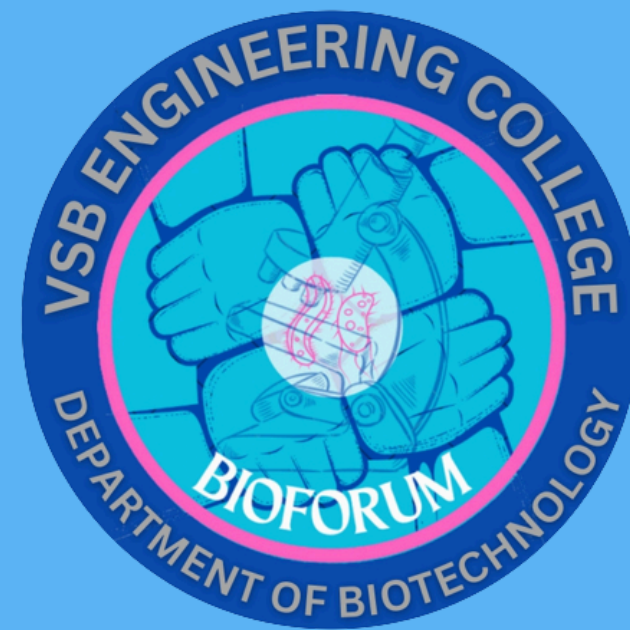
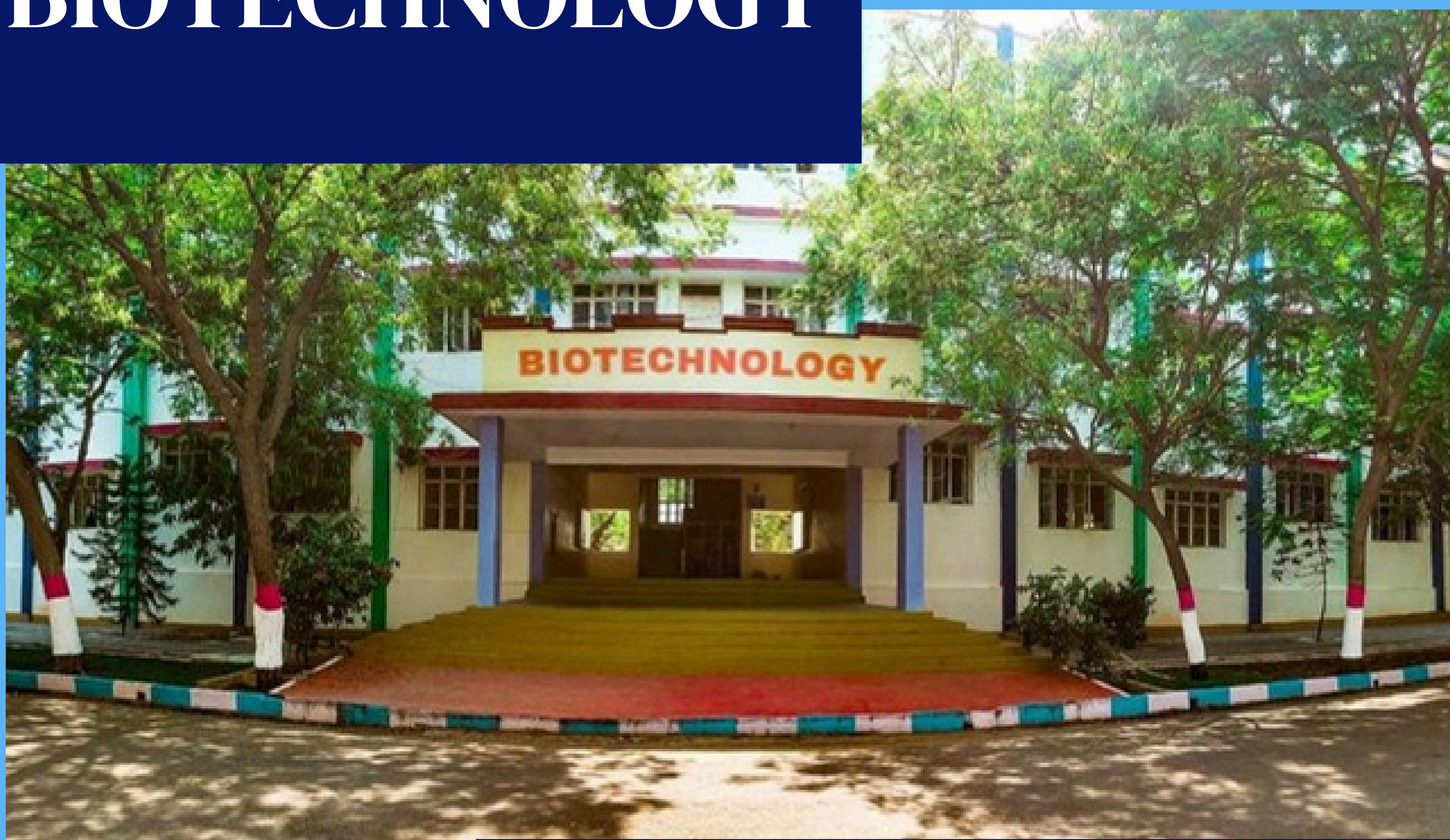




NEWSLETTER

2024-25 ODD

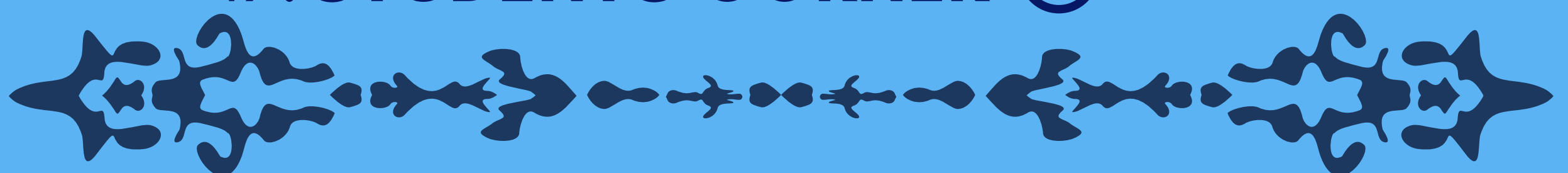
DEPARTMENT OF
BIOTECHNOLOGY



V.S.B.ENGINEERING
COLLEGE,KARUR

Content

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V.S.B. ENGINEERING COLLEGE

(AN AUTONOMOUS INSTITUTION)

Approved by AICTE, New Delhi, Affiliated to Anna University,
Chennai An ISO 9001:2015 Certified Institution Accredited by
NAAC, NBA Accredited Courses



V.S.B. Educational Trust was founded in the year 2000 by Mr. V.S. Balsamy, the founder and correspondent of the V.S.B. Group of Institutions, with an interest in promoting, managing and administrating educational institutions with high academic standards, discipline and to take up and help other allied activities in the field of education. Under the Trust, V.S.B. Engineering College was established in the year 2002 and V.S.B College of Engineering Technical Campus in the year 2012.



