



SCHOOL OF BIO SCIENCES AND TECHNOLOGY



BIOBROADCAST

JANUARY-MARCH 2025

VELLORE INSTITUTE OF TECHNOLOGY

VIT was established with the aim of providing quality higher education on par with international standards. It persistently seeks and adopts innovative methods to improve the quality of higher education consistently. The campus has a cosmopolitan atmosphere with students from all corners of the globe. Experienced and learned teachers are strongly encouraged to nurture the students. The global standards set at VIT in the field of teaching and research spur us on in our relentless pursuit of excellence. It has become a way of life for us. The highly motivated youngsters on the campus are a constant source of pride. Our MoUs with various international universities are our major strength. They provide for an exchange of students and faculty and encourage joint research projects for the mutual benefit of these universities. Many of our students, who pursue their research projects in foreign universities, bring high quality to their work and esteem to India and have done us proud. With steady steps, we continue our march forward. We look forward to meeting you here at VIT.



LEADERSHIP

Dr. G. Viswanathan, Founder & Chancellor

Mr. Sankar Viswanathan, Vice President

Dr. Sekar Viswanathan, Vice President

Dr. G. V. Selvam, Vice President

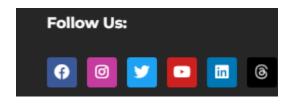
Dr. Sandhya Pentareddy, Executive Director

Ms. Kadhambari S. Viswanathan, Assistant Vice President

Dr. V. S. Kanchana Bhaaskaran, Vice Chancellor

Dr. Partha Sharathi Mallick, Pro-Vice Chancellor

Dr. T. Jayabharathi, Registrar



OUR INSPIRATION



The honorable founder-chancellor, Dr. G. Viswanathan, is an inspiration to aspiring youth. Under his leadership, the Vellore Institute of Technology aims to transform life through excellence in education and research. The institute focuses on providing world-class education grounded in ethics and critical thinking for the improvement of life. It also facilitates an innovation ecosystem to extend knowledge and solve critical problems. VIT provides a nurturing environment with a happy, accountable, caring, and effective workforce and students. Further, it supports active collaboration with national and international industries as well as academia for productivity and economic development. Service to the region and world through knowledge and compassion is an important mission of the university.

The core values of the VIT include student focus, strong ethics, striving for excellence, social development, and respect for all.

Thank you so much, sir, for your encouragement and support....

DEAN'S MESSAGE

Dear Students, Faculty, and Staff,

Greetings from the School of Biosciences and Technology!



I am pleased to share the key highlights from the School of Biosciences and Technology for the first quarter of 2025. Our faculty have continued to excel with funded research projects, patents, and publications in reputed journals, reinforcing our commitment to impactful scientific contributions. Our students achieved notable recognition through academic competitions, internships, and research presentations, reflecting their dedication and drive.

We hosted a series of insightful guest lectures and organized academic events that fostered knowledge-sharing and collaboration. These platforms enriched the learning environment and encouraged innovation across all levels.

Looking ahead, we are preparing for our upcoming international conference and launching new research initiatives this summer. I thank each of you for your continued support in advancing our shared mission of academic excellence and innovation.

Warm regards,

Dr. Suneetha V.

Dean, School of Bio Sciences and Technology, VIT

NEW ADMIN POSITIONS

Congratulations to all the new appointees and our humble thanks to all the outgoing Heads for their valued contributions to the institution.

Dr. C. Rajasekaran, Professor, SBST, is appointed as Dean of Academic Research from 1st Feb. 2025.



Dr. Shanthi V, Professor, SBST, is appointed as HoD, Department of Biotechnology.



Dr. Sudha Ramaiah, Professor, SBST, is appointed as HoD, Department of Bio-Sciences.



Dr. Patel Trupti Navinchandra, Professor, SBST, is appointed as HoD, Department of Integrative Biology.



Dr. Suthindhiran K, Professor, SBST, is appointed as HoD, Department of Bio-Medical Sciences.



Dr. Karthikeyan S., Professor, SBST, is appointed as Director of Alumni Affairs.



Dr. Vino S., Professor, SBST, is appointed as Deputy Director of Alumni Affairs.



Dr. Mythili S., Professor, SBST, is appointed as Chief Warden-Ladies hostels.



Dr. Mohana Priya A., Associate Professor Senior, SBST, is appointed as Assistant Director-Students' Welfare.



FACULTY OUTREACH

- 1. Prof. Bhaskara Rao K.V. was a session chair at Sri Padmavati Mahila Visvavidyalayam, Tirupati, India, on 24th January 2025.
- 2. Prof. Sunantha G delivered a talk on "Insights on Research Methodology" at DKM College for Women, Vellore, India, on 09th January 2025.
- 3. Prof. Abilash V.G. delivered a talk on "Cytogenetics and karyotyping" at the Department of Life Sciences, Christ University, Bangalore, India, on 22nd January 2025.
- 4. Prof. Radha Saraswathy delivered a talk on "The application of multi-omics in human health research" at Annamalai University, Annamalainagar, India, on 31st January 2025.
- 5. Prof. Sajitha Lulu S delivered an industrial talk on "Dietary Phytochemicals Targeting Parkinson's Disease: A Network Pharmacology Approach" at Zastra Innovations Pvt Ltd Bengaluru, India, on 05th February 2025.
- 6. Prof. Rasool M. delivered a talk on "Majoon chobchini inhibits dendritic cell activation via increased PD-L1 expression and reinvigorates the Th17/Treg balance in the treatment of rheumatoid arthritis" at the Ministry of AYUSH, New Delhi, India, on 12th February 2025.
- 7. Prof. Asha Devi S delivered a talk on "Biotechnological process for large-scale production of therapeutic proteins" at Dhanabhagiyam Krishnasamy Mudaliar College for Women, Vellore, India, on 12th February 2025.
- 8. Prof. Rasool M. delivered a talk on "IL-17A/IL-17RA interaction blockade promotes efferocytosis and synovial macrophage reprogramming in rheumatoid arthritis" at the Translational Health Sciences and Technology Institute, Faridabad, India, on 13th February 2025.

- 9. Prof. Suneetha Vuppu delivered a talk on "Waste to wealth: Valorization of leather waste into valuable products" at Maulana Azad National Institute of Technology, Bhopal, on 21st February 2025.
- 10. Prof. Rasool M. delivered a talk on "Decoding cyanidin as a potent interleukin-17A small molecule inhibitor: a therapeutic intervention for rheumatoid arthritis" at the Department of Pathology, University of Madras, Chennai, India, on 25th February 2025.
- 11. Prof. Sankar Ganesh D delivered a talk on "Decoding the Invisible Language of Animal Communication: Insights and Implications" at Ethiraj College, Chennai, India, on 28th February 2025.
- 12. Prof. Anand A delivered a talk on "Can mankind coexist with *Mycobacterium tuberculosis*—lessons from history, present research, and future perspectives" at Pondicherry University, Pondicherry, India, on 21st March 2025.
- 13. Prof. Radha Saraswathy delivered an industrial talk on "Multi-omics approach in human health research" at the Bioclues Organization and Aabir Biosciences Foundation and GCCI, Vellore, India, on 22nd March 2025.

FACULTY ACHIEVEMENTS

Projects

1. Project Title: Enhancing therapeutic outcomes in asthma through tryptophan microbiome metabolites mediated immune modulation via the NF-κB/AhR

pathway

Funding agency: ICMR.

Project date: 29-01-2025

Amount: 35.63 lakhs

Principal Investigator: Dr. Reena Rajkumari B, SBST

Co-investigator: Dr. Balaji Balakrishnan, SBST

2. Project Title: Sensor for rapid detection of PFOS in surface, ground, and wastewater and identifying PFOS-contaminated hotspots in India and analyzing the risk.

Funding agency: Department of Science and Technology-WTC

Project date: 24-02-2025

Amount: 53 lakhs

Principal Investigator: Dr. Sunantha G., SBST

Co-investigator: Dr. Dhanya. V, SBST





3. Project Title: miR146a-loaded exosomes in suckerin patch for targeted diabetic wound healing via IRAK1 suppression

Funding agency: Anusandhan National Research Foundation

Project date: 24-02-2025

Amount: 56 lakhs

Principal Investigator: Dr. K. Deepankumar, SBST



Patents

Published Patents

1. Title: Antimicrobial varnish composition for protecting wooden surfaces (Published on 3rd March 2025).

Dr. Suneetha V., Toshika Mishra



2. **Title:** Carbon nanotube-based glitch-free, high-speed, and low-power phase frequency detector for 6G application (**Published on 14**th

February 2025).

Dr. Pratik Bhattacharya, Dr. Faraz Ahmad, Narayanam Bala Naga Abhinash

3. **Title:** Multi-functional building blocks for cognitive and creative development with modular stick and connector systems. (**Published on 07**th **February 2025**)

Dr. Pratik Bhattacharya, Dr. Faraz Ahmad, Narayanam Bala Naga Abhinash

Filed Patents

1. **Title:** Method for preparing reduced graphene oxide and polyoxometalate-integrated hydrogel material for photodegradation of amoxicillin (Filed on 24th February 2025).

