

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

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

S.P.G.C Naqar, K. Vellakulam - 625 701, (Near VIRUDHUNAGAR).

DEPARTMENT OF BIOTECHNOLOGY

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NEWSLETTER

BIO-NEXUS



EDITORS



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VISION AND MISSION

VISION : To make the department of biotechnology the 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 unreachable rural folks through “Total Quality Education”.

PEO

Program Specific Academic Excellence: The student will be able to pursue higher education in Indian Abroad in Biotechnology and its related fields by taking up competitive exam like GATE,CSIR,TANCET,GRE,TOEFL,etc

Professional attitude: The student will be able to come up with solutions for any scientific or technical problems related to Biotechnological industries/institutes by engaging in independent and life long learning.

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

Collaboration: The students will be able to work in multidisciplinary team with confidence and will be able to venture out with entrepreneurial activities.

PSOs

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.

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

PROGRAMME

OBJECTIVES

PO1: Engineering Knowledge: Apply knowledge of mathematics, natural science, computing, engineering fundamentals and an engineering specialization as specified in WK1 to WK4 respectively to develop to the solution of complex engineering problems.

PO2: Problem Analysis: Identify, formulate, review research literature and analyze complex engineering problems reaching substantiated conclusions with consideration for sustainable development. (WK1 to WK4)

PO3: Design/Development of Solutions: Design creative solutions for complex engineering problems and design/develop systems/components/processes to meet identified needs with consideration for the public health and safety, whole-life cost, net zero carbon, culture, society and environment as required. (WK5)

PO4: Conduct Investigations of Complex Problems: Conduct investigations of complex engineering problems using research-based knowledge including design of experiments, modelling, analysis & interpretation of data to provide valid conclusions. (WK8).

PO5: Engineering Tool Usage: Create, select and apply appropriate techniques, resources and modern engineering & IT tools, including prediction and modelling recognizing their limitations to solve complex engineering problems. (WK2 and WK6)

PO6: The Engineer and The World: Analyze and evaluate societal and environmental aspects while solving complex engineering problems for its impact on sustainability with reference to economy, health, safety, legal framework, culture and environment. (WK1, WK5, and WK7).

PROGRAMME OBJECTIVES

PO7: Ethics: Apply ethical principles and commit to professional ethics, human values, diversity and inclusion; adhere to national & international laws. (WK9)

PO8: Individual and Collaborative Team work: Function effectively as an individual, and as a member or leader in diverse/multi-disciplinary teams.

PO9: Communication: Communicate effectively and inclusively within the engineering community and society at large, such as being able to comprehend and write effective reports and design documentation, make effective presentations considering cultural, language, and learning differences

PO10: Project Management and Finance: Apply knowledge and understanding of engineering management principles and economic decision-making and apply these to one's own work, as a member and leader in a team, and to manage projects and in multidisciplinary environments.

PO11: Life-Long Learning: Recognize the need for, and have the preparation and ability for i) independent and life-long learning ii) adaptability to new and emerging technologies and iii) critical thinking in the broadest context of technological change. (WK8).

STUDENT ACHEIVEMENTS



Mr. Jayasugesh/III/BT, Honoured by Madurai makkal nala mandram for SIR field work

Infront of Minister P. Moorthi and Member of legislative assembly K. Thalopathy



Nagalakshmi and Mukila III BT under the guidance of Er R Amuthalakshmi, Shortlisted among 50 in ALL India Women Hackathon.

Ms. Nagalakshmi (III/BT) published a book chapter titled “Microbiology Manual – Sterilization Technique” in 2026, in association with Er. R. Amuthalakshmi, AP/BT. This publication represents a noteworthy academic contribution to the field of Biotechnology.

STUDENT ACHEIVEMENTS

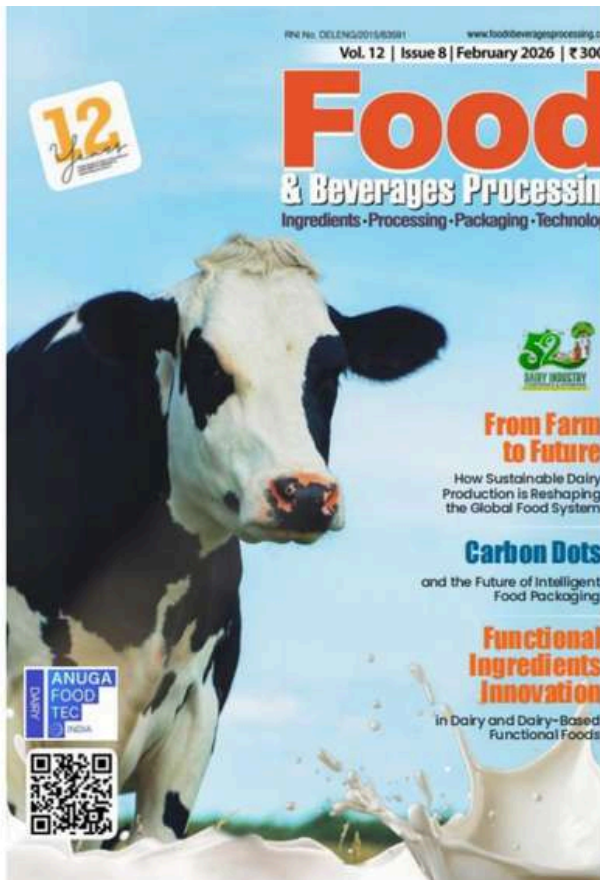


J. Jananipriya and M. Kirthiga of II Year Biotechnology participated in the Library Carnival and secured First Prize in the Bookmark Making competition.



Pandiselvi and Pranika of II Year Biotechnology participated in the Library Carnival and secured Third Prize in the Spell Bee competition.

STUDENT ACHEIVEMENTS



PROCESSING TECHNOLOGY

When Your Food Changes Color, It's Trying to Tell You Something

Parkavi Nanthini¹, Divya Paneerselvam, R.Surya Priyadharshini, Mani Thaler & A.G.Saranya Gayathri

A simple, dual-zone strip made from natural plant pigments could soon help consumers judge the true freshness of meat and cut vegetables—just by watching colors change.

Why the Date on Your Food Can Be Misleading

Every year, a significant quantity of fresh meat and packaged cut vegetables is discarded across households, supermarkets, and food service establishments. In many cases, these foods show no obvious signs of spoilage. They appear fresh, smell normal, and retain acceptable texture—yet they are thrown away because the printed expiry or “use-by” date has passed.

Historically, incidents of foodborne illness continue to occur even when foods are consumed within the declared shelf life. This paradox highlights a fundamental limitation of current food dating systems. Expiry dates are designed as general guidelines rather than precise indicators of food quality or safety. They reflect predicted shelf life under assumed ideal conditions, not the real condition of food at the moment it is consumed.

This raises an important question: Can a fixed date truly represent the dynamic nature of food spoilage? If freshness depends on storage temperature, handling, and microbial activity, then a static printed label can only offer an approximation—not certainty.

Imagine opening your refrigerator and finding a sealed pack of cut vegetables. There is no unpleasant odor, no visible slime, and no discoloration. However, the expiry date suggests the product is no longer safe. Most consumers would choose to discard it to avoid risk. Now imagine the same package containing a small color-changing strip that has shifted from purple to green, clearly indicating chemical changes associated with spoilage. The decision is no longer based on doubt, but on visible evidence.

