## **CIRRUCULAM VITAE**

#### **Personal details**

#### Dr. Pushpa S. Murthy

**Chief Scientist** 

Department of Plantation Products, Spices and Flavor Technology

Professor, AcSIR and Research guide in University of Mysore

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#### **Educational Qualifications**

**Post Doc** : National Institute of Food Research : Tsukuba Japan

**Ph. D**: Biotechnology University of Mysore: Mysore, Karnataka, India

M. Sc. : Microbiology, Bangalore University : Karnataka, India

**B. Sc.** : Microbiology, Botany and Chemistry : Bangalore University, Karnataka

#### **Expertise**

A food science and biotechnology professional with over twenty-five years of specialized experience in extraction and application of secondary metabolites from microbial sources, plantation by-products especially in coffee, cocoa, and spices. Extensive research background in identifying and harnessing bioactive molecules for value addition, safety improvement, and flavor enhancement in food products. Proven expertise in Coffee. Cocoa spices, food quality management, sensory analysis, and the development of nutraceuticals and functional ingredients for consumer protection and shelf-life improvement. Demonstrated ability to integrate food chemistry, biological studies, and product development methodologies in large-scale industrial and R&D environments.

## **Future Work and Research Objectives**

- ❖ Pioneering advanced extraction technologies for bioactive compounds from diverse plant and microbial sources to maximize their utility in food applications.
- Developing innovative applications for plantation by-products and spices, enhancing functional food models, and driving market-oriented product development in flavours and nutraceuticals.
- ❖ Leading multidisciplinary research on biological strategies using plant-derived molecules for improved food safety and toxin inhibition.
- Expanding collaborations to integrate sensory analysis, consumer testing, and shelf-life studies for next-generation food products.
- Guiding teams in product innovation, regulatory compliance, and technology transfer from lab to production scale with a keen focus on sustainable and efficient food processing solutions.

## Professional Collaborations & Recognition

Scientist with longstanding collaborations in both international and national research projects, consistently contributing to multidisciplinary teams and fostering innovation across borders. Recognized with prestigious **Kalpana Chawla young women Scientist Karnataka State award** and multiple fellowships, reflecting significant impact and dedication within the scientific research community Successfully led and participated in over 50 funded scientific projects at the national and international level (Japan & Switzerland), including collaborations with leading research institutions and Food industry partners. Honoured to serve as an expert member in top-tier National committees, actively shaping research agendas, evaluation standards, and scientific policy.

#### Research Projects Portfolio

Project	Ducient Title	Funding	Cost	
Number	Project Title	Role	Agency/Sponsor	(lakhs)
1.	Profiling of green and fermented coffee	PI-Lead	SSP, India	7.5
2.	Extraction of curcuminoids from turmeric oleoresin	PI-Lead	CNP, India	1.8
3.	Instant coffee cubes with infused spices	PI-Lead	SSP, India	24.56
4.	Fortification of coffee and jaggery with iron and	PI-Lead	MLP, CSIR, India	5.0
	folic acid			
5.	Enhancing shelf life and quality of peanut butter	Co-PI	MLP, CSIR, India	5.0
	using curcumin and turmeric oil			
6.	Reforming Garcinia cambogia fruit processing	Co-PI	MLP, CSIR, India	5.0
7.	Technology for honey coffee processing (Pulped	PI-Lead	MLP, CSIR	5.0
	Naturals)			
8.	Production of green coffee	PI-Lead	TSP, India	3.5
9.	Value addition to Instant coffee process and other	PI-Lead	CLP, Industry,	40.0
	allied activities		India	
10.	Investigations on the role of chicory in coffee	Member	GAP, Coffee board	15.0
11.	Development of value-added products from coffee	PI-Lead	MoFPI, GoI	20.0
	leaves			
12.	Starter culture Technology for coffee Processing	PI-Lead	SERB, DST, GoI	25.0
13.	Green coffee extract powder	PI-Lead	SSP, India	3.0
14.	Cocoa Fermentation with Pre-treatments	PI-Lead	SSP, Switzerland	48.0
15.	Coffee processing with pre-treatments	PI-Lead	SSP, Switzerland	49.0
16.	Flavour proteases from Aspergillus oryzae and	PI-Lead	UNU-Kirin, Japan	15.0
	value addition			

17.	Technologies for development of value-added	PI-Lead	MoFPI, DST, GoI	45.0
	products from green coffee			
18.	Biotechnological approaches to regulate	PI-Lead	MoFPI, DST, GoI	19.0
	fermentation and drying process of cocoa			
19.	Biotechnological production of bioactive	Co-PI	MoFPI, DST, GoI	20.0
	metabolites from therapeutic fungal bio factory			
	Ganoderma sp. For pharmaceutical applications			
20.	Wellness through foods and nutraceuticals	Member	CSIR, India	20.0
21.	Novel approaches to flavor, color, intermediates,	Co-PI	CSIR, India	10.0
	bioactive and specialty product from spice, herbs,			
	and plantation crops			
22.	Studies on food packaging with specific reference	Member	CSIR, India	15.0
	to Shelf-life of savory products, retail packaging			
23.	Carbonated soft drink beverage with selected	Member	SSP, India	10.0
	flavors and shelf-life studies			
24.	Bioactives from ginger, important herbs and leafy	Member	CSIR, India	10.0
	spices			
25.	Niche food processing technologies for outreach of	Member	CSIR, India	20.0
	cost-effective safe hygiene nutritious and health			
	food to the target population			
26.	Innovative and energy efficient process for focused	Member	CSIR, India	25.0
	food engineering equipments and products			
27.	Preservation of sugarcane juice in PET bottles	Member	Network Project	
28.	Development of process for the preparation of	Member	SSP, Industry, India	25.0
	liquid asafetida			
29.	Development of technology for preparation of	Member	SSP, Industry India	15.0
	powder from Curcuma angustifolia (Tikkur)			
	rhizome			
30.	Advisory assistance to set up a unit to manufacture	Member	SSP, Industry India	10.0
	Kakambi			
31.	Consultancy assistance to carryout few commercial	Member	CNP, Industry India	10.0
	trials on shelf stable sugarcane juice concentrate in			
	glass bottles			
32.	Development of process for the preparation of	Member	SSP, Industry India	15.0
	liquid asafoetida			

