

Si Venkateswara College of Engineering

NEWSLETTER

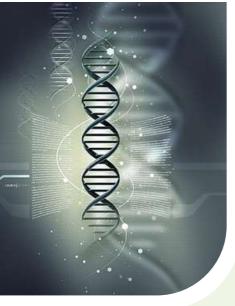
VOLUME-3 | ISSUE-1 | JANUARY-2024

BIOGAZETTE

ECHOING MULTIDISCIPLINARY PERSPECTS

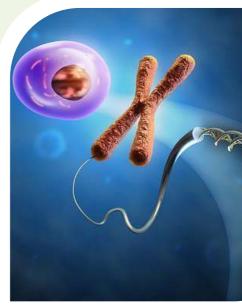
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e-copy of the newsletter



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. R. JYOTSNA IV Year Student Biotechnology





Vision

To produce higher caliber Biotechnologists to attain new heights in bioinformatics and bioprocess technology as per industrial needs and to provide leaders in the field of Biotechnology.

Mission

- To progress the department to attain center of excellence in bioinformatics and bioprocess technologies by providing best Undergraduate, Postgraduate, Doctoral programs and R&D activities within a decade.
- To develop special skilled training programs for graduates to meet the personality characters stipulated by the industries within a period of five years.
- To build potential biotechnologists capable of dealing with new challenges and socioethical implications.

B. Tech. Biotechnology

Program Educational Objectives

PEO-1. To produce Biotechnology graduates who will be employable in core Biotech/Pharma industries and domain-based software services.

PEO-2. To produce research-oriented Biotechnology graduates who will be employable in academic/Industry sponsored research and also who will be pursuing higher studies. **PEO-3**. To produce bioentrepreneurs.

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: To make the students understand and apply the knowledge of computational systems biotechnology to design and develop biologics to meet societal needs.

PSO-2: To train the students to meet the requirement of bioprocess industries for developing techno-economical processes.

PSO-3: To empower the students with competent skill sets for bridging the gap between academia and the requirements of the healthcare industry.

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.

Recent Addition to our Facility

Microprocessor-based Flame Photometer

Introducing the "Microprocessor-based Flame Photometer" at The Department of Biotechnology, SVCE.

At Sri Venkateswara College of Engineering, we're dedicated to providing our students and research scholars with cutting-edge technology. With the addition of the Microprocessor-based Flame Photometer to our lab, we're ensuring that our facility remains at the forefront of innovation.



Events Conducted

Guest Lecture

The Department of Biotechnology at Sri Venkateswara College of Engineering recently hosted a Guest Lecture on "Journey of innovation for Advanced Biopharmaceuticals from Discovery to Market, with special emphasis on Pre-clinical Evaluation" by Dr. Sakthi Srinivasan, PhD, Customer Project Leader at M/s. Immuneed, Uppsala County, Sweden, on 5th January, 2024 in the Biotechnology Conference Hall.

The Introduction to the speaker was delivered by our final-year student, Ms. Jyotsna R. Dr. Sakthi Srinivasan shared his insights and experiences from undergraduate studies to his current career, focusing on Advanced Biopharmaceuticals from Discovery to Market, with a special emphasis on Pre-clinical Evaluation and trials. The event provided a valuable opportunity for all the students and faculty members.



Guest Lecture

A Guest Lecture on ""Mathematical Modeling and Wet Lab Experiments" was organized by Department of Biotechnology, Sri Venkateswara College of Engineering, Sriperumbudur on 29th January 2024 through virtual mode. The Guest Lecture was conducted by Mr. N. Sathish, Assistant Professor as organizing Secretary, Mr.S.Nagavignesh and Dr. J. G. Aswin Jeno Biotechnology as coordinators with Prof. E. Nakkeeran, Head of the Department, Biotechnology and Prof. M. Sivanandham, Secretary, SVEHT as Convener.