The Hidden Chemistry of Food Spoilage

Food spoilage is a gradual biochemical process driven primarily by microbial activity. Expiry dates are calculated using standardized models that assume consistent refrigeration, minimal temperature abuse, and controlled storage conditions from production to consumption. In reality, food experiences multiple temperature fluctuations during transportation, retail display, and domestic storage.

Microorganisms present in fresh foods metabolize proteins, carbohydrates, and lipids as they grow. In protein-rich foods such as meat, microbial degradation leads to the formation of volatile nitrogenous compounds, including amines, ammonia,

and other alkaline by-products. These compounds gradually increase the pH of the food environment.

Importantly, these chemical changes begin long before spoilage becomes sensorially obvious. Unpleasant odors, slime formation, and discoloration appear only at advanced stages. Because expiry dates cannot respond to these real-time biochemical changes, they fail to capture the actual freshness status of highly perishable foods.

When Packaging Starts Communicating

Smart packaging offers a powerful alternative to traditional date labeling. Rather than acting as a passive barrier, smart packaging systems are designed to sense changes occurring inside the package and communicate them directly to users.

Among the various smart packaging approaches, color-changing freshness indicators are particularly attractive. They require no electronics, no batteries, and no user training. Instead, they translate complex chemical reactions into simple visual cues. Consumers do not need to interpret numbers or codes; they only need to observe a color shift.

Why a Single Color Isn't Enough

Many existing freshness indicators rely on a single sensing material that responds to one spoilage parameter, such as pH. While these indicators can provide useful information, they often struggle to capture the complexity of spoilage in real foods. In protein-rich products like meat, multiple spoilage reactions occur simultaneously, producing a variety of chemical signals.

A single color response may be weak, delayed, or ambiguous under such conditions. This can lead to misinterpretation, reducing consumer trust and limiting practical usefulness. Two Zones, Two Signals, Clearer Decisions. To overcome these limitations, a dual-zone color-changing freshness indicator has been developed using natural pigments extracted from red cabbage and hibiscus flowers. These pigments contain anthocyanins—naturally occurring compounds known for their strong and reversible color responses to changes in chemical environment.

The indicator strip consists of two spatially separated sensing zones. One zone is primarily sensitive to pH variations associated with early spoilage, while the second zone responds strongly to volatile amines released during protein degradation.

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Ms. Parkavi Nanthini S, IV BT, has published her project work in the Food and Beverages Processing Magazine (February 2026 issue), titled "When Your Food Changes Color, it's Trying to tell you something", under the guidance of Er. R. Amuthalakshmi (Internal Supervisor) and Er. Divya Paneerselvam(External Supervisor, Parikshan, FSS Pvt Ltd, Chennai).

STUDENT ACHEIVEMENTS



The First Year B.Tech Biotechnology class received the Best Class Award in the TMS Program, recognizing their overall performance and active participation



I. Vimala (23UBT018), K. P. Rathi (23UBT032), and G. Brindha Rajam (23UBT036) of III Year B.Tech Biotechnology participated in “BIONEXATHON – 24 Hours Hackathon,” organized by the Department of Biotechnology at K.S. Rangasamy College of Technology.

STUDENT ACHEIVEMENTS



J. Marisha Christine Stisha, S. Aparna, and S. Swetha of III Year participated in a 24-hour conference held at K.S. Rangasamy College of Technology and secured First Place, along with a cash award of Rs. 5,000. They have been offered with 2 months offline internship by Fungeeworks Pvt Ltd., Coimbatore



R. Sankara Narayanan (24UBT002) of II Year participated in a 24-hour conference at K.S. Rangasamy College of Technology and secured Third Place, receiving a cash award of Rs. 2,000. He has also been offered a two-month offline internship at Fungeeworks Pvt. Ltd., Coimbatore.

STUDENT ACHEIVEMENTS



Harish M., a II Year B.Tech Biotechnology student, won prizes at GYANMITRA'26 held at Mepco Schlenk Engineering College. He secured Second Prize with a cash award of Rs. 1,000 in the event “Lead Lab – Bioentrepreneur Edition” and achieved Third Place in the event “Helix Run.”



Ms. Nagalakshmi/III Y BT / Won Second Prize on *கவிதை எழுதுவோம்* in Mother language day* (06/03/2026)

STUDENT ACHEIVEMENTS

09-01-2026 மாலைமுரசு



விருதுநகர் காமராஜ் பொறியல் கல்லூரி மாணவர்களின் சாதனையை துணை முதல்வர் உதயநிதி ஸ்டாலின் பாராட்டி கவுரவித்தார்.

விருதுநகர் காமராஜ் பொறியியல் கல்லூரி மாணவர்கள் சாதனை!

துணை முதல்வர் உதயநிதி ஸ்டாலின் பாராட்டு!!

விருதுநகர், ஜன.9 கப்பட்டது. முதல்வர் உதயநிதி
விருதுநகர் காமராஜ் மேலும் அரசின் நான் ஸ்டாலினால் கௌரவிக்
பொறியியல் மற்றும் முதல்வன் 2.0 திட்டத்தால் கப்பட்டனர்.
தொழில்நுட்பக் கல்லூரி சிறந்த 50 வெற்றி பெற்ற வெற்றி பெற்ற மாணவர்
யின் உயிர் தொழில்நுட்ப யோசனையை ஸ்டாலின் களை கல்லூரி முதல்வர்
வியல் துறை மாணவர்கள் அப்பாக வெற்றிகரமாக செந்தில், கல்லூரி செயலா
உருவாக்கிய திட்டம், மாற்றியதற்காக, தமிழ் ளர் மகேஷ்குமார் மற்றும்
தமிழ்நாடு திறன் மேம் நாட்டிலிருந்து 10 அணி கல்லூரி நிர்வாகக்குழு
பாட்டுக்கழகத்தால் சிறந்த கள் தேர்ந்தெடுக்கப்பட்டு, உறுப்பினர்கள் பாராட்டி
திட்டமாக தேர்ந்தெடுக் சென்னையில் துணை னர்.

வெளியர் சென்று விரிவு கிளங்கள் காமராஜ் வங்காலம்

Mahesh 23UBT054 arun adhithyan 23UBT024 vijayaragavan 23UBT004 of III year B.Tech Biotechnology attended NM Niral Thiruvizha in Chennai, organized by state government of TamilNadu from 6.1.26 to 7.1.26.

STUDENT ACHEIVEMENTS



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.Velakulam - 625 701 (Near VIRUDHUNAGAR).



NATIONAL CADET CORPS
4D / 28 TN BN NCC VIRUDHUNAGAR

Congratulations!



Our NCC Cadets SUO Dhanush R.K., CUO Mukilan M., SGT Paramsivam J., and CUO Varshini S. have secured the prestigious Tamil Nadu Government Scholarship for the year 2025–2026.

Nancy G of IV BT and Nandhini G of 2025 Batch cleared GATE BT and Lifesciences papers respectively with a remarkable score.

