

EDITORIAL TEAM











STUDENT EDITORIAL TEAM





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.

Department of Biotechnology Accredited by NBA



Events Organized

Parents Teachers Meeting

The parent-teacher meeting (PTM) for the academic year 2023-2024 (Odd semester) was held on 23rd September 2023. The parents of both UG and PG were invited to attend the meeting. The PTM for the Department of Biotechnology took place in different venues each year. PTM for II Year was held at the Department of Biotechnology Conference Hall, for III year at the Department Library and for IV year at the Computational System Biology Lab. Transport schedule, the location of Department and the venues of PTM were communicated to the parents. The meeting's objective was to inform the ward's academic performance and attendance. All the parents of UG and PG were invited to the PTM.

Parents met the Faculty Advisors of their wards and got the update on the ward's performance and attendance. They also met the subject handling faculties and enquired about their ward's performance. Parents also discussed how to improve their wards' performance in the upcoming internal and external exams. Faculty advisors also insisted the parents to encourage their wards to go for in-plant training and internships and they also advised to do mini-projects within the Department from the II year.

The Head of the Department welcomed all the parents at the Biotechnology Conference Hall. HOD discussed the importance of attendance, academic performance, remedial classes, placements, higher studies, and internships. He also discussed the uniqueness of R2022 – verticals for honors, credit transfer system, Professor of practice, visiting professor and study abroad program. HOD also emphasized the importance of remedial classes for the needy students to the parents. HOD encouraged the parents to support their words for the study abroad program by briefing its importance to the parents.

Snapshots of Parents Teachers Meeting













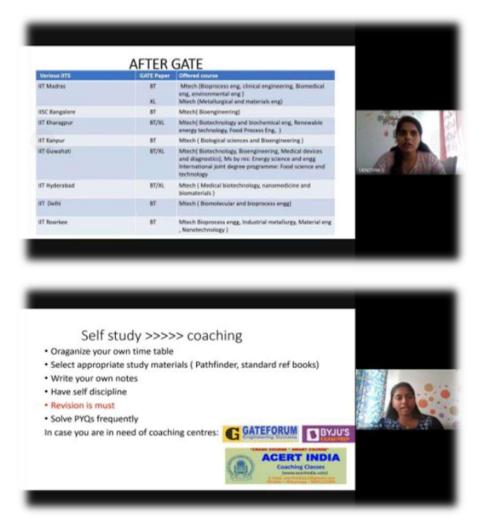
Alumni Interaction

Gateway to GATE Tips & Tricks by SVCE-BIO GATE Toppers

The Department of Biotechnology of Sri Venkateswara College of Engineering is proud to have hosted an insightful online lecture, "Gateway to GATE Tips & Tricks by SVCE-BIO GATE Toppers," presented by our distinguished alumni.

Our alumni, Ms. Rajashree R, Ms. Srinithya S and Mr. Ashwin A who have excelled in the GATE examination in the previous years, generously shared their invaluable insights, strategies, and tips for aspiring candidates of the present batch of UG students. The session was not only interactive but also packed with comprehensive guidance for anyone aiming to conquer the GATE exam. We extend our heartfelt gratitude to our esteemed alumni for their dedication to our department and for giving back to the SVCE-BIO community.

The Department of Biotechnology frequently conducts such enriching sessions around the year for the benefit of students. We wish the best of luck to all the future GATE aspirants!



Alumni Interaction

Higher Studies Opportunities in the USA

The Department of Biotechnology of Sri Venkateswara College of Engineering is proud to have hosted an insightful Alumni Interaction on "Higher Studies Opportunities in the USA" presented by our distinguished alumni. Our alumni Mr. Roopak Sadeesh, Ms. Vanaja N, Ms. Manaswini V, Mr. Nithin Raj S, Ms. Gomathi T, Ms. Sarvika M, Mr. Keerthivasan generously shared their invaluable insights, strategies, and tips for aspiring candidates of the present batch of UG students. The session was not only interactive but also packed with comprehensive guidance for anyone aiming to go abroad particularly to the USA for their higher studies.