The session was started with a welcome address by the organizing secretary, introduction of the Guest, Dr. Harish Venkatachalapathy, Postdoctoral Associate, University of Minnesota Medical School, Minnesota, USA was done by Mr. Yashwanth Kumar, joint secretary of students biotech forum. Participants including UG, PG students and the faculty members from SVCE attended the event with a total of 60. Dr. Harish Venkatachalapathy introduced about himself on his schooling, UG and PhD degree. He briefed on P53 stimuli, quantitative modelling of cell behavior, origins of biological noise, strategies for coherence in cellular responses, mathematical modelling to predict p53 entrainment, p53 synchronicity, p21 cell cycle inhibitor, p53 pulse changes in mRNA targets qRT-PCR to the participants of the lecture. Vote of thanks was done by Ms. Keerthanaa SG, executive member of students biotech forum. The session was concluded with thanks by Mr. N. Sathish, Assistant Professor, Biotechnology. Guest speaker conveyed his thanks and students thanked the speaker, organizers and the management of SVCE for organizing this event.



Delegate Visit on Semester Abroad Program

The Department of Biotechnology at Sri Venkateswara College of Engineering (SVCE) welcomed A. Tolga Turker, Director of Global Partnerships & Outreach at the University of Connecticut, on 18th January 2024. Tolga Turker engaged in discussions with the Heads of Departments from various student departments regarding the Semester Abroad Programme to the University of Connecticut. The conversation covered an overview of the program, fee structures, benefits to the students, living arrangements, and other pertinent details. Following this, Tolga Turker had an interactive session with potential Biotechnology students interested in participating in the Semester Abroad Programme at the University of Connecticut.



Visit of Tolga Turker, Director of Global Partnerships & Outreach, University of Connecticut to SVCE and Interaction with Prof. M. Sivanandham, Secretary-SVEHT



Visit to 8 engineering colleges in Coimbatore, Salem and Erode regions for popularization of M. Tech Biotechnology Program at SVCE

Prof. E. Nakkeeran, Head of the Department, **Dr. J.G. Aswin Jeno**, Assistant Professor, **Dr. M. Naresh Kumar**, Assistant Professor, Mr. A. Vimalarasan, Assistant Professor, Department of Biotechnology visited the following engineering colleges to popularize the M. Tech Biotechnology program offered at SVCE.

- 1. Hindusthan College of Engineering and Technology, Coimbatore
- 2. Rathinam Technical Campus, Coimbatore
- 3. KalaignarKarunanidhi Institute of Technology, Coimbatore
- 4. Sri Shakthi Institute of Engineering and Technology, Coimbatore
- 5. KPR Institute of Engineering and Technology, Coimbatore
- 6. Erode Sengunthar Engineering College, Erode
- 7. Mahendra Engineering College, Salem
- 8. Mahendra Institute of Engineering and Technology, Salem

Snapshots of the Visit





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Higher Studies

Congratulations to our Final Year B.Tech Biotechnology student, Ms. Ananya R C for her acceptance into the



into MSc Biomedical and Molecular Sciences with Business along with a one-time scholarship award of £4000



MS. ANANYA R C

Final Year Student Biotechnology

Congratulations to our final year B. Tech Biotechnology Student, Mr. Aditya Krishnan for his acceptance



Into MS Medical Biotechnology along with a one-time scholarship award of \$3000

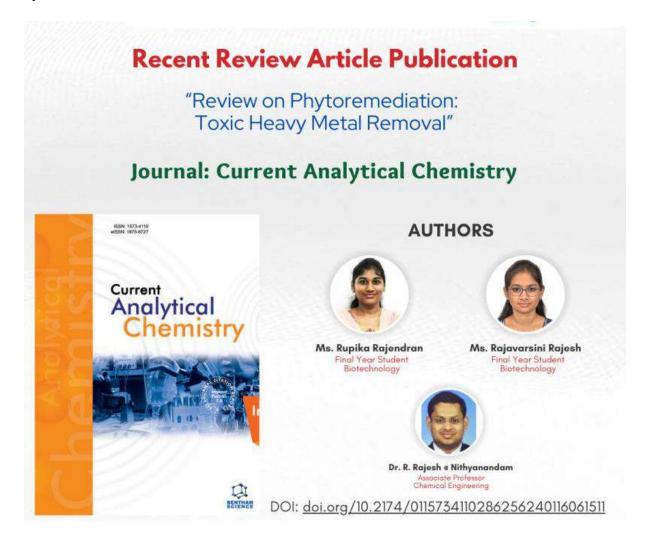


Mr. Aditya Krishnan Final Year Student Biotechnology

Research Activities

Review Publication

Ms. Rupika Rajendran and Ms. Rajavarsini Rajesh of Final Year B. Tech Biotechnology (2020-24) and faculty from Chemical Engineering Department, Dr. Dr. Rajesh Nithyanandam, Associate Professor published a review article entitled " Review on Phytoremediation: Toxic Heavy Metal Removal" in the Journal, Current Analytical Chemistry by Bentham Science.