**SHRI.V. S. BALSAMY, B.SC., L.L.B.,
FOUNDER & CHAIRMAN, VSB GROUP
OF INSTITUTIONS.**

FOUNDER AND CHAIRMAN

Shri.V.S.Balsamy, B.Sc., L.L.B., a leading luminary, has 31 years of bright standing in the field of law. He is the recipient of “Indira Gandhi Sadhbavana Award” from Global Economic Council, New Delhi. He was also honoured with “The Best Humanitarian Award” in 2005.VSB Educational Trust was founded by him as the Founder-Trustee in the year 2000. He started V.S.B. Engineering College in Karur in the year 2002 and V.S.B. College of Engineering-Technical Campus in Coimbatore in the year of 2012. He, the Correspondent of VSB Group of Institutions, lays emphasis on ‘**Hard Work**’. As he strongly believes that “**HARD WORK IS THE KEY TO SUCCESS**”, it is conceived as the motto of the Institutions.

About the Department :

Biotechnology is considered as one of the emerging field which act as the fuel for the industrial growth. Biotechnology is the broad area of biology involving living system & organism to develop or make product for specific use. The dignified department poses on its four pillars of potency – the Management, teachers, students, their values and discipline that pave the way for a strong foundation, inculcating visionary ideas with friendship and concord in hard work. The department has well equipped laboratories to fulfill the university requirements and constant upgrades are made to keep up with the present day advancements. Students with innovative ideas are constantly encouraged and the department helps them to conduct their research work within the college, allowing them to use the department resources. The department conducts various events monthly to enlighten the students regarding the various aspects of the field of biotech.

"Biotechnology is an extension of traditional breeding, but with greater precision."

- Herbert Boyer



HEAD OF THE DEPARTMENT

Dr. Anis kumar M , Professor

Born on April 12th, 1981, in Coonoor, The Nilgirs, Tamil Nadu, India, Dr. M. Anis kumar embodies unwavering commitment to Engineering and Technology. He embarked on his academic journey with an M.Tech in Industrial Biotechnology from SASTRA University in 2005. His insatiable curiosity led him to learn a PhD Degree in Technology (Biotechnology) from Anna University, Chennai in 2016.

Driven by his passion for engineering and technology advancement, Dr. M. Anis kumar authored one book, 4 book chapters, 5 patents with 4 grants received, 17 research and review papers in refereed international and national journals. His areas of research include optimizations and scale up of Bioprocess engineering and separations based on downstream processing with Molecular and genetics engineering identifications.

Beyond research, Dr. M. Anis kumar excelled in education, shaping young minds during his 18 tenure as a University-level educator. As an Professor in the Department of Biotechnology at VSB Engineering College, Karur Tamilnadu, India, he continues to inspire through his dedication to scientific inquiry, commitment to education, and significant contributions to the engineering and Technology.

WORDS OF HEAD OF THE DEPARTMENT

The Department of Biotechnology shines brightly at Dr. Aniskumar, V.S.B Engineering College, representing the pinnacle of applied science. From tissue culture to genetic engineering, and from microbial technology to bioinformatics, our impact spans across sectors, fueling mankind's progress.

our department research endeavors delve deep into Immunology, Cancer Biology, Molecular Biology, and beyond, tackling pressing issues like infectious diseases and diabetes. Biotechnology's evolution is imperative for human comfort and the planet's well-being.

Our mission is to empower students with knowledge, skills, passion, and determination, equipping them to thrive in every aspect of their careers and personal and social lives, navigating any challenge with competence and grace."

VISION AND MISSION OF INSTITUTE

VISION:

WE ENDEAVOUR TO IMPART FUTURISTIC TECHNICAL EDUCATION OF THE HIGHEST QUALITY TO THE STUDENT COMMUNITY AND TO INCULCATE DISCIPLINE IN THEM TO FACE THE WORLD WITH SELF-CONFIDENCE AND THUS WE PREPARE THEM FOR LIFE AS RESPONSIBLE CITIZENS TO UPHOLD HUMAN VALUES AND TO BE OF SERVICE AT LARGE. WE STRIVE TO BRING OF THE INSTITUTION AS AN INSTITUTION OF ACADEMIC EXCELLENCE OF INTERNATIONAL STANDARD

MISSION:

WE TRANSFORM PERSONS INTO PERSONALITIES BY THE STATE-OF THE ART INFRASTRUCTURE, TIME CONSCIOUSNESS, QUICK RESPONSE AND THE BEST ACADEMIC PRACTICES THROUGH ASSESSMENT AND ADVICE

VISION AND MISSION OF DEPARTMENT

VISION:

TO ACCOMPLISH EMINENCE IN ACADEMIC EXCELLENCE THROUGH QUALITY TEACHING WITH LATEST TECHNOLOGY AND INNOVATIONS IN THE AREAS OF AGRICULTURE, ENVIRONMENT, HEALTH CARE AND ENTREPRENEURSHIP FOR THE WELFARE OF THE SOCIETY.

MISSION:

- 1.EQUIP THE STUDENTS TO ADAPT TO CHANGING GLOBAL AND LOCAL NEEDS THROUGH WELL DESIGNED CURRICULUM AND SYLLABUS.
2. GROOM STUDENTS TO UPHOLD PROFESSIONAL ETHICS AND DEVELOP LEADERSHIP QUALITIES.
- 3.DISSEMINATE A BLENDING OF KNOWLEDGE ACQUISITION AND ITS APPLICATION IN REAL-LIFE SITUATIONS TO THE STUDENTS.
- 4.TRAIN STUDENTS ON ISSUES RELATED TO SOCIAL WELFARE.

