

## **RESUME**

**Dr. M. SUMATHI** M.Sc., Ph.D., PGDCA., (BIOTECHNOLOGY)

No.1, E.G.Nagar,

Ezhil Nagar Veedhi,

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### **EDUCATIONAL QUALIFICATION**

<b>Name of the Course/ Department</b>	<b>Name of the Board/ University</b>	<b>Year of Passing</b>	<b>Percentage/GPA</b>
<b>Ph.D., Biotechnology- Plant Biotechnology</b>	IFGTB(ICFRE), Bharathiar University, Coimbatore.	2012-2016	Highly commended
<b>M.Sc., Biotechnology</b>	Bharathidasan University, Tiruchirappalli.	2009-2011	8.11
<b>B.Sc., Biotechnology</b>	A.V.C College, Mayiladuthurai.	2005-2008	8.19
<b>H.Sc., Pure Science</b>	St.Paul's Girls H.S.School, Mayiladuthurai.	2002-2004	89%
<b>S.S.L.C.,</b>	N.K.M. H.S. School, Mayiladuthurai.	2000-2002	86%
<b>P.G.D.C.A.,</b>	TATTI, Mayiladuthurai.	2006-2007	A

### TEACHING EXPERIENCE

Office/Institution employed	Date of Joining	Date of leaving	Position held	Subjects/papers taught	Class handled
A.V.C. College of Arts and Science (AUTONOMUS), Mayiladuthurai	01.09.2022	Till Date	Assistant Professor	Genetics, Cell and Molecular Biology, Plant Biotechnology, Environmental Biotechnology, Bioinformatics	B.Sc., & M.Sc.,
A.V.C.College of Arts and Science (AUTONOMUS), Mayiladuthurai	16.06.2017	12.04.2018	Assistant Professor		
Jaihind Matriculation School Therizhandur, Mayiladuthurai	23.05.2008	31.07.2009	Teacher	Botany and Zoology	6 <sup>th</sup> STD to 10 <sup>th</sup> STD

### RESEARCH EXPERIENCE

Office/Institution Employed	Date of Joining	Date of leaving	Position held	Project Title	Principle Investigator
NRCB, Tiruchirappalli	16.08.2016	31.03.2017	TA	Framing crop specific DUS guidelines for Banana. ( <i>Musa spp.</i> )	Dr.S.Uma
IFGTB, Coimbatore	27.04.2014	31.12.2015	SRF	Development of genetic linkage map and QTL analysis in <i>Eucalyptus</i> for adventitious rooting property traits and wood property traits.	Dr.R.Yasodha
IFGTB, Coimbatore	09.01.2012	26.04.2014	JRF		

<b>Doctoral Research</b> <b>IFGTB,</b> <b>Coimbatore</b>	01.09.2012	01.12.2016	Research Scholar	Genetic linkage mapping in <i>Eucalyptus</i> and identification of quantitative trait loci for stomatal traits.	Dr.R.Yasodha
<b>Post Graduate Research</b> <b>NIO, Goa</b>	04.12.2010	23.05.2011	Project Student	Sulfide oxidizing activity in mangrove clam <i>Polymesoda erosa</i> "(Solander, 1786)	Dr.B.S.Ingole

### **RESEARCH INTEREST**

- Molecular genetic analysis of plant species

### **LABORATORY SKILLS/HANDLING OF EQUIPMENT**

ABI 3500 Genetic Analyzer	Thermal cycler
Polyacrylamide gel electrophoresis	Agarose gel electrophoresis
SDS-PAGE	Immuno Electrophoresis
Paper chromatography	Nano Drop - Spectrometer
Bright field microscopy	Epi-fluorescent microscopy
	Microtomy

Experience in handling statistical packages such as SPSS, DARwin, PowerMarker, MapMaker, QTL IciMapping and GACD, JoinMap, OneMap, WINQTL cartographer, MapQTL.

### **JOURNAL PUBLICATIONS**

- **Sumathi M**, Bachpai VKW, Mayavel A, Modhumita Ghosh Dasgupta, Nagaraja B,RajasugunasekarD,SivakumarV,Yasodha R (2018) Gentic linkage map and QTL identification for adventitious rooting traits in red gum *Eucalyptus*.3 Bio tech 8(5):242.
- **Sumathi M**, Bachpai VKW, Deeparaj B, Mayavel A, ModhumitaGhoshDasgupta, Nagarajan B, Rajasugunasekar D, Sivakumar V, Yasodha R (2018) Quantitative trait

loci mapping for stomatal traits in interspecific hybrids of *Eucalyptus*. Journal of Genetics 97 (1), 323-329.