Research Publication

Ms. Rupika Rajendran and Ms. Rajavarsini Rajesh of Final Year B. Tech Biotechnology (2020-24) and faculty from Chemical Engineering Department, Dr. Dr. Rajesh Nithyanandam, Associate Professor published a review article entitled " Review on Heavy Metal Removal and Efficacy of Biosorbents" in the Current Nanoscience journal.



Research Scholar Corner

Mrs. Linekha Radhakrishnan (SVCE Alumni, Class of MBT 2010-12) has been awarded as a Women Scientist under WISE-PhD Fellowship in Engineering and Technology vide Ref. DST/WISE-PhD/ET/2023/9 for a period of 5 years with a fellowship of Rs.31,000/month+ HRA and a Research Grant of Rs.1.00 lakh per year, and Institutional Overhead Charges as per DST norms (Total Grant Amount, Rs. 27.77 Lakhs) for the proposal titled "Evaluating Mitigation Strategies of Acrylamide - Dietary Toxin in Indian Festive Snack Foods" under the guidance of Prof. Nakkeeran Ekambaram, Head of Biotechnology Department.



Research Scholar Corner



Ms. Preethi J

Ms. Preethi J, a full-time Ph.D scholar has registered her Ph.D. in SVCE in January 2024 session and has completed her First DC meeting on 08th January 2024 under the supervision of Prof. P.K.Praveen Kumar.



Received Grant for conducting ATAL-FDP

Dr. K. Divakar, Associate Professor, Department of Biotechnology **and Prof. E. Nakkeeran,** Head, Department of Biotechnology, received Rs. 3,50,000/- from All India Council for Technical Education (AICTE) for conducting Faculty Development Programme "Microbial Metagenomics and Next Generation Sequencing" under AICTE Training and Learning (ATAL) Academy program (Ref. F.No. 1691551252/AICTE /ATAL/2023-24 dtd. 06.01.2024) during 5-10th February 2024.

congratulates our faculties for receiving the

Financial Grant of ₹ 3,50,000/-



from AICTE for conducting the Faculty Development Programme under the AICTE Training and Learning (ATAL) Academy program (Ref. F.No. 1691551252/AICTE /ATAL/2023-24 dtd. 06.01.2024 from 5-10th February 2024.





Dr. K. Divakar Associate Professor Biotechnology Coordinator



Dr. E. Nakkeeran Professor & Head Biotechnology Co-coordinator

Students Activities

Mr. Aditya Krishnan and **Mr. Arvind Srinivasan** of 2020-24 Batch, B. Tech Biotechnology have secured First Place with a cash prize in the Biohackathon hosted by Vivekananda College for Women on 24th January 2024.



International Conference attended by the students

- Ms. Varshini K R of the 2020-24 batch B. Tech Biotechnology has presented a research paper on the topic "A Novel perspective into the effect of fungal mycelia present in the bio-pretreated paddy straw on their enzymatic saccharification and optimization of process parameters" at Valorization 2024 International conference on Science and Technology: Integration for Circular Economy, organized by DST-PURSE team at BITS Pilani Hyderabad from 18th January to 20th January 2024.
- Ms. Jyotsna R of the 2020-24 batch B. Tech Biotechnology has presented on the topic "A Novel microfluidics-based technology for Polyethylene terephthalate waste bioconversion into Poly-beta hydroxybutyrate" at Valorization 2024 International conference on Science and Technology: Integration for Circular Economy, organized by DST-PURSE team at BITS Pilani Hyderabad from 18th January to 20th January 2024.
- Ms. Monica of the 2022-26 batch B. Tech Biotechnology has attended a conference on "Biomass to value added products – A sustainability approach" held at IITM on 1st February 2024.
- Mr. Tamil Selvan of the 2022-26 batch, B. Tech Biotechnology has attended a hands-on experience of RT-PCR held at SRM, Kattankulathur from 30th January to 31st January 2024.
- Ms. Monica, Ms. Riduvarshini and Ms. Prathiba Peroline Jones of the 2022-26 batch,
 B. Tech Biotechnology has attended the YRC MEGA Awareness program for AY 2023-24 held at SVCE function hall and held on 24th, 26th, 27th, 30th and 31st of January 2024.
- **Ms. Nithila S** of 2021-25 batch B. Tech Biotechnology won first place in essay writing competition on the topic blood donation conducted by YRC- SVCE unit on account of YRC mega awareness program.

