

Curriculum Vitae



Name : Dr. SRUTHY K. S.
(SCIENTIST B,SILKWORM PATHOLOGY,
CTR&TI, CENTRAL SILK BOARD,
RANCHI)

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- Cleared ARS-NET exam in 2018
- Cleared CSIR-NET exam in 2020
- Cleared ICAR-JRF in 2015
- Cleared All India entrance exam for ICAR-IARI in 2017
- Cleared KEAM-2011

Work experience

- **Researcher:** NPPL (UPL) (1 year 11 months)
- **Specialist:** Cropnosys India ltd.

OBJECTIVE

To leverage my skills and knowledge in Microbiology to contribute effectively to the research and developmental initiatives at CTRTI, Central Silk Board. Seeking a challenging tasks that allows me to apply my skills for the advancement of sericulture practices and the overall growth of the organization, while continuously enhancing my professional capabilities in a dynamic and collaborative work environment."

ACADEMIC BACKGROUND

Examination/ Degree Passed	Board /University	Year of Passing	Scores
Ph.D. (Microbiology)	ICAR-Indian Agricultural Research Institute, New Delhi-12	2017-2020	8.01/10.00
M.Sc. (Agri.) (Agricultural Microbiology)	College of Agriculture, UAS, GKVK, Bengaluru.	2015-2017	9.08/10.00
B.Sc.(Agri.)	Kerala Agriculture University, Thrissur, Kerala	2011-15	8.54/10.00
Plus Two	Board of Higher Secondary Examinations, Government of Kerala	2008- 10	92%
S.S.L.C.	Board of Public Examinations, Kerala	2008	95%

<p style="text-align: center;">RESEARCH EXPERIENCE</p>	<ul style="list-style-type: none"> • More than 5 years of research experience in decomposer microorganisms and soil microbiology • Designing experiments for crop residue decomposition and value addition • Expertise in soil enzymes, carbon cycle and biochemical parameters. • Development of solid state and submerged fermentation process for mass multiplication of soil fungi and enzymes • Biofertilizer product development: Isolation and screening of Plant Growth Promoting Rhizobacteria, N, P, K and Zn biofertilizers from soil • Long term experience in handling fungi • Bioremediation: experience in heavy metal microbial remediation studies • Conducting field trials for monitoring microbial and biochemical parameters of soil in response to product application • Biopesticide development: Isolation and screening of biocontrol agents for plant pathogens and insects • Development of liquid and powder formulations of biofertilizers • Bioremediation: Isolation and screening of microorganisms with heavy metal remediation ability to restore contaminated sites. • DNA isolation and molecular identification of microorganisms • Laboratory techniques such as spectrophotometer, HPLC, FTIR, gel electrophoresis etc. • Purification of cellulose from different agricultural residues • Development of fermentation techniques for mass production of cellulase enzyme
<p style="text-align: center;">RESEARCH UNDERTAKEN M. SC.(AGRI)</p>	<ul style="list-style-type: none"> • “Microbial intervention for developing a nutraceutical product of quinoa (<i>Chenopodium quinoa</i> Willd.)” in partial fulfillment of Post-Graduate study in Agril. Microbiology at UAS, GKVK, Bangalore.
<p style="text-align: center;">OBJECTIVES OF RESEARCH M. SC.(AGRI)</p>	<ul style="list-style-type: none"> • Enumeration, isolation and characterization of natural microbiota of quinoa (<i>Chenopodium quinoa</i> Willd.). • Standardization of protocol for preparing a fermented product of quinoa using reference cultures. • Estimation of anti-nutritional factors in fermented product.
<p style="text-align: center;">SEMINARS PRESENTED M. SC.(AGRI)</p>	<ul style="list-style-type: none"> • Prospects of microbially synthesized rennin and application • Advances in enzyme immobilization and its application

