



**SRI MANAKULA VINAYAGAR
ENGINEERING COLLEGE**



DEPARTMENT OF BIOMEDICAL ENGINEERING

**BIODREAMS CLUB
ANNUAL REPORT
ACADEMIC YEAR:2023-24**



**SUBMITTED BY
Mrs S.SUGUNA
ASSISTANT PROFESSOR
FACULTY COORDINATOR**

Preface

The Technical Club **Bio Dreams**, established in 2020 under the Department of Biomedical Engineering, serves as a structured platform to promote technical proficiency, innovation, and professional growth among students. The club is committed to complementing academic learning with practical exposure and collaborative engagement involving faculty members, alumni, peers, and industry experts.

Bio Dreams organizes a wide range of activities including technical seminars, workshops, mini project development, technical quizzes, aptitude and logical reasoning sessions, programming skill enhancement programs, and theme-based events such as Engineers' Day and Water Day celebrations. These activities are systematically planned and executed by students, thereby fostering leadership qualities, teamwork, organizational skills, and effective communication.

Through its consistent efforts and student-driven initiatives, Bio Dreams contributes significantly to the holistic development of students and prepares them to meet the evolving demands of the biomedical engineering profession.



Faculty Coordinator

Mrs. S. Suguna



HoD/BME

Dr. A. Vijayalakshmi



Director Cum Principal

Dr. V.S.K. Venkatachalapathy

TABLE OF CONTENT

About Institution
About Club



Vision & Mission



Activity Details



About Department



Achievements



Future plan of Action



ABOUT THE INSTITUTE

Sri Manakula Vinayaga Educational Trust was founded to provide quality and affordable education to the weaker sections of society. The trust established Sri Manakula Vinayagar Engineering College (SMVEC) in 1999. SMVEC is an autonomous institution affiliated to Pondicherry University. It offers 13 undergraduate, 8 postgraduate and 11 Research programs in engineering. SMVEC has been accredited by NAAC with “A” grade and NBA. The institution is also accredited by TATA consultancy services. The college has a good placement record with students getting job offers from top companies in India and abroad. SMVEC students have won many awards and accolades for their academic achievements. To be globally recognized for excellence in quality education, innovation and research for the transformation of lives to serve the society.

Vision

- To nurture the cornerstone of excellence in engineering education and drive innovation by seamlessly integrating the fundamentals of Science and Humanities

Mission

M1: Quality Education : To provide comprehensive academic system that amalgamates the cutting edge technologies with best practices.

M2: Research and Innovation : To foster value-based research and innovation in collaboration with industries and institutions globally for creating intellectuals with new avenues.

M3: Employability and Entrepreneurship : To inculcate the employability and entrepreneurial skills through value and skill based training.

M4: Ethical Values : To instill deep sense of human values by blending societal righteousness with academic professionalism for the growth of society.





Department of Biomedical Engineering

The Department of Biomedical Engineering is a distinguished department committed to delivering high-quality Undergraduate, Postgraduate, and Doctoral programs. The B.Tech Biomedical Engineering program is designed to equip students with strong foundations in engineering principles and medical sciences, enabling them to address real-world healthcare challenges. The department consistently strives for academic excellence, research advancement, and strong industry interaction, producing graduates who are highly valued in hospitals, medical device industries, research organizations, and healthcare technology sectors.

The department actively contributes to the national vision of advancing healthcare technology by fostering innovation, ethical responsibility, and a deep commitment to societal well-being. With a focus on emerging medical technologies and interdisciplinary collaboration, it aims to meet the evolving demands of the global healthcare industry.

Vision

To promote academic excellence and innovative research in Biomedical Engineering, preparing graduates to meet global healthcare needs with technical competence and ethical professionalism.

Mission

Academic Excellence:

To impart strong theoretical knowledge and practical skills in Biomedical Engineering to address contemporary healthcare challenges.

Research and Innovation:

To promote interdisciplinary research and innovation in emerging areas of biomedical technology for societal benefit.

Employability and Entrepreneurship:

To enhance technical, interpersonal, and entrepreneurial skills to develop competent professionals and future entrepreneurs in the healthcare sector.

Ethics:

To inculcate the significance of human values and professional skills to serve the society.



ABOUT BIODREAMS CLUB

The **Bio Dreams Club** of the Department of Biomedical Engineering is committed to exploring advancements in biomedical technology and healthcare innovation under the overarching theme:

“Innovating Healthcare through Engineering Excellence and Compassion.”

The club serves as a dynamic platform where engineering principles intersect with medical sciences to develop solutions that enhance healthcare delivery and improve quality of life. Bio Dreams encourages students to transform theoretical knowledge into practical applications through hands-on projects, technical discussions, research activities, and interdisciplinary collaboration.