33.	Consultancy project on implementation assistance preparation of kakambi and products there from	Member	CNP, Industry India	10.0
34.	Development of sugarcane juice in PET bottles	Member	SSP, Industry India	16.0
35.	Utilization of by-products from spice oleoresin industry and plantation products and novel processing methods for the preparation of value-added products from seed spices	Member	CSIR, India	10.0
36.	Nutraceuticals from Herbs and spice	Member	CSIR, India	16.0
37.	Microbial Synthesis of polymer copolymer for potential application as biodegradable polyesters	Member	GAP-DBT, India	25.0
38.	Natural water-soluble pigment from Monascus sp.	Member	CSIR, India	10.0
39.	Specialty coffee processing and production	Member	Coffee Board, India	15.0
40.	Studies on Monsooned coffee	Member	Coffee Board, India	20.0

<sup>\*</sup>PI-Principal Investigator, Co-PI: Co investigator, GAP-Grant in aid projects, Govt of India, TSP-Technical support project, SSP-Sponsored projects from Industry, MLP; Main lab project funded by CSIR, CNP-consultancy Projects from Industry. CLP-Collaborative projects from industry, GOI: Govt of India

#### **Patents**

Water-Soluble Curcuminoids with Enhanced Bioavailability for Food and Nutraceutical Applications
 Method and Thereof: patent filed File no
 2915,2025

2. Flavour Honey and Method Thereof: patent applied File no. 02,2025

3. A new carbonated beverage having antioxidant of ginger and turmeric. 3383/Del/2011V

4. A process for production of turmeric powder from fresh turmeric rhizomes. 250/Del/2013

# Innovative food process developed /Technology developed and transferred to industries

1.	Coffee leaf brew mix	PI Lead
2.	Bioactive molecule rich green coffee extract	PI Lead
3.	Instant Coffee Cubes	PI Lead
4.	CGA Enriched instant coffee cubes	PI Lead
5.	Green coffee enriched in CGA	PI Lead
6.	Coffee flakes mouth freshener	PI Lead
7.	Processing of Cocoa beans, mass, products	PI Lead
8.	Processing of cocoa pods to dried cocoa beans	PI Lead
9.	Production of turmeric powder from fresh turmeric rhizomes	PI Lead
10	. Coffee mouth freshener	PI Lead

11. Process for preparation of non-aerated nutri beverage	Member
12. Fortified sugarcane juice in glass bottle	Member
13. Development of sugarcane juice in pet bottles	Member
14. Development of process for the preparation of liquid asafoetida	Member
15. Ginger Garlic Paste	Member
16. Instant ginger Beverage	Member

<sup>\*</sup>More than 100 industries have utilized the technology on commercialization and extended external cash flow to the institute and is also societal contribution

#### **Research Publications**

- 1. Yashwanth, B. S., Biswal, V. L., Suhas, R., Chaudhari, S. R., Naveen, J., & **Pushpa S. Murthy**. (2025). Fortification of coffee with iron compounds to enhance its micronutrient profile. Food Chemistry, 144964.
- 2. Biswal, V. L., Yashwanth, B. S., & **Pushpa S. Murthy**. (2025). Dietary enhancement of coffee with folic acid: A nutritional approach. Food Chemistry, 488, 144881.
- 3. Jayanna, B., Gattu, R., Pandey, N., Bhatt, P., Kempaiah, B. B., **Pushpa S. Murthy**., & Ramesh, S. (2025). A promising approach for improved citric acid production by aspergillus Niger with the assistance of cinnamaldehyde derivatives. Food Chemistry, 145257.
- 4. Aswathi, K. N., Bhavana, B. K., Sandeep, N. M., & **Pushpa, S. M**. (2025). Eco-efficient robusta honey coffee process for energy and water footprint reduction: A life cycle assessment. Food and Bioproducts Processing, 151, 372-380.
- 5. Harshitha, M. N., Sirisha, K. L., Shafia, S., & **Pushpa S. Murthy**. (2025). Coffee and chicory blend: properties, nutrition, and health implications. Journal of Food Science and Technology, 1-15.
- 6. Premachandran, M. S., Harohally, N. V., Kumar, Y. S., & **Pushpa S. Murthy**. (2025). Volatile fingerprinting of allspice (Pimenta dioica L.) leaf essential oil by GC-MS, E-Nose and NMR. Journal of Food Measurement and Characterization, vol 19 pp2624-2641 1-18.
- 7. Rastogi, N. K., & **Pushpa S. Murthy**. (2024). Implications of Dehydration Processing on the Bio-Actives, Chemometrics and Fingerprinting of Allspice (Pimenta dioica L.) Leaves. Food Biophysics, 19(4), vol 19 pp1157-1176.
- 8. Aswathi, K. N., Shetiya, H., Premachandaran, M. S., Swasthika, P. Y., Yannam, S. K., & **Pushpa S. Murthy**. (2024). Robusta honey coffee drying techniques and identification of changes in the bioactives and volatiles based on SPME-GCMS and E-Nose. Journal of Food Measurement and Characterization, 18(9), 7550-7567.
- 9. Yashwanth, B. S., Premachandran, M. S., Karkera, P. S., & **Pushpa S. Murthy**. (2024). Acrylamide in coffee: Strategies, research, and future perspectives. Food Control, 163, 110484.

