Name : Dr. K. S. Tamil Selvi

Designation : Associate Professor

Department : Botany

Qualification : M.Sc., M. Phil., Ph.D.

Experience : Teaching – 22 Years

Research**:** 28 Years

Area of Specialization(s) : Forest Botany, Microbiology and Plant exosomes

Email(Official ID) : tamilselviks@psgrkcw.ac.in

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Orcid Id: 0000-0002-7578-1046

Scopus Id: 57217068236

Researcher Id: AAK-9446-2020

Google Scholar Id: CFLChSsAAAAJ

Academic Qualifications

Degree	Branch	Institution/University Name	Year of Graduation
Ph.D.	Forest Botany	Forest Research Institute University, Dehradun	2006
M.Phil.	Botany	PSGR Krishnammal College for Women (Bharathiar University, Coimbatore)	1996
M. Sc.	Botany	PSGR Krishnammal College for Women (Bharathiar University	1995
B.Sc.	Botany	PSGR Krishnammal College for Women (Bharathiar University	1993

Additional Qualifications

Diploma/ Vocational/ Certification	Area of Specialization	Institution/University/Agency Name	Year
Certification	Extracellular Vesicles in Health and Disease	Coursera - University of California, Irvine	2025
Certification	Basic Principles of Cell Signaling	Coursera - Korea Advanced Institute of Science and Technology	2025
Certification	Agroforestry I: Principles and Practices	Coursera - University of Florida	2025
Certification	Agroforestry II: Major Systems of the World	Coursera - University of Florida	2025
Certification	Agroforestry III: Principles of Plant and Soil Management	Coursera - University of Florida	2025
Certification	Agroforestry IV: Climate, Carbon Storage and Agroforestry	Coursera - University of Florida	2025

Certification	Agroforestry V: Ecosystem Services, Food and Sustainability	Coursera - University of Florida	2025
Certification	Signaling Actions of Small Molecules	Coursera - Korea Advanced Institute of Science and Technology	2025
Certification	Tropical Forest Landscapes 101: Conservation & Restoration	Coursera - Yale University	2025
Certification	Forest Carbon Credits and Initiatives	Coursera - Michigan State University	2025
Certification	Industrial Biotechnology	Coursera/ University of Manchester	2023
Certification	Understanding Plants - Part II: Fundamentals of Plant Biology	Coursera/ Tel Aviv University	2023
Certification	Understanding Plants - Part I: What a Plant Knows	Coursera/ Tel Aviv University	2023
Certification	Cancer Biology	Coursera/ John Hopkins University	2022
Certification	Municipal Solid Waste Management in Developing Countries	Coursera/ École Polytechnique Fédérale de Lausanne	2022
Certification	Basics of Extracellular Vesicles	Coursera/ University of California, Irvine	2022
Certification	Antimicrobial resistance - theory and methods	Coursera /Technical University of Denmark (DTU)	2022
Certification	Algae Biotechnology	Coursera / University of California San Diego	2022

Research Guidance

Programme	**No. of Scholars**	
	Completed	**Pursuing**
M.Phil.	6	-
Ph.D	4	4

Research Projects

Ongoing -1 (Institutional project)

- **DBT BUILDER – Boost to University Interdisciplinary Life Science Departments for Education and Research** as Coordinator. Principal Investigator for the Project entitled- "Plant Exosome analysis followed by the wet lab and *in-silico* studies" Rs.1.2 crores

Completed – 3

- UGC Major Research Project - "Assessment of Arbuscular Mycorrhizal Association in a Naturally Revegetated Lime Stone Mine Spoils" Rs.11,73,870/-
- DBT-Foldscope project entitled "Isolation of micro-organisms from the most troublesome aquatic weed- *Eichhornia crassipes* (water hyacinth), for its use as a bio-control agent". Outlay – Rs.8,00,000/-
- NCSTC – Popularisation of Foldscope – Rs.2,50,000/-

Research experience

Senior Research Fellow under **UGC-CSIR–NET fellowship** scheme at the Institute of Forest Genetics and Tree Breeding, Coimbatore from Nov, 2000 to Dec, 2003. Topic:- 'Symbiotic microflora and their role in *Acacia* ecosystems' leading to the award of Ph.D. degree.

Junior Research Fellow at the Institute of Forest Genetics and Tree Breeding, Coimbatore from Dec, 97 to Nov, 2000 under the World Bank project entitled 'Reproductive biology of tropical trees`.

