

KAMARAJ

COLLEGE OF ENGINEERING & TECHNOLOGY



(An Autonomous Institution - AFFILIATED TO ANNA UNIVERSITY, CHENNAI)

S.P.G.Chidambara Nadar - C.Nagammal Campus

S.P.G.C. Nagar, K.Vellakulam – 625 701 (Near VIRUDHUNAGAR).

NEWSLETTER

DEPARTMENT OF BIOTECHNOLOGY

ACCREDITED BY NATIONAL BOARD OF ACCREDITATION ,
NEW DELHI

BIO – NEXUS

OCTOBER TO DECEMBER 2024



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Vision :To make the Department of Biotechnology, unique of its kind in the field of research and development activities pertaining to the field of biotechnology in this part of the world

Mission: To impart highly innovative and technical knowledge in the field of biotechnology to the urban and rural student folks through “Total Quality Education”

Program Educational Outcome (PEO)

PEO 1: The student will be able to pursue higher education in India/Abroad in Biotechnology and its related fields by taking up competitive exams like GATE, CSIR, TANCET, GRE, TOEFL etc.

PEO 2 : The student will be able to come up with solutions for any scientific or technical problems related to Biotechnological industries/institutes.

PEO 3 : The student will be able to plan and conduct experiments in modern biotechnology and allied field laboratories including interpreting the significance of resulting data, reporting results and writing technical reports.

PEO 4 : The student will be able to get familiarized with professional and economical issues in biotechnology and foster important job related skills such as communications and experience in working as a team that will help them to become good Entrepreneurs.

Program Specific Outcomes (PSOs)

PSO1 : Future ready graduates: The student will be able to identify, choose and perform to their best ability in the next career step: Higher education/Job/Entrepreneurial initiatives.

PSO2 : Industry ready graduates: The student will be able to apply the acquired knowledge to provide cost-effective and sustainable solutions in Biotechnology.

Program Outcomes (PO)

PO1 : Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

PO2 : 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.

PO3 : 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.

PO4 : 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.

PO5 : 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.

PO6 : 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.

PO7 : 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.

PO8: Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO9 : Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO10 : 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.

PO11 : Project management and finance: Demonstrate knowledge and understanding of the engineering and 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.

PO12 : Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

STUDENT ACHIEVEMENTS

Technical & Innovation Achievements

- S.R.Santhosh Kaveri, K.Dharsan and S.YogaDharshan, IV Year B.Tech Biotechnology presented a Paper titled "3D Bioprinting using cellulose extracted from floral wastes" and won I Prize at International Conference on Sustainable Technologies in Health and Environment organised by Scinicon Labs.
- S. Sakthishivani, 3rd year biotech won 1st prize in yoga at MEPCO LEGACY 2K24
- K.Dharsan , S. Yogadharsan, and S.R.Santhosh kaveri won first prize in oral presentation at international conference on sustainable technologies in health and environment
- S.Sakthi Shivani, III BT won 1st prize in Yogasana championship held at Kanchipuram.



S. Priyangka , S. Priyadharshini, S. Sanmitaa and J. Nithya Shree , IV Year B.Tech Biotechnology, presented their innovative idea at the International Conference on Sustainable Technologies in Health and Environment organized by Scinicon Labs, held at Thabasiya Resort, Marthandam, Kanyakumari and secured the II Prize in the Idea Presentation event.

Special achievements

- T.Shamyukta, M.Yakgna Devi published a chapter titled "Present trends and prospects of synthetic and bio-plasticizers" in a book "Sustainable Fillers Plasticizers for Polymer Composites" with ISBN: 9780443156304 published by "Indran Suyambulingam, Divya Divakaran, Sanjay Mavinkere Rangappa, Suchart Siengchin".
- V. Swetha, IV BT has been selected as Student intern for 2 months to work in **SERB Project at Department of Ocular Pharmacology**, Aravind Medical Research Foundation, Madurai with a stipend of Rs 5000/- per month.
- M. Yagna Devi , IV year BT student has been selected for Summer Project at **CSIR - National Institute For Interdisciplinary science and Technology (NIIST)**, Thiruvananthapuram.