PROGRAM SPECIFIC

OUTCOME:

PSO I: Apply the knowledge in core and allied fields to solve complex engineering problems.

PSO II: Able to expose their skills using latest tools to arrive cost effective and appropriate solutions.

PPSO III: Apply the contextual knowledge with professional ethics to manage different projects in multi-disciplinary environment.

PROGRAM EDUCATIONAL

OUTCOME:

PEO 1- Successful professional career and/or higher studies by gaining knowledge in fundamental mathematics and biological principles.

PEO 2- Provide strong foundation in the core biotechnology courses to evaluate real life problems and to propose biotechnological solutions with economical and social viability

PEO 3- Sensitize on environmental, health and bioethical issues. Intellectual property rights, professional ethics and life-long learning through application orientated activities

PROGRAM OUTCOMES(POs):

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

PO2: Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

PO3: Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations

PO4: Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

PO5: Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations

PO6: The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the B. TECH. BIOTECHNOLOGY 2 consequent responsibilities relevant to the professional engineering practice

PO7: Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

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

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

PO10: Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions

PO11: Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

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

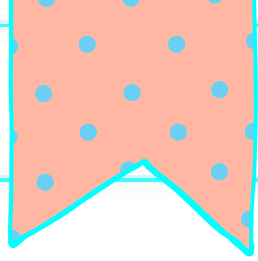
Student's Words

SESHATHRI D
2nd year

I am Seshathri D pursuing B.tech.Biotechnology in V.S.B.Engineering College ,Karur Bioinformatics has revolutionized the way we understand life. By combining computer science, math, and biology, we can analyze complex biological data, decode genetic secrets, and develop personalized treatments. As a student in this field, I'm excited to explore its vast possibilities, from precision medicine to agricultural sustainability. With AI-driven discoveries on the horizon, I'm eager to contribute to this dynamic field and inspire others to join the journey.

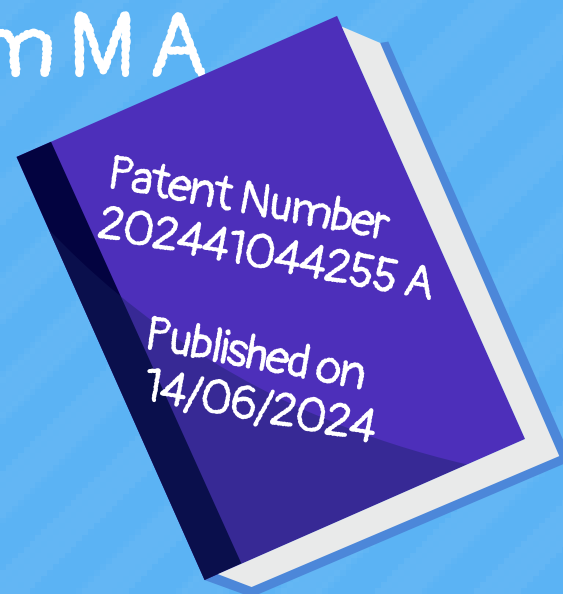
Manisha .T.S
3rd year

I am Manisha T.S pursuing B.tech.Biotechnology in V.S.B.Engineering College ,Karur Genetic engineering revolutionizes healthcare, agriculture, and biotechnology by enabling DNA editing, disease-resistant crops, and targeted treatments. I'm drawn to its potential to cure genetic diseases and produce sustainable food. Through research, debates, and hands-on experiences, I've explored CRISPR, synthetic biology, and bioethics. Genetic engineering's future promises precision medicine, climate-resilient crops, and regenerative advancements. I'm excited to contribute to this dynamic field and inspire others to join the journey, reshaping life's blueprint for a better tomorrow.



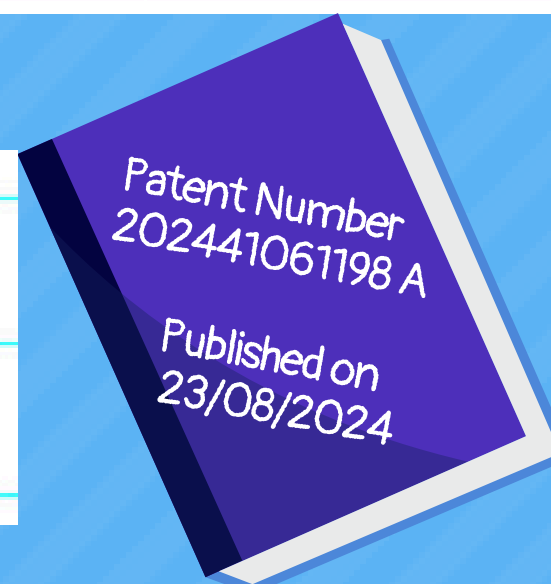
Patent Publication

Dr.Aniskumar M
Mr.Sundaramahalingam M A
Ms Praveena A
Ms Jeevitha S



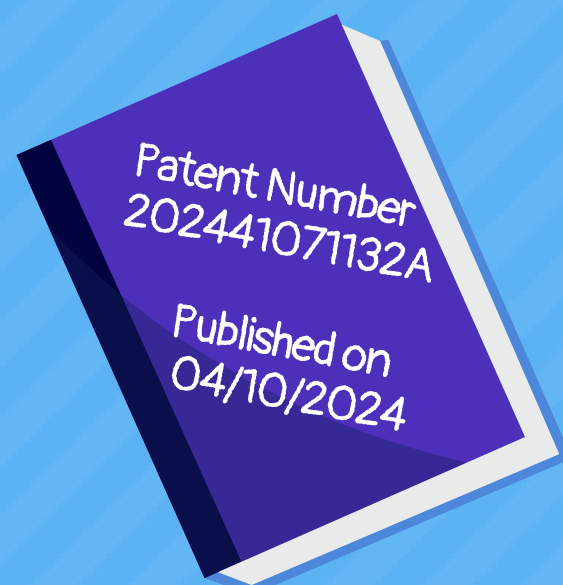
A bacterial abatement of chicken feather waste using a novel isolate of food flavourant producing industry outpour