STUDENT ACHEIVEMENTS



Our students Gowtham Raj R and Hari prasath S of III BT won first price of Rs 1500 and recieved internship opportunity at MICRO THERAPEUTIC RESEARCH LABS PVT LTD in the National Conference " Integrating life sciences and engineering : innovations in bioenergy for sustainable development"organised by Karpagam Academy of Higher Education, Coimbatore on 05/03/2026



Our students Hemanth prakash M and Sanjay veera s of III BT won second price of Rs 1000 and recieved internship opportunity at MICRO THERAPEUTIC RESEARCH LABS PVT LTD in the National Conference " Integrating life sciences and engineering : innovations in bioenergy for sustainable development"organised by Karpagam Academy of Higher Education, Coimbatore on 05/03/2026

STUDENT ACHEIVEMENTS



CDT HARISH M

CDT ESWARA MOORTHY B

Our NCC Cadets, CDT HARISH M and CDT ESWARA MOORTHY. B successfully complet
ARMY ATTACHMENT CAMP AT
7 ENGR REGT SECUNDARABAD
FROM 02 MAR 2026 TO 12 MAR 2026

Nayaana S, Elakiya SR and Yazhini G from III year Biotech under the guidance of Er.R.Amuthalakshmi - Assistant Professor - Dept of biotech ,participated in EUPHORIA 2026 organised by Kalasalingam University on 13th march and secured THIRD prize with cash award of Rs.1500

STUDENT ACHEIVEMENTS



S. Chinna samy (24UBT014) and M. Muthu erulappan (24UBT013) II year BT won third price in intercollegiate kabaddi match at SRC, SASTRA, Kumbakonam.



K.P.Rathi , I.Vimala III BT won 2nd prize at National conference on " Futuristic Biotechnology for sustainable Development (NCFBSD - 2026) organized by Bannari Amman Institute of Technology on 20th Marc

STUDENT ACHEIVEMENTS



Ms. NAGALAKSHMI, III Year Biotechnology Department. Received "MANBUMIGU MAGALIR VIRUDHU - 2026" From Vaagai Tamil Sangam, Namakkal.

k.koteshwari and J.Fathima Zulf II BT under the guidance of Dr.R.Baskaran won 1st prize at National conference on "Frontiers in biotechnology and interdisciplinary research" organized by sethu institute of technology on 16th March 2026



Ms. R. Nikhitha and Ms. M. Suvetha won first Prize in Oral presentation in National conference on the topic Design of Natural Biopolymer-Based Composite Film with Mupirocin and Curcumin for Antimicrobial Wound Healing organized by Department of Biotechnology, PSR Engineering College, Sivakasi.



Our students Gowtham Raj R and Hari prasath S of III BT won second price and price amount of Rs 1000 in the "Hydrotech symposium: Emerging trends in wastewater treatment" organised by National Institute of Technology Trichy on 25/03/2026

KCET SPORTS DAY -2026

A.Jaleel hyther of IInd year biotech won in kabaddi secured II prize, Hand ball secured Ist prize, Badminton secured Ist prize, Table tennis secured Ist prize, Ball Badminton secured IInd prize, Tennis secured IInd prize

S.Chinnasamy of IInd year biotech secured IInd prize in kabaddi and I prize in handball

R.Raja priyadharshini and M.divya of IIIrd year Biotechnology secured 1st prize in chess and 3rd prize 400m×4 relay

S.Nagalakshmi of IIIrd year Biotechnology secured Ist prize in Ball badminton and Cricket

K.Rakshana of IIIrd year Biotechnology secured 1 st Prize in Throw ball and 2 nd prize in volleyball

M.Krithiga of IInd nd year biotech won
1.400m relay (2nd price)
2.400m Athletic (2nd price)
3.yoga (3rd price)
4.5km walk (2nd price)

M.Muthu erulappan of IInd year biotech secured IInd prize in volley ball, IIIrd prize in 800m run

M.S.Durgesh of IInd year biotech secured Ist prize in Volley ball, Ist prize in Kabaddi, IInd prize in Basket ball and Ist prize in 500m walk

R.Raja priyadharshini of III year B.Tech.Biotechnology secured 1st prize in High jump.

R.Raja priyadharshini , S. janani and D.Yazhini of IIIrd year Biotechnology secured 3rd prize in cricket

Dharshini.K of IIIrd year Biotechnology secured 2nd prize in 5KM Walk.

S.Lavanya of IInd year biotech secured IIIrd prize in yoga

P.Hari BalaMurugan of IIIrd year Biotechnology secured Ist prize in Football

STUDENT ACTIVITIES

Nagalakshmi S. (23UBT035) and Mukila K. (23UBT030) of III Year B.Tech Biotechnology participated in the Top 50 Presentation Event of the All India Women Start-A-Thon, organized by Shooting Stars in association with Black Soil, held on 24 January 2026.

Veeralakshmi V. (23UBT019) of III Year B.Tech Biotechnology attended a one-day lecture for entrepreneurs titled "Agri Startup Surge," organized by Young Indians (Yi) and MABIF (an initiative of NABARD and TNAU) on 23 January 2026.

Sanjayveera S (Roll No: 23UBT041) and Hemanth Prakash M (Roll No: 23UBT037), students of III Year B.Tech Biotechnology, submitted a project proposal titled "Vinegar Production from Spoiled Tomato Using Microbial Fermentation" to the EDII Hackathon, organized by the Entrepreneurship Development Institute of India (EDII) on 02/02/2026.

Krishna Priyanka G(Roll No 23UBT045), Roshini S(23UBT014) of III Year B.Tech Biotechnology submitted a Project Proposal titled "Valorization of Eggshell Waste and Seaweed Biomass as Sustainable Supplementary Materials in Cement" to the EDII Hackathon, organised by Entrepreneurship Development Institute of India (EDII) on 02/02/2026.

Akshaya R B(Roll No 23UBT031), Supriya D(23UBT034), Shalini T(23UBT028)of III Year and Vignesh Kumar M (24UBT044) of II year B.Tech Biotechnology submitted a Project Proposal titled "NanoFlavo Gut joint" to the EDII Hackathon, organised by Entrepreneurship Development Institute of India (EDII) on 02/02/2026.

KAVIYA and Meenadevi II BT attended BEACON Madurai cohort awareness program conducted by iTNT.

STUDENT ACTIVITIES

Ms. Karishma and team of III Year B.Tech Biotechnology participated in a hackathon "BIONEXATHON-24hours hackathon" organized by Department of Biotechnology, K.S.Rangasamy college of technology .

K.Rakshana(23UBT048), M.Karishma(23UBT053) of III B.Tech Biotechnology participated in BIONEXATHON-a hour hackathon organized K S Rangasamy College of Technology from 13th to 14th February

M.Kaviyasree (23UBT023), Hamshad vani.C (23UBT003) of III Year B.Tech Biotechnology have registered for Niral Thiruvizha 3.0 titled " Banana peel Waste Valorisation for Microgreen Cultivation and Millet Based Health Mix " under Jeyaprinacy from IV year on 24.02.2026

Mahesh 23UBT054, Hari Balamurugan 23UBT022 of III year participated in a 24hour hackathon by KSR college from 13th to 14th february

M. Gauri sankaran (24UBT030), R. H Mohamed rafiq(24UBT027) participated in Namma Delta Hackathon organized by needs hive and tn startup held at 18.2.26

R. SANKARA NARAYANAN 24UBT002 second year participated in national level technical project exhibition and competition srishthi 2026 at saintgits college of engineering from 23/2/2026 to 24/2/2026.