We extend our heartfelt gratitude to our esteemed alumni for their dedication to our department and for giving back to the SVCE-BIO community.









Welcoming the Future Biotechnologists

The Department of Biotechnology of Sri Venkateswara College of Engineering is thrilled to extend a warm and hearty welcome to our newest members of 2023-27 Batch, the bright and dynamic first-year students.





Biopark

iGEM SVCE-CHENNAI conducted "Biopark", as a part of our human practices. Our team members went to Skating Park, Shenoy Nagar on 17th September 2023, to create informative and engaging displays using charts and materials made by our team members and our classmates. These displays aim to educate the public about GMOs, their applications, safety measures, and their potential impact on human health and the environment. These charts are designed to be easily understandable for people of all ages. We distribute brochures that further elaborate on the topics covered in the charts and our project.



Placement Updates

The core and information technology companies are making a swift campus drive for the B. Tech Biotechnology students of 2020-2024 Batch. The students who opted for the placements drive are placed with maximum CTC of 4.76 Lakhs PA.



Ms. B. Vardhini (2020-2024)



Ms. R. Rajavarsini (2020-2024)



 Placed in M/s Zifo RnD Solutions as Associate Analyst with CTC of 4.76 Lakhs PA.

Research activities

SCSB Synbio Grant Award 2023

Dr. K. Vasantharaj, Assistant Professor (Principal Investigator) received the SCSB Synbio Grant Award 2023 from the Society of Chemical and Synthetic Biology with a financial grant of Rs. 25,000/- for the Research Project titled "Isolation of potential Coenzyme Q10-producing strains of Rhodobacter sphaeroides". The Department of Biotechnology conveys its best wishes for the successful completion of the project and for the achievement of commendable results.



Dr. K. VASANTHARAJ, Asst Professor - Biotechnology, has been awarded the SCSB Synbio Grant 2023 for the research project
"Isolating Coenzyme Q10-producing strains of Rhodobacter sphaeroides."

The Society of Chemical and Synthetic Biology (SCSB) awarded this grant during the International Conference and Startup Summit on Functional Biomaterial and Synthetic Biology (FBSB - 2023)

Research Publication



Dr. Isaivani. J Assistant Professor

Dr. Isaivani J published a research paper entitled "Metformin reduces the progression of atherogenesis by regulating the sestrin2-mTOR pathway in obese and diabetic rats" in the September 2023 issue of **Journal of lipid and atherosclerosis**.

DOI: https://doi.org/10.12997/jla.2023.12.3.290

J Lipid Atheroscler. 2023 Sep;12(3):290-306 https://doi.org/10.12997/jla.2023.12.3.290 pISSN 2287-2892-eISSN 2288-2561



Original Article Check for updates

Metformin Reduces the Progression of Atherogenesis by Regulating the Sestrin2-mTOR Pathway in Obese and Diabetic Rats



Saravanakumar Sundararajan (6),¹ Isaivani Jayachandran (6),¹² Gautam Kumar Pandey (6),¹ Saravanakumar Venkatesan (6),¹ Anusha Rajagopal (6),¹ Kuppan Gokulakrishnan (6),³ Muthuswamy Balasubramanyam (6),⁴ Viswanathan Mohan (6),⁵ Nagaraj Manickam (6) ¹

Department of Vascular Biology, Madras Diabetes Research Foundation & ICMR Centre for Advanced Research on Diabetes, Chennai, India

¹Department of Biotechnology, Sri Venkateswara College of Engineering, Sriperumbudur, India

³Department of Neurochemistry, National Institute of Mental Health and Neurosciences (NIMHANS), Hosur Road, Bengaluru, India

*Department of Cell and Molecular Biology, Madras Diabetes Research Foundation & ICMR Centre for Advanced Research on Diabetes, Chennai, India

³Madras Diabetes Research Foundation and Dr. Mohan's Diabetes Specialities Centre, Chennai, India

Faculty Activities

AICTE sponsorship for conducting ATAL-FDP



Dr. Divakar K Associate Professor



Dr. Nakkeeran E Professor

Dr. K. Divakar as Coordinator and **Prof. E. Nakkeeran** as Co-Coordinator have received sponsorship from AICTE grant of Rs. 3.5 Lakhs to conduct National FDP on "Microbial Metagenomics and Next Generation Sequencing" from 5th -10th February 2024 under ATAL scheme.