- **Sumathi M** & Yasodha R. (2017). Microsatellite Allele Length Variations in the Inter-specific hybrids of *Eucalyptus*. Acta Botanica Croatica 76(1), 103-106.
- **Sumathi M** & Yasodha R. (2014). Microsatellite resources of *Eucalyptus*, current status and future perspectives. Botanical Studies 55(1):73.
- Clemente S, Ingole B S. **Sumathi M** and Goltekar R. (2013). Sulfide oxidizing activity as a survival strategy in mangrove clam *Polymesoda erosa* (Solander, 1786) Bionano frontier 6(1):9-16.

### **GENBANK DNA SEQUENCE SUBMISSIONS**

- Submitted *Kathala axillaris* voucher MTCOI-KA-01 *cytochrome c oxidase* subunit I (COX1) gene, partial cds; mitochondrial to GenBank (Accession No: PZ346306.1), NCBI, USA, based on Sanger sequencing (April 2026).
- Submitted *Otolithes ruber* voucher MTCOI-OR-01 *cytochrome c oxidase* subunit I (COX1) gene, partial cds; mitochondrial (Accession No: PZ346307.1), NCBI, USA, based on Sanger sequencing (April 2026).
- Submitted *Decapterus russelli* voucher MTCOI-DR-01 *cytochrome c oxidase* subunit I (COX1) gene, partial cds; mitochondrial (Accession No: PZ346308.1), NCBI, USA, based on Sanger sequencing (April 2026).
- Submitted *Selar crumenophthalmus* voucher MTCOI-SCR-01 *cytochrome c oxidase* subunit I (COX1) gene, partial cds; mitochondrial (Accession No: PZ346309.1), NCBI, USA, based on Sanger sequencing (April 2026).
- Submitted 16S rRNA gene sequence of *Priestia flexa* (strain ODBS10) to GenBank (Accession No: PV628905.1), NCBI, USA, based on Sanger sequencing (May 2025).
- Submitted mitochondrial 16S rRNA gene sequence of *Epinephelus coioides* (Accession No: PP573286.1) to GenBank (NCBI), based on Sanger sequencing (April 2024).
- Submitted mitochondrial 16S rRNA gene sequence of *Epinephelus longispinis* (Accession No: PP573287.1) to GenBank (NCBI), based on Sanger sequencing (April 2024).

## **BOOK CHAPTER PUBLICATION**

- Book Chapter Accepted: “*Microbial Ecology and Biotechnology in Extraterrestrial Environments*” in the book “*Innovative Approaches in Microbiology and Biotechnology*” (ISBN: 978-93-47585-44-9).

## **POSTGRADUATE PROJECT GUIDANCE**

- Guided Ms. M. Vasantha (Reg. No. P248237) on the project titled “*Molecular Characterization and Species Identification of Commonly Available Marine Finfish Species Using DNA Barcoding*”, carried out at Rajiv Gandhi Centre for Aquaculture, Sirkali, April 2026.
- Guided Ms. B. Priyadharshini (Reg. No. P248233) on the project titled “*Dietary Supplementation of Microbial Biosurfactant Enhances Disease Resistance Against Fish Pathogens in Finfish*”, carried out at Centre of Aquaculture, Sathyabama Institute of Science and Technology, Chennai, April 2026.
- Guided Mr. M. Vetriselvan (Reg. No. P238202) on the project titled “*Isolation, Identification and Characterization of Engine Oil Degrading Bacteria from Contaminated Soil for Bioremediation*”, carried out at Bharathidasan University, Tiruchirappalli, April 2025.
- Guided Ms. A. Iswarya (Reg. No. P228230) on the project titled “*Green Synthesis of Zinc-Zinc Oxide Nanoparticles Using Leaf Extract of Nyctanthes arbor-tristis*”, carried out at SASTRA Deemed to be University, Thanjavur, April 2024.
- Guided Ms. K. Arthi (Reg. No. P228226) on the project titled “*Authentication of Commonly Available Indian Grouper Fish Species Using PCR-RFLP Marker*”, carried out at Rajiv Gandhi Centre for Aquaculture, Sirkali, April 2024.
- Guided Ms. M. Srividhyasankari (Reg. No. P218232) on the project titled “*Haplotype Diversity in SUB1 Region of Submergence Tolerant Rice Landraces and Varieties*”, carried out at PAJANCOA & RI, Karaikal, April 2023.

## **SUMMER INTERNSHIP STUDENTS GUIDANCE**

### **M.SC., BIOTECHNOLOGY STUDENTS**

- Guided Ms. J. Absara (Reg. No. P248226) on the Internship titled “*Clinical Diagnostic Laboratory Techniques with focus on Microwell ELISA for Thyroid*”

*Hormone Detection and PT-INR Test*”, carried out at Government Medical College and Hospital, Chidambaram, May 2025.