Area of research :

Microbiology and Forest Botany – Mycorrhiza, endophytic microbes, Plant - Microbe interaction.

Research Publications (Indexed)

1. E. Mohana priya, E. Uma, Debasis Mitra, K.S. Tamilselvi, 2025. Preliminary assessment of domestic well water quality and heavy metal contamination near Orathupalayam dam, India, Cleaner Water,Volume 4,100177,ISSN 2950-2632, https://doi.org/10.1016/j.clwat.2025.100177.
2. Uma, E., Tamil Selvi, K.S., Ponmurugan, K. (2025). Propagation and Mass Production of Mangrove Microbiome as a Source of Plant Growth Promoter. In: Muthusamy, S., Manikkam, R., Venugopal, G. (eds) Mangrove Microbiome. Springer, Singapore. https://doi.org/10.1007/978-981-96-2602-1_6
3. Harsha Sreeraj, R. AnuKiruthika, K.S. Tamilselvi, D. Subha. 2024. ©Exosomes for skin treatment: Therapeutic and cosmetic applications, Nano TransMed, Volume 3, 2024, 100048, ISSN 2790-6760, https://doi.org/10.1016/j.ntm.2024.100048.
4. D. Subha · R. AnuKiruthika · Harsha Sreeraj · K. S. Tamilselvi . 2023. Plant exosomes: nano conveyors of pathogen resistance. Available on 30 November 2023. Published in Discover Nano (IF – 6.5). https://doi.org/10.1186/s11671-023-03931-4
5. K. Harshnii, K.S. Tamilselvi and D. Subha. Micro RNAs from Citrus sinensis have potential targets in humans and human pathogenic virus -. Advances in Applied Research April, 2023
6. D. Subha, K. Harshnii, K.G. Madhikiruba, M. Nandhini, K.S. Tamilselvi Plant derived exosome- like Nanovesicles: an updated overview. Plant nano biology Volume 3, February 2023, 100022.
7. Mohana Priya. E and K.S. Tamilselvi. 2023 Biotransformation of heavy metals by Plant Growth Promoting Endophytic Bacteria: An Assessment. Indonesian Journal of Social and Environmental Issues (IJSEI), 4(1),36-44.
8. MadhuBala D, Narmathasri J, Priyadarshini V, Saranya S, Sneka S and TamilSelvi K S. 2020. Impact of water quality on the anatomical and histochemical characteristics of *Eichhornia crassipes. In* Bioremediation and

Green Technologies - Sustainable Approaches to Mitigate Environmental Impacts. Pg.3-12. Springer

Other Publications: International/National

1. Kalaiarasi, S; Tamilselvi K S; Physico-chemical characteristics and Microbial decolourisation of spent wash using Indigenous Fungal Isolates
2. Rukshana Begum, Tamilselvi K S; 2019. Biotechnological application of *Talaromyces radicus* associated with *Cucumis dipsaceus* Ehrenb. Ex Spach. Plant Archives: 19(1) 1938-1946
3. Soumya P. R, Rukshana Begum S and Tamil Selvi K. S; 2018. Endophytic Fungi as latent Pathogens in *Eichhornia crassipes* (Mart.) Solms International Journal of Advanced Scientific Research and Management 3 10 140-146 IJASRM
4. Rukshana Begum; Tamilselvi K S; 2016. Endophytes are plant helpers: an overview. Int. J. Curr. Microbiol. App. Sci. 5 4 24-436
5. Kalaiarasi S and Tamilselvi K S. 2015. Physicochemical Characteristics of Raw and Anaerobically Treated Distillery Spent Wash. International Journal of Microbial Ecology Vol. 18, n. 10, pp. 552-555 .
6. Logaprabha, V. and K.S. Tamilselvi, 2013. Evaluation of antifungal activity of *Kedrostis rostrata* Cogn. Against keratinophilic fungi. In: Turning plants into medicine: Novel Approaches. (Ed. T. Parimelazhagan). New India Publishing Agency, New Delhi, pp137-140.
7. Logaprabha, V. and K.S. Tamilselvi, 2012. Keratinophilic fungi: their occurrence in the environment. J. Mycopthol Res.193-198.
8. Logaprabha V and K.S. Tamil Selvi. 2014. Efficacy of selected symbiotic microbes (bioinoculants) on the growth of *Acacia mangium*, Willd. under nursery conditions. Geobios -41:106-114.
9. ***Tamil Selvi K. S.,*** V. Mohan and K. Udaiyan. 2010. Effect of AM fungus (*Glomus fasciculatum*) and ECM fungus (*Pisolithus albus)* on the growth of *Acacia mangium* Willd., under nursery conditions. Geobios 37(2-3): 179-181.
10. ***Tamilselvi K. S***. and E. Devi. **2009.** Effect of vermicompost on the growth of *Abelmoschus esculentus* L. Moench. **The Ecoscan 3(3&4):263-264.**
11. ***TamilSelvi K. S.,*** V. Mohan and K. Udaiyan. 2003. Influence of edaphic factors and rainfall on the occurrence of arbuscular mycorrhizal fungi in *Acacia mangium* ecosystem. *In* proc. UGC sponsored symposium on "Bioresources and their management" (Ed. S. Paulsamy) held at Kongunadu Arts and Science College, Coimbatore on September 5th and 6th, 2003. pp 100-105
12. Nagarajan, B., ***K. S. TamilSelvi*** P.J. Wills and A. K. Mandal**.** 2001**.** Reproductive Biology and Breeding System in Teak. *In*. Genetics and Silviculture of Teak. 2001. (Eds.) A. K. Mandal and S. A. Ansari. International Book Distributors, Dehradun pp-107-120.

