

SILIENCE

Biannual Newsletter from Department of Biomedical Engineering VOLUME 10 / ISSUE 1

DEPARTMENT VISION

Emerge as a pioneer in biomedical engineering for providing affordable and accessible biomedical technology.

DEPARTMENT MISSION

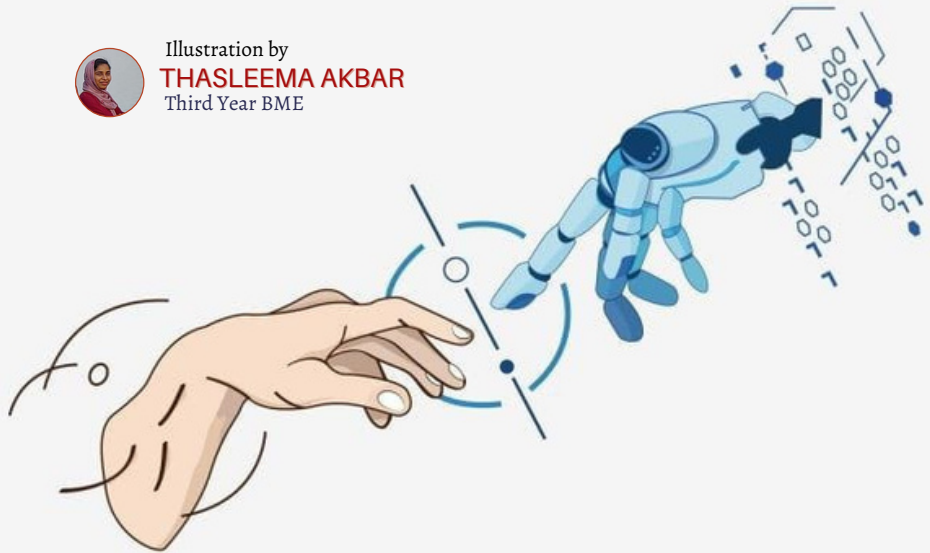
Nurture high caliber biomedical professionals by integrating science, mathematics, engineering and medicine through quality education with excellent faculty and infrastructure.

Facilitate extensive hands-on training, interdisciplinary research and innovations by collaborating with medical and industrial experts

Encourage graduates to be socially and ethically responsible biomedical engineers for the betterment of society.



Illustration by
THASLEEMA AKBAR
Third Year BME



From HOD's Desk



Warm wishes to all. It gives me yet another opportunity to present the new volume of the "SILIENCE" biannual Newsletter. This Newsletter is a summary of how information on the life of the Department is disseminated. The Department Association EBSA fully utilizes the opportunities to organize the events entirely without losing the energy and essence. The Newsletter is also enriched with faculty and student achievements and the recent developments in Biomedical Engineering. As you go through the pages, you will see the cumulative efforts of students and faculty on our journey toward excellence. I want to congratulate and thank all my students, colleagues, and especially the Department Association EBSA for contributing to department activities, and look forward to futuristic developments.

Dr. Finto Raphael

Asso. Professor & Head, Dept of BME

FROM FACULTY ADVISOR

It is a matter of pride that EBSA, the Technical Association of Biomedical Department has put in the best efforts to bring out the 19th edition of Biannual Newsletter - SILIENCE. The magazine, I feel, will mirror the creative and innovative ideas of both the teachers and the students and exhibit the latent talents of the faculty and the students as story tellers, poets, and essayists and so on. It also includes reports of the Department activities, student and staff achievements, placements and creative technical inputs and an elaborate photo gallery providing glimpses of the same. I want to congratulate and thank all my students and colleagues for their contribution to this magnificent piece of work and hope it will serve as a source of inspiration to bring out the best in you for the generations to come.



Mrs. Reshma Jose

Asst. Professor, Dept of BME

FROM EBSA SECRETARY

Learning is not attained by chance, it must be sought for with ardor and attended to with diligence. EBSA presents its bi-annual newsletter "SILIENCE" with its stories of resilience, creativity and success. As the Secretary of EBSA, I extend my heartfelt gratitude for your unwavering support and dedication. It is the collective efforts of faculties and students that propel us forward, making EBSA stronger and more impactful with each passing day. We've been hard at work, and we can't wait to share our progress with you. Here's the highlights from the past six months. Hope everyone feels happy and proud while flipping the pages.



