

NEWSLETTER

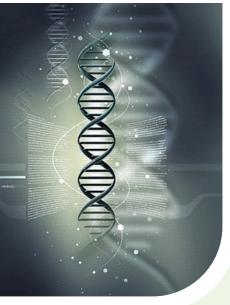
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BIOGAZETTE

ECHOING MULTIDISCIPLINARY PERSPECTS

Inside:

- Events Conducted
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- Upcoming Events







e-copy of the newsletter



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EDITORIAL TEAM



DR. E. NAKKEERAN Professor and Head Biotechnology



DR. K. DIVAKAR Associate Professor Biotechnology



DR. K. GANESH PRASATH Assistant Professor Biotechnology



DR. J. G. ASWIN JENO Assistant Professor Biotechnology

STUDENT EDITORIAL TEAM



MS. S. THARANGKINI IV Year Student Biotechnology



MS. U. MRUDULA III Year Student Biotechnology

Vision

To foster an environment that empowers individuals to shape their future in biotechnology on both national and global platforms, enabling them to unleash their potential and drive innovation, by providing state-of-the-art facilities and robust support systems.

Mission

- **Empowering Excellence**: Cultivate a dynamic environment where individuals are equipped with the knowledge, skills, and resources to innovate and lead on both national and global platforms in biotechnology.
- Advancing Innovation: Fostering a supportive ecosystem to develop the technical skills and ethics of individuals, enabling them to explore, experiment, and push boundaries to unleash their potential.
- Enabling Future Leaders: To empower the next generation of leaders who will shape the future of biotechnology, by providing a conducive environment where individuals can grow, thrive, and make contributions, instilling values of excellence, integrity, and social responsibility.

B. Tech. Biotechnology

Program Educational Objectives

PEO-1. To empower students with specialized biotechnology proficiencies essential for domain based industries and software sectors, fostering their readiness for multifaceted professional opportunities.

PEO-2. To cultivate critical thinking, foster innovation in healthcare, sustainability, and food security, and nurture research-driven biotechnology professionals, preparing them for advanced studies in higher education.

PEO-3. To empower students with entrepreneurial skills and ethics, cultivating leaders for innovation-driven growth in the bioindustry and beyond.

Program Outcomes

PO-1. **Engineering Knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals and an engineering specialization to the solution of complex engineering problems.

PO-2. **Problem Analysis**: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

PO-3. **Design / Development of solutions**: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with

appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

PO-4. **Conduct investigations of complex problems**: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

PO-5. **Modern tool usage**: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

PO-6. The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

PO-7. **Environment and sustainability**: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

PO-8. **Ethics**: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO-9. **Individual and team work**: Function effectively as an individual and as a member or leader in diverse teams, and in multidisciplinary settings.

PO-10. **Communication**: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

PO-11.Project management and finance: Demonstrate knowledge and understanding of the engineering management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

PO-12.Life-long learning: Recognize the need for and have the preparation and ability to engage in independent and lifelong learning in the broadest context of technological change.

Program Specific Outcomes (PSOs)

PSO-1: Design biologics to meet societal needs using insights obtained from theoretical and practical knowledge of molecular biology, genetics, and bioprocessing through computational systems biology.

PSO-2: Apply bioprocess knowledge to develop a techno-economic process for addressing global health and environmental challenges through sustainable solutions.

PSO-3: Exhibit the skill sets necessary to bridge the industry-academia gap, fulfilling the needs of domain-based sectors.

M. Tech. Biotechnology

Program Educational Objectives

PEO-1: To prepare the students to excel and succeed in biotechnology research or industry through the latest state-of-art postgraduate education.

PEO-2: To train students with good scientific and technical knowledge so as to comprehend, analyze, design and adopt innovative and new technology that provides solutions for developing novel biotechnological products.

PEO-3: To create bioentrepreneurs with good communication and leadership skills, respect for authority and the life-long learning needed for a successful professional career.