Through seminars, workshops, mini-project development, health-tech expos, and expert interactions, the club fosters analytical thinking, creativity, and problem-solving skills. By integrating innovation with ethical responsibility, Bio Dreams prepares students to become competent biomedical engineers dedicated to advancing healthcare technology and serving society.



LIST OF EVENTS

S. No	Title of the Events
01	Innovative project idea presentation
02	Mock interview
03	Technical seminar presentation
04	Poster presentation
05	Seminar on Artificial womb


SRI MANAKULA VINAYAGAR ENGINEERING COLLEGE

(An Autonomous Institution)
 (Approved by AICTE, New Delhi & Affiliated to Pondicherry University)
 (Accredited by NEBA-AICTE, New Delhi, ISO 9001:2000 Certified Institution &
 Accredited by NAAC with 'A' Grade)
 Madagadipet, Puducherry - 605 107


DEPARTMENT OF BIOMEDICAL ENGINEERING

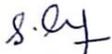
SMVEC/BME/Club Activity/2023-24/01

01.09.2023

CIRCULAR

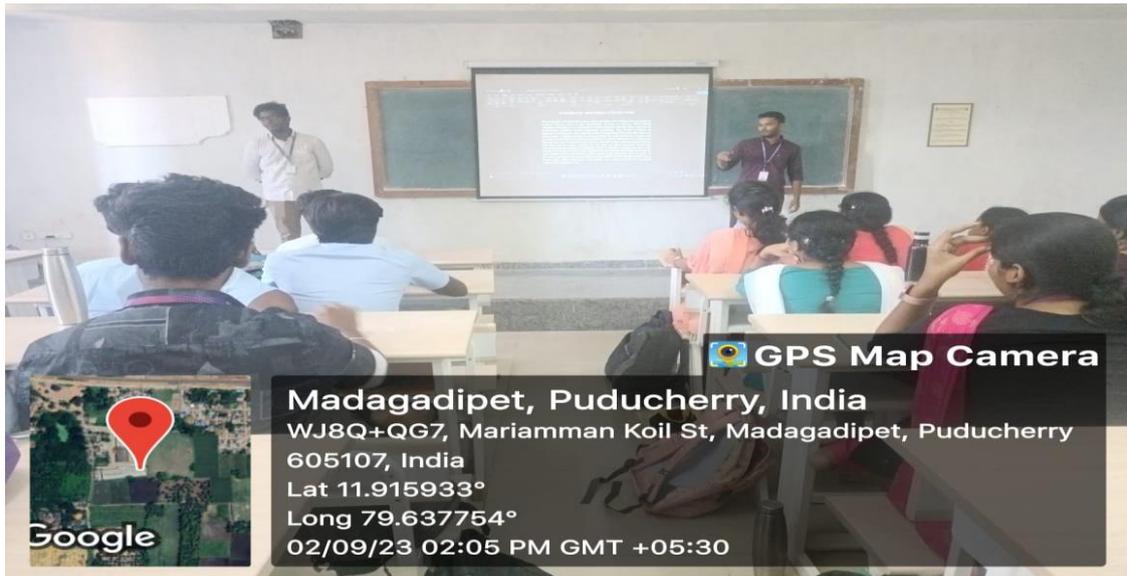
This is to inform that our department **Bio Dreams Club** has planned to conduct Innovative Idea Presentation for the third year students on 02.09.2023 (Saturday). Students are asked to utilize the opportunity to enhance their knowledge.

Year/Sem	Planned Activity	Hour	Name of the Participants
III/IV	Innovative Project Idea Presentation	5,6	Team I 1. S Giridharan 2. S Diliban 3. Christy N Albeon Limas Team II 1. V Harinath 2. S T Narendra Ganesh 3. S Premkumar 4. P Shanmugam


Mrs.S.Suguna
 Club Coordinator


Dr.A.Vijayalakshmi
 HOD/BME

PHOTO GALLERY



DECISION MAKING

Students from Bio Medical Engineering formed a club name **Biodreams Club**. It conducted activities that will help the students to increase their concentration power and to increase their listening skills.

Games were conducted to enhance the competitive spirit between the students and to think creative. It helped the students to develop their decision making skills and interactive skills. The quiz/puzzle/questions were asked will help the students to develop their social skills and it will enhance their memory power.