Jeyaprinacy S of IV Year B.Tech Biotechnology registered a project idea titled "Banana Peel Waste Valorization for microgreen Cultivation and Millet-Based Health Mix"organised by Niral thiruvizha scheme on 24.02.2026

Krishna Priyanka G(23UBT045) and Roshini S(23UBT014) of III Year B.Tech Biotechnology presented a Paper titled "Bio-Engineered concrete from eggshell waste and marine biomass" at Symposium organised by thiagarajar college of engineering at Techutsav on 04/03/2026.

STUDENT ACTIVITIES

Krishna Priyanka G(23UBT045) and Roshini S(23ubt014) of III Year B.Tech Biotechnology participated in a Non Technical Event "lots and ladder" at Symposium organised by thiagarajar college of engineering at Techutsav on 04/03/2026.

Syed sirajutheen M, of III year B.tech Biotechnology presented a paper titled "In-Silico Docking Study of Quercetin Targeting Acetylcholinesterase in Alzheimer's Disease" at Integrating Life Sciences and Engineering: Innovations in Bioenergy for Sustainable Development- ILE 2026 organised by karpagam academy of higher education on 5/03/2026

Porselvan S G (23UBT006), of III year B.tech Biotechnology presented a paper titled " Industrial Wastewater-Driven Cultivation of Cyanobacteria for Sustainable Biodiesel Production" at Integrating Life Sciences and Engineering: Innovations in Bioenergy for Sustainable Development- ILE 2026 organised by karpagam academy of higher education on 5/03/2026

J. Puvina Jasmine (23UBT025) and M. Karishma (23UBT053) were applied in Niral Thiruvila 3.0 titled "Zero-Waste Water Hyacinth Biorefinery: Integrated Bioethanol and Biochar Production Model" organised by Tamil Nadu Skill Development Corporation (TNSDC).

Gowtham Raj. R, Hari prasath.s , of III year B.tech Biotechnology presented a paper titled " investigating the effect of cholesterol on DOPC lipid bilayer: all all atom molecular Dynamics study" at Integrating Life Sciences and Engineering: Innovations in Bioenergy for Sustainable Development- ILE 2026 organised by karpagam academy of higher education on 5/03/2026

Hemanth Prakash M and Sanjay, III Year B.Tech Biotechnology students, presented a paper titled "Investigating the Effect of Cholesterol on DOPC Lipid Bilayer: An All-Atom Molecular Dynamics Study" at the conference "Integrating Life Sciences and Engineering: Innovations in Bioenergy for Sustainable Development – ILE 2026", organized by Karpagam Academy of Higher Education on 5 March 2026

STUDENT ACTIVITIES

Supriya, Akshaya RB, Shalini T of III Year B.Tech Biotechnology students, presented a paper titled “Development of a nano encapsulated Enteric coated Flavonoid capsule for enhanced Bioavailability ” at the conference “Integrating Life Sciences and Engineering: Innovations in Bioenergy for Sustainable Development – ILE 2026”, organized by Karpagam Academy of Higher Education on 5 March 2026

Vishwapriya V (23UBT052) of III year B.Tech Biotechnology presented in a TNwise hackathon in a title of developmental of plant based transdermal patch using tridax procumbens organized by Periyar Maniammai institute of science and technology from 7/3/26 to 7/3/26

Karishma. M(23UBT053), Puvina Jasmine. J(23UBT025) of III Year B. Tech Biotechnology participated on TN wise hackathon titled "Development and Evaluation of a Bioactive Hibiscus– Spirulina Herbal Anti-Acne Face Wash for Affordable Indigenous Skincare Applications" at hackathon organised by periyar maniyammai Institute on 07/03/2026

Krishna Priyanka G(23UBT045) and Roshini S(23UBT014) of III Year B.Tech Biotechnology students, presented a paper titled “Utilization of Eggshell Waste and Seaweed Biochar as Sustainable Partial Replacement for Cement” at the conference “Integrating Life Sciences and Engineering: Innovations in Bioenergy for Sustainable Development – ILE 2026”, organized by Karpagam Academy of Higher Education on 5 March 2026

Suvetha M (24UBT003),Nikhita R (24UBT037) of II year B.Tech Biotechnology participated in TANCAM'S Hackathon on the topic Silk based wound healing patch at Periyar Maniyammai Institute of Science and Technology Organised by Tamilnadu government on 07.03.26

Veeralakshmi.V (23UBT019) of III year B.Tech Biotechnology attended a Training program on FOSTAC - Advance level organised by MABIF at Madurai (7.03.2026)

STUDENT ACTIVITIES

R.Gopika (24UBT018), S. Pranikaa(24UBT041), M.Pandiselvi (24UBT007) of IInd year B.tech Biotech, presented an idea in ideathon organised by kalasalingam university on 13/03/26

KARANYA N (23UBT027) and RAKSHANA K (23UBT048) of III Year B.Tech Biotechnology presented a idea at TN-IMPACT titled "Air Pollution Control using a Biochar - Microbial Hybrid Filtration System" conducted at Kalaingar Karunanidhi Institute of technology, Coimbatore organised by the TANCAM on 14 March 2026.

Nikhita , Suvetha , Vishwapriya ,PuvinaJasmine , Karishma presented their idea in TN-Wise at Periyar Maniammai institute on 07.03.2026

Akshaya R B (23UBT031), Shalini T (23UBT028) and Supriya (23UBT034) of III Year B. Tech Biotechnology presented a Paper titled "FlavoNano : Gut-Targeted joint adjuvant therapy" at International conference on "Innovation in Electrical engineering and Pharmaceutical Research" organised by Sri Muthukumaran Institute of technology on 18/03/2026

K Mohanraj (23UBT051), G. Vijayaragavan (23UBT004), S. Arun Adhithyan (23UBT024) and P. Hari Balamurugan (23UBT022) of III Year B.Tech Biotechnology presented a paper titled "Integrated Wastewater Treatment and Sustainable Biofuel Production Using Microalgae" at the International Conference on Innovations in Electrical Engineering and Pharmaceutical Research (ICIEEPR'26) organised by Sri Muthukumaran Institute of Technology, Chennai on 18/03/2026 (online mode).

NAGALAKSHMI.S (23UBT035), MUKILA.K (23UBT029) of III Year B. Tech Biotechnology presented a Paper titled "Development of Eggshell-Based Edible Coating for Post-Harvest Preservation of Mushroom" Conference on National conference on Futuristic biotechnology for sustainable Development - 2026 organised by Department of Biotechnology, Bannari Amman Institute of Technology from 20/03/2026.