Internship attended by the students

- Mr. Sivagurunathan R of the 2021-25 batch B. Tech Biotechnology has completed an internship at the Department of Pharmacology of Siddha Central Research Institute (Central Council for Research in Siddha), Arumbakkam, Chennai on Pharmacology and Toxicology Studies from 28th December 2023 to 9th January 2024.
- Ms. Christina Britney S.N, Ms.Harinishree R and Ms.Hemapriya S.K of the 2021-2025 Batch B. Tech Biotechnology has completed an internship at the Sun Pharmaceuticals

Industries Ltd., Palasbari, Assam on production of pharmaceutical products from 3rd January 2024 to 3rd February 2024.

- Ms. Bavishya J R and Ms. Gaayathri M of 2021-25 Batch B. Tech Biotechnology has completed an internship at ICAR - CMFRI, Madras regional centre, Chennai on "Basic Principles / Techniques in the field of Genomics, Cell & Tissue culture and Biotechnology from 12th December 2023 to 20th January 2024.
- Ms. Jeevitha G of the 2022-26 batch, B. Tech Biotechnology has completed a 3-week internship at Adyar Cancer Institute (WIA) in the Department of Molecular Oncology from 8th January to 27th January 2024.
- Ms. Dharani D of the 2022-26 batch, B. Tech Biotechnology has completed a 2-week internship at Adyar Cancer Institute (WIA) in the Department of Molecular Oncology from 2nd January to 13th January 2024.
- Ms. Shreeiya Swaminathan of the 2022-26 batch, B. Tech Biotechnology has completed an internship for a month at Adyar Cancer Institute (WIA) in the Department of Preventive Oncology from 5th January to 5th February 2024.
- Ms. Pavithra A, Ms. Prathiba Peroline Jones B, Ms. SriHarini LN, Ms. Keerthana V, Ms. Varsha M and Ms. Nakshatra TS of the 2022-26 batch, B. Tech Biotechnology has completed a 2-week internship at Cherish Lab in the Department of Biochemistry, Immunochemistry and Hematology from 4nd January to 13th January 2024 and 20th January to 22nd January 2024.
- Ms. Dharshni R and Ms. Mrudula U of the 2022-26 batch, B. Tech Biotechnology has completed a 2-week internship at Life Teck Research Centre, Arumbakkam in the Department of Microbiology and Animal Tissue culture from 8th January to 25th January 2024.
- Ms. Vaishnavi Madabhushi of the 2022-26 batch, B. Tech Biotechnology has completed a week internship at Life Teck Research Centre, Arumbakkam in the Department of Myco Technology from 22nd January to 28th January 2024.
- Ms. Maadhangi M, Ms. Srinithi A, Ms. Mageshwari R and Ms. Reshma R of the 2022-26 batch, B. Tech Biotechnology has completed a 3-week internship at Siddha Central Institute, Arumbakkam in the department of Pharmacology and Pharmacognosy from 6th January to 31st January 2024 and 10th January to 31st January 2024 respectively.
- **Mr. Tamil Selvan P** of the 2022-26 batch, B. Tech Biotechnology has completed an internship at Siddha Central Institute, Arumbakkam in the Department of Pharmacology

and Pharmacognosy from 3rd January to 1st February 2024 and 8th January to 30st January 2024 respectively.