Program Outcomes

PO-1: Apply the knowledge of mathematics, science, engineering fundamentals and an engineering specialization to the solution of complex engineering problems.

PO-2: An ability to write and present a substantial technical report/document.

PO-3: Students should be able to demonstrate a degree of mastery over the area as per the specialization of the program. The mastery should be at a level higher than the requirements in the appropriate bachelor program.

PO-4: Ability to examine the technological problems in various domains of Biotechnology apply modern engineering tools for the prediction and modeling of complex engineering problems with a focus on sustainable development.

PO-5: Students should be able to acquire self-management and teamwork skills to collaborate with multidisciplinary teams from academic, industry and research institutes of national or international repute, with a commitment to lifelong learning.

PO-6: Potential to apply biotechnological solutions by adhering to the standards of bioethics with social responsibilities.

Program Specific Outcomes (PSOs)

After the successful completion of M.Tech. Biotechnology program, the students will be able to:

PSO-1: Demonstrate the biotechnology concepts and research approach and apply them for healthcare and industrial applications.

PSO-2: Possess scientific and technological skills to design and develop novel bioproducts for addressing biological and healthcare challenges.

PSO-3: Analyze the socio-economical needs and possess the necessary expertise to become a bioentrepreneur.

Collaborations on a Global Platform

The Department of Biotechnology, Sri Venkateswara College of Engineering, is proud to share that our institution participated in the High-Level Meeting on Global Partnerships in Higher Education Industry Collaborations held on 3rd December 2024 at The Raintree, Chennai. This prestigious event was graced by Hon. Jagdeep Singh Deo, Deputy Chief Minister II, State Minister for Science, Technology, and Human Capital Development, Penang, Malaysia.

During this event, Sri Venkateswara College of Engineering signed a Memorandum of Understanding (MoU) with the State Government of Penang, Malaysia and the Commonwealth Society. The MoU focuses on fostering collaborations in areas such as:

- Semester Abroad Programs (SAP)
- Global Immersion Programs (GIP)
- Internships and Projects
- Faculty Exchange Programs (FEP)

This partnership aims to create a bridge between academia, government, and industry to drive innovation, skill development, and knowledge exchange across borders.



Events Conducted

Animal House Inspection

The Department of Biotechnology at Sri Venkateswara College of Engineering successfully conducted its Animal House inspection on 26th December 2024. The inspection included a thorough review of all aspects, with a strong focus on animal welfare.

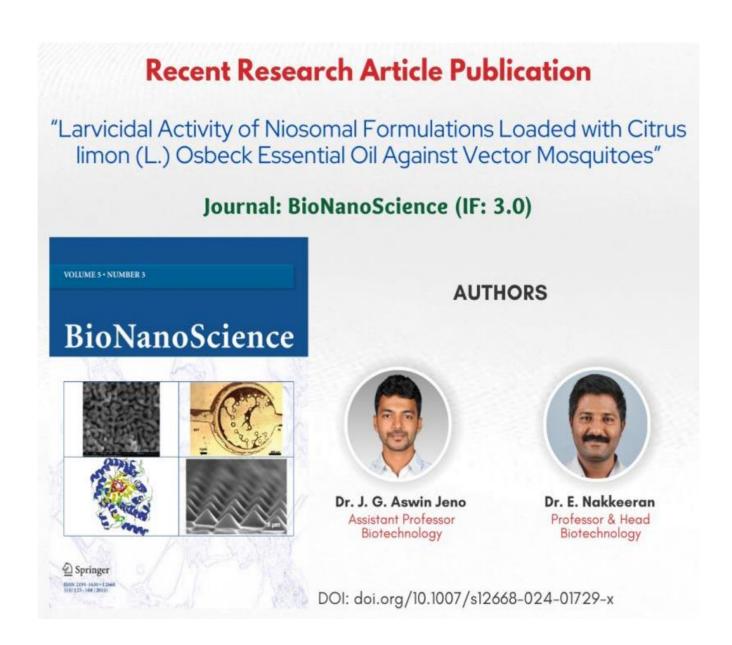
We are delighted to share that our Animal House facility is fully operational, facilitating research on both long-term and short-term toxicological and therapeutic effects of drugs/compounds using small animal and fish models.