STUDENT ACTIVITIES

Gowtham Raj. R (23UBT033), hari prasath S (23UBT002), of III year B.Tech Biotechnology presented a paper titled " investigating the interaction dynamics of carboxylesterase with chropyrifos : An all atom Molecular Dynamics simulation study at National Hydrotech symposium : Emerging Trends in waste water Treatment-2026 organised by National Institute of Technology Trichy on 25/03/26

Porselvan S G (23UBT006)of III year B.Tech Biotechnology presented a paper titled " Waste water treatment using cyanobacteria by pilot raceway pond" at National Hydrotech symposium : Emerging Trends in waste water Treatment-2026 organised by National Institute of Technology Trichy on 25/03/26

Lavanya (24UBT031) if II Year BTech Biotechnology participated in a Technical conference organized by PSR College of Engineering and Technology titled Formulation of Polyherbal anti microbial gel using combined plant extracts and evaluation of synergistic activity against antibiotic resistant bacteria organized from 25.03.2026 to 26.03.2026

Kumaresh R (24UBT023) , Saravanan G (24UBT036) , Ganesh Kumar K (24UBT035) presented a paper titled "Development of Biodegradable Plastic from Marine Algae for Water Bottles" Biovital2026 organised by PSR engineering College on 26-03-26

FACULTY ACHIVEMENTS



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DEPARTMENT OF BIOTECHNOLOGY

(Accredited by NBA, New Delhi)



Congratulations

to Er. Karl Joseph Samuel, AP/BT, and his student team on being honoured by the Hon'ble Deputy Chief Minister of Tamil Nadu, for successfully transforming their Naan Mudhalvan 2.0 Top 50 winning idea into a startup.



07 JANUARY, 2026,
10:00 AM



VALLUVAR KOTTAM,
CHENNAI



Er. Karl Joseph Samuel

Assistant Professor



Ms. SUJA ULAGASHREE K

2021-25 Batch



Ms. SORNAMALA RAMYA K

2021-25 Batch



Ms. HARINI M

2021-25 Batch

FACULTY ACHIVEMENTS

Dr.R. Shyam Kumar/Professor/BT, published Book chapter titled 'Value adding Agriculture products.....microbial Intervention " in. Ed. Harnessing Microbial Resources for Sustainable Agriculture, published by Springer Nature. in collaboration with KSU & PSG.

Dr K.Geetha, ASP/BT and scholar Ms Shalini K. have published research article titled "Sustainable Mesoporous Silica Nanoparticles from Groundnut Shells for High-Efficiency Cr(VI) Removal: Kinetics, Isotherms, and Mechanism Insights" in Chemical and Biochemical Engineering Journal, 39 (4) 203–225 (2025).

Dr. R.Shyam Kumar/ Professor /BT published a article in peer reviewed journal along with collaborators. "Interplay between light spectrum and nitrogen availability on growth, pigment accumulation, and photosystem dynamics in *Leptolyngbya* sp. MKU-05" In Journal of applied Phycology (IF: 3.3) (Springer)

Dr.S.Karthikumar has published a Research Paper along with NIT Tiruchirappali on "Selective ethanol vapour sensing enabled by amine-functionalized MOF–polyetherimide hybrid membranes" in Materials Chemistry Frontiers Journal (Royal Society of Chemistry), DoI: <https://doi.org/10.1039/D5QM00828J>; IF: 6.4

FACULTY ACHIVEMENTS



Faculties honoured at Researcher's day - 26.02.2026

FACULTY ACTIVITIES

Dr.R.Shyam Kumar/Professor/BT participated online Expert Lecture Series on Microbial Bioprospecting for Sustainable Health, Environment and Agriculture (ELSMB – Virtual Lecture 11) organized by Sathyabama University, Chennai.

Dr. Shyam Kumar R, Professor, BT participated one-day workshop titled "Tools & Techniques to Unleash Your Maximum Potential to Prepare for Your Future," organized by GSTE, in association with led by the renowned Mr. Venkatesh, Founder & CEO of Apna Vikas, Bengaluru. .

Dr. SHYAM KUMAR. R/Professor/BT, participated FDP on “Next-Gen Teaching with AI Assistants” Organized by Department of Computer Science and Engineering in Sri Chandrasekharendra Saraswathi Viswa Mahavidyalaya in association with Pencilbitz.

Dr. R. SHYAM KUMAR /Professor/BT Participated online Webinar on “Building Profitable FPOs: Success Stories and Strategies " Organized by EXTENSION EDUCATION INSTITUTE (EEI), MINISTRY OF AGRICULTURE & FARMERS WELFARE, GOVT. OF INDIA, Hyderabad on 23 February 2026

Dr. K.Geetha, ASP/BT, participated in one day FDP on “Next-Gen Teaching with AI Assistants” Organized by Department of Computer Science and Engineering in Sri Chandrasekharendra Saraswathi Viswa Mahavidyalaya in association with Pencilbitz on 16/1/2026.

Dr. Shyam Kumar R/Professor/BT participated Expert Lecture Series– 2026 title “High Cell Density Growth of E. coli for Protein Production” organized by The Academy of Microbiological Sciences (AMSc) in association with Association of Microbiologists of India (AMI).Sunday, 18 January 2026

Dr. R. SHYAM KUMAR /Professor/BT Participated Webinar on “Indias new Labour Codes and Rules (2025) : Leadership Briefing “ 30 January 2026, Organized by ABLE in association with Bizprout Expert Systems Pvt. Ltd, Bengluru.

FACULTY ACTIVITIES

Dr. Shyam Kumar/Professor/BT participated five days FDP on "Smart health Care and Digital Innovations in Health sciences: AI, Computational Research and Industry-Driven Approaches" 27-31, Jan 2026, Organized by Department of Biotechnology, Quantum University, Roorkee.

Dr. R. Shyam Kumar/Professor/BT participated "International zebra day awareness QUIZ organized by PG & Research Department of Zoology, Sri Vijay Vidhyalaya College, Nallampalli, Dharumapuri.

Dr. R. SHYAM KUMAR /Professor/BT Participated Webinar on "Indias new Labour Codes and Rules (2025) : Leadership Briefing " 30 January 2026, Organized by ABLE in association with Bizprout Expert Systems Pvt. Ltd, Bengluru.

Dr. R. Shyam Kumar/Professor/BT participated workshop on "Microgreens Cultivation & Value Addition for Income Generation" Organized by Crescent Innovation and Incubation Council, Chennai, Madurai division.

Dr. S. Karthikumar, Associate Professor, Department of Biotechnology presented a paper titled " Smart Juice Clarification System using Biopolymer Membrane" at 3rd International Conference on Advancement in Science, Engineering & Management (3rd ICSEM 2026)"- Jointly Organized by the School of Computing, Vidya Vihar Institute of Technology, Purnea, Bihar, India & RSP Conference Hub, Coimbatore, Tamil Nadu, India on 30.01.2026

FACULTY ACTIVITIES

Dr R.Shyam Kumar/Professor/BT participated webinar on "Modern Manufacturing Process Mastery : Skills Every Engineers Know" Organized by Global society of Engineering Technology,

Er R Raja Rajesweri AP/BT, attended a 5 Day Faculty Development Programme on "Next-Gen Academia: AI Skills for Effective Teaching, Research and Publications" organized by the Department of Biotechnology, Bishop Heber College (Autonomous), Tiruchirappalli, Tamil Nadu from 23.02.2026 to 27.02.2026

Dr. R. Shyam Kumar/Professor/BT has participated Faculty Development program on "Next generation Innovation in Health Care and Biotechnology, Organized By Dept of Biotechnology, PSR Engineering and Technology,

Dr.SHYAM KUMAR .R/Prof/BT participated one-day workshop on "Financial Engineering - Building Wealth Like You Build Systems", led by Shweta Goyal, Founder of SvarnaYuga and Her Wealth Circle, Bengaluru. Organized by GSTE.