- Total Number of Participants: 55
- Year of students: III
- Date: 01/09/2023
- Venue : 315
- Event Coordinator: Mrs.S.Suguna

Objective of the Activity:

- Gain an understanding of the different points of view and the reasons behind them.
- Engage Student in the topic discussed.
- Ensure that everyone with an interest in the project is appropriately involved in addressing issues, proposing ideas, and solving problems.
- Mode of activity: Offline

Overview of the Activity

- **Pitching the Future:** A dynamic platform for students or professionals to showcase original, tech-driven, or socially impactful solutions to real-world challenges.
- **Strategic Communication:** Participants must distill complex concepts into clear, persuasive visual presentations that emphasize **feasibility**, **scalability**, and **creative problem-solving**.
- **Expert Evaluation:** Each project is rigorously critiqued by a panel of judges based on its potential for innovation, market viability, and the clarity of the presenter's vision.

Outcome of the Event

- **Mastery of Articulation:** Participants develop the ability to translate technical jargon into a compelling narrative, ensuring complex ideas resonate with both experts and investors.
- **Critical Thinking & Validation:** Through the Q&A process, presenters gain a realistic understanding of their project's strengths, weaknesses, and **market-readiness**.

- **Networking & Opportunity:** The activity bridges the gap between raw concepts and execution by connecting innovators with potential mentors, collaborators, or funding so.


SRI MANAKULA VINAYAGAR ENGINEERING COLLEGE

(An Autonomous Institution)
 (Approved by AICTE, New Delhi & Affiliated to Pondicherry University)
 (Accredited by NBA-AICTE, New Delhi, ISO 9001:2000 Certified Institution &
 Accredited by NAAC with 'A' Grade)
 Madagadipol, Puducherry - 605 107


DEPARTMENT OF BIOMEDICAL ENGINEERING

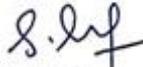
SMVEC/BME/Club Activity/2023-24/02

15.09.2023

CIRCULAR

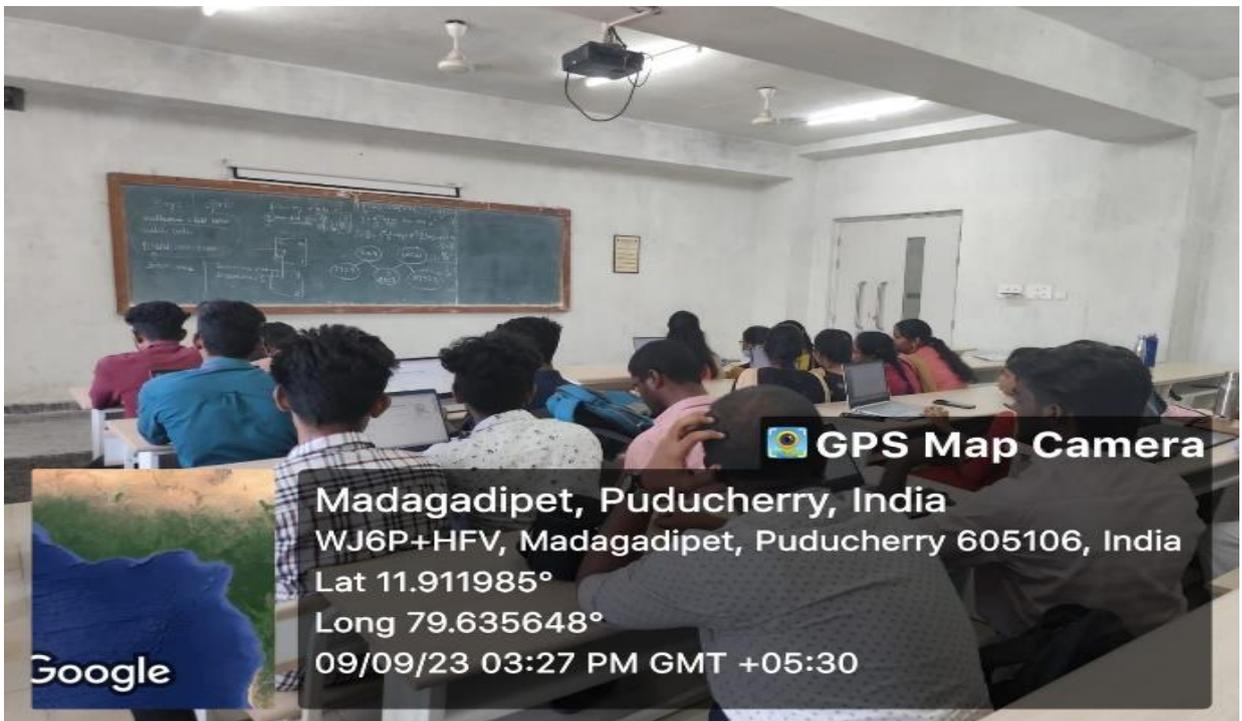
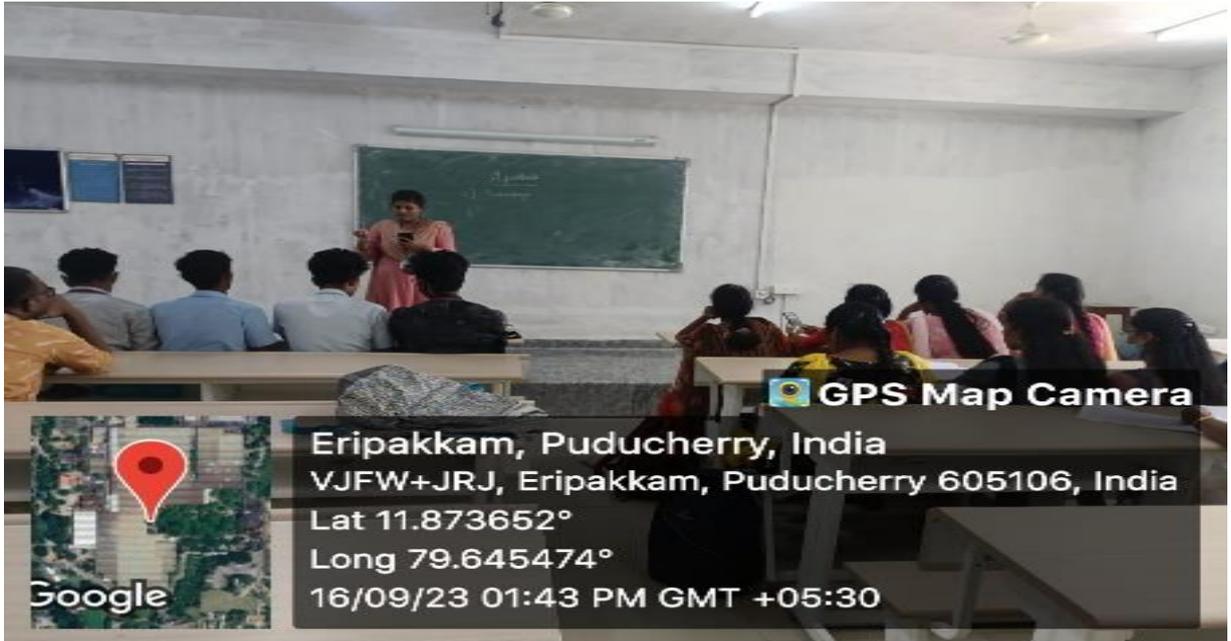
This is to inform that our department Bio Dreams Club has planned to conduct Aptitude buster (logarithmic,percentage) for the third year students on 16.09.2023 (Saturday). Students are asked to utilize the opportunity to enhance their knowledge.