AICTE sponsorship for conducting ATAL-FDP



Dr. Praveen Kumar PK Professor



Dr. Vasantharaj K Assistant Professor

Prof. P. K. Praveen Kumar as Coordinator and **Dr. K. Vasantharaj** as Cocoordinator, have received sponsorship from AICTE grant of Rs. 3.5 Lakhs to conduct National FDP on "Unrvavelling Molecular Mechanisms and Artificial Intelligence Approaches of Drug design in Cancer" from 18th to 23rd December 2023 under ATAL scheme.

Journal Club Presentation

Mr. J. Hariharan, Assistant Professor has presented in the journal club entitled "Bone marrow-derived mesenchymal stem cells promote growth and angiogenesis of breast and prostate tumors" on 26th September 2023.



Dr. K. Divakar, Associate Professor has presented in the journal club entitled "Extremely fast construction and querying of compacted and colored de Bruijn graphs with GGCAT" on 26th September 2023.



Industrial Visit

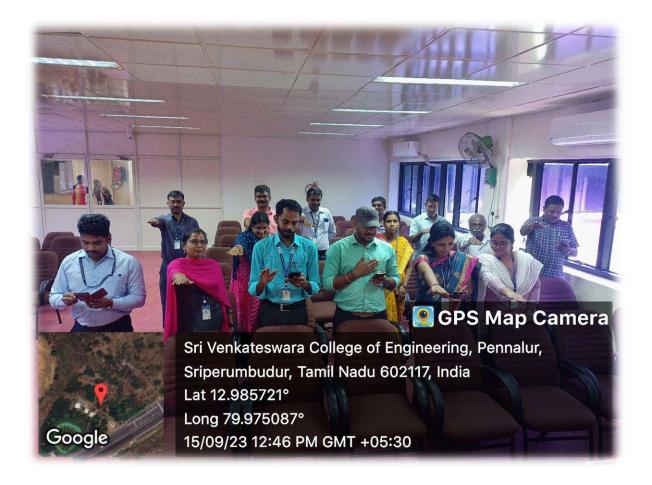
Prof. P.K. Praveen Kumar and Dr. K. Vasantharaj Coordinated III year (2021-25) and IV year (2020-24) B. Tech and Ph.D project students for Industrial visit to IITM research park with Dr. Balu Ranganathan, Director, CanBrs Therapeutics Pvt Ltd on 08th September 2023.





Social Day Pledge 2023

The faculty & supporting staff members of Department of Biotechnology have administered the social pledge on 15th September 2023.



Students Activities

Smart India Hackathon 2023

Ms. Bhavishya JR, Ms. Harini GV, Ms. Nithila S, Ms. Sulakshuna B of 2021-25 batch B. Tech Biotechnology have participated in the internal Smart India Hackathon (SIH) held on 23rd and 24th September 2023 and selected for next rounds of SIH 2023 (External).





Study Abroad Program

Batch of 2020-24 and 2021-25, B. Tech Biotechnology Students have attended the Australian Trade and Investment Commission regarding the Australia Showcase program for pursuing higher studies at Taj Coromandel, Chennai on 12th September 2023.