- Shikku Premachandran, M., Benny, N., Thirumal Kumar, D., Priya, G., Doss, C., & Pushpa S.
   Murthy. (2024). Molecular Docking and ADMET Profiling of Pimenta Dioica Bioactives: Targeting Carboxylesterase. Journal of Herbs, Spices & Medicinal Plants, 333-352
- 11. Aswathi, K. N., Shirke, A., Praveen, A., & **Pushpa S. Murthy**. (2024). Functioning of Saccharomyces cerevisiae in honey coffee (Coffea canephora) and their effect on metabolites, volatiles, and flavor profiles. Food Research International, 180, 114092.
- 12. Aswathi, K. N., & **Pushpa S. Murthy**. (2024). Pulped natural/honey coffee process: An innovative approach. Food and Humanity, 2, 100287.
- 13. Patil, S. S., Vedashree, M., Sakhare, S. D., & **Pushpa S. Murthy**. (2024). Coffee leaf valorisation into functional wheat flour rusk: their nutritional, physicochemical, and sensory properties. Journal of Food Science and Technology, 61(6), 1117-1125.
- 14. de Carvalho Neto, D. P., Pereira, G. V. D. M., Obadina, A. O., & **Pushpa S. Murthy**. (2023). Upgrading the classic: the transformation of rudimentary fermented products into controlled industrial processes. Frontiers in Microbiology, 14, 1291671.
- 15. Shivani Tripathi, **Pushpa S. Murthy**, 2023. Coffee oligosaccharides and their role in health and wellness. Food Research International. IF 7.425
- 16. K.N. Aswathi, Ayusha Shirke, Aishwarya Praveen, Sachin R. Chaudhari, Pushpa S. Murthy. 2023.
  Pulped Natural /Honey Robusta Coffee Fermentation Metabolites, Physicochemical and Sensory Profiles. Food chemistry. IF 9.231
- 17. Siddhi Patil, Shankar, **Pushpa S. Murthy**, 2023, Impact of different varieties and mature stages on phytochemicals from Coffea arabica and Coffea robusta leaves, Biochemical Systematics and Ecology. IF 2.8
- 18. Siddhi Patil, Moumita Das, Suresh Kumar G, **Pushpa S. Murthy**, 2023, Coffee Leaf Extract Exhibits Anti-Obesity Property and Improves Lipid Metabolism in High-Fat Diet Induced C57bl6 Obese Mice, 3 Biotech IF 2.8
- 19. Vaibhavi A. Pimpley, Moumita Das, Suresh Kumar G, **Pushpa S. Murthy**, 2023, Modulatory effect of green coffee bio-actives on high fat diet induced obesity in C57BL6 mice model, Nutrition, IF 4.8, https://doi.org/10.1016/j.nut.2023.112141
- 20. Pooja J Rao, **Pushpa S. Murthy**, Hafeeza k, Sheeba N, 2023, Influence of milk fat on the physicochemical property of nano encapsulated curcumin and enhancement of its biological properties thereof, Journal of Food Science and Technology, https://doi.org/10.1007/s13197-023-05684-5, IF 3.7.
- 21. Aswathi, Shanakar SR, Keerthana Seenivasan, Inderjit Prakash, **Pushpa S. Murthy**, 2022. Metagenomics and Metabolomic Profiles of Coffee processed by Honey/Pulped Natural Process (Coffee canephora), K.N. Innovative Food Science and Emerging Technologies, 79,103058, If 6.0
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- 24. Inderjit Prakash, Shankar S. R, Sneha H. P, Punil Kumar, Hari Om, K. Basavaraj, **Pushpa S. Murthy**, 2022. Metabolomics and volatile fingerprint of yeast fermented robusta coffee: A value-added coffee, LWT Food Science and Technology, 154,112707, IF 6.0.
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- 26. Siddhi Patil, **Pushpa S. Murthy**, 2022. Valorization of Coffee leaves as a potential Agri-food resource: Bio-active compounds, applications and future prospective, Planta, 255-67.
- 27. Shiku premachandaran, **Pushpa S. Murthy**, 2022. Ethnobotanical, phytochemical, pharmacological properties, and applications of Pimenta dioica L. Journal of essential oil Research,1-17.
- 28. Vaibhavi P, Supriya M, **Pushpa S. Murthy**, 2021. Green coffee polyphenols in formulations of functional yoghurt and their quality attributes, International Journal of Dairy Technology,75(1),159-170, https://doi.org/10.1111/1471-0307.12813 IF 4.3
- 29. Siddhi Patil, Vaibhavi P, Kajol W, **Pushpa S. Murthy**, 2021. Valorisation of Coffee pulp for development of innovative probiotic beverage using kefir: Physicochemical, antioxidant, sensory analysis and shelf-life studies, Waste and Biomass valorization, vol 13,905-916.
- 30. Vaibhavi P, **Pushpa S. Murthy**,2021. Influence of green extraction techniques on green coffee: Nutraceuticals compositions, antioxidant potential, and in vitro bio-accessibility of phenolics, Food bioscience, 43,101284, IF 4.24
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- 41. Kalaiselvi Ignasimuthu, Rajalakshmi Prakash, **Pushpa S. Murthy**. Nagarajan Subban, 2019, Enhanced bioaccessibility of green tea polyphenols and lipophilic activity of EGCG octaacetate on gram-negative bacteria, LWT Food Science and Technology 105, 103–109.IF 3.7.
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- 98. Padma Jyothi D, Venkatesh. K, **Pushpa S. Murthy**, Basavaraj, Naidu. R, Studies on promotion of special and specialty Coffees, 1999, A Colloquium on PHT of Coffee, Mangalore University, pp 22-23.