Year/Sem	Planned Activity	Hour	Name of the Participants
III/IV	<ul style="list-style-type: none"> Aptitude Buster (logarithmic,percentage) Mock Interview 	5,6	Whole Class


Mrs.S.Suguna
 Club Coordinator


Dr.A.Vijayalakshmi
 HOD/BME

PHOTO GALLERY



MOCK INTERVIEW:

Mock interviews bridge the gap between academic learning and industry requirements. By participating in this activity, students become better prepared for campus placements, internships, competitive exams, and higher studies interviews.

- Total Number of Participants : 55
- Year of students: III
- Date: 16/09/23
- Venue: 312
- Event Coordinator: Mrs.S.Suguna

Objective of the Activity

- **To develop students communication skills** – Improve verbal, non-verbal, and professional communication.
- **To enhance confidence level** – Reduce fear and anxiety related to real job interviews.
- **To improve technical knowledge presentation** – Help students explain their core subject knowledge clearly and effectively.
- **To train students in answering HR and behavioral questions** – Prepare them for commonly asked interview questions.
- **To develop professional etiquette** – Practice proper dress code, body language, and interview manners.

Overview of the Activity

The **Mock Interview Activity** is a structured training program designed to simulate real-time job interview scenarios for students. It provides a practical platform where students experience the interview environment similar to campus placements, company recruitment drives, or higher education admissions.

During the activity, students face a panel of interviewers who assess them based on technical knowledge, communication skills, confidence level, problem-solving ability, and professional behavior. The interview typically includes HR questions, technical questions related to their core subjects, project discussions, and situational or behavioral questions.

This activity helps students:

- Understand the interview process and expectations
- Practice answering common HR and technical questions
- Improve body language, eye contact, and professional etiquette
- Manage stress and build self-confidence
- Receive constructive feedback for improvement

Outcome of the Activity

After participating in the Mock Interview Activity, students will be able to:

1. **Demonstrate improved communication skills** – Speak clearly, confidently, and professionally during interviews.
2. **Exhibit enhanced self-confidence** – Face real interview situations with reduced anxiety and fear.
3. **Present technical knowledge effectively** – Explain core subject concepts, projects, and internships clearly.
4. **Respond appropriately to HR and behavioral questions** – Provide structured and relevant answers using real-life examples.
5. **Display professional etiquette** – Maintain proper dress code, body language, and interview manners.