Dr. Rajasekaran Chandrasekaran, Devarajan Chockalingam

2. **Title:** New fungicide monochlorobenlaxyl and its synthesis method (Filed on 23rd February 2025)

Dr. Rajasekaran Chandrasekaran, Devarajan Chockalingam



 Title: Pharmaceutical composition for targeted delivery to a bone tissue for regeneration and method thereof (Filed on 18th March 2025)

Dr. Debashish Mishra & Poovizhi Shanmugam



 Title: Organic stain remover composition for skin to remove textile dye stains and laboratory chemical stains (Filed on 25th March 2025)

Dr. Suneetha V., Toshika Mishra



 Gluten-free millet-based biscuit composition and method for producing the same (Filed on 30th March 2025)

Dr.Ramalingam Chidambaram, Shaileshkumar Baskaran, Srinithi Aravindan, & Keerthana Settu



CENTRAL INSTRUMENTATION LABORATORY II





Central Instrumentation Laboratory II was inaugurated in SMV-124A by our honorable Chancellor Dr. G. Viswanathan on 27th March 2025

FOREIGN EXPERT GUEST LECTURE

S.No	Date	Speaker	Address	Title	Faculty Convenor
1.	23- 01- 2025	Dr. Raghunath Azhwar	Research Investigator, Department of Paediatrics, University of Michigan, Ann Arbor, Michigan, USA	Decoding the Redox Blueprint: Unravelling Antioxidant Response Elements in Zebrafish	Dr. Naveen Kumar P., Dr. Kannan P., Dr. Sankar Ganesh D.
2.	18- 02- 2025	Dr. Stephen Kerr	Professor of Medicinal Chemistry, Massachusetts College of Pharmacy and Health Sciences (MCPHS), USA	How does global healthcare work in the US?	Dr. Suneetha V., Dr. Anand A.
3.	19- 02- 2025	Dr. Ingo Schiessl	Associate Dean for Internationalistion, Staff and Student Mobility	Pre-clinical Models for Biomedical Research	Dr. Suneetha V., Dr. Anand A.

ALUMNI GUEST LECTURE

Date	Speaker	Address	Title	Faculty Convenor
13-03-2025	Ms. Prerna Karthaka	Munich Medical Research School, Ludwig Maximilian University of Munich, Munich, Germany	Regenerative medicine and tissue engineering: Bridging the gap between science, innovation, and healing	Dr. Everette Jacob Remington N

NATIONAL GUEST LECTURE

S.No	Guest Lecture Title	Faculty Coordinator(S)	Resource Person	Organisation	Date
1	Child Sexual Abuse— Should We Be Worried?	Dr. Danie Kingsley J. Dr. Jayanthi Abraham	Dr. Latif Rajesh Johnson	Associate Professor, Department of Forensic Medicine, Christian Medical College, Vellore	12-03-2025
2	Role of Microbes in Enhancing the Flavor and Texture of Plant-	Dr. Kanagavel Deepankumar	Dr. Padma Ishwarya S	Science & Technology Specialist, The Good Food Institute, Non-	12-03-2025

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	Activities and Patent				
	Filings				
15	Unravelling Molecular	Dr. Gothandam	Dr.	Czech University of	17-02-2025
	Mechanisms of Insect	K.M, Dr. Ponraj	Gothandapani	Life Sciences	
	Outbreaks and RNAi-	P	Sellamuthu		
	Driven Control				
	Strategies				
16	Application Of Heuristic	Dr. George	Vivek	Insilicomics	15-02-2025
	Algorithms. In	Priya Doss C	Chandramohan		
	Smililarity Search			722	10.00.00.
17	Cereals And Health: A	Dr. Rahul	Dr. Syeda Farha	JSS Academy of Higher	13-02-2025
	Double-Edge Sword	Vashishth, Dr.		Education and Research	
		Sabina E. P		Mysore	
18	The Monocyte	Dr. Sankar	Dr. B	ICMR. National	12-02-2025
	Landscape in Pulmonary	Ganesh D	Ramalingam	Institute for Research in	
10	Tuberculosis	D D ***	D 4 1 D	Tuberculosis	10.02.2025
19	Significance Of	Dr. Pragasam V Dr. Sudhakaran	Dr. Anantha R	Scientist E, National	10-02-2025
	Nutritional Security for	R. Sudnakaran		Institute of Nutrition,	
• •	Hidden Hunger		N. D	Hyderabad	05.00.005
20	Insights to the Industrial	Dr. Bhaskara	N. Purna	Tex Biosciences (P)	05-02-2025
	Production of Novel	Rao K. V	Chandra Rao	Limited	
	Enzymes and Antibiotics				
21	from Microorganisms	D DI 1	N. D.	T - D' ' (D)	05 02 2025
21	Quality Control and Quality Assurance in	Dr. Bhaskara Rao K. V	N. Purna Chandra Rao	Tex Biosciences (P) Limited	05-02-2025
	Industries	Rao K. V	Chandra Rao	Limited	
22	Importance Of Repeats	Dr. Anand A,	Prof K Sekar	IISc Bangalore	22-01-2025
22	in Protein Sequences:	Dr. Sudha	TIOI K Sekai	insc Dangaiore	22-01-2023
	Structural and	Ramaiah			
	Functional Insights	Kamalan			
23	Living in the Digital	Dr. Faraz	Dr. Chayan	Ethophilia Research	21-01-2025
25	World: Discussing	Ahmad, Dr.	Munshi	Foundation	21 01 2023
	Human Behaviour-	Sudesh R. Dr.	1414115111	Santiniketan, India	
	Behaviour Circuit	Sandeep Singh		Summinetum, meru	
	2011411041 011041	Rana			
24	Synergistic Effect of	Dr. Balaji	Dr. T	Kalasalingam Academy	10-01-2025
	Drugs-Loaded Graphene	Balakrishnan,	Kathiresan	of Research and	
	Quantum Dots	Dr. Nalini E		Education	
	Encapsulated Hollow				
	Mesoporous Silica				
	Nanocarrier Against				
	Breast Cancer				
25	Exploring Research	Dr. Radha	Amit Roy	Czech University of	06-01-2025
	Opportunities Abroad:	Saraswathy		Life Sciences Prague	
	Challenges and			5	
	Solutions				
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26	Understanding Liquid	Dr. Gothandam	Prof Saravana	SIT Health	04-01-2025
	Neural Networks and its	K.M, Dr.	Prakash T		
	Implications in Biology	Shanthi V			
27	"Clinical Research Goal	Dr. Vino S	Dr.	Thermo Fisher	04-01-2025
	and Career		Vijayaragavan	Scientific	
	Opportunities"		S		

RESEARCH DEVELOPMENT SERIES

Event	Title	Speaker	Address	Organizer
Organised				
RDS 1	Patent filing, Eligibility criteria,	Ms.	Intellectual property	Dr. Gothandam;
	and Prosecution	Sneha	Attorneys K& S Partners,	Dr. Kannan P
			Bangalore	
RDS 1	Impact of Biodiversity laws on	Mr.	Intellectual property	Dr. Gothandam;
	research, commercial activities,	Sridhar	Attorneys K& S Partners,	Dr. Kannan P
	and patent filings		Bangalore	
RDS 2	"Postdoc opportunities in Europe"	Dr. Lara	Research Associate, Rudjer	Dr. George
		Mikac	Boskovic Institute, Zagreb,	Priya Doss C
			Croatia, Europe.	

JOURNAL CLUB MEETING

DATE	TOPIC	RESEARCH SCHOLAR	MODERATOR
01.03.2025	"Uptake and release of Ca, Cu, Fe, Mg, and Zn during beer production"	Mr. Santhosh Kumar A	Dr. Sreeja S
01.03.2025	"Metformin ameliorates the severity of experimental Alport syndrome"	Mr. Prathap Srirangan	Dr. Sreeja S
08.03.2025	"Phage-antibiotic combination is a superior treatment against <i>Acinetobacter baumannii</i> in a preclinical study"	Ms. Oishi Mitra	Dr. Ramesh N
08.03.2025	"Threonine 209 phosphorylation on RUNX3 by Pak1 is a molecular switch for its dualistic functions"	Mr. Sambuddha Sengupta	Dr. Ramesh N

26.03.2025	"Bioaccumulation of heavy metals in fish species	Mr. Suryapratap	Dr. Rahul Vashishth
	from the Meiliang Bay, Taihu Lake, China"	Ray	and Dr. Rohit
26.03.2025	"Biofilm dispersal and wound infection clearance	Ms. Ankumoni	Dr. Rahul Vashishth
	with preclinical debridement agents"	Das	and Dr. Rohit

FACULTY DEVELOPMENT PROGRAM

Event Organised	Title	Organizer	Date
FDP1: VIT Alumni Lecture	Translational insights into Pressure Ulcers: from Cellular Mechanisms to Clinical Prevention	Dr. Suresh P.K	12-03-2025.
FDP2: Entrepreneurship Development Programme	Biofertilizers and Biopesticides	Dr. Siva R, Dr. Suneetha V, and Dr. Rajasekaran C	24-02-2025 08-03-2025.
FDP3: IQAC Events	AI in Compliance and Best Practices	Dr. Sankar Ganesh D, Dr. Ramanathan K, and Dr. Vino S	24-02-2025.
FDP4: Training Programme- an Added Course (Vac 2002)	Genotoxicity Testing for Environmental Monitoring And Human Health	Dr. Radha Saraswathy	09-02-2025 16-02-2025