Smart Bioreactor For microbial cultivation using adaptive pressure adjustment regulation



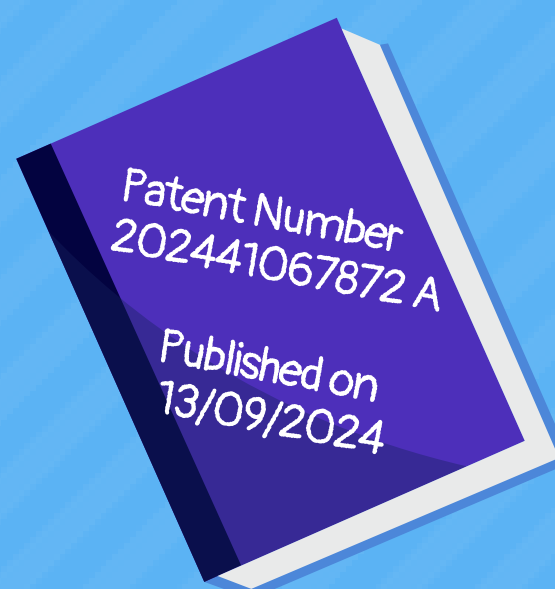
Dr.Aniskumar M
Sundaramahalingam M A

Dr.Aniskumar M
Mr.Santhaseelan C
Sathyadevi P
Sharmila Devi S
Kaviya Maniakandan
Poomani P
Sneha T
Lakshmi S



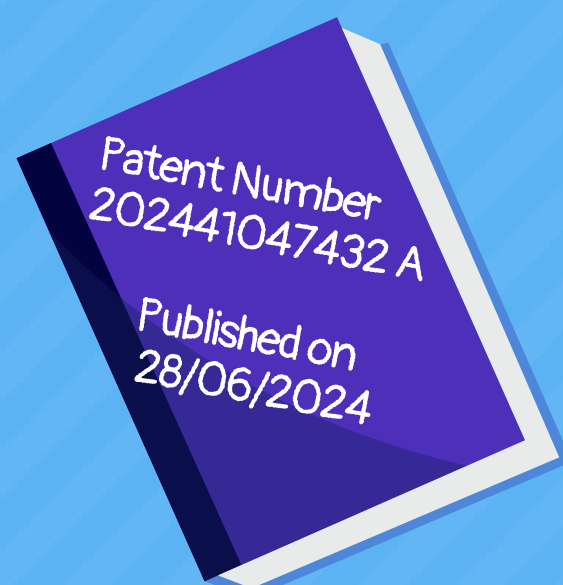
Economic benefits of Biodiesel Production by Biocatalyst using Industrial Scale Up process

Development of a Natural biopesticide and insect repellent from aerva lanata distillates: A sustainable approach to pest control



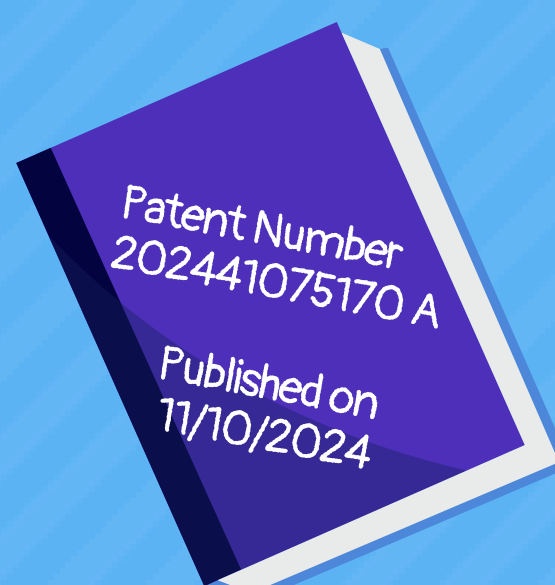
Dr.Aniskumar M
Ms.Keerthiga K
Ms.Jeyashree
Ms.G.Cibinaya
Ms.P.Karunya
ms.A.Dharanika
Ms.Deepana M

Dr.Aniskumar M
Dr.Niharika Singh
Sharmila R
Kaviya A
Keerthikaa B

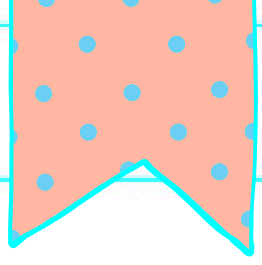


Functional properties of Bioactive compounds contained in Beta vulgaris commonly consumed in India

Isolation and Identification of antibiotics producing microorganism from industrial soil dumps used in the food and pharmaceutical industries



Dr.Aniskumar M
Dr.Niharika Singh
Hareni R
Amit Das
Madhushree N
Abisha M



Paper Publication

Dr. Aniskumar M

ISSN Number: 1480-2422

Published on: 10 Sept 2024

Link: [https://iieta.org/journals/jnmes/paper/10.14447/](https://iieta.org/journals/jnmes/paper/10.14447/jnmes.v27i3.a10)

[jnmes.v27i3.a10](https://iieta.org/journals/jnmes/paper/10.14447/jnmes.v27i3.a10)

Investigating the Role of TiO₂ and MgTiO₃ Supports in ZnO-Catalyzed Photocatalytic CO₂ Reduction

ISSN Number: 2190-6815

Published on: 30 Aug 2024

Link: <https://doi.org/10.1016/j.heliyon.2024.e37255>

Pyrolysis behaviour and synergistic effect in co-pyrolysis of wheat straw and polyethylene terephthalate: a study on product distribution and oil characterization

ISSN Number: 2405-8440

Published on: 30 July 2024

Link: [https://link.springer.com/article/10.1007/s13399-](https://link.springer.com/article/10.1007/s13399-024-05964-w)

[-024-05964-w](https://link.springer.com/article/10.1007/s13399-024-05964-w)

Phytoassisted Synthesis, Characterization, and Evaluation of Biological Properties of Magnesium Oxide Nanoparticles obtained using Cinnamomum tamala leaf extracts
Biomass Conversion and Biorefinery