SRI MANAKULA VINAYAGAR ENGINEERING COLLEGE

(An Autonomous Institution)
 (Approved by AICTE, New Delhi & Affiliated to Pondicherry University)
 (Accredited by NBA-AICTE, New Delhi, ISO 9001:2000 Certified Institution &
 Accredited by NAAC with "A" Grade)
 Madagadipet, Puducherry - 605 107


DEPARTMENT OF BIOMEDICAL ENGINEERING

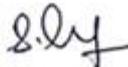
SMVEC/BME/Club Activity/2023-24/03

10.02.2024

CIRCULAR

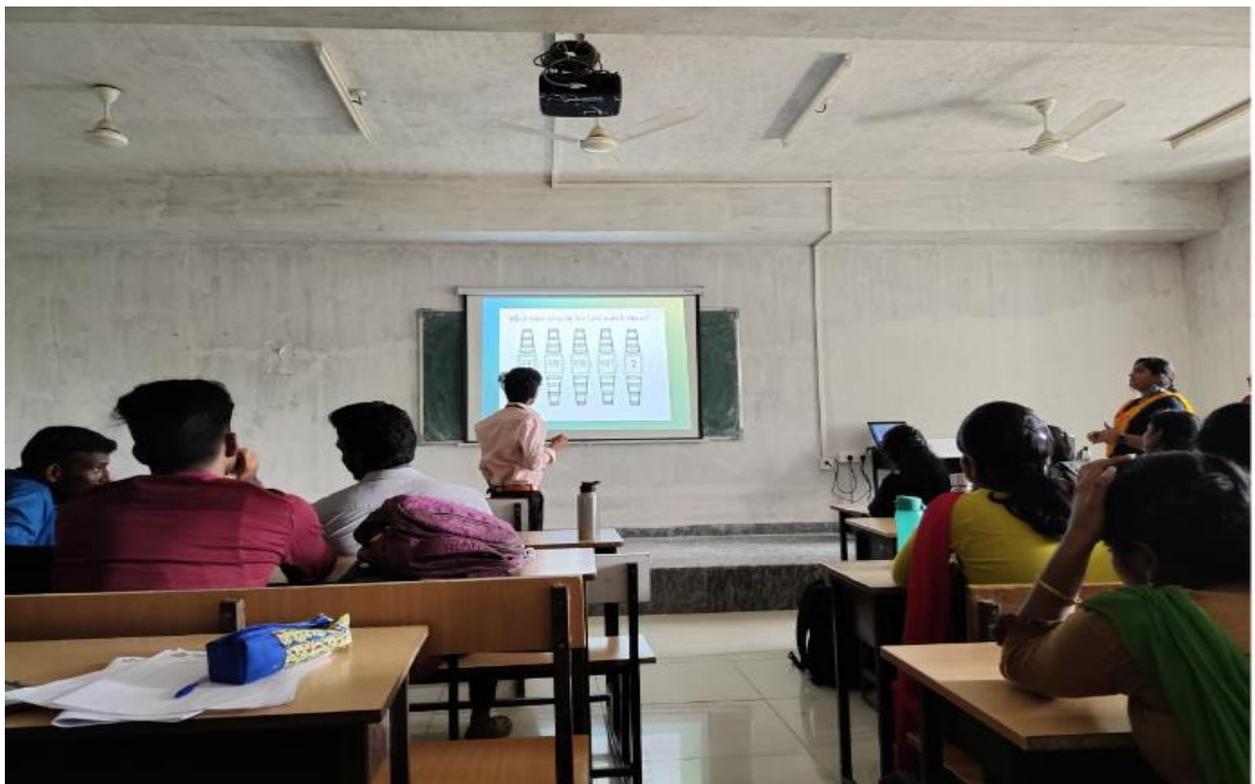
This is to inform that our department **BioDreams Club** has planned to conduct Technical Seminar Presentation for third year students on 10.02.2024 (Saturday). Students are asked to utilize the opportunity to enhance their knowledge.

Year/Se m	Planned Activity	Hour	Name of the Participants
III/VI	Technical Seminar Presentation	5,6	Yuvaranjini R – Medical Devices
			Akshaya C - Ventilators


 Mrs.S.Suguna
 Club Coordinator


 Dr.A.Vijayalakshmi
 HOD/BME

PHOTO GALLERY



TECHNICAL SEMINAR:

Total Number of Participants : 55

- Year of students: III
- Date: 10/02/24
- Venue : 316
- Mode of Activity: Offline
- Event Coordinator: Mrs.S.Suguna

Objective of the Activity

- **To enhance technical knowledge** – Encourage students to explore and understand advanced topics beyond the syllabus.
- **To improve presentation skills** – Develop the ability to present technical content clearly and effectively.
- **To strengthen research skills** – Promote literature survey, data collection, and analytical thinking.
- **To develop communication skills** – Improve verbal delivery, technical vocabulary, and confidence.
- **To encourage critical thinking** – Enable students to analyze, interpret, and explain technical concepts.