Sports achievements

- M.Abinaya, IV Year B.Tech Biotechnology won 3rd place in a Volleyball Anna University Zonal Tournament
- Gowri S, III Year B.Tech Biotechnology participated in a yoga Competition " Anna University Interzonal selection " Organised by Anna University.
- S. Swetha, III year B.Tech Biotechnology participated and won II Prize in Hammer Throw Even in Zone 17 Athletic Meet of Anna University conducted at Dindigul
- Naveen.B.J, Balaji.R and Ragul.K , III Year B.Tech Biotechnology participated in a Sports Event "Basketball Zonal" at sports zonal match (basketball) organised by Chettinad College of engineering and technology.
- Gowri S, III Year B.Tech Biotechnology participated in Zone 17 Athletic Meet of Anna University conducted at Dindigul.
- Mr.Sivaganesh, IV BT won II place in sports event "Anna University Zonal Tennis tournament" on 26.09.2024



Mr.K.Abinanthan, Mr.R.Pugazhenthii, Mr.G. Selva murugan, III year BT won III prize in sports event "Anna University zonal Hockey tournament" organised by SSM institute of engineering and technology.



R.Sujitha, IV BT, has been recognized as NPTEL Motivated learner (Jul-Dec 2024).

Student's Placement Activity



Twelve final-year students of biotechnology department have been placed in Terv, recognizing their exceptional performance, commitment, and technical acumen during the recruitment process.



Ms. Bavadarshini, Ms. Krisha and Ms. Shalini of IV B.Tech Biotechnology have been placed in FacePrep, marking a significant milestone in their professional journey and reflecting their consistent efforts and excellence.

Industry Expert Meeting



An Industry Expert Meeting is being organized to frame the new curriculum. Insights from experienced professionals will help align the curriculum with current industry needs and future trends.

school visit

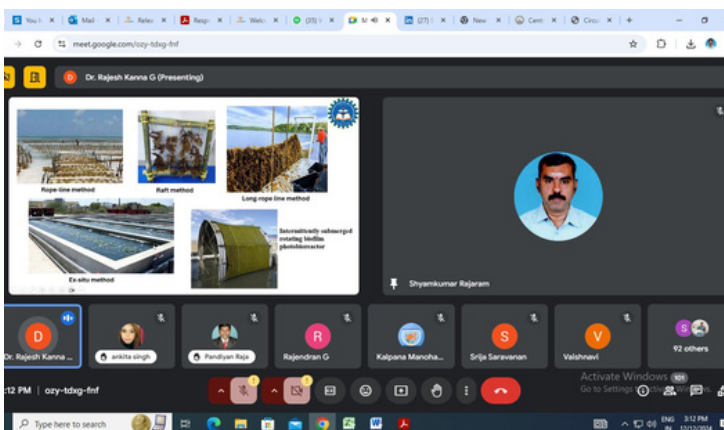


Students from RJ Mantra School, Virudhunagar, visited the college. The visit focused on exploring academic opportunities, facilities, and interactions with faculty.

Faculty Achievements



Department of Biotechnology organized a guest lecture on **CANCER RESEARCH IN INDUSTRIES** for III BT students by Dr Rajasekaran R, Research Scientist, **LifeSenz Cancer Research Labs Pvt. Ltd. Mumbai** on 28th Oct 2024.



Dr. SHYAM KUMAR RAJARAM, PROFESSOR, Biotechnology participated in **INTERNATIONAL WEBINAR ON "PATH TO ATTAIN SUSTAINABILITY VIA TECHNOLOGY, E-SCIENCE & UNVEILING RESEARCH"** Organized by Department of Botany, Government Degree College, Ramachandrapuram, Andhra Pradesh on 29/12/2024.



Dr K. Geetha, ASP/BT visited Department of Fisheries, Agency for development of Aquaculture, Kerala (ADAK) on 20/12/2024.