## **Academic and Professional Contributions**

- 1. Professor for ACSIR, Biological Sciences, CSIR, India,
- 2. **PhD** AcSIR faculty for Coffee and cocoa, Secondary food metalobotes, theory and practicals. Planned lessons and assignments, led discussion sections, graded papers and exams.
- 3. **Composition Instructor** in Demonstration of CFTRI technologies and training session to farmer and industrials. Taught in part with an innovative, interdisciplinary team-teaching program design short term course on various aspects.
- 4. Member of **Advisory Board**, Siddaganga Institute of Technology, 2020-2025, under graduate course, Biotechnology.
- 5. Member of **Board of studies** at Siddaganga Institute of Technology, Autonomous (2016-18).
- 6. Member, **Selection Committee** for selecting suitable applicants from the second batch of Preincubation participants & aspiring entrepreneurs for the incubation program of AIC CCRI CED. 2021,15 July
- 7. M. Sc., Food technology, conducted by CFTRI, affiliated to Mysore University, India.
- 8. **Faculty member** in summer training classes, Skilled development program, Jigyash, Short term training classes.
- 9. **Faculty member** of Post graduate diploma course in coffee quality evaluation, Coffee Board of India, India.

- 10. Delivered lectures in **short terms courses** on the topic's coffee, Food Sciences and Technologies, microbiological analysis and food safety and molecular techniques.
- 11. Recognized as **expert from university of Mysore** to guide PhD in the field of Biotechnology and Food Science
- 12. Trained **project fellows** in the grant in aid projects funded from Department of Science, India.
- 13. Coordinator and Faculty in STC, skilled and farmers centric program (PMFME) at CFTRI, Mysore

## Guidance & Supervision Ph. D

Student	Fellowship	Title of Thesis	Status
Ms. Siddhi Patil	JRF- NET(UGC)	Anti-obesity potential of coffee leaf extract using mice model	Awarded
Ms. Vaibhavi Pimpley	JRF- NET(UGC)	Modulatory effect green coffee polyphenols on obesity induced model	Awarded
Ms. Aswathi K N	JRF- NET(UGC)	Development of pulped natural coffee process: Microbial and biochemical characterization for quality improvement	Submitted
Ms. Shikku premachandran	JRF- NET(UGC)	Extraction and characterization of bioactive metabolites and value addition of Allspice ( <i>Pimenta dioica</i> L.) leaves	Submitted
Ms. Shivani Tripathi	DST (UGC)	Modulatory effect and Nutraceutical applications of Oligosaccharides from coffee by-products in promoting Gut Health	In progress
Ms. Yashwanth B S	JRF- NET(UGC)	Fortification of Coffee with iron and its bioavailability	In progress
Ms. Vijaylakshmi Biswal	DST (UGC)	Modulation of coffee bioactivity with folic acid fortification	In progress
Ms. Sowbharnigha	JRF- NET(UGC)	Spice infused Coffee: A Functional Approach for Gastroprotection	In progress

# Guidance & Supervision M. Tech

Year	Name	Degree	Discipline	Institute	Title
	CI			Jawarhlal	
2017	Glory	M Tech	Food Science	Nehru	Utilization Of By-Products Generated
	Martha			Technology	During Green Coffee Processing
				University	
2016	Aratrika Ray	M Tech	Food Technology	Sam Higginbottam Institute Of Agriculture	Extraction Of Chlorogenic Acid From Indian Green Coffee Beans And Its Application As Value Added Product
2013	Kavya	M Tech	Biotechnology	Manipal	Processing Of Robusta Coffee With
2013	Y	WI ICCII	Diotectifiology	University	Emphasis On Fermentation.
2013	Nitin K	M Tech	Biotechnology	Manipal	Studies On Phytochemical Compounds Of
2013	INIUII IX	WI I CCII	Diotectifiology	university	Solanum Nigrum.
2012	Navya, P N	M Tech	Biotechnology	Manipal University	Fermentation And Bioengineering Of Coffee Husk For The Production Of Value Added Products
2012	Roopali N Bhoite	M Tech	Biotechnology	Manipal University	Biotransformation And Production Of Bioactive From Coffee Pulp Tannins

# Guidance & Supervision M. Sc

Year	Name	Degree	Discipline	Institute	Title
2025	Jayshree	Msc	Food technology	MGRDPRU,Gadag	Development & charectisation of novel spice mix
2025	Devika A	M. Sc	Biotechnology	JSS college of arts commerce and science, ooty road, Mysore	Sensory quality of honey processed Robusta coffee using machine learning models
2025	KJ Sreedevi	M. Sc	Food Technology and Quality Assurance	St Marys college for women, Thiruvalla, Kerala	Prebiotic activity Assessment of oligosaccharides from coffee husk
2025	Ayesha afnan	M. Sc	Microbiology	JSS college of arts commerce and science, bannimantap, mysore	Functional oligosaccharides as prebiotic additives in yoghurt
2025	Shifana P B	M. Sc	Food Technology and Quality Assurance	St Marys college for women, Thiruvalla, Kerala	Enrichment of nutritional value of coffee through folic acid
2025	Lorna lalduhsaki	M. Sc	Food science and technology	Pondicherry University	Green Extraction and Characterization of Bioactive