- Ms. Abineha A and Ms. Keerthana S G of the 2022-26 batch, B. Tech Biotechnology has completed a 2-week internship at Savethaa Dental college and hospital in the department of Microbiology, Cell culture and Genetics from 2nd January to 13th January 2024.
- Ms. Varshini R of the 2022-26 batch, B. Tech Biotechnology has completed an internship for a month at Hatsun Agro product, Kanchipuram in Quality Assurance from 8th January to 8th February 2024.
- Ms. Purvasri Sivakumar of the 2022-26 batch, B. Tech Biotechnology has completed an internship at SIMS, Vadapalani in Central Laboratory from 3rd January to 19th January 2024.
- Ms. Logeshwari S of the 2022-26 batch, B. Tech Biotechnology has completed a 2-week internship at SIMS, Vadapalani in the Department of Molecular biology, Biochemistry, Hematology and Microbiology from 9th January to 26th January 2024.
- Ms. Aishwarya S of the 2022-26 batch, B. Tech Biotechnology has completed a 2-week internship at Aavin production Unit, Ambattur in Quality Control and Packaging from 18th January to 1st February 2024.
- **Ms. Tharani G** of the 2022-26 batch, B. Tech Biotechnology has completed an internship at Aavin Industrial Estate, Ambatttur in Quality Control and Quality check from 11th January to 17th January 2024.
- Ms. Riduvarshini E of the 2022-26 batch, B. Tech Biotechnology has completed an internship at Aavin Industrial Estate, Ambattur in Quality Control from 9th January to 23rd January 2024.
- Mr. Tharun D of the 2022-26 batch, B. Tech Biotechnology has completed an internship at Aavin Industrial Estate, Ambattur in Quality Control from 8th January to 23rd January 2024.
- **Ms. Divyasri M** of the 2022-26 batch, B. Tech Biotechnology iotechnology has completed an internship at Caplin steriles in the Department of Formulation and product development from 8th January to 31st January 2024.
- Ms. Priyadharshini D of the 2022-26 batch, B. Tech Biotechnology has completed an internship at Bioberry's healthcare and Research Centre in the Department of Molecular biology from 3rd January to 20th January 2024.

- Mr. Balasubramanian JM of the 2022-26 batch, B. Tech Biotechnology has completed an internship at National Institute of Ocean /technology in the Department of Marine Biotechnology from 4th January to 19th January 2024.
- Mr. John Samuel S of the 2022-26 batch, B. Tech Biotechnology has completed an internship at SFTS (Scientific Food Testing Servies) in the Department of food microbiology from 18th January to 25th January 2024.
- Mr. Dhivakar K of the 2022-26 batch, B. Tech Biotechnology has completed an internship at SRM Institute for Medical sciences in the Department of Hematology, Biochemistry, Microbiology and Histopathology from 18th January to 25th January 2024.

Events Attended by the Faculty

- Prof. E. Nakkeeran, Prof. P. K. Praveen Kumar, Dr. K. Divakar, Mr. N. Sathish, Dr. K. Vasantharaj, Dr. G. Karthigadevi, Dr. K. Ganesh Prasath, Dr. J. G. Aswin Jeno, Dr. J. Isaivani, Dr. M. Naresh Kumar, Mr. A. Vimalarasan have participated in the Faculty Sensitization Program, organized by the standards club-SVCE in association with the Bureau of Indian Standards on 10th January, 2024.
- Dr. G. Karthigadevi and Dr. J. G. Aswin Jeno attended One-day Awareness Programme on ORCID and INFLIBNET Services for Scholarly Communities sponsored by Orchid outreach program conducted at Anna University, Chennai on 11th January 2024.
- Dr. P. K. Praveen Kumar as a DC member for Anna University has participated in the DC meeting on 12th January 2024 for a Ph.D scholar, Achsha Babu C, registered Ph.D. in Anna University.
- Prof. E. Nakkeeran attended "Networking Nigazhchi", an event marking thr opportunity for advancement of economic ties between India and Western Australia at Taj Connemara, Chennai on 25th January 2024.

