



Dr. T. KAVITHA
Assistant Professor

Contact

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Academic Qualifications

Degree	Institution	Year	Branch	Class
M. Sc	J. J. College of Arts and Science, Pududkkottai	April 2002	Microbiology	First
M. Phil	Bharathidasan University, Tiruchirapalli	April 2005	Biotechnology	First
Ph. D	Bharathidasan University, Tiruchirapalli	November 2014	Microbiology	First

Teaching Experience

Total Teaching Experience : 16 Years

Position	Institution	Duration
Assistant Professor	J. J. College of Arts and Science, Pududkkottai	2007-2016
Assistant Professor	Alagappa University, Karaikudi.	2016-till date

Research Experience

Total Research Experience : 8 Years

Position	Institution / University	Duration
Assistant Professor	Alagappa University	2016-till date

Academic and Additional Responsibilities

S.No	Position	University Bodies	Period	
			From	To
1.	Women's club Coordinator	Department of Microbiology, Alagappa University, Karaikudi.	2016	Till date
2.	Deputy Coordinator for Journal club	Department of Microbiology, Alagappa University, Karaikudi.	2016	Till date
3.	Coordinator - Department IQAC Committee	Department of Microbiology, Alagappa University, Karaikudi.	2016	Till date
4.	Deputy Coordinator for Academic audit	Department of Microbiology, Alagappa University, Karaikudi.	2016	Till date

5.	Coordinator - Department student affairs and counseling	Department of Microbiology, Alagappa University, Karaikudi.	2016	Till date
6.	Associate Editor in - ALU-Micro Fanzine, Departmental Magazine,	Department of Microbiology, Alagappa University, Karaikudi.	2016	Till date
7.	Coordinator- Village placement programme-	Department of Microbiology, Alagappa University, Karaikudi.	2016	Till date
8.	Member - Department Research Committee	Department of Microbiology, Alagappa University, Karaikudi.	2016	Till date
9.	Member - Department Purchase Committee	Department of Microbiology, Alagappa University, Karaikudi.	2016	Till date
10.	Supervisor of Swachh Bharat	Department of Microbiology, Alagappa University, Karaikudi.	2018	2019
11.	Coordinator for Swayam and MOOCs courses	Department of Microbiology, Alagappa University, Karaikudi.	2019	Till date
12.	Internal question paper setting in charge	Department of Microbiology, Alagappa University, Karaikudi.	2016	Till date
13.	Department NIRF in charge	Department of Microbiology, Alagappa University, Karaikudi.	2016	Till date

Areas of Research

- **Agricultural and Environmental Microbiology**
- **Biocontrol of plant microbial diseases**
- **Biodegradation**
- **Antimicrobial metabolites**
- **Enzyme Biotechnology**
- **Drug resistance**

Research Supervision / Guidance

Program of Study		Completed	Ongoing
Research	PDF	-	-
	Ph. D	2	4
	M. Phil	9	-
Project	PG	52	9
	UG / Others	-	-

Publications

International		National		Others
Journals	Conferences	Journals	Conferences	Books / Chapters / Monographs / Manuals
17	30	3	12	2

Cumulative Impact Factor (as per JCR) : 37.5

h-index : 9

i10 index : 7

Total Citations : 134

Funded Research Projects

Ongoing Projects:

		Period		

S.No	Agency	From	To	Project Title	Budget (Rs. In lakhs)
1.	RUSA-EIR	15.02.2023	15.02.2024	Bio-char based inoculum Development for sustainable agriculture	9.0
2.	AURF – Alagappa University	10.12.2024	Till date	Seaweed derived sodium alginate encapsulation of plant growth promoting Rhizobacteria	1.2

Completed Projects:

S.No	Agency	Period		Project Title	Budget (Rs. In lakhs)
		From	To		
1.	AURF – Alagappa University Karaikudi	7.3.2017	7.3.2019	Screening for antagonistic substances against Tikka Disease of <i>Arachis hypogaea L.</i>	1.0
2.	DST/SERB-ECRA	28.9.2017	28.9.2020	Evaluation of Tomato Associated Rhizobacteria for Biocontrol of Wilt Pathogen <i>Fusarium oxysporum</i>	14.29