2025	Vijnana vishu	M. Sc	Food Science and Technology	Pondicherry University	Enhancing the nutritional profile of jaggery through mineral fortification
2024	Nainisha B D	M. Sc	Biotechnology	Sri Jayachamarajendra college of engineering	Physicochemical and Fourier transform Infrared analyses of roasted honey coffee
2024	Sagarika	M. Sc	Food Science and Technology	Mangalore University	Iron polyphenol complex in coffee
2024	Lincy mathew	M. Sc	Food Science and Technology	Kerala University	Green extraction Of Oligosaccharides From coffee husk
2024	Ruchira Das	M. Sc	Biotechnology	VIT Vellore	Utilization of agro-Industrial fruit Pulps for pulped Natural or honey Coffee process
2023	Ms. Aparna Pilli	M. Sc	Food Technology	M. S. Ramaiah University Of Applied Sciences, Bangalore	Extraction And Characterization Of Oleoresin From Allspice (Pimenta Dioica L.) Leaves
2023	Ms. Pooja S Karkera	M. Sc	Food Technology	M. S. Ramaiah University Of Applied Sciences, Bangalore	Modulating Effect Of Plant Extracts In Combating Acrylamide In Coffee
2023	Ms. Hiral Shetiya	M. Sc	Applied Microbiology	VIT,Vellore	Effect Of Drying Techniques On Quality Of Honey/Pulped Natural Coffee Process
2023	Ms. Vidisha	M. Sc	Food Science &Technology	Dy Patil Deemed University	Green Extraction Of Coffee Oil From Low Grade Beans
2023	Ms. Aparajitha B	M. Sc	Biotechnology	Siksha O Anushandhan University,	Pretreatment For The Extraction Of Bioactive Sugars From Spent Coffee Grounds
2023	Ms. Anagha	M. Sc	Food Technology Quality Assurance	Mahatma Gandhi University, Kottayam	Allspice Leaves essential oil extraction and Characterization
2023	Ms. Swastika P Y	M. Sc	Food Science & Nutrition	University of Mysore	Honey Coffee Drying Techniques, metabolites and their quality profiles
2022	Ms. Ayusha	M. Sc	Microbiology	Mumbai University	Role of Saccharomyces cerevisiae in modified semi-dry coffee fermentation and its impact on improving coffee quality

			T		
2022	Ms. Raksha	M. Sc	Microbiology	Mysore University	Extraction and characterization of bioactives from allspice leaves: antioxidant and antimicrobial properties
2022	Mr. Shriraj Ashwin	B Tech	Food Technology	Mumbai University	Development of coffee leaf beverage: physical chemical, sensory and shelf life studies
2021	Ms. Nirmala	M. Sc	Food Technology	Mysore University	Essence of Coffee Brewing with key impacts on roasting and grinding
2021	Ms. Nirmala M	M. Sc	Food Technology	AcSIR	Indian filter coffee brewing and its qualitative profile
2021	Ms. Nikitha Benny	B Tech	Food Technology	VIT,Vellore	All Spice volatiles and formulation of herbal candy
2021	Ms. Keerthana	B Tech	Food Processing And Engineering	Coimbatore University	Pulped natural coffee processing and their quality attributes
2020	Mr.Karthik Srinivasan	M. Sc	Food Science	Mysore University	Chlorogenic Acid: Properties Sources Extraction And Health Benefits
2020	Ms. Ayesha	M. Sc	Microbiology	Mysore University	Yeast Starter For Coffee Fermentation
2020	Ms. Chitra Shree	M. Sc	Microbiology	Mysore University	Coffee fermentation using lactic acid bacteria as starter culture
2020	Ms. N K Ishwarya	B Tech,	Biotechnology	Sri Venkateshwara college of engineering	Chlorogenic Acid Enriched All In One Coffee
2019	Ms. Naveen	M. Sc	Microbiology	Barkatullah University	Microbial Starter Culture For Effective Robusta Coffee Fermentation
2019	Ms. Kajol Wadukar	M. Sc.	Microbiology	Barkatullah University	Functional Coffee Beverages With Probiotic Kefir
2018	Ms. Bubly Malik	M Sc	Biotechnology,	Shiksha Anusandhan	Valorisation Of Green Coffee Spent For The Development Of Fiber Rich Cookies
2018	Mr. Rajat	M Sc	Biotechnology,	Shiksha Anusandhan	Synbiotic Cold Coffee Enriched With Chlorogenic Acid
2018	Ms. Siddhi Patil	M. Sc	Food Science Nutrition	AcSIR	Valorisation Of Coffee Pulp Biomolecules As Potent Anti Diabetic Food Supplements
2018	Ms. Vaibhavi Pimpley	M. Sc	Food Science Nutrition	AcSIR	Characterization Of Green Coffee Bean Extract As A

