

Dr Roopa K B

Affiliation : (Assistant Professor, Dept of Biotechnology SIT)

Contact: 7892875295/ 0816-2214000 Extn. 4162

Email: roopakb@sit.ac.in

Vidwan ID: 90755

Scopus ID: 57211203300

OrcID: 0000-0002-8943-8740

Faculty ID: SIT0166



Education

	Degree	Year	Institute	Specialization
1	Ph. D	2018	Jain University, India	Microbiology
2	M.Sc.	2002	Bangalore University, India.	Microbiology
3	B.Sc.	1999	Bangalore University, India.	Chemistry, Zoology and Microbiology

Professional Experience

	Date (from-to)	Designation	Organization
1	Feb 2007 till date	Assistant Professor	Siddaganga Institute of Technology
2	2002 to Jan 2007	Lecturer	Siddaganga College of Arts, science and Commerce for Women, Tumkur

(Please fill in reverse order. Current designation should be at the top)

Positions held

(Please give details of any administrative posts, co Ordinator roles/ responsibilities)

held)

- Institute Level Anti-ragging committee member
- Institute Level Deputy Warden of Girls Hostel – Ganga Block •
- Institution Internal ISO Auditor
- Institute Level Squad Member
- Departmental Member for BOS and BOE
- Departmental Academic Affairs Committee Convener (DAAC) •
- Departmental Project Evaluation Committee Convener (DPEC) •
- Departmental Seminar Evaluation Committee Convener (DSEC) •
- Departmental Internship Evaluation Committee Convener (DIEC)
- Departmental NAAC/IQAC Coordinator
- Departmental Research Review committee Coordinator
- Departmental NIRF coordinator
- Departmental ISO Coordinator
- Departmental Local Inquiry Committee (LIC) Coordinator
- Departmental Academic and Administrative Audit - Coordinator •
- Departmental Time table Coordinator

Affiliations of Professional organizations

1. Life member in Association of Microbiologist of India (AMI)
2. Life member in Society for Biotechnologists, India (SBTI)

Awards and Honors

- The project entitled “Production of gamma amino butyric acid (GABA) from Biowastes” has awarded TCS Best Project for the academic year 2017-18. •
- Awarded a cash prize of Rs.10,000/ as one in top 5 position as a young Entrepreneur at Pragathi 2.0 at Technical Fest Phase shift-2024 at B.M.S. College of Engineering

Courses Taught

Undergraduate Courses

1. Microbiology
2. Cell and Molecular Biology

3. Bioremediation of xenobiotics
4. Biopharmaceuticals and regulatory affairs
5. Immunology and Immunotechnology
6. Green Biotechnology and Pollution abatement
7. Genomics
8. Microbial Biotechnology
9. Genetics
10. Genomics and proteomics
11. Food Biotechnology
12. Plant and animal BT
13. Genetic Engineering
14. Biology for Engineers

Research Guidance

Sl. no	Name of the PhD Scholar	Title	Year of completion
1	Dr. Varsha D savanth USN: 1SI15PGJ06	Production, purification and Characterization of 1,4 β -endoxylanase from <i>Bacillus pumilus</i> using agro-industrial Residues	2024
2	Mr. H. Mahantesh USN: 1SI20PBT01	Extraction of Bio Active compounds from parkinsonia Aculeate L"	ongoing

Sl. no	Name of the M.Sc.(Engg)	Title	Year of completion
1	Jayashree Mathapati Reg ID: 042021RSBT001851	Estimating the plasma levels of Vancomycin/Amikacin using HPLC method	ongoing

Research Areas

- Bioremediation – Microbial degradation and removal of environmental contaminants; development of eco-friendly remediation strategies.
- Environmental Microbiology – Microbial ecology, wastewater treatment, and

microbial applications in environmental sustainability.

- Food Microbiology – Food safety, preservation, and the role of beneficial microbes in food processing.