Alumni Write-up



Mr. Karthik Raja (UG: 2014-18 PG: 2019-21) Through my college experience in SVCE and my reflection on Teaching and Learning Reconsidered, SVCE's life experience is truly one of a kind. The most common memories I have of SVCE life are goofing around with friends. They remember how the group of friends walked around the college in style and played silly pranks on each other. Moreover, people always look back at the times spent in the college canteen. It was considered the hub for me where we enjoyed eating and chatting away with friends, I have come to recognize several ideas that have greatly impacted me, my views on learning, and my actual learning. My overall experience in SVCE has been beneficial because of the faculty in the Department of Biotechnology, who approached teaching with a more conscious effort and taught me to approach learning and my role as a learner in the same way. I want to stress that it was the faculty, not the subject, College, or delivery method, that made classes interesting and made learning more effective for me. Regardless of teaching styles or preferences, those courses that I finished with a sense of accomplishment and meaningful knowledge were based, more than anything else, on the instructor's engagement with the students. It is absolutely clear to students when they have a Faculty who wants to help. them succeed. This support and guidance allow students to thrive and take the risks associated with learning this can be seen Biotechnology Department, SVCE.

Upcoming Events

Resource Persons:

Faculty members from IIT's, NITs, Central Universities, Scientists, Bioinformaticians from Industries and Research Laboratories will deliver lectures and demonstrate the experiments for Hands-On sessions.

Registration is open to:

All the faculty members, research Scholars, PG students from AICTE approved institutions and also for scientists, technical officers, bureaucrats working in government institutions and industry. Number of participants is limited to 50. No Registration fee will be charged from the participants.

How to Apply:

Eligible candidates may apply online through AICTE-ATAL Portal. <u>https://atalacademy.aicte-india.org/</u>. Candidates are advised to apply early to avoid disappointment. Selected applicants will be intimated through E-mail on or before <u>05-01-2024</u>.

Accommodation:

Accommodation can be arranged in the campus on prior notice, for which the participants will have to bear the subsidized charges and the participants are advised to send the request on or before <u>15-01-2024</u> to ensure the accommodation.

For further details, please contact

Dr. K. Divakar / Dr. E. Nakkeeran Department of Biotechnology Sri Venkateswara College of Engineering Sriperumbudur Tk -602 117, Tamilnadu, India Ph.: 9488013671 / 9791668110 E-mail: divakar@svce.ac.in / nakkeeran@svce.ac.in





"Microbial Metagenomics and Next Generation Sequencing"

5th-10th February, 2024

Sponsored by AICTE Training and Learning Academy (ATAL)



Patrons

Prof. M. Sivanandham, Secretary, SVEHT Prof. S. Ganesh Vaidyanathan, Principal, SVCE

Coordinators

Dr. K. Divakar, Associate Professor/BIO

Dr. E. Nakkeeran, Professor/BIO



Organized by

Department of Biotechnology

S**[⊗]CE**

Sri Venkateswara College of Engineering

(An Autonomous Institution - Affiliated to Anna University, Chennai) Sriperumbudur Tk -602 117, Tamil Nadu, India

Upcoming Events

About the Institution:

Sri Venkateswara College of Engineering (SVCE) is one of the premier technical institutions in Tamilnadu; the College is situated on the Chennai – Bengahuru National Highway. The college offers 12 UG programs and 7 PG programs. SVCE is an ISO 9001:2015 certified institution and Accredited by "NAAC" with A+ grade. For more details visit: <u>www.svce.ac.in</u>.

About the Department of Biotechnology

The Department of Biotechnology was established in 2005. The department offers B.Tech and M.Tech Biotechnology programs approved by AICTE. It is also approved as a Research Centre in Biotechnology for MS (by Research) and Ph.D. programs by Anna University, Chennai. The Department has well-established laboratory facilities. The Department received Research Grants (2.85 Crores) from various funding agencies such as SERB, ICMR, AICTE, CTS and also several grants for organizing Short Term Training courses, Workshops, Faculty Development Programs from various funding agencies such as DBT, SERB, ICMR, CSIR and EDII.

Vision of the Department

To produce higher caliber Biotechnologists to attain new heights in bioinformatics and bioprocess technology as per industrial needs and to provide leaders in the field of Biotechnology.