					potent Nutritional supplement for obesity
2018	Mr. Karthik Iyer	B Tech	Biotechnology	DY Patil University Mumbai	Carbonated And Non- Carbonated Beverages From Green Coffee
2013	Ms. Nandita Das Gupta	B Tech	Biotechnology	VIT,Vellore	Invitro And Invivo Studies Of Antidiabetic Activity Of Solanum Nigrum Leaves
2012	Ms. Bhagya	M. Sc	Microbiology	Mysore	Invitro Toxigenc Activity Of Z.Zerumbet Oil On A.Flavus.
2012	Ms. Shashikala	M. Sc	Microbiology	Mysore	Antimicrobial Activity Of Citronella Essential Oil
2012	Mr. Shashi Bhushan	M. Sc	Biotechnology	VIT,Vellore	Biological Activity Of Black Night Shade.
2012	Ms. Ranju	M. Sc	Biotechnology	VIT,Vellore	Oleoresin Of Ginger As Natural Food Preservative For Sugarcane Juice
2012	Mr. Partheepan	M. Sc	Biotechnology	St. Jospeh college	In-Vitro Toxigenic Activity Of Zingiber Zerumbet Oil On A. Ochraceus.
2011	Ms. Rithika Mathur	M. Sc	Food Technology	Mysore	Biotechnological Improvement Of Robusta Coffee
2010	Ms. Ritika Mathur	M. Sc	Food Technology	UoM	Quality characteristics of Indian coffee
2010	Ms. Shruthi Rao	B Tech	Biotechnology	VIT,Vellore	Demucilization Of Coffee Beans Using Enzymes,
2009	Mr. Vinay Shetty	M. Sc	Biotechnology	Kuvempu University	Purification Of A-Amylase Obtained From Coffee By- Products By Solid State Fermentation
2009	Ms. Kavya B.K.	M. Sc	Food Science	Kuvempu university	Isolation And Purification Of Bio-Actives From Coffee By- Products,
2009	Ms. Subhashini	M. Sc	Biotechnology	Periyar University, Salem	Potential Of Coffee Wastes In Enzyme Production Under Ssf Using Penicillium Spp,
2009	Ms. Kalai Priya	M. Sc	Biotechnology	Periyar University, Salem	Production Of Enzymes From Neurospora Crassa Under Ssf,
2009	Ms. Jyothi G M	M. Sc	Food Technology	Kuvempu University	Dietary Fiber In Coffee
2008	Mr. Rajesh P S	M. Sc	Microbiology	Mangalore University	Production Of Amylase By Neurospora Crassa Under Ssf Using Coffee Wastes.
2008	Mr. Vijayakrishna,	M. Sc	Microbiology	Mangalore University	Production Of Citric Acid From Coffee Wastes;

	Ms. Bhavya			Kuvempu	Biological Activity Of Indian
2008	08 B.S, M. Sc	Biotechnology	University	Borage (Plectranthus	
	D.5,			Oniversity	Ambonicus).
2007	Ms. Archana	M. Sc	Microbiology	Mangalore	Antimicrobial Activity Of
2007	Rao,	WI. SC	Wilciobiology	University	Indian Robusta Coffee
2007	Ms. Akshata	M. Sc	Microbiology	Mangalore	Antimicrobial Activity Of
2007	IVIS. AKSIIdid	WI. SC	Wilciobiology	University	Indian Arabica Coffee
					Isolation And
2006	Ms.	M. Sc	Biotechnology	University Of	Characterization Of The PHA
2000	Madhumathi Madhumathi	M. SC	Bioteciniology	Madras, Chennai	Produced By Amphibacillus
					Sp.,
	Mr.				Isolation & Optimization Of
2006	Shivalingu	M. Sc	Biotechnology	UoM	The Pha Producing Bacillus
	Silivailligu				Sp.,
	Mr. Shinsmon			Kongunadu Arts &	Molecular Characterization
2005		M. Sc	Biotechnology	Science College,	Of Bacillus Sp.,
Jose			Coimbatore	Accumulating Pha	
	Mr.			Barthidasan	Biological Activity Of
2005	Thirukumar	M. Sc	Microbiology		Azophilones From Monascus
	Tillfukulliaf			University	Purpureus

## Research Project Personnel (RA/ JRF/ SRF/ PA) in Funded Projects

- 1. Ms. Swastika Industry sponsored project, 2024
- 2. Ms. Harshitha, Industry sponsored project, 2021-2023
- 3. Ms. Syed Safai Industry sponsored project, 2021
- 4. Ms. Srisha Industry sponsored project, 2021
- 5. Ms. Sneha H P, UNU-KIRIN, Japan, International funded 2016
- 6. Ms. Sneha H P, International sponsored project, Switzerland, 2019-2020
- 7. Dr. Vedashree, SERB, GOI, 2019-2020
- 8. Mr. Shankar, International funded Industry sponsored project, Switzerland 2019
- 9. Mr. Inderjith, International funded Industry sponsored project, Switerland, 2019
- 10. Ms. Kajol, International funded Industry sponsored project, Switzerland 2019
- 11. Ms. Bubbly, Industry sponsored project, 2017
- 12. Mr Varun E (JRF) SERB, GOI, 2017-2019
- 13. Ms. Siri devi (JRF) SERB, GOI, 2016-17
- 14. Ms. Jaylakshmi, UNU-KIRIN, International funded 2016
- 15. Ms. Beluah, MoFPI, GOI, 2015
- 16. Dr. Nivas Desai MoFPI, GOI,2015
- 17. Dr. James Bound, MoFPI, GOI, 2015
- 18. Dr. Yallappa (JRF) in MoFPI project, GOI, 2012
- 19. Dr. Sandhya M S (JRF) in MoFPI Projects, GOI, 2012