RESEARCH TITLE (Ph. D)	<ul style="list-style-type: none"> • “Development of effective microbial consortium and application system for degradation of recalcitrant rice stubble”
OBJECTIVES OF RESEARCH (Ph. D)	<ul style="list-style-type: none"> • To isolate and characterize lignolytic microorganisms associated with rice stubbles using functional and molecular approaches • To study the effect of selected microbial agents on the degradation of rice stubbles • Development of microbial formulation and its application
SEMINARS PRESENTED (Ph. D)	<ul style="list-style-type: none"> • Mitochondria microbial cross talk: pertaining to health • Insights into kin recognition in bacteria • Microbial systems in management of rice straw: Broad perspective
LANGUAGES KNOWN	<ul style="list-style-type: none"> • Malayalam, English, Hindi-read, write and speak • Kannada, Tamil - Speak and understand
COMPUTER SKILLS	<ul style="list-style-type: none"> • Experience in working with MS Office, Data analysis. (Word, Excel and Power Point), Internet applications.

ACHIEVEMENTS

- Cleared KEAM-2011 and admitted to Kerala Agricultural University, Thrissur
- Awarded ICAR-JRF in 2015
- Qualified ICAR-SRF in 2017 for online counseling
- Cleared ICAR-IARI national entrance exam in 2017 and awarded ICAR-IARI institutional scholarship
- Cleared ARS-NET exam in 2018
- Cleared CSIR-NET exam in 2020
- Participated and presented poster on “Screening of lactic acid bacterial isolates for developing a fermented beverage of quinoa” during the Post Graduate Science Week – 2017 held at University of Agricultural Sciences, GKVK, Bangalore.
- Participated and presented the Start-up for innovative New Technologies in Agriculture and secured Third Prize during the Post Graduate Science Week- 2017 held at University of Agricultural Sciences, GKVK, Bangalore.
- Participated and presented poster in Agricultural Science Congress at GKVK, Bangalore, held during February 21-24, 2017

- Participated and presented poster entitled “Isolation and characterization of lactic acid bacterial isolates to reduce antinutritional factors in quinoa (*Chenopodium quinoa* Willd)” in NUCSFNEE2019 conference held at NIPGR, New Delhi during August 2, 2019
- Participated and presented poster on “Potential lignolytic fungi for rapid decomposition of rice stubbles” in 60th Annual conference of Association of Microbiologist of India held on 15th – 18th November, 2019.
- Participated workshop on “Rhizosphere engineering: Genomes to Metagenomes” under NAHEP-CAAST on 7th February 2020 at ICAR-IARI.
- Awarded best article award with first position for popular article entitled “Microbial polymers-the future bioplastics” published in volume 01, issue 03 of Agriculture Letters.
- Life member in Association of Microbiologist of India

PUBLICATIONS

S. No.	(Name(s) of Authors, Year of publication, Title of the publication, Full name of the Journal, Volume & page numbers)	NAAS Journal Rating*
RESEARCH ARTICLES		
1.	Sruthy, K. S., Shukla, L., Kundu, A., Singh, S. K., Abdulrahman Alodaini, H., Hatamleh, A. A., ... & Kumar, A. (2023). Effect of Microbial Consortium Constructed with Lignolytic Ascomycetes Fungi on Degradation of Rice Stubble. <i>Journal of Fungi</i> , 9(5), 567.	11.5
2.	Sruthy K S, Suvarna V C, Shriniketana Puranik & Vikram K V. 2021. A fermented nutraceutical beverage from quinoa: The traditional grain of Andes, <i>Indian Journal of Traditional Knowledge</i> Vol 20(4), pp 1040-1047	7.01
3.	Sruthy K. S., Suvarna V. C., Vikram, K. V., Shriniketana Puranik and Waghmare V. V. 2021. Standardization of substrate concentration and sugar concentration for fermentation of Quinoa to produce a nutraceutical beverage, <i>Multilogic in Science</i> . 10: 1507-1510	4.51
BOOKS AND CHAPTERS		
1.	Shriniketana Puranik, Sruthy, K S , Vikram, K V, Waghmare Vijayakumar Veerappa, Barbhai Mrunal D, 2021, <i>Microbiology Refresher</i> , Jain Brothers ISBN 978-81-948297-3-7	
2.	Reddy, G.C., Goyal, R.K., Puranik, S., Waghmar, V., Vikram, K.V. and Sruthy, K.S. , 2020. <i>Biofertilizers toward sustainable</i>	