LIST OF PUBLICATIONS

JANUARY 2025

- 1. Samuel, M., Prabhat, T. S., Emisha, L., Ganesan, J. J., Issac, R., Basavegowda, N., ... & Haldar, D. (2025). Biodegradable composite films of barley fibres for food packaging applications: A review. International Journal of Biological Macromolecules, 139611. (IF: 7.7)
- **2.** AE, S. S., Manian, R., Shanmugam, V., & Shankar, V. (2025). Artificial Neural Network-Response Surface Methodology-Based Multi-Parametric Optimization and Modeling of Biolipid Production from *Aspergillus flavus*. Biomass and Bioenergy, 193, 107573. (**IF: 5.8**)
- **3.** Sharma, D., Panchaksaram, M., & Muniyan, R. (2025). Advancements in understanding the role and mechanism of the sirtuin family (SIRT1-7) in breast cancer management. Biochemical Pharmacology, 116743. (**IF: 5.3**)
- **4.** Hussain, S. S., & Kingsley, J. D. (2025). Metabolomics and proteomics: synergistic tools for understanding snake venom inhibition. Archives of Toxicology, 1-20. (**IF: 4.8**)
- 5. Hou, X., Dubessay, P., Christophe, G., Bridiau, N., Bodet, P. E., Traikia, M., ... & Pierre, G. (2024). Development of a Dual-Stage CIM® CDI Reactor with Immobilized Glucuronan Lyases and Laccases for Sustainable Synthesis of Antioxidant Phenolized Oligoglucuronan. Polysaccharides, 5(4), 743-760. (IF: 4.7)
- **6.** Srinivasan, S., Shanthakumar, S., & Ashok, B. (2025). Sustainable lithium-ion battery recycling: A review on technologies, regulatory approaches and future trends. Energy Reports, 13, 789-812. (**IF: 4.7**)

- 7. Tripathi, G., Dutta, S., Mishra, A., Basu, S., Gupta, V., & Kamaraj, C. (2024). Nanomaterials impact in phytohormone signalling networks of plants-A critical review. Plant Science, 112373. (IF: 4.2)
- **8.** Chatterjee, D., & Sivashanmugam, K. (2024). Immunomodulatory peptides: new therapeutic horizons for emerging and re-emerging infectious diseases. Frontiers in Microbiology, 15, 1505571. (**IF: 4.0**)
- **9.** Chatterjee, P., & Banerjee, S. (2025). A computational and structural approach to identify malignant non-synonymous FOXM1 single nucleotide polymorphisms in triple-negative breast cancer. Scientific Reports, 15(1), 964. (**IF: 3.8**)
- **10.** Nagarajan U., Naha A., Ashok G., Balasubramanian A., Ramaiah S., V Kanth S., Dusthackeer A., Anbarasu A., & Natarajan S. (2025). Biomolecular interaction of Carnosine and anti-TB drug: preparation of functional biopeptide-based nanocomposites and characterization through in vitro and in silico investigations. ACS Omega, 10(1):567-587. (**IF: 3.7**)
- 11. Kothandam, S., V, S., Vijayakumar, N., Alex, R. A., Abraham, J., Maheshwaran, S., & Swamiappan, S. (2025). Zinc Doped Akermanite: A Promising Biomaterial for Orthopedic Application with Enhanced Bioactivity, Mechanical Strength, and Bacterial Study. ACS omega. (IF: 3.7)
- **12.**Thomas, R. K., Balasundaram, A., Fathima, G., Sankar, S., Ramamoorthy, M., Saravanan, N., ... & Srikanth, P. (2025). Identification and Validation of B-Cell Epitopes on the VP1 Protein of Parvovirus B19 through Molecular Docking and Dynamics Simulation. ACS omega, 10(4), 3598. (**IF: 3.7**)
- **13.**Das, A., & Ruhal, R. (2025). Potential of plants-based alkaloids, terpenoids and flavonoids as antibacterial agents: An update. Process Biochemistry. (**IF: 3.7**)
- **14.**Sarkar, G., Anand, K. P., Jayasri, M. A., & Suthindhiran, K. (2025). Process optimization and extraction of alkaline protease from halotolerant Streptomyces

- sp. VITGS3 and its use as a contact lens cleaner. Journal of Genetic Engineering and Biotechnology, 23(1), 100459. (IF: 3.6)
- **15.**Kiruba, B., Naidu, A., & Sundararajan, V. (2025). Mapping integral cell-type-specific interferon-induced gene regulatory networks (GRNs) involved in systemic lupus erythematosus using systems. And computational analysis. Heliyon, 11(1). (**IF: 3.4**)
- **16.**Stephen, J. M., & Saleh, A. M. (2025). Strategic choices in bioprocessing of L (+) Lactic acid: Homo-fermentative Lactobacilli monocultures with novel agroresidue combination enhances economic production. Heliyon, 11(1). (**IF: 3.4**)

FEBRUARY 2025

- **1.** Maiti, P., Chatterjee, A., Mishra, A., Biswas, S., & Meikap, B. C. (2025). Thiazine dye sorption onto (NH4) 2S₂O₈ treated bio-adsorbent: Implications for batch and fixed-bed column applications. Separation and Purification Technology, 363, 132256. (**IF: 8.1**)
- 2. Bell, P. J., & Muniyan, R. (2025). Targeting the quorum sensing network in Acinetobacter baumannii: A dual target structure-based approach for the development of novel antimicrobials. Computers in Biology and Medicine, 187, 109828. (IF: 7)
- **3.** Dixit, S. S., Muruganandam, L., & Moorthy, I. G. (2025). Pectin from fruit peel: A comprehensive review on various extraction approaches and their potential applications in pharmaceutical and food industries. Carbohydrate Polymer Technologies and Applications, 100708. (**IF: 6.2**)
- **4.** Hiruthyaswamy, S. P., & Deepankumar, K. (2025). Suckerin-based biomaterials for wound healing: a comparative review with natural protein-based biomaterials. Materials Advances. (**IF: 5.2**)

- **5.** Angelin, J., & Kavitha, M. (2025). Structural characterization and in vitro anti-inflammatory activity of exopolysaccharide produced by *Pediococcus pentosaceus* 4412. International Immunopharmacology, 150, 114301. (**IF: 4.8**)
- **6.** Nandhini, G., Shobana, M. K., Saravanan, P., Joseyphus, R. J., Sriram, J., Dasgupta, T., & Venkatraman, M. (2025). Enhancing the magnetic hyperthermia characteristics and cytotoxicity analysis of biphasic MnFe₂O₄/NiO nanocomposites. Emergent Materials, 1-18. (**IF: 4.8**)
- 7. Parvez, R., Vijayakumar, S., Vins, A., Ramaiah, S., Anbarasu, A., Biswas, L., ... & Muruganandam, N. (2025). Understanding the vaginal microbiome among women with different genotypes of human papillomavirus infection in remote Andaman islands. Frontiers in Cellular and Infection Microbiology, 14, 1486166. (IF: 4.6)
- 8. Narayan, A. B., Hariom, S. K., Mukherjee, A. P., Das, D., Nair, A., & Nelson, E. J. R. (2025). 'Nomadic' Hematopoietic Stem Cells Navigate the Embryonic Landscape. Stem Cell Reviews and Reports, 1-24. (IF: 4.5)
- **9.** Shanker, M. A., & Rana, S. S. (2025). Prospects of cold plasma in enhancing food phenolics: analyzing nutritional potential and process optimization through RSM and AI techniques. Frontiers in Nutrition, 11, 1504958. (**IF: 4.0**)
- **10.** Mathpal, S., Joshi, T., Priyamvada, P., Ramaiah, S., & Anbarasu, A. (2025). Machine learning and cheminformatics-based Identification of lichen-derived compounds targeting mutant PBP4R200L in *Staphylococcus aureus*. Molecular Diversity, 1-26. (**IF: 3.9**)
- 11. Sharma, D., & Arumugam, S. (2025). Pharmacophore-based identification and in silico characterization of microbial metabolites as potential modulators of Wnt signalling pathway in colorectal cancer therapy. Molecular Diversity, 1-26. (IF: 3.9)

- **12.** Bista, S., Syangtan, G., Darlami, K., Chand, A. B., Bista, S., Siddiqui, M. A., ... & Joshi, D. R. (2025). Robotic versus manual disinfection of global priority pathogens at COVID-19 dedicated hospitals. American Journal of Infection Control. (**IF: 3.8**)
- **13.** Sultania A., Brahadeeswaran S., Kolasseri A.E., Jayanthi S., & Tamizhselvi R. (2025). Menopause mysteries: the exosome-inflammation connection. Journal of Ovarian Research, 18(1):12. (**IF: 3.8**)
- **14.** Kumar, P., Saravanan, P., Omer, S. N., Rajeshkannan, R., & Kumar, S. V. (2025). Enhanced biohydrogen yield through cyanobacterial engineering: a detailed review. Biomass Conversion and Biorefinery, 1-22. (**IF: 3.5**)