Dr. S. Karthikumar, ASP/BT participated in round table discussion with Dr. Shivkumar Kalyanaraman, CEO, ANRF, New Delhi as part of SASTRA Science day award at SASTRA University, Thanjavur on 28.2.2026

Dr K.Geetha, ASP/BT, attended 5 Days Online Faculty Development Programme on "Next-Generation Innovation in Healthcare and Biotech." organized by PSR Engineering College, Sivakasi from 2/3/2026 to 6/3/2026.

Dr. S. Karthikumar, ASP/BT presented oral presentation titled "Image Processing and NearInfrared Spectroscopy Based Multimodal Biofouling Monitoring in Filtration Membranes during Algal Dewatering Processes" in the International Conference on Sustainable Biotechnology and Bioinnovations (SBB-2026) from 25th to 27th February 2026, organized by Amity Institute of Biotechnology, at Amity University Uttar Pradesh, Noida.

Er R Raja Rajesweri, AP/BT, attended a workshop on "Research paper writing and concepts" organized by Research foundation of India in association with Parul university, Gujarat on 6th and 7th March 2026.

FACULTY ACTIVITIES



Dr. S. Karthikumar, ASP/BT delivered a guest lecture to EDC/IIC member of Saingits college of engineering at Kottayam, Kerala on 23.02.2026

ORA-2K26



DEPARTMENT OF BIOTECHNOLOGY

International Conference on
**Sustainable Biotechnology: AI Driven
Approaches in Biological Systems and Process.**
12 & 13 March 2026

ORA 2026- INAUGURAL SESSION



ORA-2K26



DEPARTMENT OF BIOTECHNOLOGY

International Conference on
Sustainable Biotechnology: AI Driven Approaches in Biological Systems and Process.
12 & 13 March 2026

ORA 2026- TECHNICAL SESSION



ORA-2K26



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DEPARTMENT OF BIOTECHNOLOGY

International Conference on
**Sustainable Biotechnology: AI Driven
Approaches in Biological Systems and Process.**
12 & 13 March 2026

ORA 2026- VALEDICTORY SESSION



VALUE ADDED COURSE



Industry Certified Value added course on "Algal Technology and Applications" is conducted for II BT students from 5/1/2026 to 10/1/2026.

VALUE ADDED COURSE



II year BT students visited Seaweed Processing unit at Rameswaram as part of Industry certified Value Added course . They received hands-on training on cultivation of microalgae.

VALUE ADDED COURSE



II year BT students visited CSIR-CSMRI Institute, Mandapam as part of Industry certified Value Added course.

VALUE ADDED COURSE



II yr BT students visited King Agar and Anandha Agricultural Solutions, Madurai on 09.01.2026 as a part of their Value Added Program

VALUE ADDED COURSE



II Year Biotechnology students of Kamaraj showcased innovative Products developed from Algae as part of the Industry Certified Value Added Course on Algal Technology. The exhibition showcased students' creativity in turning algae into practical applications, linking academics with industry.

ALUMINI INTERACTION



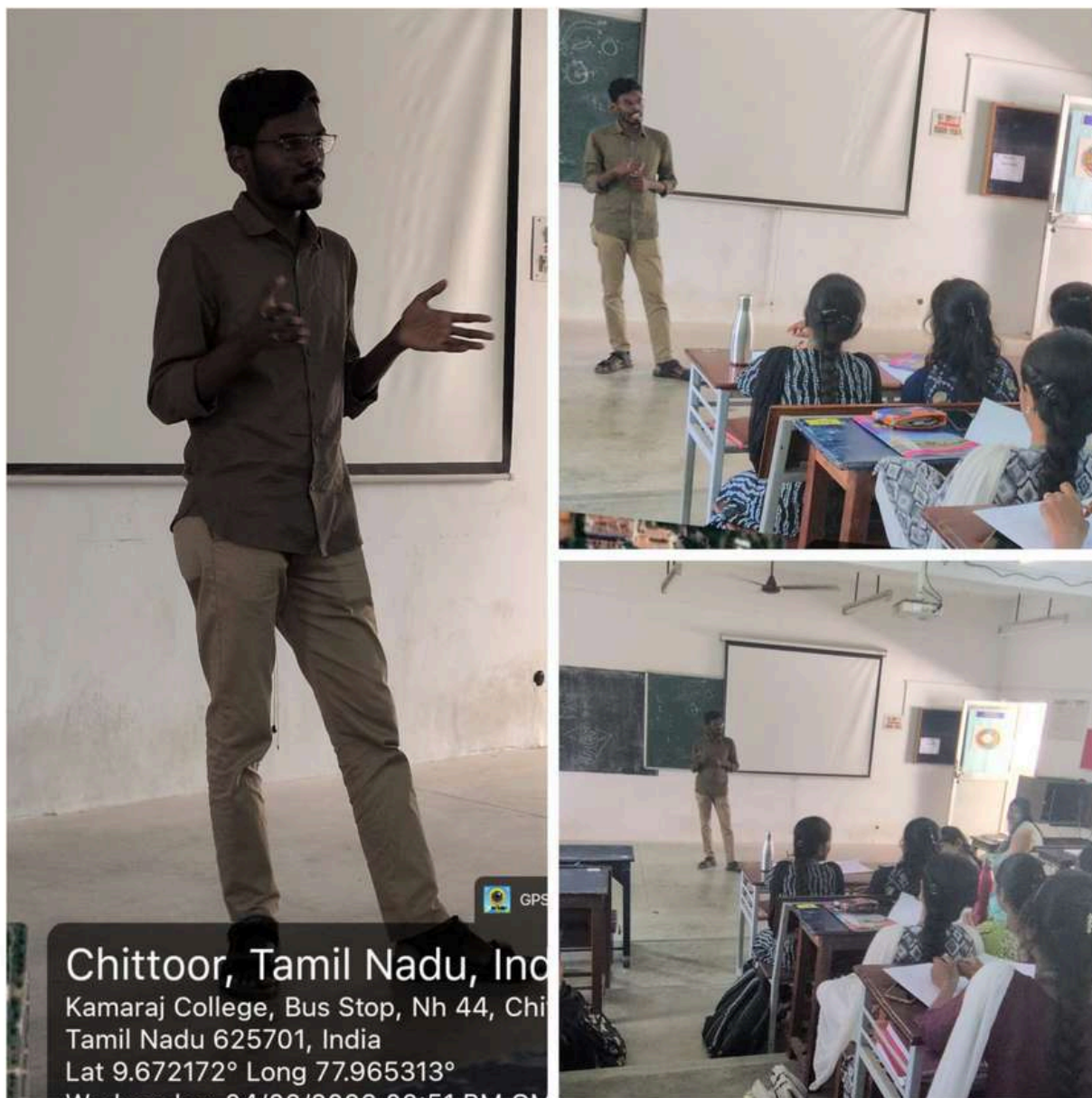
Our distinguished Alumnus Mr. Sudharshan (2020-24 batch) delivered a guest lecture on " Career opportunities for Biotechnologists in data driven industries" to our III and IV BT students