Distinctive Achievements / Awards

- Early Career Research Award-2017 from DST-SERB, Govt. of India

Events organized in leading roles

Number of Seminars / Conferences / Workshops / Events organized: 9

Position	Programme	Duration	Institution
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Organizing secretary	Recent Trends in Microbiology (RTM-2016)	Two days	Alagappa University, Karaikudi
Organizing Committee Member	Recent Trends in Microbiology (RTM-2018)	Two days	Alagappa University, Karaikudi
Organizing secretary	Commercialization Prospects of Microbial Formulates (Jan -2018)	Four days	Alagappa University, Karaikudi
Organizing secretary	Recent Trends in Microbiology (RTM-2019)	Two days	Alagappa University, Karaikudi
Organizing Committee Member	International Conference on Bio plastics (April -2019)	Two days	Alagappa University, Karaikudi
Organizing Committee Member	4 th International Conference on Recent Trends in Microbiology (RTM-2023)	Two days	Alagappa University, Karaikudi
Organizing Committee Member	Spark Sponsored International Symposium on Bio Plastics	Two days	Alagappa University, Karaikudi
Organizing Committee Member	5 th International Conference on Recent Trends in	Two days	Alagappa University, Karaikudi

	Microbiology (RTM-2024)		
Organizing Committee Member	One day National level workshop on Patenting and Collaboration with Industries	One day	Alagappa University, Karaikudi

Events Participated

Conferences / Seminars / Workshops: 47

1. Workshop – 11
2. National Conferences- 12
3. International Conferences-27

Training Programs

1. Participated in the Faculty development program on Accreditation Preparedness Engagement held during 18th -23th September, 2016 in Alagappa University, Karaikudi.
2. Participated in the Faculty development (Enrichment) program on Accreditation Quality Enhancement held during 6th -12th January, 2017 in Alagappa University, Karaikudi.
3. Participated in One – Week Short Term Training Programme on Research Publication and Anti- plagiarism, organized by Department of English and Foreign Languages and Centre for Technical and Academic Writing, Alagappa University, Karaikudi.
4. Participated in the 100th orientation Programme from 15.11.2017 to 12.12.2017 conducted at UGC-Human Resource Development centre, Bharathidasan University, Tiruchirappalli.
5. Participated in the UGC-Sponsored Refresher Course in Life Sciences (Interdisciplinary) from 16.07.2019 to 29.07.2019 conducted by UGC-Human Resource Development centre, Bharathidasan University, Tiruchirappalli.
6. Participated in the UGC-Sponsored Refresher Course in Life Sciences (Interdisciplinary) from 17.03.2023- 30.03.2023 conducted by UGC-Human Resource Development centre, Madurai Kamaraj University, Madurai.

Overseas Exposure / Visits

Visited Malaysia to present a research paper in the International Conference on Recent Trends

in Agriculture, Environmental Sustainability and Climate Change-2019 hosted at University of Malaya, Kuala Lumpur.

Membership

Professional Bodies

1. Life Member: Association of Microbiologists of India (NO: 4760/2018)
2. Life Member: The Indian Science Congress Association (NO: L36858)

Advisory Board

Year / Period	Name of the BoS / Administrative Committee / Academic Committee	Role
2023-Till date	Board of Studies –Department of Microbiology, Alagappa University, Karaikudi	Member
2023-Till date	Board of Studies in M.Sc., Microbiology for the affiliated colleges of Alagappa University, Karaikudi.	Member
2023- Till date	Board of Studies in B.Sc., Microbiology and Clinical Lab Technology for the affiliated colleges of Alagappa University	Member
2023- Till date	Board of Studies in B.Sc., Microbiology for the affiliated colleges of Alagappa University	Member

Academic Bodies in Other Institutes/ Universities

Year / Period	Name of the BoS / Administrative Committee / Academic Committee	Role
	Board of Studies for the Microbiology (M.Phil) Bharathidasan University, Tiruchirappalli-620024.	Member