Dr. M. A. Sundaramahalingam

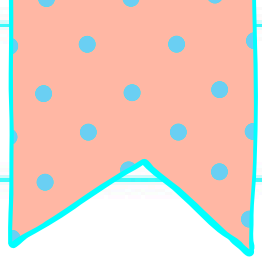
optimization of process parameters in acoustic cavitation mediated extraction of soluble fibre from Prosopis juliflora pod peel; its optimization and analytical characterization
Biomass Conversion and Biorefinery

DOI: <https://doi.org/10.1007/s13399-024-05969-5>

Published on: 30 July 2024

Link: [https://link.springer.com/article/10.1007/s13399-](https://link.springer.com/article/10.1007/s13399-024-05964-w)

[-024-05964-w](https://link.springer.com/article/10.1007/s13399-024-05964-w)



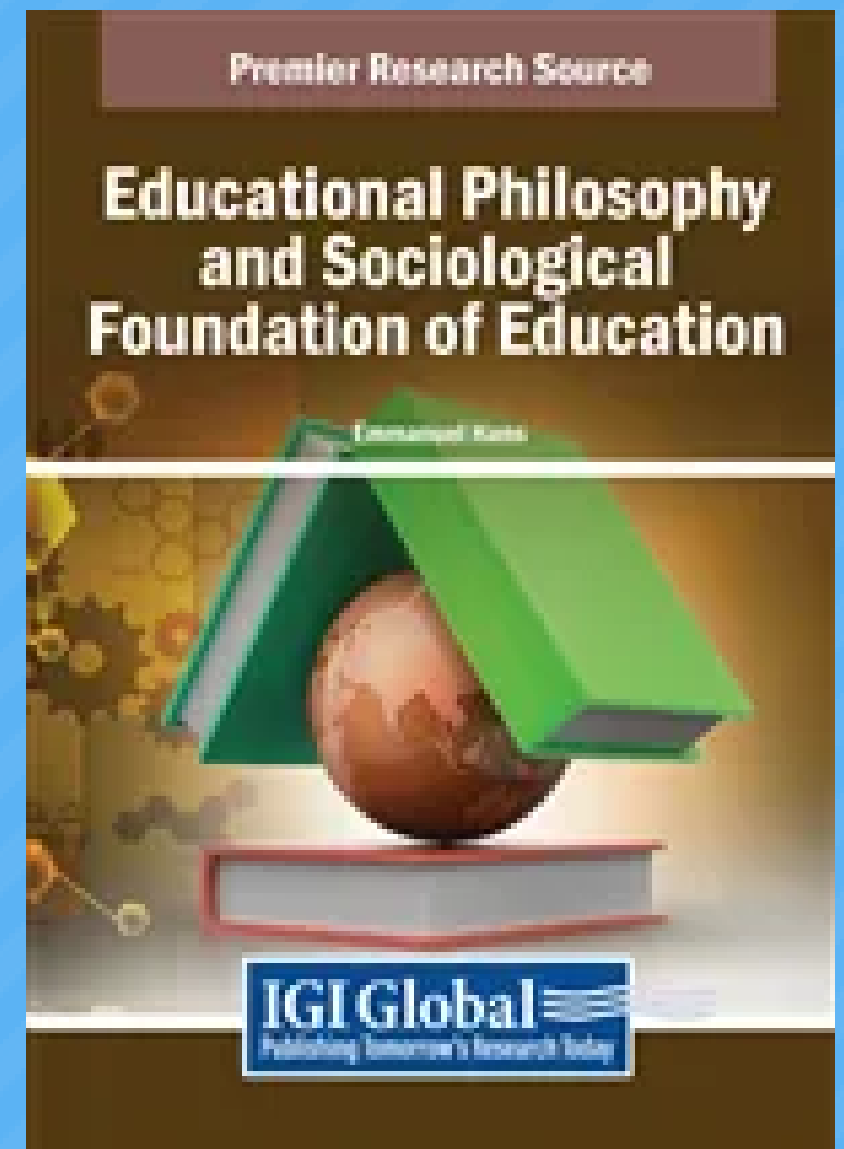
Book Publication

Dr. Aniskumar M

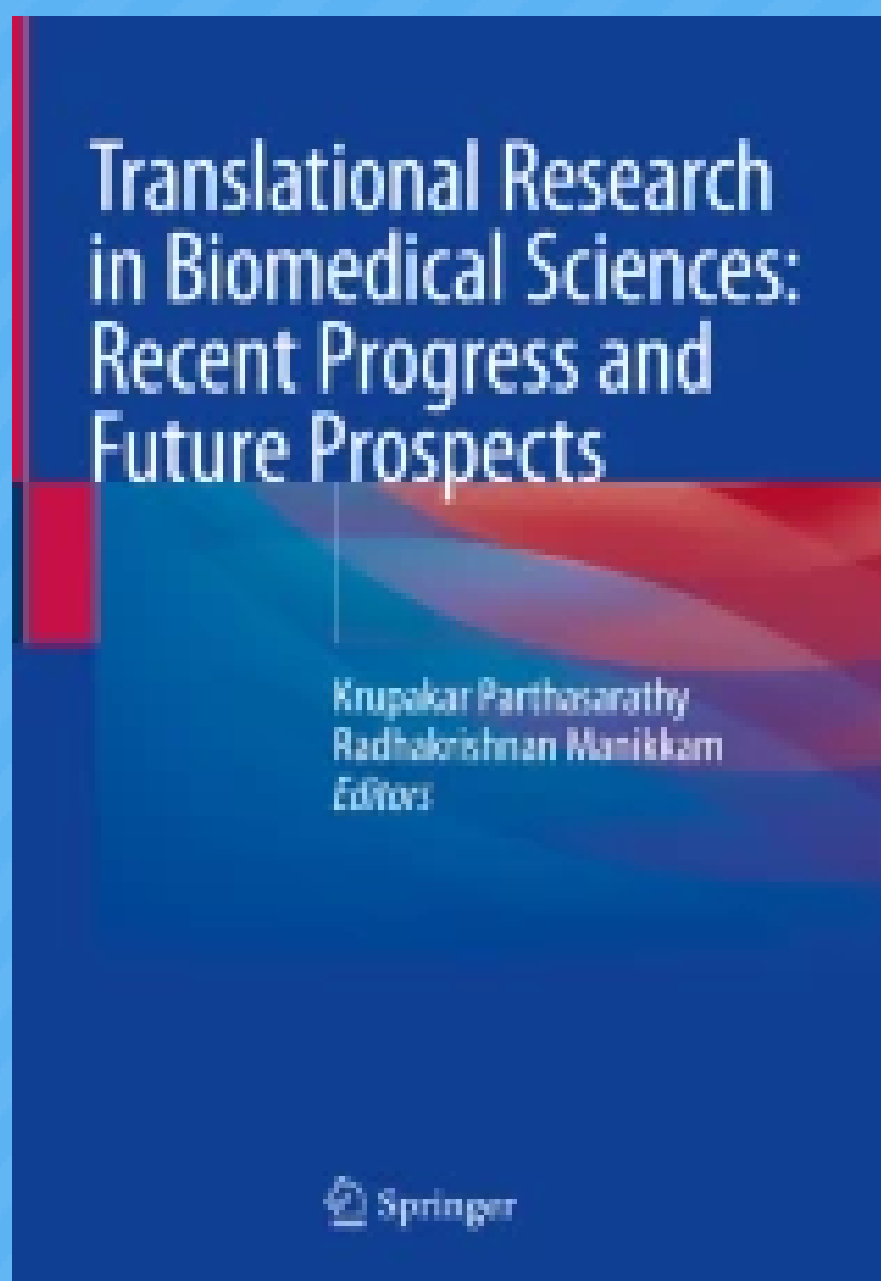
New Policies in National Board of Accreditation Processes for Advancing Indian Higher Education_IGI publishers (Scopus) Chapter 14