- Dr K. Geetha, ASP, BT has successfully completed NPTEL Online Live Workshop titled "21st Century Teaching and Learning Skills" on 5th Oct 2024, organized by IIT Madras. Dr K. Geetha, ASP/BT, attended an online workshop on the title "In silico techniques in development of antiviral therapeutics" organized by Department of Biotechnology, Manipal Institute of Technology, MAHE, Manipal on 05-07-2024.
- Dr K. Geetha, ASP, BT has presented paper and Idea in 2nd International Conference on Sustainable Technologies in Health and Environment on 18th and 19th October 2024, organized by Scinicon Labs Pvt Ltd, Marthandam, TN, India
- Dr. D. Pradiba, AP/BT, Submitted a project proposal to titled "Elucidating the role of gut microbiota of Ae. Aegypti in insecticide resistance through meta-genomic approach" to TamilNadu State council for Science and Technology on 21-11-2024
- Dr Pradiba D has completed a one month Online Hands-on Industrial Internship on NEXT GENERATION SEQUENCING- WHOLE EXOME SEQUENCING offered by BIOSETUP LIFESCIENCES from 21-10-2024 to 21-11-2024.
- "SOLAR DRYER WITH DEHUMIDIFIER" Design Patent application submitted by S. Karthikumar, R. Shyam Kumar, S. Thanga Kasi Rajan, M. Dinesh Karthick, G. Anand, P. Thirumurugan, B. Jeyavarshini, M. Yagna Devi, has been registered. (Design No: 409883-001) on 25-11-2024.
- Confirmatory Doctoral Committee meeting was conducted on 11-12-2024 for Subashini and Shalini, Part-time PhD scholars of Dr K. Geetha, Research supervisor in Online mode.
- Er. A. Ganga, AP/BT participated in International webinar on "Path to attain Sustainability via Technology, E-Science, & Unveiling Research" Organized by, Department of Botany, Government Degree College, Ramachandrapuram, Andhra Pradesh, on 29-12-2024.
- Dr K. Geetha, ASP, BT has attended Inaugural Webinar of Webinar Series on BioE3 Policy for 'Fostering High-Performance Biomanufacturing' on Nov 14, 2024 organized by DBT, New Delhi approved by Union Cabinet.

Alumni interaction



Alumni interaction was conducted by Department of Biotechnology for all third and final year students Alumni Name: **Deepa Aravind** Batch: 2004 - 2008
Topic: **Career guidance for aspiring biotechnologists in Sydney**

Prestigious Alumnus



We were proud to welcome our distinguished alumni from the **2013 BT batch** **Madhankumar, Founder of Deva Foods, Chennai** and **Nandini, Specialist at International Flavours and Fragrances, Chennai**, back to our campus.

BODHGAYA - 2K24

A workshop on Biotechnology was held on 15.11.2024 at the Edusat Hall, with 75 students and 12 teachers from 11 schools participating. Organized by UG students under the guidance of Dr. K. Geetha and Er. R. Amuthalakshmi, the event featured lectures, lab visits, a Bioquiz, and an Idea contest. Experts discussed biotechnology's role in sustainability and industry opportunities. The sessions were interactive and informative, receiving positive feedback. The event concluded with a valedictory session and prize distribution, marking its overall success.



Guest lecture

On 20th July 2024, our department hosted a guest lecture on the "Application of Biotechnology in Stem Cell Research" by Dr. Gowripriya, Scientist at Aravind Medical Foundation, Madurai. The session explored how biotechnological advancements are revolutionizing stem cell research, from regenerative medicine to disease treatment. Students gained insights into the practical applications of stem cells in developing therapies and personalized medicine. The interactive lecture encouraged discussions and real-world examples, emphasizing biotechnology's role in innovation. This session broadened students' understanding and inspired interest in future research opportunities in biotechnology and stem cell science.



Comprehensive workshop on Biotechnology Processing: Upstream Downstream organized by Dept. of Biotechnology - 23-24, August 20