Workshop Attended

- Ms. Jeevitha G, Ms. Maadhangi M, Ms. Priyadharshini D, Mr. Kaushik Varun, Ms. Purvasri Sivakumar, Ms. Salonica D, Ms. Sri Harini L N, Ms. Prathibha peroline Jones P, Ms. Varsha M, Ms. Naksatra T S, Ms. Keerthana V, Ms. Pavithra. A, Ms. Dharshni R, Ms. Divya Sri M, Ms. Gayathri R, Mr. Tamilselvan P, Ms. Reshma R, Mr. Dhivakar.K, Mr. Balsubramaniam J M, Mr. Shrihari .J, Ms. Aishwarya S, Ms. Tharani.G, Mr. Yashwanth Kumar.S, Ms. Hashrika R, Ms. Logeshwari S, Ms. Swaathysri Maheswaran, Mr. John Samuel S, Ms. Keshika.D, Ms. Srinithi.A, Mr. Gilford Thomas . I, Mr. Tharun D, Ms. Shruthi .V, Ms. Monica, Ms. Mageshwari.R, Ms. Anusha.M of 2022 26 batch B. Tech Biotechnology have attended the workshop session conducted on Bioblitz 23.
- Mr. Balasubramanium J M of B.Tech Biotechnology, 2022-26 have attended the online workshop on Applications of machine learning techniques in biology using WEKA by Prof.
 M Michael Gromiha, IITM on 9 th and 10 th of September.
- O Ms. Divyasri M, Ms. Riduvarshini, Ms. Hashrika R, Ms. Logeshwari S and Ms. Swaathysri Maheswaran of B.Tech Biotechnology, 2022-26 has been a part in the YRC Inauguration AY 2023-24 and Dengue Awareness Programme held on 25th September 2023 at Sri Venkateswara College of Engineering.
- Ms. Tharani and Ms. Divyasri M of B.Tech Biotechnology, 2022-26 have attended 24th Rubber expo and conference by Indian Rubber Manufacture and Research Association (IRMRA) on 22nd September 2023.

Alumni Write-up



Ms. Sanjana S (2019-2023 Batch)

Every student's career begins in college, and for me, SVCE was an important starting point that changed my outlook on education and my ability for creativity. My college's infrastructure and natural surroundings kept me feeling energized every day, and my biotech professors made us feel comfortable sharing our opinions about education and constantly encouraged us to try something new in our careers that linked to our studies. In addition to this, my department encouraged me to participate in academic extracurricular activities. With respect to that, I was the treasurer of the Student Biotech Forum, where I gained valuable management experience and had the chance to network with members of the biotech industry. I am grateful to all of my Department Professors and the College administration for providing such a positive exposure. I am currently associated with Accenture Junior Drug Safety Associate in Pharmacovigilance services.

The Department of Biotechnology of Sri Venkateswara College of Engineering is organizing a hands-on training workshop on Spectroscopy Equipment, "Unlocking Spectroscopic Techniques: A Two-Day Hands-On Training Workshop" on 11th and 12th October 2023. UG and PG students of any stream can participate in this workshop.

At the end of this program, the participants would be able to

- 1. Understand the principles and applications of Fourier Transform Infrared Spectroscopy (FTIR), UV-VIS Spectrophotometer and Fluorescence Spectrophotometer.
- 2. Proficiently operate FTIR and analyze the data for precise molecular analysis.
- 3. Utilize UV-VIS Spectrophotometry for absorbance and transmittance measurements and spectrofluorometer for fluorescence analysis and measurements.

Application Form: https://lnkd.in/g3G-XzC2



ABOUT THE INSTITUTION

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 Tamilinadu; the College is situated on the Chennal — Bangalore National Highway (NH4) about 37 km southwest of Chennal. The college is on a 90-acre lush green Campus. It is housed in architecturally exquisite buildings with ample infrastructure such as classrooms, laboratories, libraries, sports arena, canteen, hostels, dispensary etc., The college offers 12 UG programs and 7 PG programs. SVCE is an ISO 9001:2015 certified institution and Accredited by "NAAC" with

ABOUT THE DEPARTMENT

Sri Venkateswara College of Engineering noted the growth in Modern Industrial Biotechnology. In order to support the growth in Biotechnology, SVCE started the Department of Biotechnology in 2005. The department offers B.Tech and M.Tech Biotechnology programs approved by AICTE. It is also approved as a Research Center in Biotechnology for MS (by Research) and Ph.D. programs by Anna University, Chennai The Department 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 Programs from various funding agencies such as DBT, SERB, ICMR, CSIR and EDIL

VISION OF THE DEPARTMENT

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DATES TO REMEMBER

Last Date for Registration: 04/10/2023

WHO CAN REGISTER

Undergraduate and Postgraduate (Science & Engineering) pursuing students, research scholars aspiring for high quality research.

