichosanthes Cucumerina</i> L.-An Eco-friendly approach	St. Joseph's College, Tiruchirappalli-	International Conference	10 th and 11 th January 2013	Paper Presented
6.	Biosynthesis of Silver nanoparticle using <i>Trichosanthes cucumerina</i> L. Stem Extract and its Nonlinear Optical Property	Bhabha Atomic Research Centre, Mumbai	National laser Symposium	6 th to 9 th February 2013	Paper Presented
7.	<i>Trichosanthes cucumerina</i> L.- A Novel Biological Approach for Silver Nanoparticle synthesis	Department of Physics, National Institute of Technology, Tiruchirappalli	National Conference	April 4 th to 5 th 2013	Paper Presented
8.	Recent Trends in bioprospecting of plants	Department of Plant Science, Bharathidasan University, Tiruchirappalli	National Seminar	28 th & 29 th March 2014	Participated
9.	Vistas in BioSciences	PG and Research Department of Botany, St. Joseph's College, Tiruchirappalli	International Conference	30 th & 31 st January 2015	Participated

10.	Frontiers in Life Science	PG and Research Department of Botany, St. Joseph's College, Tiruchirappalli	Science Academies Lecture workshop	7 th & 8 th January 2016	Participated
11.	Goodness of God and Nature	Sponsored by Xavier Board of Higher Education in India and Organized by Holy Cross College, Tiruchirappalli.	state level Inter-Collegiate competition and Seminar	6 th January, 2018	Participated
12.	Scientific Research and Education in Today's Scenario	PG and Research Dept. of Botany, Holy Cross College (Autonomous).	National Seminar	13 th & 14 th February 2019	Participated
13.	"Menstrual Hygiene and Reproductive Health Care"	Holy Cross College (Autonomous), Trichy	HCC Alumnae Association Webinar	(online) 3 rd June, 2020	Participated
14.	"Human Trafficking and COVID-19"	The American College, Madurai in Collaboration with International Justice Mission (IJM)	National Webinar	(online) 4 th June, 2020	Participated
15.	"Social Innovation and change Management"	Institution's Innovation Council Holy Cross College (Autonomous), Trichy	National Innovation Webinar	(online) 5 th June, 2020	Participated
16.	'Obesity and its role in Breast cancer'	CICRS D Holy Cross College (Autonomous), Trichy	Webinar	(Online) 6 th June, 2020	Participated
17.	'Discover your values: COVID 19'	Dept. of Value Education Holy Cross College (Autonomous), Trichy	Webinar	(Online) 10 th June, 2020	Participated
18.	UGC STRIDE Component 1 – Capacity Building of Young Talent in Transdisciplinary	Centre for Research & Publications and Institution's Innovation	Webinar	(online) 11 th June, 2020	Participated

	Research for a Sustainable Development of Society- Webinar Series II on “STRIDE Tutorial on Transdisciplinary Research”	Council Holy Cross College (Autonomous), Trichy			
19.	‘Risk Management in Times of Crisis’	IQAC Holy Cross College (Autonomous), Trichy	Faculty Orientation Webinar series	(online) 12 th June, 2020	Participated
20.	“In-Vitro production of Secondary Metabolites”	PG & Research Department of Botany Holy Cross College (Autonomous), Trichy	Webinar	(online) 16 th June, 2020	Participated
21.	“Protecting Research Inventions through Intellectual Property Rights”	PG & Research Department of Botany Holy Cross College (Autonomous), Trichy	Webinar	(online) 17 th June, 2020	Participated
22.	“COVID 19: Pandemic and Immunity”	IQAC (Collaboration) Department of Botany, Nutrition & Diabetics and Research Department of Zoology, Seetha Lakshmi Ramaswami College, Trichy.	National Webinar	(online) 17 th June, 2020	Participated
23.	“Combating Mental Health Issues during COVID- 19: Tips to Parents and Adolescents”	Department of Social Work, Periyar Maniammai Institute of Science & Technology, Vallam, Thanjavur.	International Webinar	(online) 18 th June, 2020	Participated
24.	“Corona: Immunity and Ayurveda”	Department of Botany and Zoology, Sree Ayyappa College for Women, Chunkankadai, Kanyakumari.	National Webinar	(online) 20 th June, 2020	Participated