Ph.D. Thesis Guided

1. No. of PhD Thesis evaluated : Nil
2. No. of PhD Public Viva Voce Examination conducted : 2

S. No	Name of theScholar	Title of the Thesis	Year of Completion
1.	N. Arumugam	Utilization of agrowaste for xylitol production using acid tolerant yeast species	2022
2.	K. Vijay	Production and characterization of rhizosphere microbial metabolites for plant growth promotion and antagonism against fungal wilt pathogen <i>fusarium oxysporum</i> f.sp. <i>lycopersici</i> in tomatoes	2023

List of Research Articles / Recent Publications

S. No	Authors/Title of the paper/Journal	Impact Factor
1.	K. Nagamani, K. Vijay, G. Lingesh, A. David Ravindran & T. Kavitha. "Production and characterization of xylo oligosaccharides from sugarcane bagasse using response surface methodology and its prebiotic properties" (2024). Biomass Conversion and Biorefinery, pp 1-15, DOI:10.1007/s13399-024-06162-4	3.5
2.	K. Vijay ., N. Suganthy., G. Muralitharan ., Munirah Fahad	4.05

	Aldayel., Noorah Alsowayeh., T. Kavitha ., Development of siderophore-based rhizobacterial consortium for the mitigation of biotic and abiotic environmental stresses in tomatoes: An in vitro and in planta approach (2022), Journal of Applied Microbiology, 00, 1–12. https://doi.org/10.1111/jam.15625	
3.	K. Vijay., Saqib Hassan., M. Govarthan., T. Kavitha ., Biosurfactant lipopeptides and polyketide biosynthetic gene in rhizobacterium <i>Achromobacter kerstersii</i> to induce systemic resistance in tomatoes (2022) Rhizosphere23, 100558. https://doi.org/10.1016/j.rhisph.2022.100558	3.4
4.	S. Dheepthi GunaVathana., M. Shibasini ., S.Girija., J.Wilson., T. Kavitha ., A.Cyrac Peter, Palladium nanospheres incorporated polythiophene nanocomposite: Investigation of potency promising antimicrobial efficacy (2022), Inorganic Chemistry Communications , 109867. https://doi.org/10.1016/j.inoche.2022.109867	3.428
5.	N. Prakashkumar, R. Mohamed Asik, T. Kavitha , G. Archunan, N. Suganthi. Unveiling the anticancer and anti biofilm potential of catechin overlaid reduced Graphene oxide /zinc. <i>Journal of cluster Science</i> . 2021, № 6, p. 2813-2830. https://doi.org/10.1007/s10876-021-02194-2 .	3.44
6.	Arumugam, N., Boobalan, T., Pugazhendhi, A., Arun, A., Jothi Basu, M., Suganya Devi, T., and Kavitha, T. , Particle size influence on the composition of sugars in corncob hemicellulose hydrolysate for xylose fermentation by <i>Meyerozymacaribbica</i> , <i>Bioresource Technology</i> (2021),doi: https://doi.org/10.1016/j.biortech.2021.125677	11.88
7.	Devi, T. S., Vijay, K., Vidhyavathi, R. M., Kumar, P., Govarthan., M., & Kavitha, T. (2021). Antifungal activity and molecular docking of phenol, 2, 4-bis (1, 1- dimethylethyl) produced by plant growth-promoting actinobacterium <i>Kutzneria</i> sp. strain TSII from mangrove sediments. <i>Arch Microbiol</i> , 1-14. https://doi.org/10.1007/s00203-021-02397-1 (Indexing: Scopus; WoS; Springer-Verlag, Germany; NAAS score: 7.64)	2.66
8.	Vijay, K., Kiran, G. S., Divya, S., Thangavel, K. , Thangavelu, S., Dhandapani,	6.06