Research Activities

Research Publication

Dr. Aswin Jeno J G, Assistant Professor, Biotechnology and **Dr. Nakkeeran Ekambaram**, Professor and Head, Biotechnology published a research article titled "Larvicidal Activity of Niosomal Formulations Loaded with Citrus limon (L.) Osbeck Essential Oil Against Vector Mosquitoes" in the BioNanoScience Journal from Springer Nature Publishers (IF: 3.0).



Research Publication

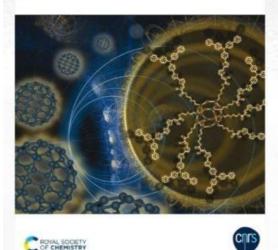
Dr. Divakar K, Associate Professor, Biotechnology published a research article titled "Synthesis of C4-functionalized 1,2,3,4-tetrahydroacridine-based Pfitzinger acid derivatives in deep eutectic solvents and their biological evaluation as dual cholinesterase and α -glucosidase inhibitors" in the New Journal of Chemistry by Royal Society of Chemistry Publications, which has an impact factor of 2.7.

Recent Research Article Publication

"Synthesis of C4-functionalized 1,2,3,4-tetrahydroacridine-based Pfitzinger acid derivatives in deep eutectic solvents and their biological evaluation as dual cholinesterase and α-glucosidase inhibitors "

Journal: New Journal of Chemistry (IF:2.7)





AUTHOR



Dr. K. Divakar Associate Professor Biotechnology

DOI: doi.org/10.1039/D4NJ04137B

Research Publication

The Department of Biotechnology of Sri Venkateswara College of Engineering congratulates our passed-out B. Tech Biotechnology students (2017-2021 Batch), **Ms. S. Chandhini and Ms. S. Kumudha** under the mentorship of **Dr. S. Pandi Prabha**, Professor and AHoD for publishing a research article titled "In vitro Evaluation of Hydrilla verticillata Extract as a Natural Preservative for Chicken Meat" in the Journal of Meat Technology.



Student Activities

Completion of SAP

The Department of Biotechnology at Sri Venkateswara College of Engineering proudly congratulates Ms. JEEVITHA G., a third-year B. Tech Biotechnology student, for successfully completing SVCE's first-ever Semester Abroad Program (SAP) at The University of Connecticut, USA from August to December 2024. Jeevitha has achieved a significant milestone by completing a semester of coursework at a prestigious international institution. She will now return to SVCE, transferring her credits from The University of Connecticut to continue her academic journey with us.

This achievement reflects the global opportunities provided by the SVCE Global Connect initiative, which empowers our students to gain international exposure and academic excellence.

congratulates our third-year B.Tech Biotechnology student, Ms. G. Jeevitha for successfully completing the SVCE's first



The Department of Biotechnology of Sri Venkateswara College of Engineering is delighted to share that **Ms. Kaaviya Velmurugan**, a final-year B. Tech Biotechnology student, has secured a prestigious internship offer with Syngene International Limited, Bengaluru, a subsidiary of Biocon Biopharmaceuticals Pvt. Ltd.

As part of this opportunity, she will work in the Department of Genomics, gaining invaluable industry experience from 6^{th} January to 28^{th} March, 2025, with a monthly stipend of ₹ 5,000.



The Department of Biotechnology of Sri Venkateswara College of Engineering is delighted to share that **Mr. Nanda Kishor V**, a final-year B. Tech Biotechnology student, has secured a prestigious internship offer with Syngene International Limited, Bengaluru, a subsidiary of Biocon Biopharmaceuticals Pvt. Ltd.

As part of this opportunity, she will work in the Department of Genomics, gaining invaluable industry experience from 6^{th} January to 18^{th} April, 2025, with a monthly stipend of ₹ 5,000.