25.	'Combat the pandemic stress through Yoga'	Holy Cross College (Autonomous), Trichy	Webinar	(online) 21 st June, 2020	Participated
26.	"Digital Skills for Smart Teaching"	Raja DoraiSingam Government Arts College, Sivaganga.	National Level FDP	(online) 22 nd and 23 rd June, 2020	Participated
27.	" Biodiversity and Climate Change: An Intimate Dynamic Relationship"	PG & Research Department of Botany, V. O. Chidambaram College, Thoothukudi.	International Webinar	(online) 24 th June, 2020	Participated
28.	"Biodiversity and Conservation"	Department of Botany, Govt. Arts College, Udthagamandalam	National Webinar	(online) 26 th June, 2020	Participated
29.	"Funding Opportunities in Biotechnology"	PG and Research Department of Biotechnology & Bioinformatics Holy Cross College (Autonomous), Trichy	Webinar	(online) 27 th June, 2020	Participated
30.	"Artificial Intelligence and IoT Heuristic transdisciplinary perspectives"	CICRSD Holy Cross College (Autonomous), Trichy	One week online International faculty development (FDP) program	(online) 4 th to 10 th July, 2020	Participated
31.	"Phytochemicals as an antibiotic alternate to combat MDR"	PG & Research Department of Botany Holy Cross College (Autonomous), Trichy	International Webinar	(online) 16 th July, 2020	Participated
32.	UGC STRIDE Component I - FDP – Webinar Series III	Centre for Research & Publications Holy Cross College (Autonomous), Trichy	Webinar	(online) 13 th to 18 th July, 2020	Participated
33.	'Unlocking Approaches in Biological Sciences'	PG & Research dept. of Botany, Dept. of Biotechnology School of Biological Sciences St. Joseph's	A three-day International Webinar Series	(online) 24 th to 26 th July, 2020	Participated

		College (Autonomous). Trichy			
34.	“Diversity and Distribution of Pteridophytes in India”	PG & Research Department of Botany Holy Cross College (Autonomous), Trichy	National Webinar	(online) 6 th August, 2020	Participated
35.	“The Implications of the NEP 2020 for higher education and role of teachers”	IQAC Holy Cross College (Autonomous), Trichy	National Webinar	(online) 25 th August, 2020	Participated
36.	“Bioremediation of Polluted soils for Sustainable Development”	Department of Biotechnology (DBT Sponsored STAR department), Department of Chemical Engineering, Yeungnam University, Gyeongsan, Republic of Korea and Department of Radiation Oncology, College of Medicine, Chungbuk National University Hospital, Cheongju, Republic of Korea. Ayya Nadar Janaki Ammal College, Sivakasi.	International Webinar	Online- 29 th August, 2020	Participated
37.	“Marine Bio-Prospecting”	PG & Research Department of Botany Holy Cross College (Autonomous), Trichy	National webinar	(online) 6 th Oct.2020	Participated
38.	“Recent Advancement in Cancer Research and Therapy 2020”.	Department of Biotechnology (DBT Sponsored STAR Department)	Five Days International Webinar Series	(online) 16 th to 20 th Nov. 2020	Participated

		Ayya Nadar Janaki Ammal College, Sivakasi.			
39.	'Addressing Challenges in Higher Education through the OBE mode'	IQAC Holy Cross College (Autonomous), Trichy	Webinar	(online) 4 th Jan, 2021	Participated
40.	"DNA Barcoding and Herbal product Authentication"	PG & Research Department of Botany Holy Cross College (Autonomous), Trichy	Dr. R.M. Meenakshi Endowment Lecture	(online) 13 th Mar.2021	Participated
41.	"Reimagining Plant Sciences for Sustainable Future- Opportunities and Challenges"	PG & Research Department of Botany Holy Cross College (Autonomous), Trichy	National Level Faculty Development Program	(online) 2 nd to 6 th Aug. 2021	Participated
42.	"Innovative Research Approaches in Biological Sciences"	PG & Research Department of Botany Jamal Mohamed College (Autonomous), Trichy	National Seminar	25 th & 26 th May, 2022	Paper presented
43.	"ICT Enabled Teaching and Learning"	IOT Academy	Two days National Level Faculty Development Program	(online) 16 th & 17 th June, 2022	Participated
44.	"Energy Audit & Green Audit"	IOT Academy	National Level Faculty Development Program	(online) 2 nd July,2022	Participated
45.	"Materials Science for Sustainable Environment"	School of Physical Sciences, PG & Research Department of Chemistry, Holy Cross College (Autonomous), Trichy	International Conference	23 rd & 24 th Aug. 2022	Participated