Sponsored Projects

Completed Projects:

1. Title: Biodegradation and decolorization of Malachite green using native microbes from textile effluents
Funding Agency: VGST Ref. No: VGST NO. KSTePS/VGST-K-FIST L1/2018-19/GRD No.774/315
Amount: 20 Lakhs
Duration: 2 years
Role: Principal investigator
2. Title: Efficient utilization of used/waste flower by converting it to useful products and thus conserving nature
Funding Agency: IMPRESS/P1938 /2018-19/ICSSR
Amount: 12 Lakhs
Duration: 2 Years
Role: Co- Director
3. Title: Identification of lead compound against nuclear factor kappa B (NF- κ B) of ulcerative colitis by virtual screening of medicinal plant compounds and in vivo test on acetic acid induced u. colitis experimental rats
Funding Agency: VTU/Aca./2010-11/A Amount: 20 Lakhs
Duration: 2 years
Role: Principal investigator

Publications

Journals

1. Varsha D. Savanth, B.S. Gowrishankar, **K.B. Roopa**, Seema J. Patel, The Effect of Agro-industrial residues composition on the production of Endo-1, 4- β Xylanase, Indian Journal of Agricultural Research, Volume 59 Issue 4: pp 535-542 April 2025, doi: 10.18805/IJARE.A-6076
2. **K. B. Roopa**, S. Raj Surabhi & B. S. Gowrishankar , Screening, identification and optimization of microbes isolated from textile effluents for malachite green degradation, Bioremediation Journal, Volume 28, Issue 3, pp. 343-353, July 2024, doi:10.1080/10889868.2023.2223646
3. Varsha D. Savanth, B.S. Gowrishankar, **K.B. Roopa**, Fermentation medium optimization for the 1, 4- β -Endoxylanase production from *Bacillus pumilus* using agro-industrial waste, Journal of Applied Biology & Biotechnology 11(2), Jan 2023 DOI: 10.7324/JABB.2023.110212

4. Ravikiran KM, Simi Simon, **Roopa KB**, Asiya Nuzhat FB ,Impact of vermiwash on G4 mulberry leaves in some post cocoon parameters of on silkworm Bombyx mori L, International Journal of Entomology Research, Volume 9, Issue 8, , Page No. 36-42, Aug 2024
5. K. M. Ravikiran, simi simon, **K. B. Roopa** and f. B. Asiya nuzhat, Characterization of Amylase Activity in the Midgut of Silkworm Bombyx mori (L.) by using Vermiwash Supplement, Mysore J. Agric. Sci., 58 (3) : 270-284, April 2024,
6. K. M. Ravikiran, simi simon, **K. B. Roopa** and f. B. Asiya nuzhat, Protein analysis from different body tissues of three important commercial Races of mulberry silkworm bombyxmori(l)by using bradford method, International Journal of Advanced Research 12(03):2320-5407, April 2024, doi:10.21474/IJAR01/18403
7. **Roopa Kambathanalli Basavaraju** and Usha Malavalli Subbaiah, PCR Analysis of Genes from *Aeromonas punctata* for Reactive Black 5 Dye Degradation, *Int. J. Pure App. Biosci.* 5 (5): 380-385, 2017, doi: <http://dx.doi.org/10.18782/2320-7051.3029>
8. **Roopa K. B.** and Usha M.S. (2017). Partial purification and assay of azoreductase and laccase in the degradation of Reactive Black 5 dye from *Aeromonas Punctata*. International Journal of Latest Research in Engineering and Technology. 3(7): 16-19

Conference Proceedings

- Arunabha Majumder, Vybhavi Shivakumar, A.G.shivasiddaramaiah, C. Shashishekar, U.S.Mallikarjuna and **K.B. Roopa** ,Synthesis and Evaluation of Biocompatibility of Cu-Al-Mn Shape Memory Alloy.*Materials Science Forum*, 69,380-385,Aug 2019,doi.org/10.4028/www.scientific.net/MSF.969.380

Invited Lectures, talks and workshops

1. Delivered a guest lecture on 'Recent trends in Biotechnology' at Department of Biotechnology, Sree Siddaganga College for Women, Tumakuru on 08th May, 2025.