INTERNSHIP OFFER

congratulates our finalyear student for getting an internship offer for 3-months with a stipend of **Rs. 5000/- per month** from





MR. NANDA KISHOR V FINAL YEAR STUDENT BIOTECHNOLOGY

Department of Genomics at Syngene International Limited, Bengaluru

The Department of Biotechnology at Sri Venkateswara College of Engineering proudly announces that **Ms. Christina Britney S N**, a final-year B. Tech Biotechnology student, has secured a prestigious internship offer with Biocon Biologics, Bengaluru.

She will be contributing to the Department of QC Biologicals Microbiology from 24th December 2024 to 24th February 2025, gaining invaluable industry experience with a monthly stipend of ₹7,000.

INTERNSHIP OFFER

congratulates our finalyear student for getting an internship offer for 2-months with a stipend of **Rs. 7000/- per month** from



MS. CHRISTINA BRITNEY S N FINAL YEAR STUDENT BIOTECHNOLOGY

CONGRATULATIONS

Department of QC Biologicals Microbiology at Biocon Biologics, Bengaluru

The Department of Biotechnology at Sri Venkateswara College of Engineering proudly announces that **Ms. Harinishree Ravikumar**, a final-year B. Tech Biotechnology student, has secured a prestigious internship offer with Biocon Biologics, Bengaluru.

She will be contributing to the Department of QC Biologicals Microbiology from 24th December 2024 to 24th February 2025, gaining invaluable industry experience with a monthly stipend of ₹7,000.

INTERNSHIP OFFER

congratulates our finalyear student for getting an internship offer for 2-months with a stipend of **Rs. 7000/- per month** from



MS. HARINISHREE R FINAL YEAR STUDENT BIOTECHNOLOGY

CONGRATULATIONS

Department of QC Biologicals Microbiology at Biocon Biologics, Bengaluru

The Department of Biotechnology at Sri Venkateswara College of Engineering proudly announces that Ms. Parinitha Sundar, a final-year B. Tech Biotechnology student, has secured a prestigious internship offer with Biocon Biologics, Bengaluru.

She will be contributing at the SM API BLR Fermentation Production Department, Biocon Biologics Limited, Bengaluru, from 20th January 2025 to 18th July 2025, gaining invaluable industry experience with a monthly stipend of ₹7,000.



Transforming Healthcare. Transforming Lives.

BIOTECHNOLOGY

SM API BLR Fermentation Production Department at Biocon Biologics, Bengaluru

The Department of Biotechnology at Sri Venkateswara College of Engineering proudly announces that **Ms. Srinidhi Srikanth**, a final-year B. Tech Biotechnology student, has secured a prestigious internship offer with Biocon Biologics, Bengaluru.

She will be contributing at the QC Biosimilars Department, Biocon Biologics Limited, Bengaluru, from 20th January 2025 to 20th July 2025, gaining invaluable industry experience with a monthly stipend of ₹7,000.



Award in Conference

The Department of Biotechnology, Sri Venkateswara College of Engineering, is proud to announce that our Second-Year M. Tech Biotechnology student, **Ms. Bhargavi Pugazhenthi**, has secured First Place at the Integrative Medical Science (IMS) - First National Conference, organized by Sree Balaji Medical College and Hospital in collaboration with the Centre for Integrative Medical Research (CIMR).

Her research presentation titled "Assessing the Growth Parameters of Metastatic Breast Cancer Cells Using 2D and 3D Printed PLA Scaffolds and Gene Expression Profiling," conducted under the guidance of Mr. J. Hariharan, was recognized for its excellence during the conference held on December 19-20, 2024.



Award in Conference

The Department of Biotechnology at Sri Venkateswara College of Engineering is thrilled to share that **Ms. G. Priyadharshini**, a second-year M. Tech Biotechnology student, has achieved the Best Paper Award at the 2nd International Conference on Biotechnology and Interdisciplinary Technologies, organized by Chaitanya Bharathi Institute of Technology, Hyderabad, held from 13th to 14th December 2024.