ALUMINI INTERACTION



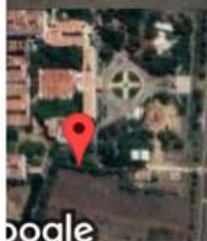
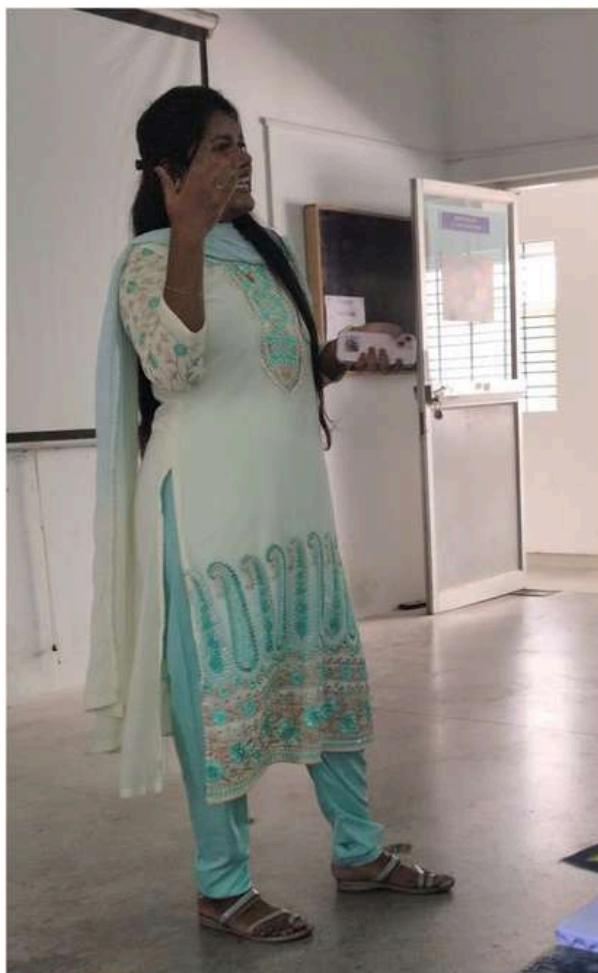
Our distinguished alumnus Mr. S. Aravind 2017-21, manager, Merck Sharp and Dome, Hyderabad delivered a guest lecture on "Role of BT in Global Pharmaceutical R & D : An industry perspective" for third BT students

ALUMINI INTERACTION



An alumni guest lecture was delivered by our distinguished alumni Mr. R. Akash (2018 – 22), Senior System Engineer, Infosys Private Ltd., Chennai on Emerging Trends and Career Pathways in the IT Industry for our third year BT student

ALUMINI INTERACTION



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Kamaraj College, Bus Stop
Tamil Nadu 625701, India
Lat 9.672177° Long 77.965
Wednesday, 04/02/2026 0
+05:30



Chittoor, Tamil Nadu, India 🇮🇳
Kamaraj College, Bus Stop, Nh 44, Chittoor,
Tamil Nadu 625701, India
Lat 9.672167° Long 77.96531°
Wednesday, 04/02/2026 02:46 PM GMT +05:30



Our distinguished alumna Ms. K. Mira Shakunthala (2018 – 22), Clinical Research Associate, Strand Life Sciences, Bangalore delivered a guest lecture on Career Pathways in Clinical Research and Life Sciences for our Third BT students

IIC ACTIVITIES



IIC organized Session on Capture the Corporate World by Mr. Jebrine, Sculpt Team, Madurai.



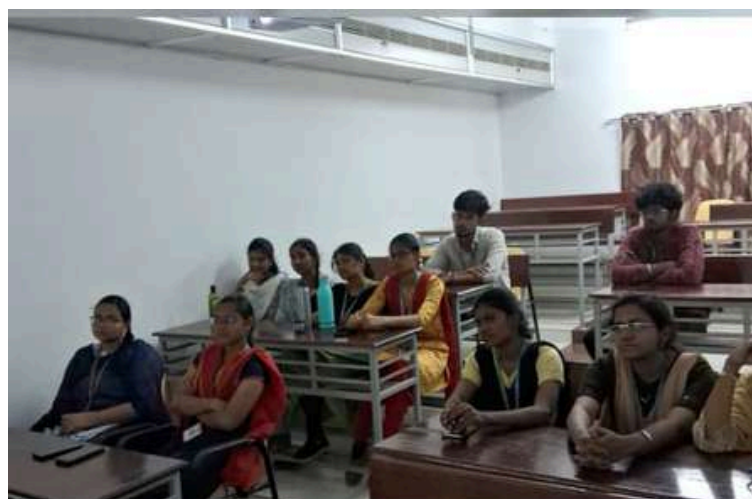
IIC organized session on Government opportunities for women empowerment in Pisciculture for BT students by Mr. Vijayakumar, Annai Fish Farm, Madurai.

ASSOCIATION EVENTS



Genes Association, Department of Biotechnology organized a guest lecture on "From Classroom to Industry: Understanding Real Industrial Challenges in Food & Biotechnology Sectors" on 23 March 2026. Ms K ChitraDevi, Prinicpal Consultant, Clues Advisory Partners, Virudhunagar was invited as the guest speaker to address the 2nd and 3rd Year BT students.

ELITE BIO CLUB



EliteBio Club, Department of Biotechnology organized an Interactive session for 3rd year club members on lipid bilayer and computational approaches in protein analysis on 30.01.2026.

ELITE BIO CLUB



EliteBio Club Department of Biotechnology organized a problem solving session on " Mind matters: Solving real issues".(05.02.2026). II BT club members worked on two problem statements based on water pollution due to textile industry wastes.

ELITE BIO CLUB



EliteBio Club Department of Biotechnology Organized a discussion session on "How industries develop a product - from idea to market".(11.02.2026).III BT club members interacted on industrial product developmental process and their marketing strategies.

ELITE BIO CLUB



II and III BT students of EliteBio Club,
Department of Biotechnology along with Er R
Raja Rajesweri AP/BT, Visited Annai Latex Pvt
Ltd, Levinjipuram on 07.03.2026

PLACEMENTS

2022- 2026 BATCH

KAMARAJ
COLLEGE OF ENGINEERING & TECHNOLOGY

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a CHC company

CTC
3.2 LPA



Ms. Helen Gracelin Joy
2022-26 Batch



Mr. Naveen B J
2022-26 Batch



Mr. Abinanthan K
2022-26 Batch



Mr. Vishnu Vardhan R M
2022-26 Batch



Ms. Devi M
2022-26 Batch



Ms. Gengeswari N
2022-26 Batch



Mr. Pugazhenthir R
2022-26 Batch



Mr. Haresh V N
2022-26 Batch



Ms. Guruvarshini K
2022-26 Batch



Ms. Keerthana N
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Congratulations

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NEEYAMCO

CTC
3.5 LPA



Ms. Nancy G

2022-26 Batch

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Ms. Sakthi Shivani K

2022-26 Batch

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Congratulations

on your Placement at

Vedantu

CTC
6 LPA



Mr. Haresh V N
2022-26 Batch

Your hard work and dedication have paid off, marking the start of a promising career.

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DEPARTMENT ACTIVITIES



I.Vimala (23UBT018),
M.Kaviyasree
(23UBT023), J.Puvina
Jasmine (23UBT025) of
III Year B.Tech
Biotechnology had
undergone an industrial
visit at Scigenics (India)
Private Limited, Chennai
for a period of 3 days
from 2 February 2026 to
4 February 2026.