ISBN: 9798369335871

DOI:10.4018/979-8-3693-3587-1



Dr. Aniskumar M
Mr. Keerthiga K



Phytoassisted Synthesis, Characterization, and Evaluation of Biological Properties of Magnesium Oxide Nanoparticles obtained using Cinnamomum tamala leaf extracts Biomass Conversion and Biorefinery

ISBN: 978-981-97-1776-7

Link: [https://link.springer.com/book/10.1](https://link.springer.com/book/10.1007/978-981-97-1777-4)

007/978-981-97-1777-4

NBA VISIT

**NBA AUDIT HELD ON
NOV 8,9&10 2024**



NBA ACCREDITATION



**ACCREDITATION ON
DEC 30 2024**

**OTHER
COLLEGE
PARTICIPATION**





IIIrd Prize



Ist Prize



IInd Prize



IIIrd Prize



Ist Prize

STUDENTS ACHIEVEMENTS



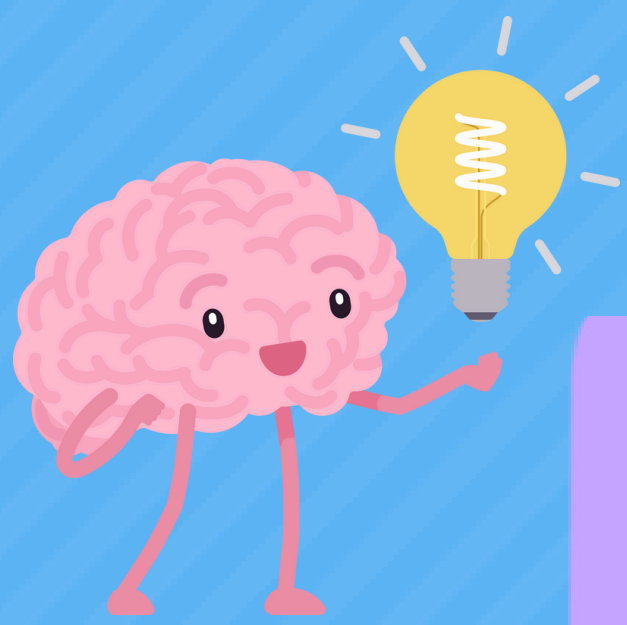
भाकृअनुप - राष्ट्रीय केला अनुसंधान केंद्र
ICAR - National Research Centre for Banana
 An ISO 9001:2015 Certified Institute



Industrial Visit @ ICAR-NRCB Bannana Research Institute, Trichy

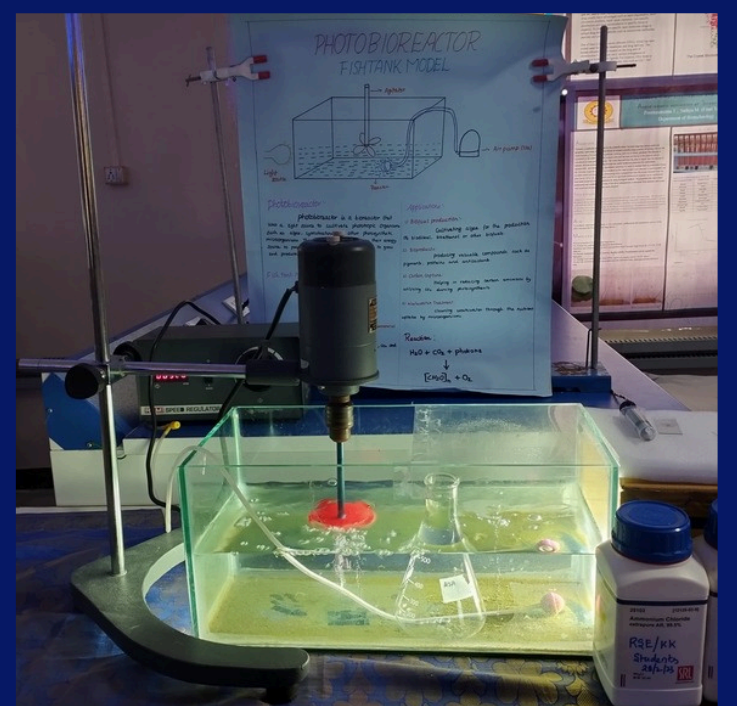
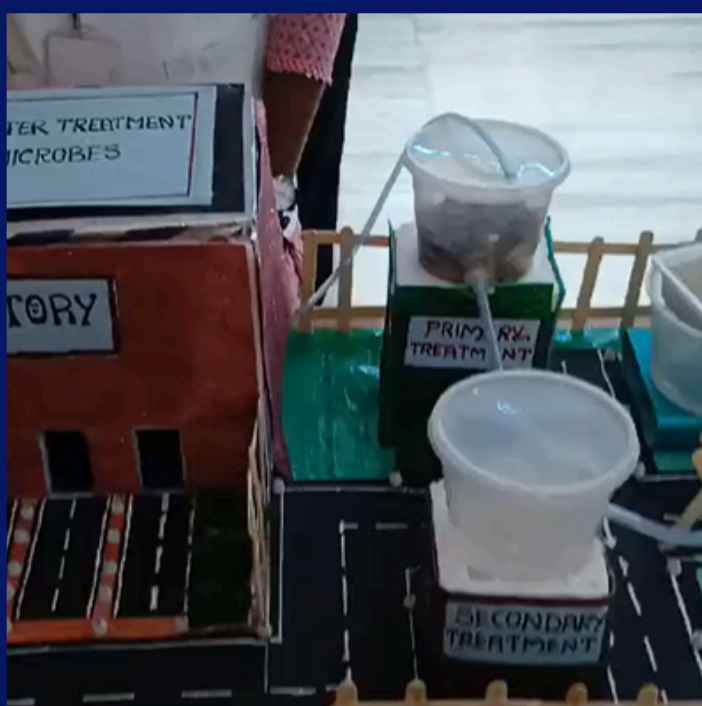
On August 2nd