MARCH 2025

- 1. Mukherjee, A. G., Mishra, S., Gopalakrishnan, A. V., Kannampuzha, S., Murali, R., Wanjari, U. R., ... & Vijayan, M. (2025). Unravelling the mystery of citrate transporters in Alzheimer's disease: An updated review. Ageing Research Reviews, 102726. (IF: 12.5)
- Sounderarajan, S., Surya, A. P. V., Seenivasan, H., Perumal, N. M., Puchalapalli, D. S. R., & Ayothiraman, S. (2025). Design strategies for novel esterase purification processes from *Trichoderma harzianum*-An insight into kinetic and thermodynamic analyses. International Journal of Biological Macromolecules, 306, 141555. (IF: 7.7)
- **3.** Varghese, R., Shringi, H., Efferth, T., & Ramamoorthy, S. (2025). Artificial intelligence-driven approaches in phytochemical research: trends and prospects. Phytochemistry Reviews, 1-16. (**IF: 7.3**)
- **4.** Sekaran, M., & Thiagarajan, K. (2025). Green Strategies for Chromium Detoxification in Tannery Effluents: Adsorption and Bioconversion with

- Portieria hornemannii. Environmental Technology & Innovation, 104151. (IF: 6.7)
- 5. John, P., Sriram, S., Palanichamy, C., Subash, P. T., & Sudandiradoss, C. (2025). A multifarious bacterial surface display: a potential platform for biotechnological applications. Critical Reviews in Microbiology, 1-26. (IF: 6.0)
- **6.** Neethudas, B. Y., Suresh, P. K., & Mukherjee, A. (2025). Toxicity due to the release of microplastic fibres from disposable face masks on marine diatom Chaetoceros sp. and the role of EPS in combating the toxic effects. Emerging Contaminants, 11(2), 100481. (**IF: 5.3**)
- 7. Selvam, P. K., Mudipalli Elavarasu, S., & Vasudevan, K. (2025). Genetic insights into *Staphylococcus aureus* resistance: exploring AMR genes and molecular interactions. Pathogens and Global Health, 1-12. (IF: 4.9)
- **8.** Rajkumar, R., Rejith, A. V. P., & Ramasubbu, K. (2025). Analysis of marketed soft drinks and reduction of food colours with a simple absorption technique with PVA-Ag nanofilms. Applied Food Research, 5(1), 100779. (**IF: 4.5**)
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- **10.** Vinayagam, Y., Venkatraman, G., & Rajeswari, V. D. (2025). Sustainable treatment of glass industry wastewater using biogenic Zinc oxide nanoparticles: Antibacterial and photocatalytic efficacy. International Biodeterioration & Biodegradation, 200, 106036. (**IF: 4.1**)
- **11.** Suresh, K. N. (2025). Exploring the fibrinolytic potential of marine *Actinoalloteichus caeruleus* isolated from the Bay of Bengal coast. BMC microbiology, 25(1), 113. (**IF: 4.0**)

- **12.** Dasgupta, T., Manickam, V., & Tamizhselvi, R. (2025). Benzydamine rescues ethanol-induced teratogenesis in zebrafish FASD model. Scientific Reports, 15(1), 9066. (IF: 3.8)
- **13.** John, A. S., & Gurumurthy, K. (2025). Synthesis and Characterization of CuO Nanoparticles from Bioleached Copper through Modified and Optimized Double Precipitation Method. ACS omega. (**IF: 3.7**)
- **14.** Kumar, H., Vijayakumar, S., Shintre, N., Tamhane, V., Deshpande, N., Joshi, T., ... & Ramaiah, S. (2025). In silico exploration of biosynthetic gene clusters in marine *Streptomyces sp.* and Nocardiopsis sp. from the western coast of India: Genome-based profiling using whole genome sequencing. Journal of Genetic Engineering and Biotechnology, 23(2), 100483. **(IF: 3.6)**
- **15.** Kamaraj, V., Jeevitha, G. C., Mittal, A., & Arya, R. K. (2025). Jackfruit waste utilization for production of pectin using natural deep eutectic solvents: a comparative study. Biomass Conversion and Biorefinery, 1-15. (**IF: 3.5**)
- **16.** Ali, S., Karaynir, A., Salih Doğan, H., Nachimuthu, R., Badu, K., & Bozdoğan, B. (2025). Degradation of Preformed Gram-Positive and Gram-Negative Bacterial Biofilms Using Disintegrated and Intact Phages. PHAGE. (**IF: 3.5**)
- 17. Mishra, S., Stany, B., Kumari, A., & Rao, K. B. (2025). Protease Inhibitor from Streptomyces pulveraceus Strain VITSSAB as a Potential Therapeutic Agent Against BACE1 in Alzheimer's Disease: A Molecular Docking and Dynamics Simulations Study. Biocatalysis and Agricultural Biotechnology, 103559. (IF: 3.4)
- **18.** Venkat, A., & Muneer, S. (2025). Circadian-Mediated Regulation of Growth, Chloroplast Proteome, Targeted Metabolomics and Gene Regulatory Network in *Spinacia oleracea* Under Drought Stress. Agriculture, 15(5), 522. (**IF: 3.3**)
- **19.** Manam, M., Srivatsa, S., & Osborne, W. J. (2025). Endophytic bacteria of *Gracilaria edulis* in combating human bacterial pathogens by PPDHMP–A

- crude to single molecule product development approach. Microbial Pathogenesis, 202, 107431. (IF: 3.3)
- **20.** Manjunath, D., Sampath, H., Kirkwood, R. N., Santhosh, S., & Sankarganesh, D. (2025). Behavioural and neurobiological implications of kairomones for rodents: an updated review. Frontiers in Neuroscience, 19, 1485312. (**IF: 3.2**)
- **21.** Rajendran, S., Surabhi, R. P., Kumar, A. S., Gopinath, P., Kanakaveti, V., Shanmugasundaram, G., ... & Venkatraman, G. (2025). P21-Activated Kinase 1 (PAK1) Modulates Therapeutic Response to Ionizing Radiation in Head and Neck Squamous Cell Carcinoma Cells. Molecular Carcinogenesis. (**IF: 3.0**)
- **22.** Balaji P., Priya M.N., Bhaskar E.M., Gnanasambandan R., Paul S.F.D., & Magesh R. (2025). Targeting beta-lactamase activity with Oxacyclohexadecan-2-one in carbapenem-resistant uropathogenic E. coli: A molecular simulation approach. PloS One, 20(2):e0317941. (**IF: 2.9**)
- **23.** Sahoo K., & Sundararajan V. IL-1β and associated molecules as prognostic biomarkers linked with immune cell infiltration in colorectal cancer: an integrated statistical and machine learning approach. Discover Oncology, 16(1):252. (**IF: 2.8**)
- **24.** Wanjari U.R., & Gopalakrishnan A.V. (2025). Exploring the therapeutic effect of melatonin targeting common biomarkers in testicular germ cell tumor, prostate adenocarcinoma, and male infertility: an integrated biology approach. Mammalian Genome. (**IF: 2.7**)
- 25. Sharma N., Pradhan P., & Vuppu S. (2025). Antioxidant Activity, Analytical Characterization, and In Silico Analysis of Organic Compounds from Vellore Fruit Peels: A Comparative Analysis. Arabian Journal for Science and Engineering. (IF: 2.6)

STUDENTS ACHIEVEMENTS

1. Congratulations to Ph.D. Scholar Mr. Animish Andhere (Reg.No. 20PHD0569) guided by Dr. Jayasri, who has secured 2nd prize with Rs. 10,000 cash awards for the oral presentation titled "Navigating the heterogeneity of Diabetes on a Global Basis" at the Vellore Endocrinology International Congress 2025.





2. Congratulations to Ph.D. Scholar Ms. Sohini Chakraborty (20PHD0964) guided by Dr. Satarupa Banerjee, who won the best poster award at the 44th Annual Meeting of the Indian Association for Cancer Research (IACR) and International Conference on Convergence of Fundamental and Translational Approaches in Cancer Theranostics 16th – 18th Jan 2025 held at Kolkata.



3. Congratulations to Ph.D. Scholar Ms. Ishvaria (21PHD0045) guided by Prof. Radha Saraswathy, for receiving the best poster presentation award for her research work during the international conference EMSI 2025 held from 29th - 31st January 2025 at Annamalai University Chidambaram.





4. Congratulations to Mr. Soumyadip Ghosh, Ph.D. Scholar (22PHD0576), guided by Dr. Sudha Ramaiah had the honour of representing VIT-Vellore in the Antimicrobial Resistance in Bacterial Pathogens-Asia; training program, organized by Wellcome Connecting Science in partnership with Mahidol University Faculty of Tropical Medicine, took place in Bangkok, Thailand, from February 2nd -7th, 2025.





5. Congratulations to Ph.D. scholar Mr. Swagath S (23PHD0642), guided by Dr. Kuntal Pal, for securing the Best Poster Award at the International Conference on Metabolomics and Lipidomics 2025; organized by IIT Bombay, held between 25th & 26th of February.





