



V.S.B ENGINEERING COLLEGE

APPROVED BY AICTE, NEW DELHI, AFFILIATED TO ANNA UNIVERSITY,
CHENNAI AN ISO 9001:2015 CERTIFIED INSTITUTION ACCREDITED BY NAAC,
NBA ACCREDITED COURSES

DEPARTMENT OF BIOMEDICAL ENGINEERING



(2024 - 2025)

ODD



<https://www.vsbec.com/bio-medical-engineering/>

About The Department:

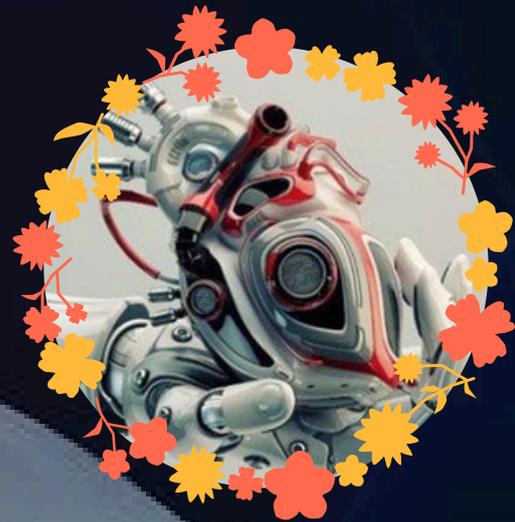
Biomedical engineering is an interdisciplinary program that combines engineering with biology to solve medical problems in living systems.

The program aims to equip students with skills to develop new technologies for life saving equipment, biomedical instruments for treatment and diagnosis, physiological parameter monitoring using sensors, biomechanics, biomedical imaging, medical devices, cell and tissue engineering and more other medical applications.

The course also aims at enabling the students to acquire technical skills for becoming experts in telemedicine, healthcare communication and medical informatics. The strong collaborative connection with academia, clinical medicine and industry offers opportunities for professional development and to gain unique knowledge and experience in the field.

VISION

To create the world's leading society of professionals devoted to developing and using engineering and technology to advance human health and well-being. This technology helps to improve the human condition through the advancement of clinical care and biomedical science



MISSION

- To motivate faculty members and students to explode their creativity to develop innovative products by utilizing modern technologies to serve the society
- To inculcate the industrial need of the biomedical engineers among the students through relevant training and value added courses.
- To produce technically intense engineers by practicing innovative teaching methodologies.





**V.S. Balsamy, B.Sc., L.L.B.,
Founder & Chairman**



Chairman's Message:

Mr.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.

Words from the chairman's desk :

Our Institution, a temple of learning and a hallmark of discipline, treads towards the zenith of glory by preferring the education of global standards in the best quality and variety, and substantiates to be a benchmark among all the colleges in India. The College Management, the members of the faculty and all other employees travail together with the resolution of grading our College at the topmost rung of the ladder of education.

Within a short span of time, we have provided the students with all the requirements as necessitated by the University Norms. We give an impetus for ever to our V.S.B. Engineering College. I cordially greet all the students, who strive for academic and moral excellence, to be a part of the V.S.B.Educational family and to graduate successfully as world-class professionals. I do always solicit the entrepreneurs / recruiters to conduct campus recruitment drive in our institution and I assure that our students will ascertain their expertise in the organizations in which they are recruited for mutual development.

WITH REGARDS,

**V.S. Balsamy, B.Sc., L.L.B.,
Founder & Chairman
VSB Group of Institutions.**

HOD's Message

**"Our greatest weakness lies in giving up.
The most certain way to succeed is
always to try just one more time."**

Thomas Edison



Mrs.A.P.Swarnalatha, M.E.,

Welcome to the world of Biomedical Engineering!

It brings me great pleasure to share our collective accomplishments and celebrate the ongoing advancements within our vibrant Biomedical Engineering Department. As we stride forward, I am immensely proud of the incredible Work and dedication displayed by every member of our department.