Mission of the Department

- To progress the department to attain center of excellence in bioinformatics and bioprocess technologies by providing best Undergraduate, Postgraduate, Doctoral programs and R&D activities within a decade.
- To develop special skilled training programs for graduates to meet the personality characters stipulated by the industries within a period of five years.
- To build potential biotechnologists capable of dealing with new challenges and socio-ethical implications.

Overview of the FDP

Next-Generation sequencing technologies (NGS) are an essential part of almost all life sciences research and diagnostics. Due to their quantity and especially their complexity, NGS data are typically processed by qualified bioinformaticians. Considering the significance, the faculties and research scholars/students need to update and reorient themselves to meet the rapidly changing genomic data analysis tools. This FDP is designed to bring together the experts working in Metagenomics and Next Generation Sequencing to overcome the inherent lag in teaching and learning of concepts in genomics, high throughput genome sequencing and NGS data analysis. This ATAL-FDP will allow the participants to understand the basics of NGS data processing, including manipulation of raw data, quality control, and removal of low quality sequences, sequence adapters and artifacts.

Objectives of the FDP:

- To explain conceptual framework and create an awareness among the faculty members teaching biotechnology, on the importance of metagenomics and next generation sequencing.
- To catalyze and motivate participants to perform research in the field of metagenomics and next generation sequencing techniques and incorporate the same in teaching curriculum.

Topics covered in the FDP:

- > Micobial Metagenomics and its application in bioproduct development.
- > Functional metagenomics for bioprospecting of enzymes.
- > Metagenomics for surveillance of Antibiotic Resistant Genes.
- > NGS technology and platforms: Fundamental Concepts to Applications.
- > Hands-on session on DNA sequencing using Oxford Nanopore Sequencer.
- Essential computing skills for NGS bioinformatics.
- > Overview and Advances in Clinical NGS Technology.
- NGS technology, algorithms and data formats.
- Hands-on session on sequence data processing: MGnify, MGRAST, HMMER, InterPro, Gene Ontology (GO), FASTQC, Galaxy server and pathway analyses.
- > Metagenomics Data Analysis and Population Dynamics analysis.

Expected Outcomes:

After attending workshop, Participants can be able to

- Design experiment to isolate/purify metagenomic DNA from environmental samples.
- Construct metagenomic fosmid library for functional screening of industrial/therapeutic enzymes.
- Get confidence to introduce the metagenomics experiments in the regular teaching in curriculum.
- Perform next generation sequencing using nanopore sequencer and analyze the DNA sequence data.

Upcoming Events

ABOUT SVCE

Sri Venkateswara College of Engineering (SVCE), is a unit of Sri Venkateswara Educational and Health Trust (SVEHT). SVCE is one of the premier technical institutions in Tamilnadu, the College is situated on the Chennai – Bengaluru National Highway (NH4) about 37 km south-west of Chennai. The college is in a 95 acre lush green Campus. It is housed in architecturally exqu buildings with ample infrastructure such as classrooms, laboratories, libraries, sports arena, canteen, hostels, dispensary etc., The college offers 12 UG programmes and 7 PG programmes. SVCE is an ISO 9001/2015 certified institution and Accredited by 'NAAC' with 'A+' grade.

DEPARTMENT OF BIOTECHNOLOGY

Sri Venkateswara College of Engineering noted the growth in Modern Industrial Biotechnology. In order to upport the growth in Biotechnology, SVCE started the Department of Biotechnology in 2005. The department offers B.Tech and M.Tech Biotechnology programmes approved by AICTE. It is also approved as a Research Center in Biotechnology for MS (by Research) and Ph.D. programmes by Anna University, Chennai. The nt has well-established laboratory facilities namely Genetic Engineering, Bioprocess, Research Lab, Animal house and Computational System Biotechnology Lab. The Department received Research Grants (2.85 Crores) from various funding agencies such as SERB, ICMR, AICTE, CTS and also several grants for organizing Short Term Training courses, Workshops, Faculty, Development Programmes from various funding agencies such as DBT, SERB, ICMR, CSIR and EDII.