	R., & Selvin, J. (2021). Fatty Acid Methyl Esters From the Coral-Associated Bacterium <i>Pseudomonas aeruginosa</i> Inhibit Virulence and Biofilm Phenotypes in Multidrug Resistant <i>Staphylococcus aureus</i> : An in vitro Approach. <i>Front Microbiol</i> , 12, 394. https://doi.org/10.3389/fmicb.2021.631853	
9.	Karuppiyah Vijay, Thangarasu Suganya Devi, Karthikeyan Kirupa Sree, Abdallah M. Elgorban, Ponnuchamy Kumar, Muthusamy Govarthan and Thangavel Kavitha (2020). In vitro screening and in silico prediction of antifungal metabolites from rhizobacterium <i>Achromobacter kerstersii</i> JKP9. <i>Arch Microbiol.</i> , 202: 2855-2864. (Springer-Verlag; IF: 2.66 ; NAAS score: 7.64) https://doi.org/10.1007/s00203-020-01982-0	2.66
10.	Karuppiyah Vijay, Karthikeyan Kirupa Sree, Thangarasu Suganya Devi, Soundarya Soundarapandian, Vidhyavathi Ramasamy and Kavitha Thangavel (2020). Computational Biology Approaches Revealing Novel target in Vascular Wilt Pathogen <i>Fusarium oxysporum</i> f. sp. <i>lycopersici</i> for the Ligands of Marine Actinobacterial Origin. <i>J. Pure Appl. Microbiol.</i> , 14(1):363-373	0.157
11.	Arumugam Nagarajan, Boobalan Thulasinathan, Saravanan Soorangkattan, Jothi Basu Muthuramalingam, Arun Alagarsamy, SuganyaDevi Thangarasu and Kavitha Thangavel (2020) <i>In silico</i> and <i>in vitro</i> comparison of nicotinamide adenine dinucleotide phosphate dependent xylose reductase rossmaan fold in Debaryomycetaceae yeast family. <i>Biocatal. Agric. Biotechnol.</i> , 24: 101508.	4.6
12.	Arumugam N, Thulasinathan B, Pasubathi R, Kavitha. T , Muthuramalingam JB, Arunachalam A. (2017) Biogenesis of silver nanoparticles using selected plant leaf extract; characterization and comparative analysis of their antimicrobial activity. <i>Nanomed J.</i> 4(4): 208-217.	5.5
13.	Nagarajan, A., Soorangkattan, S., Kavitha. T. , Thulasinathan, B., Muthuramalingam, J.B. and Alagarsamy, A. (2017) Campus-Wide Floristic Diversity of Medicinal Plants in Indian Institute of Technology-Madras (IIT-M), Chennai. <i>Am. J. Plant Sci.</i> , 8, 2995- 3012.	4.8

List of Book Chapters

1. Durairaj Monica, Joseph Sahayarayan, R. M. Vidhyavathi, Sivasakthivelan Panneerselvam, and **Kavitha Thangavel**. "Microbial Consortium as Biofertilizer and Biocontrol Agent for Sustainable Agriculture."(2024). *Biotechnological Advances in Horticultural Crops*, pp. 169-189. CRC Press. DOI:[10.1201/9781003343707-9](https://doi.org/10.1201/9781003343707-9)
2. Shibasini Murugan, Vijay Karuppiah, **Kavitha Thangavel**, Sivasakthivelan Panneerselvam. Applications of nanotechnology in food sector: Boons and banes (2023). “*Nanotechnology Applications for Food Safety and Quality Monitoring* “(pp. 473-492). Academic Press. DOI:[10.1016/B978-0-323-85791-8.00009-4](https://doi.org/10.1016/B978-0-323-85791-8.00009-4)
3. KirupaSree, K., Karuppiah, V., Thangavelu, S., **Thangavel, K.** (2021). Insights into the Status of Heavy Metal Resistant Rhizobacterial Communities in the Heavy Metal Contaminated Sites. In: Marimuthu, P.D., Sundaram, R., Jeyaseelan, A., Kaliannan, T. (eds) *Bioremediation and Green Technologies. Environmental Science and Engineering* (pp. 13-33). Springer, Cham. https://doi.org/10.1007/978-3-030-64122-1_2

Resource persons in various capacities

National Conferences	:3
International Conferences	:21
Invited Lectures	:8

Date : 02.03.2024

Place : Karaikudi

Dr. T. Kavitha

Assistant professor