	agricultural development. In Plant Microbe Symbiosis (pp. 115-128). Springer, Cham.	
3.	Sruthy K. S. and Waghmare Vijaykumar Veerappa., 2022, Food Safety Hazards And Hazard Management. In Food Safety And Standards: Laws, Tools And Management Systems (pp. 9-34)	
4.	N. Nivetha, A. K. Lavanya, K. V. Vikram, A. D. Asha, K. S. Sruthi , S. Bandeppa, K. Annapurna, and Sangeeta Paul (2021) PGPR-Mediated Regulation of Antioxidants: Prospects for Abiotic Stress Management in Plants. In Antioxidants in Plant-Microbe Interaction, pp. 471-499	
POPULAR ARTICLES		
1.	Sruthy K. S. , Vikram K. V., Shriniketan Puranik AND Waghmare V. V. 2020, Mitochondria Microbial Cross-Talk, a Vital Interaction? Agrobiose. 18(9): pp 89	
2.	Sruthy K. S. , Waghmare V. V., Vikram K. V., Shriniketan Puranik and Barbhai Mrunal D. 2019, Will Bacteria Recognize their Kin? Agrobiose. 18(4): pp 130	
3.	Sruthy, K. S. , Vikram, K. V., Shriniketan Puranik and Waghmare, V. V. 2020. Microbial polymers: The future bioplastic. Agriculture letters, Volume 1, issue 3, pp. 24	
4.	Waghmare, V. V., Sruthy, K. S. , Shriniketan Puranik, Barbhai Mrunal, D. and Vikram, K. V., 2020. Probiotic Yeast: <i>Saccharomyces boulardii</i> . Agriculture letters, Volume 1, issue 3, pp.16	
5.	Vikram, K. V , Shriniketan Puranik , Waghmare, V. V and Sruthy, K. S. 2020. Bioactive compounds in edible mushrooms promoting human health. Agriculture letters, Volume 1, issue 3, pp.20	
6.	Waghmare V. V. Shriniketan Puranik, Vikram K. V., Sruthy K. S. and Barbhai Mrunal D. Phage Engineering for Detection of Food Borne Bacterial Pathogen. Agrobiose. 17(3): pp. 10	
7.	Vikram, K. V., Waghmare, V. V., Shriniketan Puranik AND Sruthy, K. S. 2020, An Accident between Replication and Transcription in Bacteria. Agrobiose. 18(9): pp 85	

8.	Waghmare V. V., Shriniketan P. Sruthy K. S. and Vikram K. V., 2019, Bacterial Expansins and Expansins Related Proteins, Agrobiose, 18(5)pp. 136	
9.	Shriniketan Puranik, Barbhai Mrunal D., Sruthy, K. S. , Vikram, K. V. and Waghmare, V. V., 2019. Kombucha Tea, 18(2), pp. 14	
ABSTRACTS		
1.	K. S. SRUTHY , 2018, Microbial Intervention for Developing a Nutraceutical Product of Quinoa (Chenopodium quinoa Willd.), Mysore Journal of Agriculture Sciences, 52 (1); 125	
2.	Sruthy, K. S. , Suvarna, V.C. and Gourish Hegde, 2017, Development of Nutraceutical drink from quinoa, Agriculture science congress-2017, pp. 611	
3.	Sruthy, K. S. , Livleen Shukla and Deeba Kamil, 2019, Potential lignolytic fungi for rapid decomposition of rice stubbles, 60 th annual conference of association of microbiologist of India, EMT -46, pp.193	
4.	Sruthy, K S , Suvarna, V.C., Shriniketan Puranik, 2019, Isolation and characterization of lactic acid bacterial isolates to reduce anti-nutritional factors in quinoa, chenoodium quinoa, willd, NUCSFNEE, NIPGR, New Delhi,T-II, 19, pp. 102	