Participants are limited to 25 numbers only (First cum first serve basis)

Registration Fee includes:

- Registration Kit
- · Working Lunch and refreshments
- Sample Analysis using FTIR (2 numbers)
- Accommodation may be provided in the campus on prior notice, for which the porticipant bear the charges.
- Transport facility can be availed (Free) by the in-station participants.

REGISTRATION FEES: RS. 1000/-

PAYMENT DETAILS

IFSC Code: IDIB000S080

MICR No: 600019112

Account Number: 467302331
Account Name:
PRINCIPAL, SRI VENKATESWARA COLLEGE
OF ENGINEERING
Bank Name: Indian Bank
Branch Name: Sriperumbudur

REGISTRATION LINK

https://forms.gle/2L88HFHNDY8YWmhV7



CONTACT DETAILS:

Prof. E. Nakkeeran Head of the Department - Biotechnology Sri Venkateswara College of Engineering Sriperumbudur, Tamil Nadu - 602117. Email: hodbt@svce.ac.in

9488013671 / 9600202346











The Department of Biotechnology of Sri Venkateswara College of Engineering is organizing a National Workshop on "Design of Experiments and Ethics in Preclinical Research" on 17th October 2023. UG and PG students, Faculty Members and Research Scholars of any stream can participate in this workshop.



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About the Department

Sri Venkateswara College of Engineering noted the growth in Modern Industrial Biotechnology. In order to support the growth in Biotechnology, SVCE started the Prof. E. Nakkeeran Department of Biotechnology in 2005. The department offers B.Tech Biotechnology programme approved by NBA and M.Tech Biotechnology programme. It is also approved as a Research Center in Biotechnology for MS (by Research) and Ph.D. programmes by Anna University, Chennai. The Department has wellestablished laboratory facilities: 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.

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2. To develop special skilled training programs for graduates to meet the

personality characters stipulated by the industries within a period of five

3. To build potential biotechnologists capable of dealing with challenges and socio-ethical implications.

Contact Details

Head of the Department - Biotechnology Sri Venkateswara College of Engineering Sriperumbudur (Tk.)

Tamil Nadu - 602117. Email: hodbt@svce.ac.in Phone: 044 - 27152000 Extn: 575



Who can register

Undergraduate and Postgraduate (Science & Engineering) students, research scholars, Faculty members and Industry personnels aspiring for high quality research.

Registration Fee

For participating in the Event: ₹300 for Student / ₹500 for Faculty / ₹800 for Industry personnel

Registration Detail

Account Number: 467302331 Account Name: PRINCIPAL, SRI VENKATESWARA COLLEGE OF **ENGINEERING** Bank Name: Indian Bank

Branch Name: Sriperumbudur IFSC Code: IDIB000S080 MICR No: 600019112



https://forms.gle/LdUbV2Nfn1kMmT897

Press link or scan to register Queries-Contact-Ms.D.Swathi



Transporation Facility: The participants can avail the SVCE bus facility to attend this workshop. Refer www.svce.ac.in for bus route details.



The Department of Biotechnology, SVCE is organizing a "Hands on Workshop" on "Bioengineering Life: Exploring Microbial and Animal Cell Culture" from 18th -20th October 2023. The basic objective of this workshop is to provide hands-on experience in Microbial and Animal cell culture handling.

Workshop highlights: Sessions by IITM Professors & Scholars.

As an outcome, the participants are expected to have Hands-on Proficiency in handling microbial and animal cell cultures and Gain knowledge on the design of experiments using cell cultures.

Registration Link: https://forms.gle/2zEZfp2tKCHqqSmi8 and Last date for registration: 15th October, 2023.

ABOUT THE INSTITUTION

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DEPARTMENT OF BIOTECHNOLOGY

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WORKSHOP OBJECTIVE:

The field of cell culture [Microbial and Animal] has advanced greatly over the years. Cell culture is a versatile tool in the investigation of basic scientific and translation research questions. The basic premise of this workshop is to provide hands-on experience in Microbial and Animal cell culture handling. The workshop is designed to enrich the knowledge on the latest trends and applications of cell culture techniques.