Outcome of the Activity

After completing the Technical Seminar Activity, students will be able to:

1. **Demonstrate in-depth technical understanding** of selected topics beyond the academic syllabus.
2. **Present technical concepts effectively** using structured slides, diagrams, and supporting data.
3. **Apply research and literature review skills** to gather, analyze, and interpret technical information.
4. **Improve professional communication skills** through clear verbal explanation and confident delivery.
5. **Respond effectively to questions** by demonstrating critical thinking and subject clarity.

OVERVIEW

The **Technical Seminar Activity** is an academic learning exercise in which students select and present a topic related to their core discipline or emerging technologies. It encourages independent study, research, and in-depth understanding of current advancements beyond the prescribed syllabus.

During the seminar, students prepare a structured presentation supported by literature review, technical data, diagrams, and recent research findings. They present their work before faculty members and peers, followed by an interactive question-and-answer session.

This activity enhances technical knowledge, presentation skills, research ability, confidence, and professional communication, preparing students for project work, conferences, and industry-level presentations.



SRI MANAKULA VINAYAGAR ENGINEERING COLLEGE
(An Autonomous Institution)
Puducherry - 605 107

DEPARTMENT OF BIOMEDICAL ENGINEERING

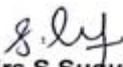
SMVEC/BME/CLUB/2023-24/04

23.02.2024

CIRCULAR

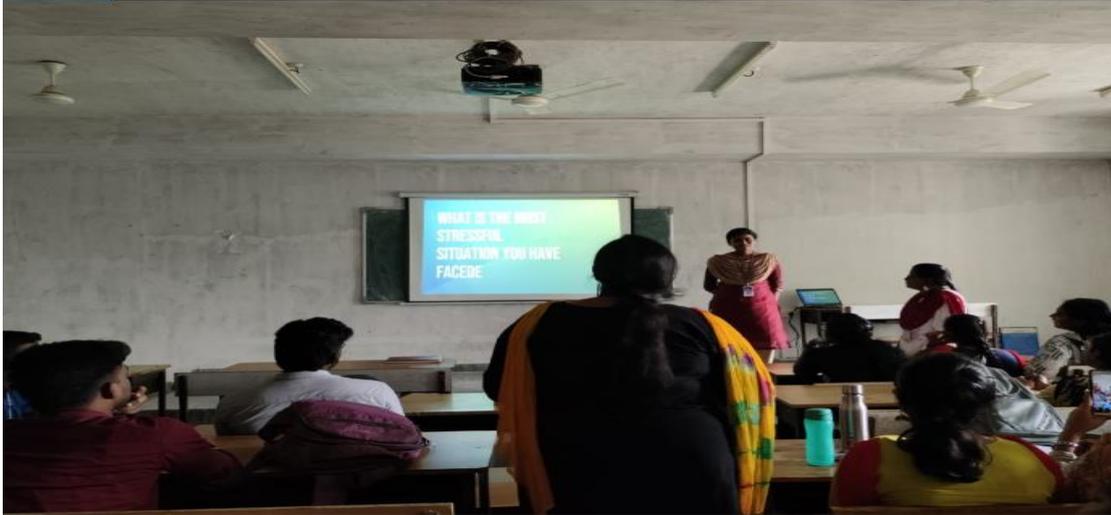
This is to inform that our department BioDreams Club has planned to conduct technical activity for the I, II & III year students on 24.02.2024 (Saturday). Students are asked to utilize the opportunity to enhance their knowledge.

Year/Sem/Sec	Planned Activity	Hour	Student coordinator
I/II/A	Quiz Competition	5	1. S.Annamalai 2. J.Abdul Rahaman 3. B.Madhimalar 4. M.Janani
II/IV/A	Poster Presentation	7	1. M.Gopesh Anand 2. K.Chandrasekaran 3. K.Pooranamithra 4. V.Sampri
III/VI/A	Aptitude and idea presentation	6	1. P. Shanmugam 2. M.Medwin Devakumar 3. S. Archana 4. B. Anushiya


Mrs.S.Suguna
Club Coordinator


Dr.A.Vijayalakshmi
HOD/BME

PHOTO GALLERY



QUIZ COMPETITION

- Year of students: I,II,III
- Total Number of Participants : 55
- Date: 24/02/24
- Venue : 316
- Mode of Activity: Offline
- Event Coordinator: Mrs.S.Suguna

OBJECTIVE:

- **To enhance research and analytical skills** by encouraging students to explore and summarize technical topics.
- **To develop visual communication skills** through effective use of charts, diagrams, and graphical representations.
- **To improve concise content presentation** by organizing complex information in a clear and brief format.
- **To strengthen verbal explanation skills** while presenting the poster to evaluators and peers.
- **To promote creativity and innovation** in designing informative and attractive technical posters.