## Awards/ Honors/recognition

- 1. Pushpa S. Murthy, Expert member in Geographical Indications Registry, Government of India
- 2. Pushpa S. Murthy, Research council Member ICAR cashew research Directorate, GOI
- 3. **Pushpa S. Murthy**, Speaker, IGNITE, Spice Pharmacology SpARC Meeting, 4-5 July 2025, NCBS Bengaluru.
- 4. **Pushpa S. Murthy**, CFTRI technologies pertaining to coffee, Boniest 27/06/2025, in association with coffee board, CFTRI, Mysuru.
- 5. Jury Member. **Pushpa S. Murthy**, Food Hackthon, 27th and 28th February, 2025, CSIR CFTRI, BIRAC Bionest.
- 6. **Best Poster award**, Shikku P, **Pushpa S. Murthy**, Levering All Spice leaf oil: organic approach to sustainable food preservation, IISF, YSC 30-Nov -3Dec 2024
- 7. **Best Poster award** Shivani Tripathi, Gannesh B S lincy **Pushpa S. Murthy**, Cello-oligosaccharides from coffee husk a new generation prebiotic, National Seminar on Microbiome, Nutrition and Health, emerging Research and clinical Applications, Sep 26-27, 2024 Trirunapalli, Tamil nadu
- 8. CSIR-CFTRI and All India Radio (Akashvani) Mysuru have jointly produced a forty-episode series on "Innovations and researches of CFTRI" in Kannada, titled as "CFTRI Shodha Anushodha" **Pushpa S. Murthy** on Coffee and health
- 9. Akashvani, **Pushpa S. Murthy** on Planation products and spices at CFTRI technologies, Nam company Thotada belegala moulyavardhane tantrikathegalu DR. **PUSHPA S. MURTHY** Feb 4 2025.
- 10. **Invited speaker** Dr. **Pushpa S. Murthy**, National Webinar on Coffee Processing and Value Addition on November 27, 2024, under the Prime Minister Formalization of Micro food Processing Enterprises (PMFME) Scheme.
- 11. Dr. **Pushpa S. Murthy**, **Dr Kalpana Chawal State award** for young women scientist 2022, 26 th Sep 2024, Government of Karnataka.
- 12. **Pushpa S. Murthy**, Speaker, 3rd August 2024 Gonikoppa, Hindu Economic Forum, Kodagu and Laghu udyog Bharti, Mysore vibhaga, Mysore
- 13. **Top cited research paper** in Wiley 2022-2023, **Pushpa S. Murthy**, INTERNATIONAL JOURNAL OF DAIRY TECHNOLOGY Green coffee polyphenols in formulations of functional yoghurt and their quality attributes
- 14. **Pushpa S. Murthy**, Invited speaker for Barista Training Workshop in association with coffee board and Bionest CFTRI Incubation center, 25.06.2024
- 15. **Pushpa S. Murthy**, Research Council Member for 10th Cashew Research Institute, 06.06.2024 to 05.06.2027, Indian Council of Agricultural Research (ICAR DCR).

- 16. Shivani Tripathi, Sachin M Eligar, Pushpa S. Murthy Coffee Husk Polysaccharides: Functional Food Ingredients and Sustainable Benefits, National conference on recent trends in biotechnology research, Tiruvannamalai, Tamil Nadu, March 22 2024 Best Poster award.
- 17. Aswathy M, Bahwana, Sandeep Mudaliar, **Pushpa S. Murthy**, Environmental Impacts of Robusta Coffee by Pulped Natural/Honey Coffee process: A Life Cycle Perspective, International conference on new horizons in Biotechnology, Nov 26-29 2023 Trivandrum, Kerala **Best Poster award**
- 18. **Pushpa S. Murthy**, **Coffee, and its value addition**. Invited Speaker, Annual TATA Coffee R&D Day "INVENTICA" on 31st August, 2023.
- 19. Shikku P, **Pushpa S. Murthy**, Allspice leaves oleoresins as value-added ingredient for food and pharma industry, international conference on applications on Natural products, Nanomaterials and Nano pharmaceuticals, (ICAN3) August 9-10th 2023, **Best young Innovative Award**.
- 20. Yajat S Murthy, Ashish Rao, **Pushpa S. Murthy**, Bean to brew, 3-7 July, OLOW 2023, CSIR -CFTRI **Best Poster award**, Innovative posters start-ups
- 21. **Annual Institute Award**, for External cash flow for CSIR-CFTRI 2019-2020, CSIR-CFTRI foundation day annual awards
- 22. **Distinguished Researcher** in Food Biotechnology, International Research awards council, 2020, 26th Jan 2020, held at Grandeur Hall, Hotel Breeze Residency, Trichy, Tamil Nadu.
- 23. **Biotechnologist award** from Scire recognition, 2019, 3rd international conference during In Syncnext generation Biosciences, 6-8th November Held at Goa, India.
- 24. **Har Gobind Khorana Best Scientist award** for Food Biotechnology, Bose Science Society, 24th August 2019 at Pudukkottai, Tamil Nadu, India during 9th International Conferences on Natural Sciences.
- 25. **Distinguished Biotechnologist Award**, for research contributions in field of Biotechnology by the Board of Management of Venus International Foundation, VIRA 2019, Venus's foundation, Chennai.3rd August 2019.
- 26. **Travel grant from ACSTM** to make an oral presentation at 3rd ACSTM conference at Dubai Feb. 12-14th 2019.
- 27. **Best paper award**, Sustainable Management of Coffee Industry By-Products and Value Addition from resource conservation and recycling journal, Elseveir, 2019, 30 in 30 RCR. IF 7.0
- 28. **Fellow of Bose Science Society** from Bose Science Society, 2019, Affiliated with Vigyan Prasar, DST, Govt. of India, New Delhi.
- 29. Bio standups honours Dr. Pushpa S. Murthy as "SHERO." Face of month July 2018.
- 30. Global Food and Nutrition experts OMICS Online, Dr. (Mrs) Pushpa S. Murthy-2018.
- 31. **Best Oral presentation** Food and Nutrition, Nivas M. Desai, Karthik Iyer, Chakravarthy A, **Pushpa S. Murthy**, Chlorogenic acid (CGA) enriched Carbonated and Non-carbonated beverages from green coffee, Aug 1-3 2018, International conference on Research Interventions and advancements in Life Sciences, Pune, India.