WORKSHOP HIGHLIGHTS

Sessions by IITM Professors & Scholars Hands on sessions - Workshop

EXPECTED OUTCOMES

Participants will

- Have Hands-on Proficiency in handling microbial and animal cell cultures.
- Gain knowledge on design of experiments using cell cultures

VENUE: Department of Biotechnology, SVCE

TRANSPORT AND ACCOMODATION

- Accommodation may be provided during workshop in the campus on prior notice, the participant will bear the charges.
- Transport facility can be availed by the in-station participants.

Max. No. of participants: 30

REGISTRATIONLINK: https://forms.gle/2zEZfp2tKCHqqSmi8

REGISTRATION FEE: Rs. 1000/Registration Fee Includes Reg. Kit, Working Lunch

Last date for registration: 15th October, 2023

MAILING ADDRESS

Dr. V. Sumitha

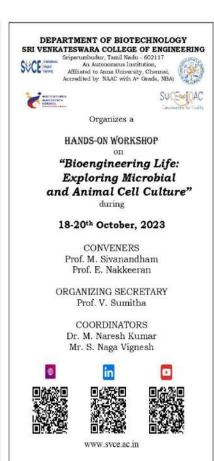
Professor

Department of Biotechnology Sri Venkateswara College of Engineering (Autonomous) Sriperumbudur Tk - 602 117 Tel: 044 - 27152000 / 27163783 Extn: 576/584 Mobile: +91-9841932565 Email:sveebioengg@gmail.com

PAYMENT DETAILS

MICR No: 600019112

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Account Name: PRINCIPAL, SRI VENKATESWARA
COLLEGE OF ENGINEERING
Bank Name: Indian Bank
Branch Name: Sriperumbudur
IFSC Code: IDIB0008080



REGISTRATION FEE

No registration fee is charged from the Participants.

SELECTION CRITERIA

Participants are faculty members of the AICTE approved institutions, Research scholars, PG Scholars, from Government. participants Bureaucrats/Technicians/ Professionals/School Teachers and staff of host institutions nominated by the head of the institutions. Selection is based on a first-come, first serve basis. Maximum of 50 participants will be permitted to attend this FDP.

CERTIFICATION CRITERIA

Upon attending of the program on all the sessions, participants shall be awarded E-Certificates of participation by respective ATAL academy. Minimum 80% attendance and 60% marks in the online test at the end of the FDP are compulsory for certification.

HOW TO APPLY?

The participant has to sign-up through ATAL portal: https://atalacademy.aicte-india.org/signup

COORDINATOR CONTACT DETAILS

Dr. P.K. Praveen Kumar

DST-SERB TARE Research Fellow, IITM, Chennai Professor, Department of Biotechnology Sri Venkateswara College of Engineering (Autonomous)

Pennalur, Sriperumbudur Tk - 602 117 Tel: 044 - 27152000 / 27163783 Extn: 582

Mobile: +91-9444495008

E-mail: praveenpk@svce.ac.in

Linkedin URL: https://www.linkedin.com/in/profpraveen-kumar-pk-35315726/

AICTE ATAL sponsored National FDP on "Unraveling Molecular Mechanisms and Artificial Intelligence Approaches of Drug Design in Cancer" 18th to 23rd December, 2023

INVITED SPEAKERS

- 1) Prof. M. Sivanandham, Secretary & Professor, Department of Biotechnology, SVCE
- 2) Dr. Balu Renganathan, Director, CanBrs Therapeutics Pvt Ltd, IITM Research Park, Chennai
- 3) Dr. Manikandan Narayanan Professor Department of CSE, IITM, Chennai
- 4) Dr. Gopisetty Gopal, Professor, Department of Molecular Oncology, Cancer Research Institute, Adyar
- 5) Dr. Suresh Kumar Rayala, Department of Biotechnology, IITM, Chennai
- 6) Dr. Ezhilarasan, Professor, Department of Pharmacology, Saveetha Dental Hospital,
- 7) Dr. Badrinathan, Professor & Dean (Educational Development), SVCE
- Ms. Dhivya Shanmugarajan, Senior Application Scientist, Altem technologies, Bengaluru
- 9) Dr. Pawan Kumar Gupta, Associate Professor, SVKMs Institute of Pharmacy Dhule, Maharashtra.
- 10) Dr. Arnold Emerson I, Professor & HOD, Department of Biosciences, VIT, Vellore