Our faculties groundbreaking research initiatives continue to push the boundaries of knowledge in our field, addressing critical challenges and paving the way for transformative solutions in healthcare. I want to extend my heart felt gratitude for your unwavering commitment. Our students; enthusiasm and passion for learning have been truly inspiring. Your academic pursuits, research endeavours, and involvement in various projects reflect your dedication to becoming future leaders in biomedical engineering. Your energy and fresh perspectives infuse vitality into our department. Our departments strength lies in our collective ability to collaborate across disciplines, fostering innovation that leads to impactful solutions for global healthcare challenges. I encourage everyone to continue exploring new avenues, initiating collaborations, and seizing opportunities to contribute to our dynamic field.

Your ideas, no matter how big or small, play an integral role in propelling us towards new horizons. I extend my appreciation to each one of you for your dedication, passion, and hard work. Your contributions are instrumental in our continued success and advancement as a department. Let us embark on this journey together, filled with determination, innovation, and a shared vision of creating a positive impact on healthcare through Biomedical Engineering. Wishing you all continued success and looking forward to achieving greater milestones together.

Assistant HOD's Message

**"If you want to be the best you will be
the number one but if want to be
unique you will be the only one
Remember that"**



Mrs.S.Keerthana ,ME.,

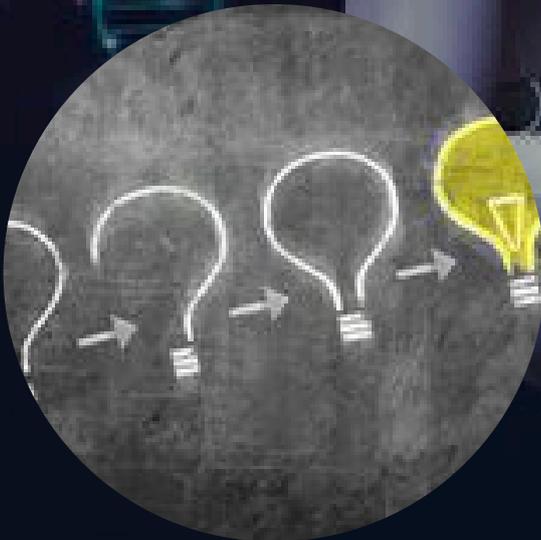
It is my pleasure to welcome you all to the Department of Biomedical Engineering of V.S.B Engineering College, Karur. The department works with the objective of addressing critical challenges faced by the Biomedical Engineering based Industry, society and the academia. Perhaps even more important is our unceasing commitment to our students, helping them to learn, grow, develop, and achieve their goals in their pursuit to excel in their professional career. The department concentrated on outcome based education and offered quality education to the students who can serve the society directly. The great strength of the department is its highly qualified, experienced and dedicated regular faculties and technical assistances. All the teaching fraternities of the department are continuously upgraded themselves for the betterment of the students. The departmental teaching staffs do research works with excellent team spirit in different technical team like biomedical measurement system, biomaterials & tissue engineering, bio digital signal & image processing and design of modern digital system based biomedical devices etc., which leads to key research publications in these areas. Students of the department have also jointly published their research work in the reputed international and national journals in every year. The teacher student relationship is remarkable in the department. The greatest asset of this department is its well settled alumni in all important sectors like leading biomedical core industries, IT companies and academics. To improve the quality of biomedical education in our institute the department never forgets its alumni support towards department.

PROGRAM OUTCOMES (PO)

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



2. 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



3. 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





4. 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

5. 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



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

7. 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



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

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





10. Communication: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings

11. 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



12. 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



LABAROTARY FACILITIES



**DIAGNOSTIC & THERAPUTIC
EQUIPMENT
LAB**



**BIO MEDICAL
INSTRUMENTATIION
LAB**



**DIGITAL SIGNAL
PROCESSING
LAB**

BIO SCIENCE LAB



HUMAN PHYSIOLOGY LAB



**PATHOLOGY &
MICROBIOLOGY
LAB**

MOUs signed:

**1. Atheenapandian
Pvt Ltd**



2. Episource

**3. Meddrainn
Healthcare**



**4. Pinnacle
Medicals**

Sports Achievements:



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Department of Physical Education
ANNA UNIVERSITY ZONAL SPORTS 2024-25

Hearty
Congratulations

MS. A.M. ASMILIN

**FOR WINNING A
BROZEN MEDAL
IN GIRL'S
JAVELIN THROW**



3

DATE OF THE EVENT
23.11.2024 to 24.11.2024

PLACE
PSNA
COLLEGE OF ENGINEERING
& TECHNOLOGY



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Paper publication



V.S.B.
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KARUR



FOR CSE, ECE, EEE, MECH,
IT, CIVIL DEPARTMENTS



CONGRATULATIONS

PAPER PUBLICATION

**“ AI-POWERED ADVANCED
DRUG DISCOVERY FOR
ENHANCING PRIVACY AND
INNOVATION IN HEALTHCARE”**

DOI :

10.4018/979-8-3693-3212-2.ch003

Mrs. A.P. SWARNALATHA
(Assistant Professor)

**DEPARTMENT OF
BIOMEDICAL ENGINEERING**



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Patent Grant



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KARUR



CONGRATULATIONS

PATENT GRANT

“DEVICE FOR DENTAL TISSUE REPAIR”

PATENT APP NO : 427648-001
PUBLISHED DATE : 22.10.2024

Mrs. M. RAJALAKSHMI
(Assistant Professor)

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Book publication



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KARUR



FOR CSE, ECE, EEE, MECH,
IT, CIVIL DEPARTMENTS



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DOI :

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Mrs. A.P. SWARNALATHA
(Assistant Professor)

**DEPARTMENT OF
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Faculty NPTEL

Elite
NPTEL ONLINE CERTIFICATION
(Funded by the MoE, Govt. of India)

This certificate is awarded to
RAJALAKSHMI M
for successfully completing the course
Neurobiology
with a consolidated score of **62 %**

Online Assignments	18.33/25	Proctored Exam	43.5/75
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Total number of candidates certified in this course: **390**

Prof. B. V. Ratish Kumar
Chairman, Centre for Continuing Education
IIT Kanpur

Aug-Sep 2024
(4 week course)

Prof. Satyaki Roy
NPTEL Coordinator
IIT Kanpur

Indian Institute of Technology Kanpur

swayam

Roll No: NPTEL24BT73S352600273 To verify the certificate No. of credits recommended: 1 or 2

STUDENT NPTEL

Elite
NPTEL ONLINE CERTIFICATION
(Funded by the MoE, Govt. of India)

This certificate is awarded to
N SHARMILA
for successfully completing the course
Tissue Engineering
with a consolidated score of **60 %**

Online Assignments	21.96/25	Proctored Exam	38.38/75
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Total number of candidates certified in this course: **347**

Prof. Andrew Thangaraj
Chair
Centre for Outreach and Digital Education, IITM

Jul-Sep 2024
(8 week course)

Prof. Vignesh Muthuvijayan
NPTEL Coordinator
IIT Madras

Indian Institute of Technology Madras

swayam

Roll No: NPTEL24BT49S334900090 To verify the certificate No. of credits recommended: 2 or 3

Elite
NPTEL ONLINE CERTIFICATION
(Funded by the MoE, Govt. of India)

This certificate is awarded to
LALITHA
for successfully completing the course
Organ Printing
with a consolidated score of **51 %**

Online Assignments	21.04/25	Proctored Exam	30/75
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Total number of candidates certified in this course: **146**

Prof. B Umashankar
Chairperson, Centre for Continuing Education (CCE)
IIT Hyderabad

Jul-Sep 2024
(8 week course)

Prof. Andrew Thangaraj
NPTEL Coordinator
IIT Madras

Indian Institute of Technology Hyderabad

swayam

Roll No: NPTEL24BT45S138800063 To verify the certificate No. of credits recommended: 2 or 3