46.	UGC sponsored Twelfth online “Faculty induction Programme”	Bharathidasan University, Tiruchirappalli,	University grants commission Human Resource Development Centre	28 th Oct. 2022 to 26 th Nov.2022	Participated
47.	“Phytomedicine and Nanomaterials in Plant Sciences”	PG & Research Department of Botany Holy Cross College (Autonomous), Trichy	National Conference	15 th & 16 th Dec.2022	Participated
48.	“Environmental management and sustainable development”	PG Department of Environmental science, Holy cross college(Autonomous) Tiruchirappalli	International Conference	24 th Jan.2023	Participated
49.	“The Transformative power of Value Education for the Development of Youth Today”	Department of Value Education, Holy Cross College, Tiruchirappalli.	International Conference	8 th Feb.2023	Participated
50.	“Challenges and Opportunities in Life Sciences”	School of Life Sciences, Holy cross college(Autonomous) Tiruchirappalli	Conference	15 th Feb.2023	Participated
51.	“Higher Education: Ethics in Academics, Administration, Community, Society initiatives and artificial Intelligence Impact”	Centre for Education Beyond Curriculum (CEDBEC) Christ (Deemed to be University) Bangalore	National Conference	23 rd and 24 th November 2023	Participated
52.	“Our Land, Our Future, We are ≠ Generation Restoration”	PG & Research Department of Botany Holy Cross College (Autonomous), Trichy	Webinar	5 th June 2024	Participated
53.	“Microbiome & Transformative Biology: Exploring The Future of Life Sciences”	PG & Research Department of Botany Holy Cross College (Autonomous), Trichy	International Symposium	30 th August 2024	Participated

54.	“Mastering Hydroponics: A Hands-on Guide”	The department of Botany, Patna Women’s college(Autonomous). Patna University & PG & Research Department of Botany Holy Cross College (Autonomous), Trichy	Workshop	1 st October 2024	Attended
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Organizing Secretary & Resource Person

S. No.	Theme	Place	International / National / State level	Year	Organizing Secretary/Resource Person
1	“Diversity and Distribution of Pteridophytes in India”	PG & Research Department of Botany Holy Cross College (Autonomous), Tiruchirappalli.	National Webinar	(online) 6 th Aug.2020	Organizing Secretary
2	“Plant Tissue Culture, <i>Agrobacterium</i> Mediated Transformation in Plants And Nanotechnology”	PG and Research Dept. of Botany, Holy Cross College (Autonomous), Tiruchirappalli.	State level Two day workshop	28 th & 29 th August 2018	Resource Person
3	“Biochemical characterization of Bacterial pathogens, Antibacterial studies and permanent slide preparation”	PG and Research Dept. of Botany, Holy Cross College (Autonomous), Tiruchirappalli.	Workshop	21 st & 22 nd August, 2019	Resource Person

E – Content Developed

- ✚ Synthetic seed preparation and its application
- ✚ Protoplast Isolation and Culture
- ✚ Infrastructure of Plant Tissue Culture Laboratory
- ✚ Structure and Uses of *Ulva* Thallus

Training Program

- ✚ Attended UGC Sponsored Twelfth Online Faculty Induction Program conducted by UGC-HRDC, Bharathidasan University, Tiruchirappalli (28-10-2022 to 26-11-2022).
- ✚ Participated in one week Online National Faculty Development Programme on “MOOCs and e- Content Development” organized by Guru Angad Dev Teaching Learning Centre, a Centre under Pandit Madan Malaviya National Mission on Teachers and Teaching (PMMMNTT), MHRD, Govt. of India in collaboration with Holy Cross College, Tiruchirappalli held from 29th April to 5th May 2023.

Membership

- ✚ Editorial board member in the “International Journal of Botany Studies”- Web of Science Journal.

Extra- Curricular Activities

- ✚ Participated in the Workshop on “Personality Development Programme” organized under NSS, Bharathidasan University, Tiruchirappalli held on 3rd& 4th March 2010.
- ✚ Participated in Rangoli Competition on “World Ocean Day Competition” organized by Department of Marine Science, Bharathidasan University, Tiruchirappalli held on 29th July 2011.
- ✚ Participated in Rangoli and Dumb Charades Competitions on “Daskalos Fest’14” at Holy Cross College (Autonomous), Tiruchirappalli held on 5th September 2014.
- ✚ Participated and Won the II prize in Singing Competitions on “Daskalos Fest’14” at Holy Cross College (Autonomous), Tiruchirappalli held on 5th September 2014.
- ✚ Presented a paper on “Mother Foundress Day Celebration” at Holy Cross College (Autonomous), Tiruchirappalli held on 10th August 2018.



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