OVERVIEW:

The **Poster Presentation Activity** is an interactive academic event where students present technical or research-based topics in a visual format using posters. It enables students to summarize key concepts, methodologies, results, and conclusions in a structured and visually appealing manner.

During the activity, students explain their posters to faculty members, judges, and peers, followed by questions and discussion. This format encourages concise communication, critical thinking, and audience engagement.

The activity helps students improve research ability, presentation confidence, visual design skills, and readiness for conferences, symposiums, and academic competitions.



SRI MANAKULA VINAYAGAR
ENGINEERING COLLEGE



DEPARTMENT OF BIOMEDICAL ENGINEERING

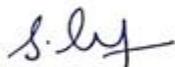
SMVEC/BME/CLUB/2023-24/05

23.03.2024

CIRCULAR

This is to inform that our department **Bio Dreams Club** has planned to conduct technical activity for the II & III year students on 23.03.2024 (Saturday). Students are asked to utilize the opportunity to enhance their knowledge.

Year/Sem/Sec	Planned Activity	Hour	Student Coordinator
II/IV/A	<ul style="list-style-type: none"> Seminar on Artificial Womb, World Water Day 	5,6	1. M.Gopesh Anand 2. K.Chandrasekaran 3. K.Pooranamithra 4. V.Sampri
III/IV/A	<ul style="list-style-type: none"> Technical Seminar 	3,4	1. P. Shanmugam 2. M. Medwin Devakumar 3. S. Archana 4. B. Anushiya


Mrs.S.Suguna
 Club Coordinator


Dr.A.Vijayalakshmi
 HOD/BME

PHOTO GALLERY



SEMINAR ON ARTIFICIAL WOMB

- Year of students: II,III
- Date: 23/03/24
- Venue : 316
- Mode of Activity: Offline
- Event Coordinator: Mrs.S.Suguna

OBJECTIVE:

- **To develop research skills** through literature survey, analysis, and interpretation of technical information.
- **To improve presentation skills** by organizing and delivering technical content in a structured manner.
- **To strengthen communication skills** including clarity of speech, technical vocabulary, and confidence.
- **To encourage critical and analytical thinking** while explaining concepts and answering questions.

OVERVIEW:

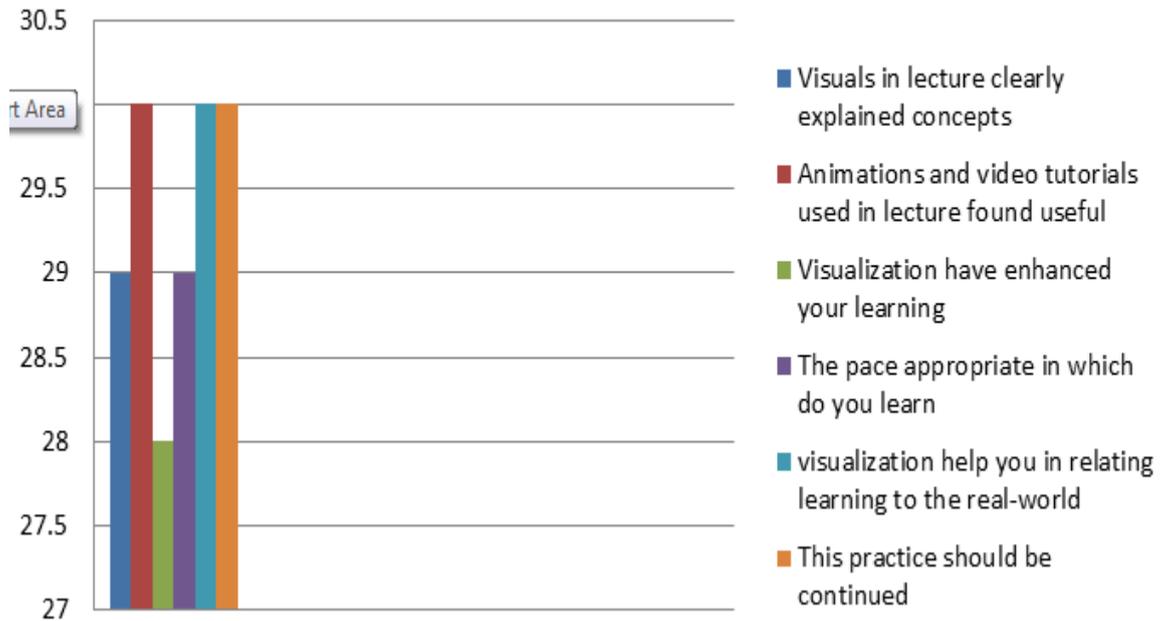
The **Technical Seminar** is an academic activity designed to enhance students' understanding of advanced and emerging topics in their core discipline. It encourages independent learning, in-depth study, and exploration beyond the prescribed syllabus.