Elite
NPTEL ONLINE CERTIFICATION
(Funded by the MoE, Govt. of India)

This certificate is awarded to
GAYATHRI G
for successfully completing the course
Neurobiology
with a consolidated score of **56 %**

Online Assignments	21.67/25	Proctored Exam	34.5/75
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Total number of candidates certified in this course: **390**

Prof. B. V. Ratish Kumar
Chairman, Centre for Continuing Education
IIT Kanpur

Aug-Sep 2024
(4 week course)

Prof. Satyaki Roy
NPTEL Coordinator
IIT Kanpur

Indian Institute of Technology Kanpur

swayam

Roll No: NPTEL24BT73S452600700 To verify the certificate No. of credits recommended: 1 or 2

Elite
NPTEL ONLINE CERTIFICATION
(Funded by the MoE, Govt. of India)

This certificate is awarded to
ASMILIN A M
for successfully completing the course
Neurobiology
with a consolidated score of **61 %**

Online Assignments	20/25	Proctored Exam	40.5/75
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Total number of candidates certified in this course: **390**

Prof. B. V. Ratish Kumar
Chairman, Centre for Continuing Education
IIT Kanpur

Aug-Sep 2024
(4 week course)

Prof. Satyaki Roy
NPTEL Coordinator
IIT Kanpur

Indian Institute of Technology Kanpur

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Roll No: NPTEL24BT73S452600206 To verify the certificate No. of credits recommended: 1 or 2

PAPER PRESENTATION

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DEPARTMENT OF BIOMEDICAL ENGINEERING
Heartly commendations to the winners of
PAPER PRESENTATION



1st Cash Prize
₹ 750

Ms. ABINAYA .G & Ms. MAHINTHA .S

20.09.2024 & 21.09.2024 Sengunthar Engineering College, Tiruchengode.

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PAPER PRESENTATION



2nd WINNER

Ms. KAVIYA.M, Ms. SANDHYA.M, Ms. SIVANESHWARI.M, Ms. SIVASHREE.R

16.10.2024

GNANAMANI COLLEGE OF TECHNOLOGY, NAMAKKAL

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Heartly commendations to the winners of
PAPER PRESENTATION



1st Cash Prize
₹ 1000

MS. SARAL MANO JULIE G, MS. MAHESWARI. P & Ms. ANCIL. LM

20.09.2024 & 21.09.2024 Sengunthar Engineering College, Tiruchengode.

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Innovative event

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INSTITUTION'S INNOVATION COUNCIL
(Ministry of Education Initiative)

DEPARTMENT OF BIOMEDICAL ENGINEERING
Organizes

Live Webinar on

"ADVANCES & INNOVATIONS IN CARDIAC PACING AND RHYTHM MANAGEMENT"

DATE : 21-12-2024 , VENUE : SEMINAR HALL

RESOURCE PERSON

Mr. Rinoj Davis M
STR-Team Leader,
Medtronics CRHF Division,
Kerala.

ONLINE MODE

SHRI. V.S.BALSAMY CHAIRMAN | SHRI. B. SATHEESH KUMAR VICE CHAIRMAN | SHRI. B. VIJAY SECRETARY | FOLLOW US NOW | visit us at www.vsbec.edu.in

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INSTITUTION'S INNOVATION COUNCIL
(Ministry of Education Initiative)

DEPARTMENT OF BIOMEDICAL ENGINEERING
Organizes

Live Webinar

**SAFE POWER, SAFE CARE:
BIOMEDICAL ENGINEERS AND
ELECTRICAL SAFETY IN
HEALTHCARE SYSTEMS**

RESOURCE PERSON

MR. M. ANIL,
*Retired Deputy Chief Engineer
from the Kerala State Electricity Board.*