Discussion & Demo
On clinical trials
course - adaptive
medicine, personalized
medicine

DEPARTMENT ACTIVITIES



Dr. S. Karthikumar along with Students of MSME 4.0 team visited the Pottery Making Association cluster and interacted with local Pottery artisans at Thanjavur on 20.01.2026

DEPARTMENT ACTIVITIES

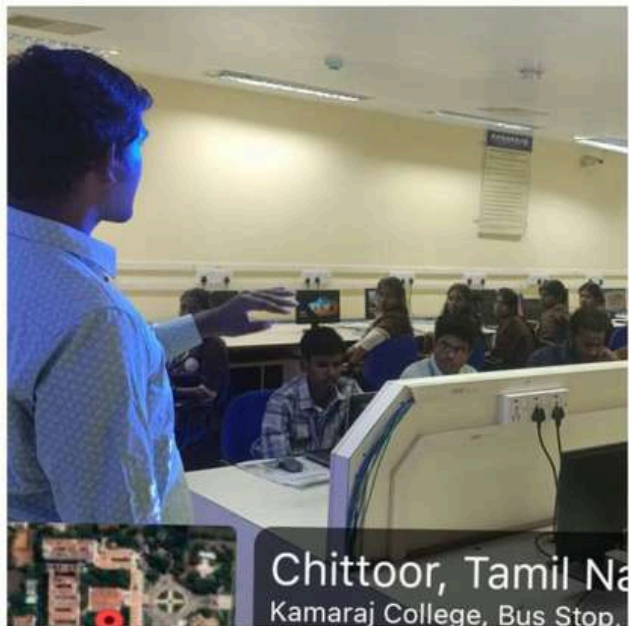


Appreciation to I year BT toppers by CPs and Biotech dept



Department of Biotechnology organized an Online guest lecture on "Antigen-Antibody Reactions" for III BT students on 5/2/2026. Resource Person- Dr Pradiba D., ICMR, Madurai.

DEPARTMENT ACTIVITIES



The Department of Biotechnology organized an ISTE Sponsored Hands-on Workshop on “SAS and R Programming for Clinical Trial Data Analysis.” Mr. Jeny, CTT Benchmarking Expert, GlaxoSmithKline (GSK), Bangalore addressed the second and third BT students

DEPARTMENT ACTIVITIES



Dr. S. Karthikumar along with students S. Aparna, S. Swetha, J.Marisha Christine Stisha (III BT) visited PSG Tech STEP, Coimbatore as part of MSME project on 09.03.26

DEPARTMENT ACTIVITIES



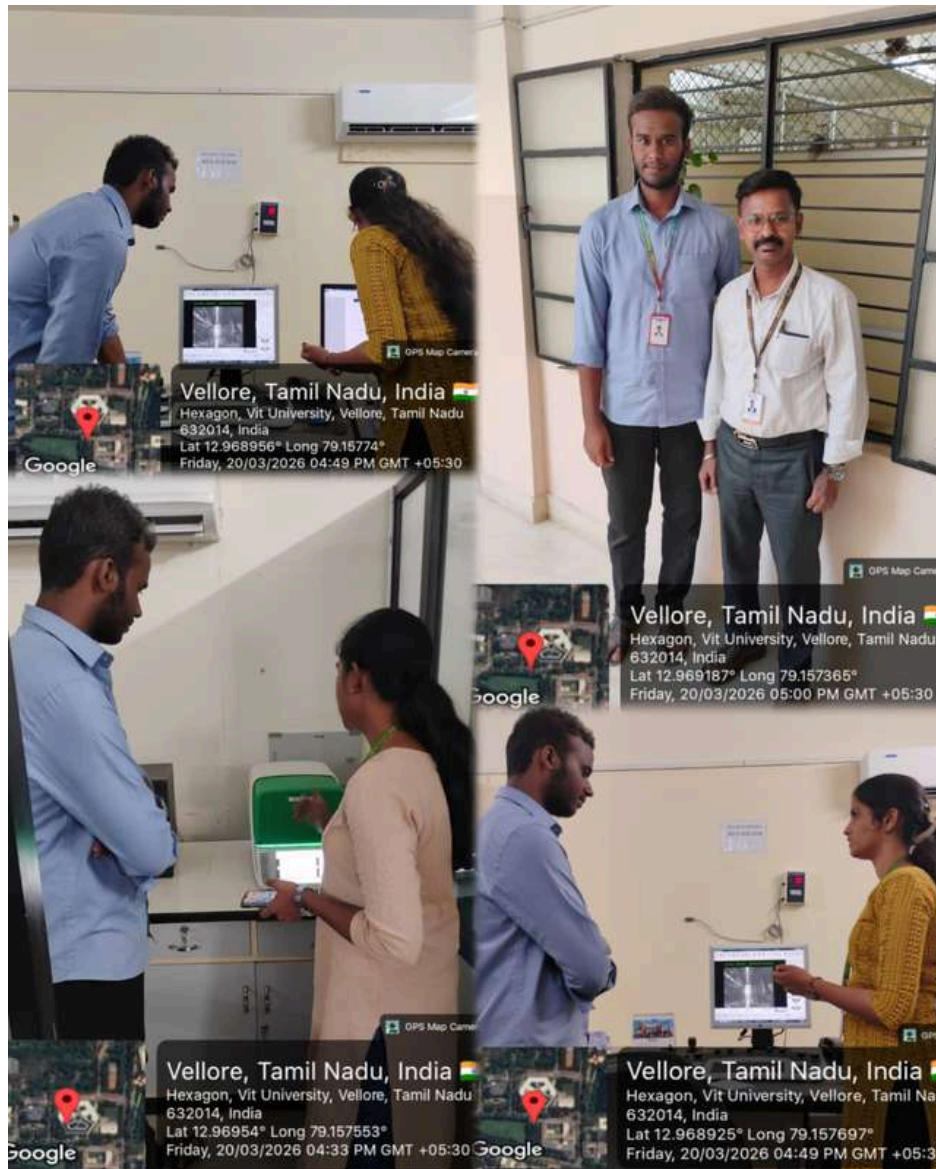
II BT students visited Britannia Industries limited, Nagari, Madurai on 10.03.2026

DEPARTMENT ACTIVITIES



Department of Biotechnology organized a workshop on "Clinical Trials in health care" Resource person: Ms. Naga Jothi S., Clinical trial Co-ordinator and Ethical Ciordinator, Arthur Aseerwad Hospital, Madurai.

DEPARTMENT ACTIVITIES



Sankar Narayan II BT student Visited VIT, Vellore interacted faculties and undergone exposure on international facilities at Biotechnology department.

DEPARTMENT ACTIVITIES



Dr R ShyamKumar Prof&Head/BT and Dr R Baskaran ASP/BT signed MOU with Fermentech GSV Pvt Ltd, Thanjavur on 27.03.2026 and had a discussion regarding internships and placement opportunities for students.

DEPARTMENT ACTIVITIES



Entrepreneur Development Cell of Biotechnology has organized one day Entrepreneurial Workshop on Algal Technology in association with SS Biotech, Madurai on 25.3.26

PONGAL - 2026



SPORTS



Department of Biotechnology organized students friendly cricket match with III BT boys on 07/02/2026.

SPORTS



II BT, III BT girl students & BT Lady Faculty Members enjoyed a friendly Dodge ball match on 19/02/2026