- Guided Ms. S. Karpagameena (Reg. No. P248231) on the Internship titled “*Clinical Diagnostic Laboratory Techniques with focus on Complete Blood Count (CBC)*”, carried out at Government Medical College and Hospital, Chidambaram, May 2025.
- Guided Ms. M. Kirogini (Reg. No. P238231) on the Internship titled “*Integrated Agricultural Practices*”, carried out at Integrated Agricultural Extension Center, Sakkottai, Kumbakonam, May 2024.

### **B.SC., BIOTECHNOLOGY STUDENTS**

- Guided Ms. S. Roja (Reg. No. U233154), Ms. N. Roshini (Reg. No. U233155), Ms. J. Roslin (Reg. No. U233156), Ms. T. Shalini (Reg. No. U233157), Ms. S. Sivasakthi (Reg. No. U233158), Ms. R. Sivasakari (Reg. No. U233159), Ms. S. Sneka (Reg. No. U233160), and Ms. G. Ishwaraya (Reg. No. U233168) on the Internship titled “*Propagation and Horticultural Management of Selected Medicinal Plants (Clinacanthus nutans, Coleus amboinicus, and Sauropus androgynus)*”, carried out at State Horticulture Farm, Aaduthurai, May 2025.

### **SEMINAR/CONFERENCE PARTICIPATION/PRESENTATION**

- Participated in webinar on “ Urban Mining – The future E – Waste Management – Treat and opportunity” organized by DZUM EIACP PC – RP, University of Madras, Guindy, Tamilnadu on 8 June 2026.
- Participated in Five Day online FDP on “TECH-SAVVY: An Essential Art for Modern Educators” organized by Nirmala College for Women, Coimbatore from 01.06.2026 to 05.06.2026.
- Participated in Five Day online FDP on “Understanding GenZ: A Psychological Perspective” organized by Noorul Islam Centre for Higher Education, Kanyakumari from 18.05.2026 to 22.05.2026.
- Participated in Spectratix Knowledge Series Talk on “Gen AI: a double edged sword in research, teaching and learning” organized by PharmaGyan Academy, Pune on 25 April 2026.

- Participated in One Day online FDP on “Generative AI for Entrepreneurship and startups” organized by St. Michael college of Engineering & Technology, Sivagangai on 25 April 2026.
- Participated in One Day Online FDP on “Human AI Collaboration in Research and Innovation” organized by Syed Ammal Arts and Science College, Ramanathapuram on 16 April 2026.
- Participated in International Live Interactive Webinar on “Molecular Mechanisms of Abiotic Stress Tolerance in Arid Plants” organized by Bioingene.com on 14 April 2026.
- Participated in Online FDP on “Curriculum Design and Outcome Based Education” organized by Syed Ammal Arts and Science College (Online mode), Ramanathapuram on 30 March 2026.
- Participated in Online FDP on “Cutting Edge Technologies in AI to Bridge Academia and Industry – CETAAI 2026” organized by Rathinam College of Arts and Science, Coimbatore from 09 March 2026 to 13 March 2026.
- Participated in an online hands-on workshop on “Biological Network Analysis using Cytoscape” organized by Daulat Ram College, University of Delhi on 09 March 2026.
- Participated in Online FDP on “Fundamentals of Research Methodology and Academic writing” organized by Syed Ammal Arts and Science College (Online mode), Ramanathapuram on 27 February 2026.
- Participated in International Live Interactive Webinar on “Patents, Protection & Progress: The Role of IPR in Science” organized by Bioingene.com on 16 July 2025.
- Participated in International Live Interactive Webinar on “Genomics of Root System Architecture in Rice: Unveiling Adaptive Traits for Stress Resilience” organized by Bioingene.com on 11 June 2025.
- Participated in International Live Interactive Webinar on “Policy Pathways for Sustainable Agriculture: Enhancing Farm Income and Ensuring Farmer Profitability in a Changing Climate” organized by Bioingene.com on 29 April 2025.
- Participated in the Webinar on “An Introductory Guide to Statistics for Research” organized by MSTM Arts and Science College, Kerala on 17 January 2025.
- Participated in International Online Certificate Course on “Bioanalytical Techniques (Part - 1): Microscopy, Chromatography and Centrifugation (Phase - 1)” organized by

Sacred Heart College (Autonomous), Tirupattur, Tamil Nadu from 03 January 2024 to 02 February 2024.