SCIENCE FAIR 2K24

Conducted on
Nov 16, 23 & 30



WEBINAR



SHAPING THE FUTURE: THE SUCCESS JOURNEY OF A RESEARCH INNOVATOR AND GLOBAL OPPORTUNITIES FOR BIOTECH STUDENTS

Aveeva Herold, Neuroscience
graduate at University of
Montreal, Canada.

**September 25
2024**

Resource Person:

Er. Vaitheeswaran Sivaraman
USP Senior Biotechnologist, ALVOTECH,
Iceland

August 27 2024

EMPOWERING THE BT-ASPIRANTS TOWARDS BIO- ENTREPRENEURSHIP WITH SPECIAL CONCERN TO PHARMACEUTICAL INDUSTRIES

THE CAREER OPPORTUNITIES OF BIOTECH ASPIRANTS IN MEDICAL CODING SECTOR

Mrs.B.Lekshmi Asok, AAPC
Certified coder, TRANSORZE
SOLUTIONS-TIPS Pvt.Ltd,
Kerala.

July 26 2024

V.S.B ENGINEERING COLLEGE, KARUR
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Department of Biotechnology

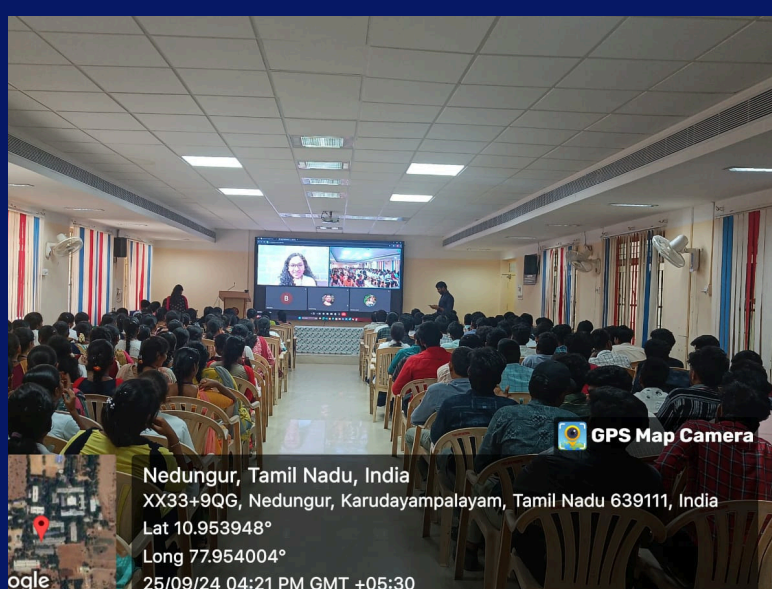
SEMINAR ON Carrier Opportunities of Biotech Aspirants in Medical Coding Sector
26.07.2024

Our Resource Person
Mrs.B.Lakshmi Asok
&
Mr.Logesh

V.S.B ENGINEERING COLLEGE
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Department of Biotechnology
PROUDLY ORGANIZES A
SEMINAR ON
"Career opportunities of Biotech Aspirants in Medical Coding Sector"
OUR RESOURCE PERSON
Mrs. B. Lakshmi Asok
&
Mr. Logesh
SPECIAL LECTURE BY
Mr. Logesh

we all have an opportunity to create the future together....

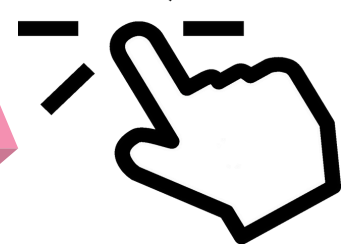




Youtube Channel

@VSBECSBIOTECHNOLOGY

CLICK
HERE



VIDEOS READY TO WATCH



- Photobioreactor-WATCH
- Vermicomposting-WATCH
- VSBECS Science Expo-WATCH
- Molecular diffusion in estimation of mixing time-WATCH
- Gene Therapy-WATCH
- Gram Staining-WATCH
- Culture Media Preparation-WATCH
- pH Meter-WATCH
- Protein Estimation Methods-WATCH
- ELISA Instrument-WATCH
- Fluorescence Microscope-WATCH

Laboratory Highlights



Name: Fume Hood

Model: PSCCBE2324-00964

Cost: Rs.1,70,000/-

A fume hood is a ventilation system designed to capture and remove hazardous fumes, particles, and gases from laboratory environments, protecting workers from inhaling toxic substances. It consists of a hood, blower, ductwork, and filters, which work together to contain and remove contaminants. Safety features include airflow monitors, alarm systems, and emergency shutdown. There are various types of fume hoods, including conventional, variable air volume (VAV), ductless, and portable models, each suited for specific laboratory settings and applications. By providing a safe and controlled environment, fume hoods play a crucial role in preventing chemical exposure and promoting laboratory safety.