Under the mentorship of Dr. Divakar K, Ms. Priyadharshini presented her research titled "In Silico Designing and In Vitro Evaluation of Potent Inhibitor to Overcome Antibiotic Resistance against ESKAPE Pathogens.



to our II-M.Tech Biotechnology student, Ms. G Priyadharshini for securing the



MS. G. PRIYADHARSHINI II-YEAR M.TECH BIOTECHNOLOGY



for her research work titled "In Silico Designing and In Vitro Evaluation of Potent Inhibitor to Overcome Antibiotic Resistance against ESKAPE Pathogens" under the mentorship of **Dr. K. Divakar, ASP/BIO**

Extracurricular Achievement

The Department of Biotechnology, Sri Venkateswara College of Engineering, proudly congratulates our talented II-Year B. Tech Biotechnology student, **Ms. Varadhavallabha Thirukottiur** for a remarkable achievement in her Carnatic music journey.

On December 30, 2024, she had the honor of performing at the prestigious Sri Thyaga Brahma Gana Sabha (Vani Mahal) as part of their renowned Isai, Iyal, Natakam series during the Margazhi season.

Accompanied by Padmini Gopinath on the violin and Ramsmaran Krishnakumar on the mridangam, she delivered a stellar performance and was recognized with a cash honorarium of ₹2000.



Faculty Activities

Guest Speaker in National Conference

Prof. E. Nakkeeran, Professor and Head of the Department of Biotechnology is invited as a Guest Speaker at the 1st National Conference on Integrative Medical Sciences - 2024 (IMS - 2024), organized by Sree Balaji Medical College and Hospital (SBMCH), Chromepet, Chennai, Tamil Nadu, in collaboration with the Centre for Integrative Medical Research (CIMR).

Prof. Nakkeeran delivered an insightful lecture on the topic, "Therapeutic Efficacy of Essential Oils Encapsulated in Phospholipid Nanoparticles from Indian Spices," during the event held on 19th - 20th December 2024.



Presentation in International Conference

Dr. K. Ganesh Prasath, Assistant Professor, presented his research entitled "Anti-pathogenic and synergistic potential of saturated fatty acids against systemic candidiasis in Zebrafish model" at 1st DAE-BRNS International Conference on Recent Developments in Biofilms and Biofouling Control (BBC-2024), during 12th -14th December 2024 at Convention Centre, Anupuram Township, Kalpakkam, Tamil Nadu.



Events attended by the Faculty

Prof. P. K. Praveen Kumar participated International GIAN course on "Sustainable Biomanufacturing of High-Value Phytochemicals" from 02/12/2024 to 14/12/2024

Prof. V. Sumitha attended a 5-days online FDP on Waste To Wealth Innovation organized by NITTR, Kolkata sponsored by AICTE- ATAL from 02/12/2024 to 07/12/2024.

Dr. G. Karthigadevi attended a 5-days online FDP on 3D Printing for Industrial and Biomedical healthcare applications with hands on MIMICS software organized by G H Raisoni College of Engineering, Nagpur sponsored by AICTE- ATAL from 02/12/2024 to 07/12/2024.

Industrial Visit

The Department of Biotechnology at Sri Venkateswara College of Engineering recently organized an industrial visit for our M. Tech Biotechnology 2024-26 Batch Students to M/s Anneo Biotech Private Limited, SIPCOT Siruseri, Tamil Nadu. During the visit, students gained practical insights into probiotic manufacturing and lipase enzyme production. They explored:

- Probiotic Production: Fermentation processes in bioreactors, scaling up cultures, and aseptic techniques.
- Lipase Enzyme Production: Fermentation, enzyme extraction, purification, and quality control.
- Quality Control: Advanced analytical techniques and microbial testing ensuring product purity and potency.

The visit also provided valuable industry knowledge on the rising demand for probiotics and enzymes across sectors like food, healthcare, and agriculture, preparing our students for real-world applications.