17-10-2024

**VENUE
SEMINAR HALL**

ONLINE MODE

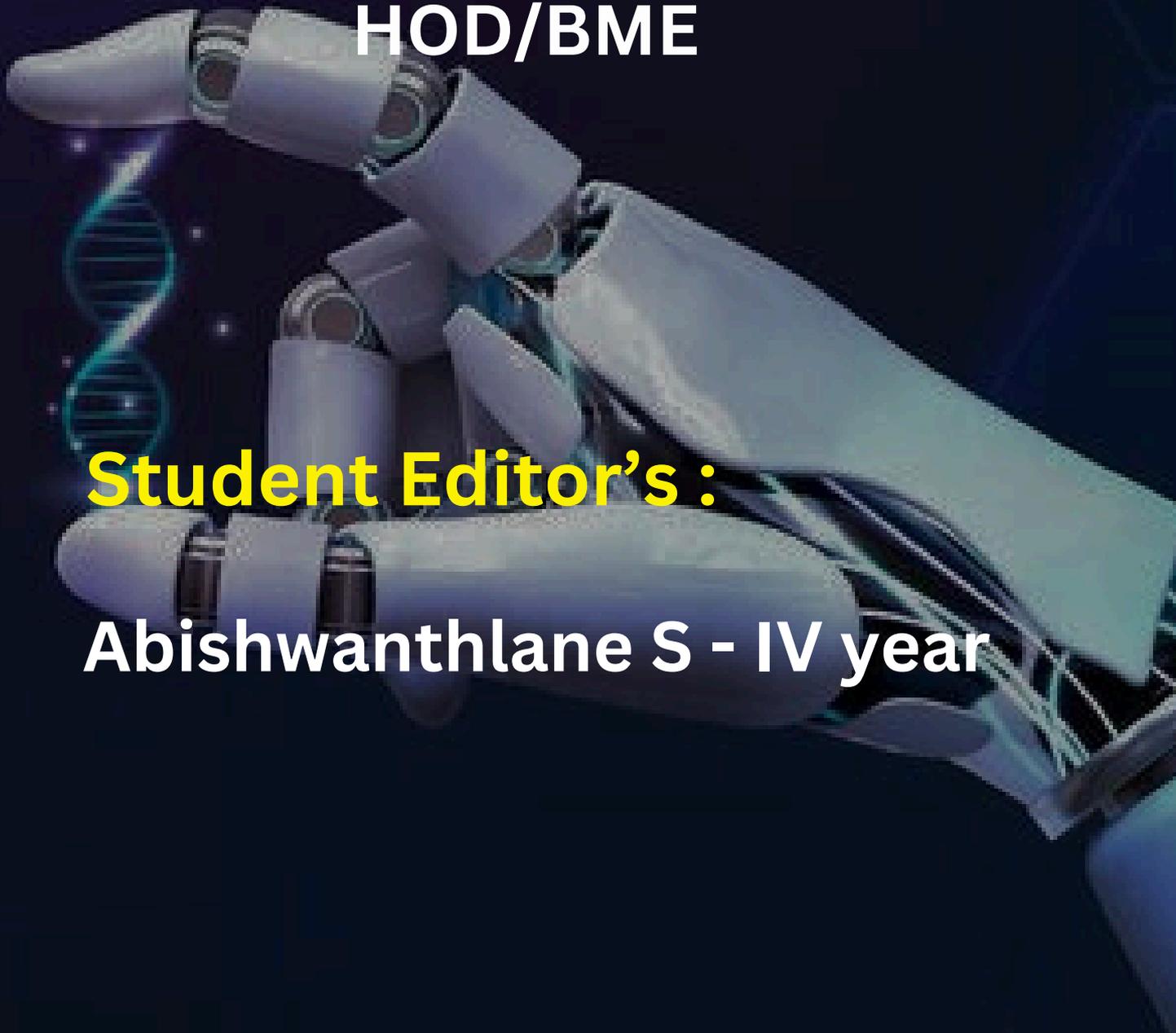
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CHIEF EDITOR:

**Mrs.A.P.Swarnalatha,
HOD/BME**

Student Editor's :

Abishwanthlane S - IV year



BME

BIOMEDICAL
ENGINEERING