- **6.** Congratulations to Ph.D. Scholars guided by Dr. Arabi Mohammed Saleh, Ms. Surbhi Kumari Barnwal (22PHD0023), and Ms. Keerthana R (20PHD0471), who received awards at the DBT-sponsored 3rd National Conference on "Bio-Frontiers 2025", held from February 21st–22nd, 2025, at Brainware University, Kolkata.
- 7. Congratulations to Ph.D. Scholars guided by Dr. Arabi Mohammed Saleh, Ms. Surbhi Kumari Barnwal for securing the 2nd prize for the oral presentation on "Antibiotic degradation potential of indigenous wastewater bacteria: Implications for combating antibiotic resistance," and Ms. Keerthana R has secured the 3rd prize for her presentation on "Isolation and characterization of growth-promoting rhizobacteria in tomato seedlings under the stress condition".

8. Congratulations to Ph.D. scholar Ms. Riyamol (22PHD0214), guided by Dr. Jeevitha G.C, received the second prize in the paper presentation category for her research work entitled Application of natural deep eutectic solvents for the valorisation of onion peels; during the 2nd International Conference on Exploring Innovative Technologies in BiosciencesTowards Sustainable Development 39; held on 19th & 20th February 2025 at Dwaraka Doss Goverdhan Doss Vaishnav College, Chennai.



9. Congratulations to Mr. Deepak Sharma (23PHD0075) guided by Dr. Ranjiniraja for securing the 1st Prize in Poster presentation at the National Seminar on "Computational Mining and Integrative Omics for Biomedical Research", MOTIF 2025, organized by the Department of Bioinformatics, Bharathiar University, Coimbatore, TN, held on 14.02.2025.



10. Congratulations to Ph.D. scholar Mr. Subhajit Sarkar (23PHD0159), guided by Prof. Kavitha Thirumurugan, who received the best poster award at the International Symposium on Aging and Age-Related Disorders" held at Bharathiar University, Coimbatore (5th-6th Feb 2025).





11. Congratulations to Ph.D. scholars guided by Prof. Jeevitha, Ms. Swetha V (23PHD0456), who won the Best Paper Presentation Award, Mr. Saravanan R (22PHD0773) won the 1st prize, and Mrs Arya K (22PHD0521) secured the 2nd prize for the oral presentation in the theme Food Processing and Preservation; at the "International Conference On Advancing Food Science: Global Trends And Future Perspectives - AFS25" held at The American College, Madurai (12th and 13th March 2025).





12. Congratulations to Ph.D. scholar Mr. Saurabh Sharma (20PHD0467), guided by Prof. A. Mehta, who has been adjudged as the best oral presentation in an international conference.





13. Congratulations to Research scholar, Ms. Sandra Kannampuzha (22PHD0113), guided by Dr. V.G. Abilash has secured 1st Prize in the Oral Presentation at the National Conference on Current Innovations in Biological Sciences, organized by the Department of Zoology, Thiruvalluvar University, Vellore, in collaboration with the Tamil Nadu State Council for Science and Technology, Chennai, held on 20th March 2025.





14. Congratulations to Research scholar, Mr. Sudip Prasad Jena (24PHD0373) guided by Dr. E.P. Sabina, for securing 1st Prize in the Oral Presentation at the National Conference on Current Innovations in Biological Sciences, organized by the Department of Zoology, Thiruvalluvar University, Vellore and the Tamil Nadu State Council for Science and Technology, Chennai, on 20th March 2025.





15. Congratulations to Ph.D. Scholars guided by Dr. E.P. Sabina - Mr. Mukul (23PHD0180), who won 2nd prize in the Oral Presentation category and Mr. Prathap Srirangan (23PHD0274) achieved 1st prize in the Poster Presentation category in the 12th International Conference organized by the Sri Lanka Association for Laboratory Animal Sciences in Colombo, Sri Lanka.



16. Congratulations to Ph.D. scholar Vijune Lawrence. L (23PHD0550) guided by Dr.Dhanya V, got the 1st Prize in Paper Presentation at the International Conference on Advancing Sustainability through Chemical Engineering and Nano Technologies (ASCENT-2025) organised by the Department of Chemical Engineering, National Institute of Technology, Warangal, held on 20th - 22nd March 2025.

CERTIFICATE

OF APPRECIATION

This Certificate is Awarded to

Mr. VITUNE LANGENCE. L

To the best paper presentation, 5 participation for the paper entitled

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TAGALIAN, Can Alexander to Alexa

17. Congratulations to Ph.D. Scholar Ms. Sathvika K (Reg.No. 21PHD0182) SBST, pursuing PhD under Professor Dr. Suneetha V (Dean, SBST) was awarded First Prize in Oral Presentation at the National Conference on " Industrial Perspectives of Biotechnological Research; (SITBioConics 25) for the research paper, titled Sustainable Valorization of Vellore Country Chicken Feather Wastes: Keratin Extraction, FTIR Characterization, and Eco-friendly Applications & The Conference was organized by the Department of Biotechnology, Sethu Institute of Technology (Affiliated to Anna University, Chennai), Virudhunagar-626115, held on 5th-6th of March.



18. Congratulations to Ms. Sathvika K, Ph.D. Research Scholar pursuing her research under the guidance of Prof. Suneetha V (Dean-SBST) has received the Best Paper Award (Special mention) at the ASTRA Conference held on the 19th and 20th of December organized by Bannari Amman Institute of Technology, Sathyamangalam, Erode.



19. Congratulations to Research scholar, Ms. V. Iswareya Lakshimi (24PHD0261) pursuing her Ph.D. under the guidance of Dr. Kavitha M, has received the Best Paper Presentation Award in the theme Biological Sciences at the 3rd International Conference on Advancing Food Science: Global Trends and Future Perspectives - AFS25 organized by the Department of Food Science & Nutrition, The American College, Madurai held on 12th & 13th March 2025



20. Congratulations to Research Scholar, Ms. Arya Rangan (23PHD0564) pursuing her Ph.D. under the guidance of Dr. Danie Kingsley J, has received the 1st Prize in Poster Presentation at the National Conference of Natural Products for Sustainable Environment and Health (Natura Prospecta'25) organized by the Department of Microbiology, Madras Christian College, Tambaram, Chennai, Held between 6th & 7th of March 2025.





21. Congratulations to Research Scholar, Sana S Hussain (23PHD0038) pursuing her Ph.D. under the guidance of Dr. Danie Kingsley J, has received the 2nd Prize in Oral Presentation at the National Conference of Natural Products for Sustainable Environment and Health (Natura Prospecta'25) organized by Department of Microbiology, Madras Christian College, Tambaram, Chennai, Held between 6th & 7th of March 2025.





22. Congratulations to Research Scholar, Jemima Aashmi P L (22PHD0032) pursuing her Ph.D. under the guidance of Dr. Danie Kingsley J, has received the 2nd Prize in Poster Presentation at the 4th International Conference on Biotechnological Emergence in Science and Technology (ICBEST-2025) organized by the Department of Biotechnology, Faculty of Science and Humanities, SRM Institute of Science and Technology, Chennai held on February, 27th & 28th, 2025.



23. Congratulations to Research Scholar, Shilpa Rudra (23PHD0434) pursuing her Ph.D. under the guidance of Dr. Danie Kingsley J, has received the 2nd Prize in Oral Presentation at the 4th International Conference on Biotechnological Emergence in Science and Technology (ICBEST-2025) organized by the Department of Biotechnology, Faculty of Science and Humanities, SRM Institute of Science and Technology, Chennai held on February, 27th & 28th, 2025.



Ph.D. VIVA VOCE

Congratulations to all the Scholars for successfully completing their Ph.D. journey

Sr.	Scholar's Name	Supervisor
1.	Ms. SARANYA S R (18PHD0248)	Dr. Sudhakaran R
2.	Ms. ATHULYA P A (20PHD0010)	Dr. Chandra Sekaran
		N
3.	Ms. RANJITHA DHEVI V S (18PHD0163)	Dr. Sathiavelu A
4.	Ms. HARIPRIYAA M (20PHD0335)	Dr. Suthindhiran K
5.	Ms. NANDINI B N (16PHD0213)	Dr. Sudhakaran R
6.	Ms. NAIDU AKSHAYATA (20PHD0286)	Dr. Sajitha Lulu S
7.	Ms. SOWPTIKA PAL (16PHD0415)	Dr. Anilkumar G
8.	Ms. SREEDURGALAKSHMI K	Dr. Reena Rajkumari
	(18MTR0004)	В
9.	Ms. SOGHRA NASHATH O (20PHD0823)	Dr. Venkat Kumar S
10.	Ms. JYOTHI M (15PHD0171)	Dr. Suneetha V
11.	Ms. ASHWINI PRABHAKAR SHENDE	Dr. Ramalingam C
	(19PHD0238)	
12.	Ms. CRYSTAL SARA SHAJI (16PHD0277)	Dr. Radha Saraswathy
13.	Ms. TIASHA DASGUPTA (20PHD0140)	Dr. Venkatraman M
14.	Ms. GAYATHRI S (18PHD0271)	Dr. Mythili S
15.	Mr. GOMATHI NAYAGAM S (20PHD0792)	Dr. Gothandam K.M
16.	Ms. PRIYAMVADA (20PHD2112)	Dr. Sudha Ramaiah
17.	Mr. VEILUMUTHU P (19PHD0117)	Dr. Godwin
		Christopher J

STUDENTS' CORNER

1. Delighted to announce that students of our very own club, the Society for Biological Engineering (SBE), have secured 1st place in "Idea-o-Lite," a subevent of **iCUBE 4.0**, conducted by Sri Venkateswara College of Engineering, Sriperumbudur, Tamil Nadu, on 7th & 8th February 2025. A special appreciation to the faculty coordinator, Dr. Debasish Mishra (Emp ID: 13735), for his unwavering guidance and support throughout the journey.