Alumni Write-up



Ms. Vibhushini (2020-2024 Batch)

It wasn't just about textbooks and lectures; it was about the professors who cared and the hands-on experiences that sparked curiosity and experience. Their guidance and support shaped my academic path and fueled my love for research. I am grateful to have had advice from most professors about studies, careers, and life. From hanging out and having fun to the study sessions right before the exams, it's safe to say that my friendships and memories made at SVCE will last for a lifetime.

Upcoming Event





DEPARTMENT OF BIOTECHNOLOGY



OPPORTUNITY FOR

PROJECT WORK AT

UNIVERSITIES ABROAD

INFORMATION BROCHURE FOR ADMISSION TO M.TECH BIOTECHNOLOGY. M.S. (BY RESEARCH) & Ph.D PROGRAM (2025 - 2026)

Sri Venkateswara College of Engineering (Autonomous) is a premier self-financing institution started in 1985 and received Autonomous status in 2016. Department of Biotechnology was established in 2005 under the guidance of our chairman, Governing Council Dr. A.C. Muthiah, a well-known industrialist, in order to explore and experience new frontiers of Biotechnology. The department started B.Tech Biotechnology in 2005, M.Tech Biotechnology in 2010 & M.S. (by Research) and Ph.D. in 2011.

EXTERNAL GRANTS

RESEARCH FOCUS

- ₹2.18 Crores
 - Stem Cell Technology Food Biotechnology

agencies like DBT, ICMR, DST-SERB, CSIR, AICTE, TNSCST, EDII

received from various funding

 Immunology & Immuno-technology Biomaterials & Tissue Engineering Genetic Engineering & rDNA Technology Cellular & Molecular Biology Computational Systems Biotechnology Bioprocess Engineering • Regenerative Medicine & Diseases Herbal Medicines & Antioxidants Research

Awardees of PG Scholarship - 2024



In-Demand **Biotechnology Careers that will** shape your future

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NON

APPLY

I

JOURNEY AT SVCE

- Research Assistant
- Technical Officer
- Clinical Scientist
- Pharma Engineer
- Biostatistician
- Environmental Scientist Academic Jobs Scientific Assistant Eligibility: As per Anna University Guidelines. Tests and Admission by Anna University & Entrance Examinations conducted by Consortium of Self-Financing Professional, Arts and Science Colleges in Tamilnadu

www.svce.ac.in/departments/biotechnology/ Modbt@svce.ac.in 9791668110 Connect @ in 🖸 댥 🞯 💥

Research Interns

Bioinformatician

Research Analyst

Medical Writer



SCHOLARSHIPS FOR PG STUDENTS

- PG scholarship of Rs.50,000/year for 30% of the top scorers in their UG degree of sanctioned class strength for 2 years.
- Management Scholarships for tuition fees and assistance for books and instruments.
- AICTE-GATE Scholarship of Rs. 12,400/month for 24 months from AICTE for students having valid GATE score.
- Intramural M.E/M.Tech Student Research Grant to carry out innovative projects in Biotechnology.
- Sponsorships for students to participate in conferences. Project Assistant
 - Laboratory Technician
 - Quality Control Analyst
 - Regulatory Affairs Specialist
 - Clinical Research Coordinator
 - Calibration Technician

DEPARTMENT OF BIOTECHNOLOGY SRI VENKATESWARA COLLEGE OF ENGINEERING











COURSES OFFERED

1. B.Tech Biotechnology
2. M.Tech Biotechnology
3. M.S. (By Research)
4. Ph.D. Biotechnology

A GLIMPSE OF OUR MAJOR FACILITIES



OPERON DEEP FREEZER (-80 DEGREE CELSIUS)

FOR FURTHER DETAILS OR ENQUIRIES Prof. E. Nakkeeran Head of the Department Phone: 044-27152000 Ext. 575 Mobile: +91 97916 68110 email: hodbt@svce.ac.in