CO-CORDINATOR CONTACT DETAILS

Dr. K. Vasantharaj

Mobile: 9600202346

Assistant Professor. Department of Biotechnology, Sri Venkateswara College of Engineering AICTE ATAL sponsored National FDP on "Unraveling Molecular Mechanisms and Artificial Intelligence Approaches of Drug Design in Cancer"

18th to 23rd December, 2023









Organized by Department of Biotechnology







CONVENERS

Prof. M. Sivanandham, Secretary & Prof/ BIO Prof. S. Ganesh Vaidyanathan, Principal Prof. E. Nakkeeran, HOD/BIO

COORDINATOR

Prof. P.K. Praveen Kumar

CO-CORDINATOR

Dr. K. Vasantharaj

Pennalur, Sriperumbudur Tk - 602 117, Tamilnadu, India



ABOUT THE INSTITUTION

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 – Bangaluru National Highway (NH4) about 37 km south-west of Chennai. The college is in a 90-acre lush green Campus. It is housed in architecturally exquisite 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 support 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 Department 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.

PROGRAMME OBJECTIVE

High personalized oncology care is one of the emerging technologies observed in Healthcare Industry. One of the most exciting potential applications of Artificial Intelligence (AI) is the possibility of designing novel anti-cancer therapies and guiding the development of such therapies to decrease the failure rate and decrease the time to approval

The purpose of this program is to create a platform for the research scholars and faculties from various institutions across India to gain knowledge on understanding molecular mechanisms and applications of artificial intelligence in Drug design in cancer. The FDP will consist of a series of interactive lectures and practical sessions. Participants will have the opportunity to work with open-source bioinformatics tools and software, gaining hands-on-experience in mining and using stages of cancer data in online cancer web resource portals. The participants would prepare themselves to identify drug targets and navigate the molecular pathway mechanisms to target cancer disease using computational aided drug design tools that are available online.

Thus, this FDP includes invited lectures by eminent scientists and academicians from leading Educational Institutions, Industries and Research organizations in India with practical demonstration of AI based computational methods of drug designing techniques in Cancer research in equipped computer labs.

VIDEO TOUR OF DEPARTMENT

https://youtu.be/p6TZo15pL7U

ABOUT ATAL

All India Council for Technical Education (AICTE) through its newly established AICTE training and learning (ATAL) academy have started unique FDP in various thrust areas of modern technology.

LECTURE AND PRACTICAL SESSIONS

The FDP is planned to disperse knowledge from eminent experts who had earlier and presently had working experience from leading Institutions like IITM, Universities, Medical colleges, BIRAC Big Grant Startups and reputed MNC Industries.

Moreover, the FDP consists of hands-on training sessions provided in the Genomic Big Data Science, Differential expression of genes with SNPs from Biological databases, exploring and gene richment pathways using cytoscape, Pharmacokinetics models, diagnosis of cancer using MATLAB Simulink, Virtual screening of anti-cancer drugs and Molecular docking of anti-cancer compounds with drug targets using PyRx and Autodock.

VENUE

Dr.A.C.Muthiah Central Library Seminar Hall, Sri Venkateswara College of Engineering (SVCE), Sriperumbudur Tk.- 602 117, Tamilnadu Distance from Domestic Airport: 31 kms Distance from Central railway station: 35.5 kms Distance from Sriperumbudur Toll Plaza: 1.4 kms

DATES TO REMEMBER

Last date for e- registration : 03.12.2023 Intimation of selection : 04.12.2023

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. https://atalacademy.aicte-india.org/. Candidates are advised to apply early to avoid disappointment. Selected applicants will be intimated through E-mail on or before 05-01-2024.

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 15-01-2024 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











ATAL FDP

"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



Sri Venkateswara College of Engineering

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

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: www.svce.ac.in.

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.

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

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