- Participated in International Live Interactive Webinar on “Applications of Artificial Intelligence (AI) in Research Article Search and Writing” organized by Bioingene.com on 18 May 2024.
- Participated in International Live Interactive Webinar on “Breeding for Sustainable Production to Meet the Challenges of Climate Change” organized by Bioingene.com on 01 May 2024.
- Participated in International E-Conference on “Intellectual Property (IP) Rights: Creative India; Innovative India” organized by Dr. Sudhanva Singh Netam Government College, Balaghat on 01 May 2024.
- Participated in IP Awareness/Training Program under National Intellectual Property Awareness Mission on 01 May 2024.
- Participated in a one-day National Level Workshop on “Intellectual Property Rights in the Era of Industry 4.0 – Opportunities and Challenges” organized by Jagarlamudi Kuppuswamy Choudary College, Guntur on 26 April 2024.
- Participated in International Live Interactive Webinar on “Crop Biofortification for Nutritional Security” organized by Bioingene.com, Kolkata on 29 April 2024.
- Participated in National Level Virtual Faculty Development Programme on “Effective Pedagogy Tools for Life Science” organized by Theivanai Ammal College for Women (Autonomous), Villupuram, Tamil Nadu from 20 December 2023 to 28 December 2023.
- Participated in Webinar on “Importance of Intellectual Property Rights in Education Sector” organized by D.Y. Patil Institute of MCA and Management, Akurdi, Pune on 29 December 2023.
- Participated in Online Faculty Development Program on “Research & Innovation” organized by St. Francis College, Koramangala, Bangalore in collaboration with Jyoti Nivas College (Autonomous), Bangalore on 16 December 2023.
- Presented the poster entitled "Microsatellite analysis and their segregation pattern in *Eucalyptus* interspecific hybrids" in the National symposium on germplasm to genes: Harnessing biotechnology for food security and health organized by IARI, New Delhi on 09.08.2015 to 11.08.2015.

- Participated in one day workshop on "Research analysis using SPSS"- Organized by Dr. G. R. Damodran college of Science, Coimbatore on 11.08.2014.
- Presented the Poster entitled "Microsatellite genotyping in *Eucalyptus*: A prerequisite for construction of linkage map" in the National Seminar on Tree Biotechnology 2013 organized by IFGTB, Coimbatore, 23.09.2013 & 24.09.2013 (**Best Poster Award**)
- Presented the paper entitled "Marker assisted selection in forest tree breeding "in the National level technical symposium organized by Karunya University, Coimbatore on 12.09.2013 &13.09.2013.
- Presented the paper entitled "Microsatellite resources for genetic linkage mapping in *Eucalyptus*" in the First International and Third National conference on Biotechnology, Bioinformatics and Bioengineering organized by SABB, Tirupati, on 28.05 2013 & 29.05.2013.
- Participated in National level seminar on Environmental Bioremediation technologies organized by Dept. of Environmental management, Bharathidasan University, Thiruchirappalli on 05.11.2009 &06.11.2009.
- Participated in National seminar on Recent trends in secondary metabolic engineering organised by Dept.of plant science, School of life sciences, Bharathidasan University, Thiruchirappalli on 05.01.2010.
- Participated in International conference on climate change and bioresource (ICCCB-2010) organized by Dept. of Biotechnology, Bharathidasan university,Thiruchirappalli on 09.02.2010 to12.02.2010.
- Participated in National workshop on critical perspectives on research methodology in biomedical sciences organized by Dept, of Biotechnology, Karunya university,Coimbatore on 07.10.2009 to 08.10.2009.

### **PERSONAL DETAILS**

Name : **SUMATHI. M**

Father's Name : G. Murugan

Date of Birth : 24.07.1986

Sex : Female

Marital status : Married / One Daughter – 8yrs old

Nationality & Religion : Indian & Hindu

Languages known : English & Tamil (Read, Write and Speak)  
Permanent Address : No.1, E.G Nagar, Ezhil Nagar Veedhi,  
Nannilam (TK), Thiruvarur (DT),  
Tamilnadu – 610105, India.

### References:

- 1) Dr.R.Yasodha  
Scientist G – Division of plant Biotechnology &Cytogenetics,  
Institute of Forest Genetics and Tree Breeding (ICFRE)  
Forest Campus,R.S.Puram,Coimbatore - 641 002  
E.mail: [yasodha@icfre.org](mailto:yasodha@icfre.org)  
Phone: 91-422-2484114
- 2) Dr.B.Nagarajan  
Scientist G – Division of Forest Ecology and climate change  
Institute of Forest Genetics and Tree Breeding (ICFRE)  
Forest Campus,R.S.Puram,Coimbatore - 641 002  
E.mail: [nagarajan@icfre.org](mailto:nagarajan@icfre.org)  
Phone:91-422-2484103

### Declaration

I hereby declare that the information furnished above is true to the best of my knowledge and belief.

Place: Mayiladuthurai  
Date: 22.06.2026

Yours Sincerely,



(M. SUMATHI)