Winners: Krut Doshi (22BBT0134), Rachit Upadhyay (22BBT0120), Ratnadeep Das (23BBT0066), Aanavi Patel (23BBT0017), and Harshita Kumar (23BBT0130)



2. We are thrilled to celebrate the grand success of Yantra'25—A Week of Technical Innovation, the 5th edition of VIT's flagship techno-event, held under the vibrant banner of VIT's 40th year of excellence. At the heart of Yantra'25 was Central

Hack, VIT's biggest and most prestigious hackathon, where students collaborated to develop interdisciplinary solutions addressing real-world challenges.

Event name: BiosensAltion—Innovation through Intelligence

1st position: Team PYar: Aaditya Panigrahi (24BBT0037), Sai Karthik K (24BEE0116), Netra R (24BBT0055)

2nd position: Team SAS: Subhranshu Chattopadhyay (24BBT0267), Sarah Jonathan Lobo (24BBT0296), Shete Anish Anirudha (24BBT0269)

3rd position: Team Megatron: Madhan B (24MIC0010), Sreelekshmi T U (24MS.I0103)

3rd position: Team Pushkar & Aditya: Apshankar Pushkar Harshad (24BBT0141), Mhaiskar Aditya Mayuresh (24BBT0114)

3. Congratulations to the VIT Debate Society for dominating the IIT Madras Parliamentary Debate Tournament held on 10th Feb 2025, securing the Championship Title and Runner-up position.



Revolutionizing Alzheimer's Diagnosis Through AI

Recent developments in artificial intelligence (AI) are transforming the landscape of Alzheimer's disease diagnosis. Traditionally, diagnosing Alzheimer's has relied heavily on clinical assessments, memory tests, and costly imaging techniques like MRI and PET scans. However, AI-powered tools are now streamlining and enhancing these processes with greater accuracy and speed.

Machine learning algorithms are being trained on vast datasets, including medical imaging, genetic information, and patient histories, to identify patterns that may be too subtle for human observers. These systems can detect early biomarkers of Alzheimer's, such as changes in brain structure or patterns of cognitive decline, well before clinical symptoms become apparent.

Natural language processing (NLP) is also playing a growing role. By analyzing speech patterns and language use, AI models can flag early signs of cognitive deterioration. Researchers are even developing smartphone apps and voice analysis tools that allow non-invasive, continuous monitoring of at-risk individuals.

Moreover, AI integration is making diagnostics more accessible. Cloud-based platforms allow data to be shared and analyzed remotely, opening the door for early diagnosis in underserved or rural communities where neurological specialists may be scarce.

While these innovations show promise, challenges remain. Ensuring data privacy, avoiding algorithmic bias, and securing regulatory approval are ongoing concerns. Nonetheless, the potential of AI to enable earlier, more accurate diagnoses offers hope for improved treatment outcomes and a better quality of life for patients and caregivers alike.

As AI continues to evolve, it stands poised to become an indispensable tool in the fight against Alzheimer's disease.

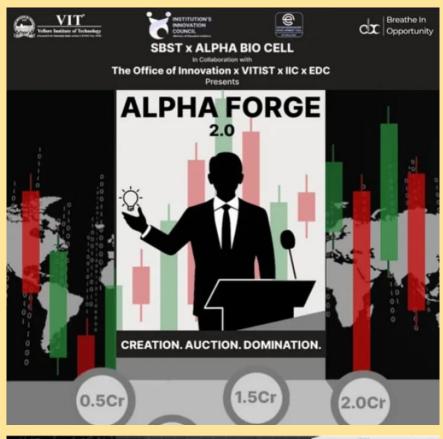
-Toshika Mishra (21PHD0218), ICMR Project Research Scientist-I

EVENTS ORGANIZED

1. SBE-VIT and the School of Biosciences and Technology (SBST) present the 10th edition of our flagship event and our 4th national event, Bioinspired Design Fest (BIDFest) from 24th-26th March 2025 which was supported by MEITY TIDE 2.0 of VITTBI. This 45-hour fest held various competing events like E-Poster Making, Model Making, Rebuttal, and BIDCoin along with a guest lecture series to provide an exceptional learning experience.



2.SBST and ALPHA BIO CELL in collaboration with the Office of Innovation, VITIST, IIC and EDC ALPHA FORGE 2.0 from 25th-27th March 2025. AlphaForge 2.0 is a dynamic three-day innovation challenge that brings together brilliant minds to create groundbreaking ideas to recreate the real-world Startup Ecosystem which hosts events like Ideation, Poster Presentations, Guest Speaker Sessions, Auction Rounds and Business Model Pitch.





Some Glimpses of SBST upto 2025

EMP ID	FACULTY NAME	DESIGNATION	ACHIEVEM	DETAILS
			ENTS	
10357	Dr. KARTHIKEYAN S	Professor and Dy. Director CDC	Service	24 years 3 Months
10357	Dr. KARTHIKEYAN S	Professor and Dy. Director CDC	Industry Consultanc y Projects	3166401
10791	Dr. SIVA R	Professor Higher Academic Grade	INTERNATI ONAL VISIT	More than 10 countries
10832	Dr. SUNEETHA V	Professor Higher Academic Grade & Dean SBST	Awards @ > 55	RED CROSS, DST , FICCI, ICMR Govt. of India
10832	Dr. SUNEETHA V	Professor Higher Academic Grade & Dean SBST	Patents	13
11468	Dr. ANAND A	Professor Higher Academic Grade & Associate Dean SBST	Fund Generated	>5 crores
12175	Dr. GEORGE PRIYA DOSS	Professor	Publication s	346
12175	Dr. GEORGE PRIYA DOSS	Professor	Citations	6,656 Citations by 5,098 documents
12175	Dr. GEORGE PRIYA DOSS	Professor	UG Publication s	>25
12175	Dr. GEORGE PRIYA DOSS	Professor	h- index	41
12365	Dr. PRITI TALWAR	Professor	Most cited paper	1683- Autophagy

STUDENT NOTABLE ACHIEVEMENT

Reg. No	Alumni Name	ACHIEVEMENTS
06BBT0 90	Ms. Kadhambari S Viswanathan	"Limca Book of Records"
08BBT1 66	Mr. Rachit Raj	Indian Administrative Service Govt. of India with more distinguished awards - UPSC 3 rd Rank Holder
08BBT1 78	Mr.Rajveer Meena	Guinness World Record
11BBT0 081	Mr. Vidur Sabharwal	secured All India Rank (AIR)-1 in GATE EXAMINATION 2015 (Biotechnology).
12BBT0 104	LtShubhangi Swaroop	First female pilot of the Indian Navy. She is a pilot of Maritime reconnaissance aircraft in Indian Navy

STAFF

EMP ID	STAFF NAME	ACHIEVEMENTS
10123	Mrs. Santhi Veerasamy	>27 years of service

SBST- A MOVE TO CONSULTANCY

GLIMPSES OF CONSULTANY PROJECTS

Sl No	ERP. No	Faculty Name	Project Title	Funding Agency
1	10357	Dr. S. Karhtikeyan	Technical Solutions for developing cost effective astaxanthin production.	Astamin Biotech, india
2	10357	Dr. S. Karhtikeyan	Technical solutions for textile effluent treatment using biotechnological applications.	Eminent Textile Mills Private Ltd, India
3	10357	Dr. S. Karhtikeyan	Scale up of microbes for liduid bioferilizers.	OmniActive Health Technologies, India
4	10357	Dr. S. Karthikeyan	Scale up of microbes for liduid bioferilizers	OmniActive Health Technologies, India
5	10357	Dr. S. Karthikeyan	Development of bio fertilizers and feed additives for poultry.	V K Palappa Nadar Poultry Farms Pvt Ltd , India
6	10357	Dr. S. Karthikeyan	Rapid Identification of microbial food spoilage by image processing and Neural Networks.	Euro Exim Bank, UK
7	10371	Dr. T. B. Sridharan	SEM Sample Preparation Analysis and Data Intrepretation	MIT Chennai DKM College Muthurangam Arts and Science College Rajalakshmi Engg College SCSVMV UniversityAnnamalai University Sri Bharathi Womens College, India
8	10371	Dr. T. B. Sridharan	SEM Sample Preparation Analysis and Data Intrepretation	university of kerala Thiruvallunvar university SCSVMV university CMFRI SKP ENGG Coll Pondicherry university Annamalai university Md Saleem Inst of Engg Muthurangam Govt Arts College Eminent Textile Mills, India