Students select a relevant technical topic, conduct a literature review, prepare structured presentation slides, and present their findings before faculty members and peers. The seminar includes an interactive question-and-answer session to assess subject knowledge and analytical ability.

This activity strengthens technical knowledge, research skills, communication ability, and professional confidence, preparing students for project work, conferences, and industry-level presentations.

STUDENT FEEDBACK

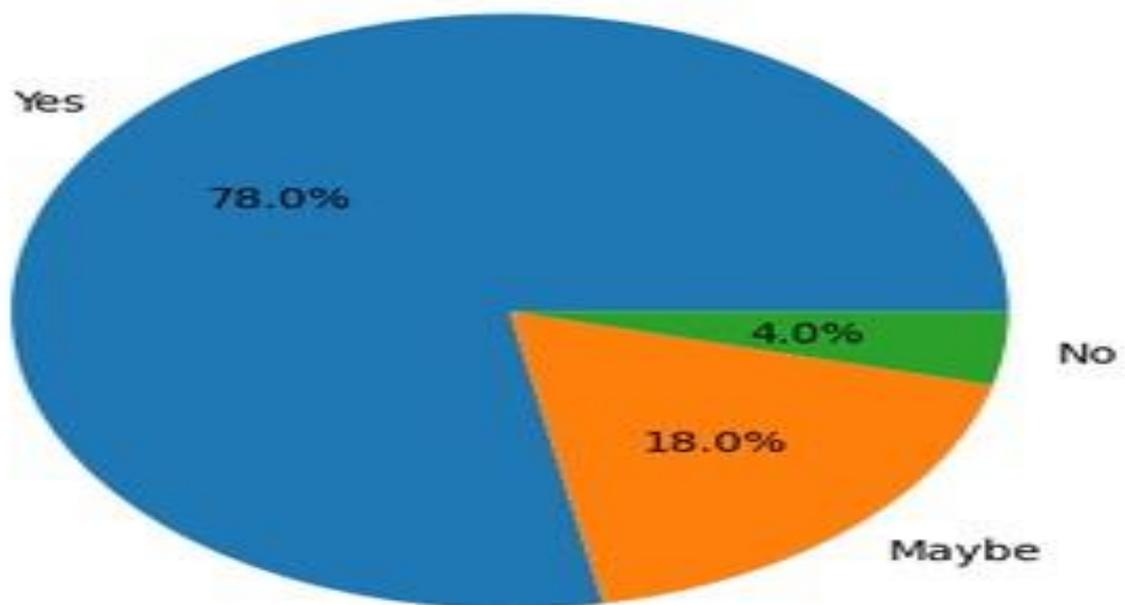
Students' Feedback



The pie chart depicts the overall satisfaction level of students regarding the BIO DREAMS CLUB activities conducted during the academic year 2023–2024. It is observed that 78% of students rated the activities as Excellent or Very Good, indicating a high level of satisfaction. Only 4% rated the activities as Average, and no negative feedback was recorded.

The bar chart represents the average ratings given by students for various effectiveness parameters. The ratings are consistently above 4.4 out of 5, highlighting the club’s strong performance in event organization, hands-on exposure, skill development, and teamwork enhancement. The highest rating was observed for hands-on exposure, reflecting the practical orientation of the club activities.

Recommendation of Club Activities by Students



STUDENT FEEDBACK

The pie chart shows that 78% of students are willing to recommend the Robotics and Automation Club activities to other students, while 18% expressed conditional interest. This clearly demonstrates the positive perception and value of the club among students

FUTURE PLAN OF ACTION

- R&D Innovation Lab: Establish a dedicated space for long-term prototyping, where members can evolve simple Arduino projects into market-ready, low-cost diagnostic tools.
- **Industry & Hospital Partnerships:** Formalize **internship pipelines** and observational visits with medical device manufacturers and hospitals to bridge the gap between classroom theory and clinical reality.
- **Global Bio-Hackathons:** Host annual **inter-collegiate competitions** focused on solving real-world healthcare challenges using signal processing, AI, and sustainable medical hardware.