Laboratories Conducted



***Molecular Biology
Laboratory***



***Bioprocess
Laboratory***



BC/IMA Laboratory



***Cell-Biology
Laboratory***



***Microbiology
Laboratory***



Genetics Laboratory



***Immunology
Laboratory***

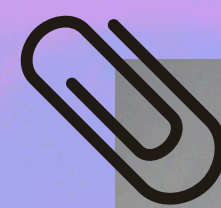


***Downstream Process
Laboratory***

STUDENTS CORNER

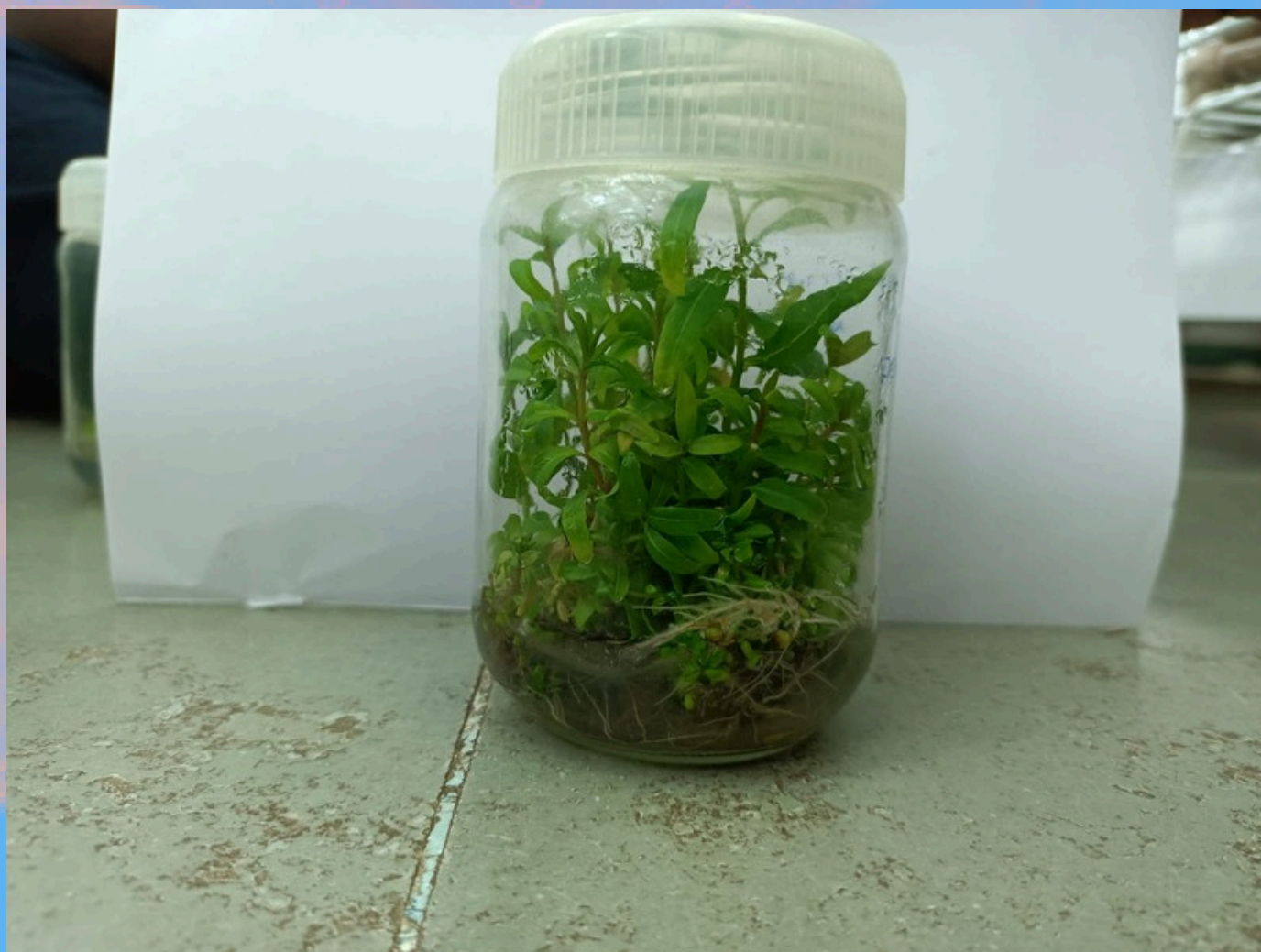


DRAWING
KIRUTHIKA DEVI M
3RD YEAR BIOTECH



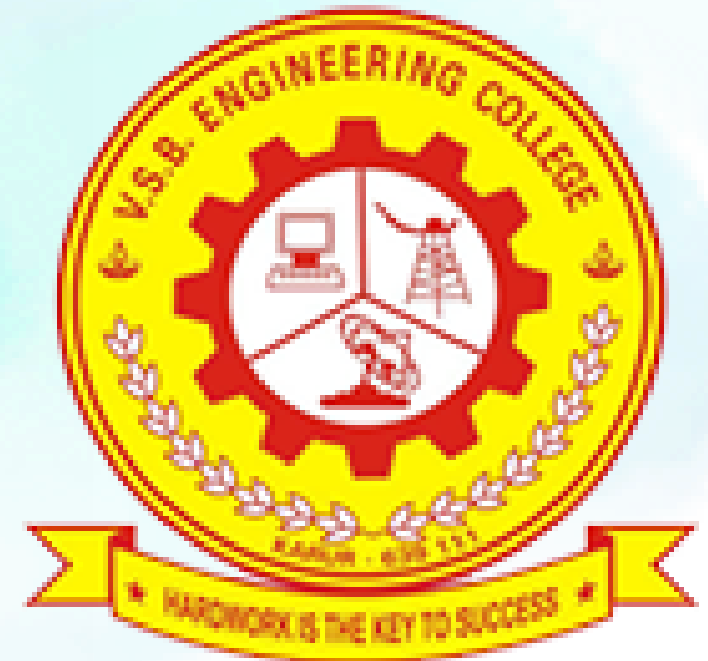
SKETCHING
DEEPANA M
3RD YEAR BIOTECH

STUDENTS INTERNSHIP





**Thank
you**



***Students Editorial
team:***

***Dharanika Annadurai
Deepana Manokaran***

***Faculty Editorial
team:***

***Dr.Aniskumar
Mrs.Keerthiga K***