9	10371	Dr. T. B. Sridharan	SEM Sample Preparation Analysis and Data	university of kerala Thiruvallunvar
			Anaivsis and Data	
			Intrepretation	university SCSVMV
				university CMFRI SKP
				ENGG Coll Pondicherry
10	400=4	D	CDV C I D II	university, India
10	10371	Dr. T. B. Sridharan	SEM Sample Preparation,	SIX different institutes
			Analysis and Data	individuals please refer
			Intrepretation	attachment, India
11	10601	Dr. Devi	Herbal-Nano based Bio	Xcellogen Biotech India
		Rajeswari	application studies	Pvt Ltd, India
12	10601	Dr. Devi	Green synthesis of nano	Xcellogen Biotech India
		Rajeswari	particles and applications.	PVT LTD, INDIA
13	10627	Dr. C. Shanthi	Collagen characterization	GATES GROUP life
				sciences division, India
14	10791	Dr. R. Siva	Optimizing the extraction	E I D Parry India
14	10/91	DI. K. SIVA	molecular characterization bio-	Limited, India
				Limited, mula
			activities of chlorella growth factor.	
15	10791	Dr. R. Siva		EID Down In die
15	10/91	Dr. R. Siva	Optimizing the extraction molecular characterization bio-	EID Parry India
				Limited, INDIA
			activities of chlorella growth	
1.0	10832	Dr. Suneetha V	factor.	Envelop Foul on India
16	10832	Dr. Suneetna v	Scientific and Technical	Eureka Forbes, India
17	10832	Dr. Suneetha V	Consultancy. AC AND AIR PURIFIERS	Euroka Farbas India
1/	10832	Dr. Suneema v		Eureka Forbes, India
		_	MICROBIAL QUALITY ANALYSED	
18	10832	Dr. Suneetha V	Viral and Actinomycetes assay	EUREKA FORBES, India
			in Air conditioning missions and	
			air purifiers.	
19	10832	Dr. Suneetha V	scientific and Technical	Eurekaforbes, india
			consultancy	
20	10902	Dr. A.	Metabolic Engineering of	Wisecorner
		Mohanapriya	Corynebacterium glutamicum	Laboratories Pvt Ltd,
				India
			acid	
21	11194	Dr. Subathradevi	Gene editing of the virulent gene	Salem Microbes Pvt
			from E.coli using CRISPR system	Ltd, India
22	11194	Dr. Subathradevi	Screening the neuraminidase	Siddha Central
			inhibition activity of polyherbal	research institute CCRS
			formulations	ministry of Ayush,
				India
		Dr. Subathradevi	for hyper production of Citric acid Gene editing of the virulent gene from E.coli using CRISPR system Screening the neuraminidase inhibition activity of polyherbal	India Salem Microbes Pvt Ltd, India Siddha Central research institute CCRS

	ı			
23	11194	Dr. Subathradevi	Screening the neuraminidasa	Central Council for
			inhibition activity of polyherbal	Research in Siddha
			formulations.	CCRS, India
24	11264	Dr. K. M.	Evaluation of	United Arab Emirates,
		Gothandam	caotenoids,antioxidant enzymes	United Arab Emirates
			, antioxidant compounds protein	
			and photosynthetic pigments in	
			stress-treated grape leaves	
25	11393	Dr. C. Ramalingam	Oleogels for prototypes melting	ITC, India
			at 37c with a good sensory	
			chocolates (project Elixir)	
26	11477	Dr. Jayanthi	ETP treatment by	SOLISTAA
		Abraham	phycoremediation-microbes	Pharmaceuticals, India
27	11477	Dr. Jayanthi	Consultancy on microbial	Ultramarine Pigments
		Abraham	Analysis	ltd, INDIA
28	11603	Dr. Pragasam	Extraction and characterization	EID Parry India
	11000	21111ugusulli	of sulphated polysaccharide and	Limited, INDIA
			Ca spiyulan from spriulina.	2
0.0	44600	D W D		7177
29	11603	Dr. V. Pragasam	Extraction and characterization	E I D Parry India
			of sulphated polysaccharide and	Limited, India
			Ca spiyulan from spriulina.	
30	11603	Dr. V. Pragasam	Stress management device	Kramsky Stamping and
				Molding India Pvt Ltd,
				India
31	11902	Dr.	Development of bacteriocin for	Salem Microbes Private
		Mohanasrinivasan	the food industry application.	Limited , India
32	11902	Dr. V.	Study on bioactive compounds	BIRAC SRISTI, INDIA
		Mohanasrinivasan	and therapeutic potential of	
			Begenia and Quercus incana	
			extracts for medicininal	
			formulation.	
33	11902	Dr. V.	Technical solutions for	Vetbiotics Animal
		Mohanasrinivasan	improving animal health using	Healthcare Pvt Ltd,
			biothechnologial applications.	INDIA
34	12147	Dr. V. Shanthi	Cost for running molecular	Sathyabama Institute
		3	dynamics simulation.	of Science and
				Technology, INDIA
35	12175	Dr. George Priya	Chemical Characterization Of	AYUSH, India
		Doss	Plant Extracts.	
36	12175	Dr. George Priya	Development Of Antimicrobial	The Hilda Lazarus Core
	12170	Doss	Stewardship KPI	Research Chair
		D 033	occurationip in 1	Christian Medical
				om istian ricultai

				College and Hospital, India
37	12175	Dr. George Priya Doss	Drug Resistance Identification	CMC VELLORE, India
38	12275	Dr. K. Suthindhiran	Consultancy Project for Kupi Environmental Solutions.	The Kupi Environmental Solutions Pvt Ltd, India
39	12423	Dr. Manjubala	APR Applied Pharma Research s.a.,	APR Growing Innovation, Switzerland
40	12568	Dr. T. N. Patel	Molecular Cytogeneticist and Biologist	Supratech Micropath, India
41	12600	Dr. Jabez Osborne	Inhibition of EHP in Marine Ecosystem	Aarpy Bio Solution, India
42	12600	Dr. Jabez Osborne	Disinfection of factory and godown with pre and post treatment	otto clothing pvt ltd, India
43	12600	Dr. Jabez Osborne	Fabrication of collagen patch	Healthium Medtech Ltd, India
44	12600	Dr. Jabez Osborne	Application of various formulation for the restriction of microbial growth	Otto clothing Pvt Ltd, India
45	12600	Dr. Jabez Osborne	Inhibition of microbes in textile fabric	otto clothing pvt ltd, India
46	12600	Dr. Jabez Osborne	Inhibition of Microbial growth in textile fabrics	otto clothing pvt ltd, India
47	12600	Dr. Jabez Osborne	Antimicrobial activity of Essential Oil	TUORRA, India
48	12600	Dr. Jabez Osborne	Studies on microbial community dynamics during pilot/field scale bioremediation explosives	DRDO CARS, India
49	12600	Dr. Jabez Osborne	Eradication of Microbes causing damage in textile garments	Otto clothing Pvt Ltd, India
50	12600	Dr. Jabez Osborne	Antimicrobial activity of the effective molecules against pathogens	Manushyaa Blossom Private Limited, India
51	12600	Dr. Jabez Osborne	Consultancy P A Footwear	Ms P A Footwear P Ltd, INDIA
52	12927	Dr. Anbalagan	Effect of phyto compound PHY- XXI on Nucleolin levels in TAXOL and Cis-Platin resistant HeLa,MCF-7 and MDA-MB231 cell lines	Phyto Specialities Pvt ltd, India

53	12927	Dr. M. Anbalagan	Understanding molecular machanism of anticancer activity mediated by compound A &B.	Phyto Specialities Pvt Ltd, India
54	12927	Dr. M. Anbalagan	Evaluation of anti-cancer activity for compound A and B	Phyto Specialities Pvt Ltd, India
55	13290	Dr. R. Sudhakaran	Risk assessment of microplastics in the environmental samples.	Practical Environmental Technologies, India
56	13290	Dr. Sudhakaran	Confirmation of Anti-WSSV activity of potential bioactive molecules towards commercialisation process	Kyntox Biotech India Pvt LTD, India
57	13290	Dr. Sudhakaran	Studies on Antiviral and antibacterial activities of Novel Combinations.	KYNTOX BIOTECH INDIA PVT LTD, India
58	13290	Dr. Sudhakaran	Preventive and prophylactic Efficacy of Commercial probiotics in Tilapia Fishes Experimentally Infected with Vibrio parahemolyticus.	Organic Biotech pvt ltd, India
59	14811	Dr. N. Ramesh	Determination of the Minimum Inhibitory Concentration (MIC) of Test Compounds Against Clinical Isolates of Streptococcus Pyogens	Vyome Therapeutic ltd, India
60	14811	Dr. N. Ramesh	Determination of the Minimum Inhibitory Concentration (MIC) of Test Compounds Against Clinical Isolates of Methicillin Sensitive & Resistance Staphylococcus aureus.	Vyome BioSciences, India
61	18918	Dr. Jeevitha	Characterisation of fat developed using oil structuring technology	Fattastic Technologies Pvt Ltd, Singapore
62	19611	Dr. Sankar Ganesh	Preparation of semichemicals- based formulation for pigs	MAGAPOR S L, Spain



Foreign Faculty Visit





















Adjunct Faculty

Dr. Wilner Martinez-Lopez

Head of Epigenetics and Genomic Instability Laboratory, Genetics and Molecular Biology Division, IIBCE, Uruguay, Visited our school March 2025





Prof. Thomas Effereth, Adjunct Faculty, Germany visited our School April 2025.