- 32. **Best Oral presentation** Microbial Science, In-Silico Interaction of Enzymes in Coffee Fermentation, Sridevi G B, **Pushpa S. Murthy**, Aug 1-3 2018, International conference on Research Interventions and advancements in Life Sciences, Pune, India
- 33. **Best Technology Transfer** for the year 2016-2017, awarded by CSIR-CFTRI, for the technology 'A Novel Process for production of Turmeric powder from Fresh Turmeric rhizomes, on 27.10.2017. during 75th CSIR foundation day.
- 34. **Microbiologist Award-2017**, Awarded by SCIRE Science in the international Conference of SciCon Series on current Trend in Bioscience, held at Cochin, India during 21-23 August 2017 for outstanding contribution in the field of expertise.
- 35. Sneha H P, Jayalakshmi E, Rastogi N K, Basavaraj K, Ken-Ichi Kusumoto, **Pushpa S. Murthy**, Enhanced flavour of coffee by acid carboxy peptidase produced by Aspergillus oryzae, Current Trends in Bio International conference,21-23rd August 2017, organized by Scire Science at Dunes Hotel, Cochin, India, **Best Oral Presentation award**
- **36.** James D Bound, Beulah K C, **Pushpa S. Murthy**, Green coffee with enriched Probiotics, synergy, stability and survivability, Current Trends in Bio International conference,21-23rd August 2017, organized by Scire Science at Dunes Hotel, Cochin, India. **Best Oral Presentation award.**
- 37. Bhavya ML, Madhava Naidu M, **Pushpa S. Murthy**, Mycotoxins in chilli (Capsicum Annum) and its products and their inhibition using natural biomolecules, 2017, Feb 2-3 National Spice Conference, Mysuru- **Best Poster award**,2017
- 38. UNU-KIRIN fellow for the year 2014-2015, National Food Research Institute, Japan
- 39. Awarded as Fellow from Society for Applied biotechnology 2012.
- 40. **Travel award from CSIR** to attend conference as invited speaker at The World Congress of Biotechnology, China-2012.
- 41. **Honoured as National Jury for evaluating Indian coffee** for international coffee flavor cupping competition to be held at specialty coffee association of America and Europe (SCAA and SCAE) since 2004-2017 organized by Coffee board of India, India.
- 42. **Honoured as National Jury for evaluating coffee quality** of the Indian Barista championship. 2003-2005, by Specialty Coffee Association of India (SCAI) and Coffee board of India, India.
- 43. Extension of shelf-life of aloo paratha using hurdle technology, Amitha V, Shwetha V, **Pushpa S.**Murthy, Roopa BS, Sathish HS, 7 th international food convention,18-21st 2013, CFTRI, Mysore-Best Poster award,2013
- 44. Navya PN, Pushpa S. Murthy, Bioconversion of coffee husk cellulose and statistical optimization of fermentation conditions for production of exoglucanases, A National Conference on Appropriate Technologies for Indian Food Processing Industries, held at University of Agricultural Sciences, GKVK Campus, Bangalore 5th 6th March 2012 organized by Indian Institute of Crop Processing Technology & University of Agricultural Sciences, Bangalore-Best oral presentation.

#### **Training**

- 1. Science, Technology and Innovation Policy, NIAS-DST Training Programme, March 7-18th, 2022.
- 2. NIAS DST Training Programme on "Science and Sustainability in India, Sep 23-27,2019, Bengaluru.
- 3. Various workshops on molecular biology, analytical instruments used for R&D, personality development courses have been participated member in organizing the same.

#### **Abroad Visits**

- 1. Invited speaker "Indian coffee processing with starter culture technology- An emerging trend, ASCTM, Dubai, 12-14 Feb 2019.
- 2. Invited speaker "Biotechnological Valorisation of Coffee by-products," International school of Biotechnology, University of Osaka, Japan, 27.11.2014.
- 3. Invited Speaker on the topic "Fungal enzymes from coffee by-products" at the World congress of Microbes-2012, 30.07.2012 to1.09.2012, China. Organized by BIT
- 4. Participated and attended the conference held in Miami, Florida, United states of America, organized by Specialty coffee association of America, 2001, April 8-12th
- 5. UNU –fellowship 2014-2015, Applied Mycology laboratory, National Food Research institute, Japan.
- 6. The training on evaluation of coffee quality by organoleptic evaluation, at Florida, USA during Specialty coffee conference of America, 2001.

## **Professional Memberships**

- 1. Life Member, The Biotech Research Society, India
- 2. Life Member, Association of Microbiologists of India, India
- 3. Member, Society of Biological Chemists, India
- 4. Life Member, Association of Food Scientists and Technologists, India
- 5. Member, Society for Applied Biotechnology, India
- 6. Life Member Indian Science Congress, India
- 7. Life Member, Society for Educational & Scientific Research SESR, India
- 8. Life Member of Bose science society, India

## Editorial ship and reviewer in National & International peer review journals

Reviewed several research manuscripts in peer reviewed journal of Elsevier, Taylor and Wiley, Springer Bentham etc..,.

## Prospective

#### Ph.D. students

New students (with fellowship) interested in joining my laboratory can contact with their brief CV. The admissions to Ph.D. course under AcSIR happen twice a year and other affiliated universities.

#### **Post-doctoral fellows**

Please send your detailed CV having information about your PhD, publications, and research interests. The applications for exploring post-doctoral opportunities under various schemes (DBT, DST, CSIR, ICMR & TWAS) can be forwarded after due discussion