Conferences Attended:

- Participated one-day lecture series 'JAIVIKA CHETHANA' held on 5th March 2013 at school of Graduate Studies, J.C.Road, Bangalore.
- Participated two-day skill development programme organized by Centre for Research in Social sciences and Education, Jain University, Bangalore, held on 19th and 20th July 2013.
- Presented a poster on "Role of enzymes in the degradation of Reactive Black 5 dye by a strain of *Aeromonas punctata*" at National level conference on Empowering Mankind with Microbial Technologies (AMI-EMMT-2014) organized by Department of Agricultural Microbiology, Agricultural university, Coimbatore,

Tamilnadu on Nov 12th– 14th 2014.

- Presented a poster on “Partial purification of azoreductase and laccase involved in degradation of Reactive Black 5 dye” at National level conference on Current scenario and future prospects of Biotechnology in diverse sectors (CSFPB-2016) organized by Department of Biotechnology, Bannari Amman Institute of Technology, Sathyamangalam, Tamilnadu on Jan 21st–22nd 2016
- Presented a paper on “Partial purification of peroxidases from *Aeromonas punctata* in degradation of Reactive Black 5 dye” at International level conference on Green technologies for sustainable ecosystem and trade show organized by Department of Botany, St. Joseph College, Bengaluru on Feb 26th – 27th 2016.
- Presented a paper on “PCR analysis of genes from *Aeromonas punctata* for Reactive Black 5 dye” at National level conference on Emerging trends in therapeutic enzymes production organized by Department of Life Sciences, Garden City College, Bengaluru on Oct 19th 2016.
- Presented a paper on “Study of intermediates in degradation of Reactive Black 5 dye by *Aeromonas Punctata*” at National level seminar on Recent advances and development in Microbial technology organized by Department of Microbiology, Government College, Kalaburagi on Sep 15th and 16th 2017.
- Presented a paper on “Production of GABA from Biowastes” at international conference on ICRTEMS organized by academic science in association with punjab university campus, chandigarh on 11th 2018.
- Presented a paper on “Study on removal of heavy metal from industrial effluent using native microorganisms” at KLE Dr. M. S. Sheshgiri, College of Engineering and Technology, Belagavi, Third National Level Technical Symposium “ALCHEMIST-2019” on 20th March, 2019.
- Presented a paper on “Biodegradation and Decolorisation of Malachite green from textile effluents” at 2nd National Conference on innovations in Bio Chemical and Food Technology – 2020 (IBCFT-20) on Saturday 14th March 2020, organized by Kumaraguru college of technology, Coimbatore.
- Presented a paper on Isolation, screening and molecular identification of bacteria from electroplating effluents and their effect on heavy metal removal” in the International Conference Organized by the Department of Biotechnology Engineering, N.M.A.M. Institute of Technology, Nitte, during 19th & 20th December 2023

Workshop Attended

- Participated in AICTE sponsored Quality Improvement Programme (QIP) short term course on Recent Advances in Biomedical Engineering organized by the Department of Biotechnology, Indian Institute of Technology, Roorkee from 30-11-2020 to 04-12-2020
- Attended FDP on Recent advances and opportunities in industrial Biotechnology Organized by Department of Biotechnology Ramaiah Institute of Technology from 4 to 9 October 2021
- Attended FDP on Recent advances in waste water treatment and recycle organized by Department of chemical engineering SDM college of engineering

and Technology Dharwad from 16 to 19 November 2021

- Attended Five FDP on “Inculcating Universal Human Values in Technical Education” organized by All India Council for Technical Education (AICTE) from January 2 – 6 2023.
- Attended Short Term Training Program (STTP) on Academic Writing and Research Management organized by Department of Civil Engineering, Radhakrishna Institute of Technology and Engineering, Odisha, India & RSP Science Hub, Coimbatore, Tamil Nadu, India from August 12 - 18, 2024
- Participated in the Faculty Development Program on Innovative teaching and learning pedagogy organised by: Research Foundation of India, Jointly Association and Sponsored by: Council of Academic Research and Educational Organisation (RFI-CARE), in Association with: Faculty of Commerce- Parul University-Gujarat from 9-15 July 2025

Internship/Hands-on training

- Molecular Biology skills- Nucleic acid isolation, RT-PCR, Blotting Techniques • Degradation of Dyes
- Optimization of Process/Product using DOE V.12