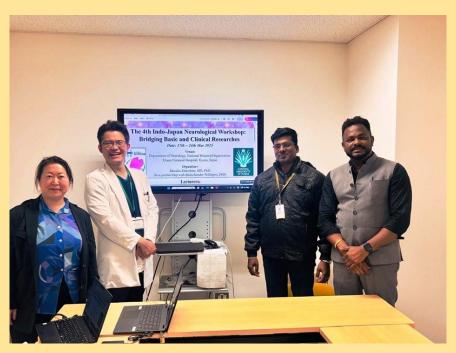


FACULTY ABROAD VISIT

Dr. R. Sudhakaran recently visited Fukuyama University Japan as a Visiting faculty during February 2025.



Dr. V. G. Abilash has participated in the Indo-Japan collaborative project funded by the Department of Science and Technology (DST), India, and JSPS at Utano National Hospital, Kyoto, Japan, from March 16 to March 24, 2025.



SIGNIFICANT EVENTS





















FORTHCOMING EVENTS







Hands-on workshop on "Accelerating Virtual Drug Screening with ScientiFlow" organized by VIT-TBI

- Master Virtual Screening: Learn to efficiently screen 1 million compounds and identify top leads.
- Fundamentals of Virtual Drug Screening & Molecular Docking explained step-by-step.
- Hands-on automated Workflow Using ScientiFlow: Featuring Vina, GNina, ADMET Filters, PLIP, & more.

e-certificate will be provided to the participants upon successful completion.



ONLINE PAYMENT DETAILS

VIT TBI E-Payment 8	Bank details
Name of the Bank	Indian Bank
Bank Account Name	VIT-TBI
Bank Account Number	407580535
Bank IFSC Code	IDIB000V086
Bank Branch	VIT Branch

Program fee : Rs. 600/-Date : 05.04.2025

Timing : 10.00 AM to 4.00 PM

To Register Scan Here



Bioinformatics,

B.Tech

Research

WHO CAN ATTEND?

M.Tech

scholars

Graduates / Students pursuing B.Sc. / M.Sc. /

Faculties in Life science.

Biotechnology & others

FOR FURTHER DETAILS PLEASE CONTACT

Course Co-ordinator

Phone: 0416-2202306

email: jagannathan.v@vit.ac.in

> Website: www.vittbi.com



Speaker
Dr. Kamalesh Damodaran
Founder, ScientFlow
(PhD, University of
Montpellier France)

Venue

TT012, BIRAC-BioNEST Lab
Technology Business Incubator
Technology Tower Building
Vellore Institute of Technology
Vellore - 632014, Tamil Nadu, India



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Special Upskilling topics for industry

- Advanced techniques in biotechnology

- Antimicrobial resistance Drug design and development Biochemical & Analytical Instrumentation
- Instrumentation
 Medical Biological Computing
 Scanning Electron Microscopy (SEM)
 High throughput screening
 Agri & Environmental Biotechnology
 Aquaculture Biotechnology
 Gene therapy and nano therapy
 Bioprocess and downstream

- processing Microbial Biotechnology
- Bioremediation Cancer biology

COMPLETED PROJECTS



- CRISPR system-Salem Microbes Pvt Ltd, India Studies on Antiviral and antibacterial activities of Novel Combinations- KYNTOX BIOTECH INDIA PVT LTD,
- 5. Oleogels for prototypes melting at 37c with a good
- sensory chocolates (project Elixir)- ITC, India 4. Optimizing the extraction molecular characterization bio-activities of chlorella growth factor- E I D Parry India Limited, India
- S. AC and Air Purifiers Microbial Quality Analyzed-Eureka Forbes, India 6. Scientific and Technical Consultancy-Eureka Forbes,
- 7. Consultancy P A Footwear- Ms P A Footwear Pvt. Ltd,
- INDIA

 8. Viral and Actinomycetes assay in Air conditioning missions and air purifiers- EUREKA FORBES, India

 9. Scale up of microbes for liquid bioferilizersOmniActive Health Technologies, India

 10. APR Applied Pharma Research s.a.- APR Growing Innovation, Switzerland

- Innovation, Switzerland
 II. Preventive and prophyloctic Efficacy of Commercial
 problotics in Tilapia Fishes Experimentally Infected
 with Vibrio parahemolyticus- Organic Biotech Pvt. Ltd,
- 12. Disinfection of factory and godown with pre and post treatment- otto clothing Pvt Ltd, India
- 15. Fabrication of collagen patch-Healthium Medtech Ltd,
- 14. Confirmation of Anti-WSSV activity of potential bioactive molecules towards commercialis process- Kyntox Biotech India Pvt LTD, India

- process-Kyntox Biotech India Pvt LTD, India
 15. ETP treatment by phycoremediation-microbesSOLISTAA Pharmaceuticals, India
 16. Metabolic Engineering of Corynebocterium
 glutamicum for hyper production of Citric acidWisecorner Laboratories Pvt Ltd, India
 17. Characterisation of fat developed using oil structuring
 technology-Fattastic Technologies Pvt Ltd, Singapore
 18. Effect of phyto compound PHY XXI on Nucleolin levels
 in TAXOL and Cis-Platin resistant HeLa, MCF-7 and
 MDA-M8231 cell lines-Phyto Specialities Pvt Itd, India
 19. Development of Bioceramic 3D scaffolds by extrusionbased printing technique using Cellink BOX system-
- based printing technique using Cellink BIOX system. Altem Technologies pvt Itd, India 20. Antimicrobial activity of the effective molecules against pathogens-ManushyaaBlossom Private
- Limited, India
- Herbal-Nano based Bio application studies- Xcelloger Biotech India Pvt Ltd, India
 Development of bacteriocin for the food industry application- Salem Microbes Private Limited , India
- 25. Chemical Characterization Of Plant Extracts-AYUSH,
- India 24. Research personnel and technical information exchange- Next Big innovation Lab, India

Important labs

- Agriculture and Environmental Biotechnology Bio Materials
- sio Materials
 Biochemical & Analytical Instrumentation
 Bioprocess & Downstream
 Marine Biotechnology & Bioproducts
 Nano Bioengineering
 Vector Production
 Computational Development

- Vector Production
 Computational Drug Design
 Protein Engineering
 Plant Biotechnology
 High Throughput Screening
 Instrumental and Food Analysis
 Medical Biotechnology
 Cell & Molecular Biology
 Microbial Biotechnology
 Tiesue culture
 Bio-inspired Design
 Science, Innovation, and Society Rese





- 1. Development of biofertilizers and biopesticides
- 2. Flower waste management strategies
- 5. Bioplastic production
- 4. Soil microbiome optimization
- 5. Sustainable development of biofuels
- 6. Healthcare and personalized medicines







ONGOING PROJECTS

- 1. Evaluation of carotenoids, antioxidant enzyme antioxidant compounds protein and photosynthetic pigments in stress-treated grape leaves- United Arab **Emirates**, United Arab Emirates
- 2. Inhibition of EHP in Marine Ecosystem- Aarpy Bio
- Solution, India Gene editing of the virulent gene from E.coli using CRISPR system-Salem Microbes Pvt Ltd, India
 4. Disinfection of factory and godown with pre and post treatment-Otto clothing Pvt Ltd, India
- 5. Fabrication of collagen patch-Healthium Medtech Ltd,
- 6. Application of various formulation for the restriction of microbial growth- Otto clothing Pvt Ltd, India
- 7. Confirmation of Anti-WSSV activity of potential bioactive molecules towards commercialisation process-Kyntox Biotech India Pvt LTD, India
- 8 Inhibition of microbes in textile fabric- Otto clothing Pyt Ltd, India
- 9. Preparation of semichemicals-based formulation for pigs-MAGAPOR S L, Spain
- 10. Inhibition of Microbial growth in textile fabrics- Otto clothing Pvt Ltd, India
- 11.ETP treatment by phycoremediation-microbes-SOLISTAA Pharmaceuticals, India

PROGRAMMES OFFERED

School of Bio Sciences and Technology

Undergraduate Program

B. Tech Biotechnology

M.Sc. Biotechnology,

M.Sc. Biomedical Genetics

M.Sc. Applied Microbiology

Postgraduate Program M. Tech. Biotechnology

M.Sc. Biotechnology

(Integrated 5yrs)

M.Sc. Food Science & Tech.

(Integrated 5 yrs)

Research Program

Doctor of Philosophy (Ph.D.)

Integrated Ph.D.

"Everything is theoretically impossible, until it is done." – Robert A. Heinlein

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CONTACT

Dr. Suneetha V

Professor Higher Academic Grade & Dean

School of Bio Sciences and Technology

Vellore Institute of Technology(VIT), Vellore – 632 014, Tamil Nadu, India.

91 416 220 2661 / 2662 / 2663