Papers Presented: 35

Book Chapter Published

1. Contributed few chapters in the Book entitled "Taxonomy " published by the Department of Plant Biology and Plant Biotechnology, PSGR Krishnammal College for Women, Coimbatore.
2. Contributed few chapters in the Book entitled "Environmental Studies" published by the Department of Plant Biology and Plant Biotechnology, PSGR Krishnammal College for Women, Coimbatore.

Resource Person

Doctoral Committee member :

- Government Arts College for 5 Ph.D candidates
- Vellalar College for Women for 2 Ph.D candidates
- Nirmala College for Women- 1 candidate

Member of Board of Studies:

- Gobi Arts and Science College, Gobichettipalayam, for the year 2011-12 and 2012-13.
- Erode Arts and Science College, Erode for the year 2015-16 and 2016-17.
- Gobi Arts and Science College, Gobichettipalayam, as OBE syllabus expert
- Bharathiar University : PG Botany for the years: 2024-25 to 2026-2027

Member of Selection Committee:

Selection of a project fellow in a UGC funded Major Research Project, at Government Arts College, Coimbatore

Guest Lecture:

Avinashilingam University, Coimbatore
Vellalar College for Women, Erode
Chandrakanthi Public School, Coimbatore
DIET, Coimbatore

Member of evaluation committee for school teachers:

Chandrakanthi Public school: for 3 years

Mentor- STAR college scheme

V.V. Vaniaperumal College for Women, Virudhunagar, for 2020-21

Participation in Seminars/ conferences

- Presented scholarly papers in conferences and seminars, contributing to knowledge exchange to a total of International -20 and National -25

Participation in Workshop

Participated in 20+ professional workshops across diverse domains, including bacterial identification techniques; water quality analysis; bioinformatics and genomics; microbial morphological and biochemical characterization; landscaping and ornamental gardening; green chemistry and catalysis for sustainability; hands-on training with modern instruments; floristic documentation and herbarium technology for species conservation; and molecular biology.

Participation in Faculty Development Programme

Participated in more than 15 faculty development programmes to enhance subject expertise and teaching skills.

Participation in Webinar

Actively participated in 45 national and international webinars to strengthen professional knowledge and skills.

Conference/Seminar/Workshop Organized

Successfully coordinated a wide range of academic initiatives, including webinars, guest lectures, workshops, institutional visits, community-oriented activities, awareness programmes, and international video conferences.

Indexing and Citations

Citation –188, H-index - 6, i10 index – 4

Contribution

- NAAC Criteria-III In-charge since 2018
- UG and PG Admission In-charge
- Karishma Co-ordinator (Department Level) during 2017, 2025.
- Instruments In-charge (Department Level) from 2010 to 2018.
- Acting as a Member for Audit Committee
- Department Association In-charge and BOS member
- CSIR NET-SET Co-ordinator (Dept. level)
- STAR College Co-ordinator
- Academic Council in-charge
- Department Association In-charge