ABOUT THE EVENT

"BioBids," where participants embark on an exciting journey of problem-solving! Attendees can choose a specialized track from our diverse list, ranging from environmental restoration to recombinant technology. Once they have selected their track, participants engage in a thrilling auction where they bid for the essential materials required to tackle the unique problem statement associated with their chosen track. The bidding process adds an element of strategy and excitement as teams compete to secure the resources needed for success. Armed with their acquired materials, participants then pitch their innovative solutions to a panel of experts, showcasing their resource management, teamwork, and ability to come up with an resource management, innovative solution.

Register and select your track in the morning, ed by an exciting auction where te

for essential resources needed to tackle their

Engage in the trading sessions with fellow participants throughout the rest of the day,

maximize resources for your team's success.

stering teamwork and strategic alliances to

mbark on a journey of creativity as teams pitch

innovative solutions to problem statements, leveraging the acquired resources from the

id trade sessions.

EVENT DETAILS

- Date: 19thand 20th February • Time: FN session: 9:00 - 12:30 AN session: 1:30 - 3:00
- Location: Department of Biotechnology, SVCE

To secure your spot in "BioBids", please co the registration process by February 15". Spaces are limited, so we encourage early registration to oid disa ntme

REGISTRATION FEE

participant has to pay Rs.590 (including 18% GST) (working lunch will be provided).

PAYMENT DETAILS

A/C Name: PRINCIPAL, SRI VENKATESWARA COLLEGE OF ENGG Bank Info: Indian Bank, Sriperumbudur IFSC Code: IDIB0005080 MICR No: 600019112

REGISTRATION LINK



EXCITING PRIZES

Every participant will receive a participation certificate, acknowledging their contribution to the event.

Stand a chance to be recognized as the best in your track! Winners from each category will be awarded a prestigious medal in recognition of their outstanding achievement.

Overall winner may receive exclusive "internship" opportunities from prestigious Start-ups.

This is not just an event; it's an opportunity to shine and be celebrated for your exceptional talents and accomplishments.

FOR FURTHER DETAILS

- Ms. Nandita- 9884102083 (0) Ms. Varsha- 7603956525 Ms. Rajavarsini- 9840345580 Mr. Udayarajan- 9840023171 Mr. Thapasvi- 9344173831
 - bioacademy@svce.ac.in
- https://www.svce.ac.in/departments/ **(})** biotechnology
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BIOTECHNOLOGY SVCE

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DAY 1

SESSION 1

challenge.

DAY 2

uction or

SESSION 2

EARN A DEGREE

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NO

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Biotechnology

Careers that will

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Sri Venkateswara College of SSCE Engineering

DEPARTMENT OF BIOTECHNOLOGY

INFORMATION BROCHURE FOR ADMISSION TO M. TECH BIOTECHNOLOGY & Ph.D PROGRAM (2024-2025)

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 & and Ph.D. in 2011.

> DBT RECEIVED PROJECTS FROM > ICMR > CSIR > AICTE > MSME > TNSCST > EDⅡ

BEGIN YOUR BIOTECHNOLOGY CAREER

- Immunology & Immuno-technology
- > Biomaterials & Tissue Engineering
- > Stem Cell Technology
- > Genetic Engineering & rDNA Technology
- > Cellular & Molecular Biology > Computational Systems Biotechnology
- > Bioprocess Engineering

> Research Assistant

> Technical Officer

> Clinical Scientist

> Pharma Engineer

> Biostatistician

- > Regenerative Medicine & Diseases
- > Herbal Medicines & Antioxidants Research

Awardees of PG Scholarship - 2023

SCHOLARSHIPS FOR PG STUDENTS >PG scholarship of Rs.50,000/year for 30% of the top

Biotechnology, SVCE

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 a 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.

- > Laboratory Technician > Project Assistant
- Quality Control Analyst Research Interns
 - Regulatory Affairs Specialist
 - > Clinical Research Coordinator
 - Calibration Technician
 - Environmental Scientist



www.svce.ac.in/departments/biotechnology/

Bioinformatician

Research Analyst

> Medical Writer

💿 hodbt@svce.ac.in 🔮 9791668110

FOG > DST-SERB RESEARCH

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

RECENT ADDITION TO OUR FACILITIES



MICROPROCESSOR-BASED FLAME PHOTOMETER

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