Mrs. Aghna

EBSA Secretary, Final year BME

DEPARTMENT /ASSOCIATION ACTIVITIES

10TH JANUARY 2023

On January 10, 2023, Ms. Begi Margaret, a Senior Principal Consultant at INFOSYS Limited and currently serving as an ETA DC Manager at Hyderabad STP, gave a presentation on "Etiquette and Professional Manners" to the students in the Biomedical Engineering program.



27TH FEBRUARY 2023

Dr. Pooja Das Manjulabhai and Dr. Jeethu Ravindran led a session on "Technical Paper Writing" for the third-year students on February 27, 2023.



6TH TO 10TH MARCH 2023

A group of 61 students from the 2019-2023 batch of Biomedical Engineering, along with their class advisors Ms. Lavina Joseph and Dr. Yuvaraj V, and the parents of Ms. Aleena Joseph, went on a tour to Goa-Dandeli from March 6th to 10th, 2023.



16TH MARCH 2023

On March 16, 2023, Mr. Linto Xavier, an alumnus of the Biomedical Department from the 2009-2012 batch, who is presently employed as a Pathological Equipment Specialist at Lyka Company in New Zealand, visited the department. During his visit, he engaged with the students and shared his insights and experiences.



23RD MARCH 2023

The NDLI Club at Sahrdaya College of Engineering and Technology, in collaboration with EBSA, organized an online poster-making competition on March 23rd, 2023. The theme of the competition was "Good Air Quality for Healthy Life."



24TH MARCH 2023

A session on "Pacemakers" was presented to the third-year students on March 24th by Rinoj Davis, who is an alumnus from the class of 2012 and currently works with Medtronic India.

29TH MARCH 2023

The Biomedical Engineering department unveiled its Biannual newsletter, SILIENCE, on March 29, 2023.



31ST MARCH 2023

Ms. Honey Hycinth, who serves as an Associate Scientific Writer at Indegene and holds the position of Assistant Engineer QA/RA at Dynamic Techno Medicals, conducted a session on Medical Regulations and Standards for the final year students on March 31, 2023.

31ST AND 01ST APRIL 2023

A practical training session on Solid Works was organized for second-year Biomedical Engineering students on March 31st and April 1st, 2023. The session was facilitated by Abin Kuriakose and Vinay S from Solid Works.

13TH APRIL 2023

On April 13, 2023, students from the S6 Biomedical Engineering program embarked on an industrial visit to BPL Medical Technologies in Palakkad. This visit was organized to provide them with valuable insights into the manufacturing processes of biomedical equipment.



18TH APRIL 2022

Mr. Alex, an alumnus from the 2011-2015 batch, gave a lecture to the S6 students as part of their "Therapeutic Equipments" course. The talk focused on Deep Brain Stimulators.



24TH APRIL 2022

Mr. Johnit Lazar, an alumnus from the 2014-2018 batch, who is currently employed as an Installation and Service Engineer at GE in Ireland, conducted a session for the S8 students. He shared valuable insights on job prospects and opportunities, as well as higher education options abroad.



27TH APRIL 2022

On April 27, 2023, the final year students received a send-off from the S4 and S6 students, marking a memorable farewell event.

05TH JULY 2022

As part of their training, the students from the S8 Biomedical Engineering program, along with faculty member Dr. Jeethu Raveendran, visited Agappe Diagnostics Limited on July 5, 2023.



STUDENTS ACHIEVEMENTS



Mr. Adil Umer and Mr. Midhun Subhash from S6 BM won first and third place in the 2023 Arm Wrestling Championship, respectively, at IES College of Engineering, Chittilappilly, during Encastrer 2k23 on March 16, 2023.

Savio Samson of S8 Biomedical Engineering was selected for Achiever's award worth Rs. 31,000 constituted for top educational institutions across the country by Bank of Baroda.

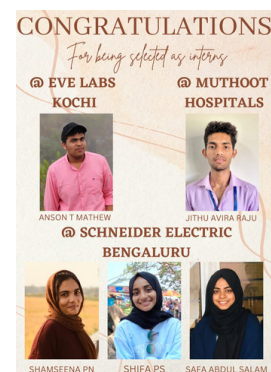


In the National Arm Wrestling competition held in Bangalore from May 18th to 21st, 2023, Mr. Adil Umer from S6 Biomedical Engineering won a gold medal in the Youth Men's 63 Kg category.



Ms. Eva Joy from S4 BM secured a gold medal in High Jump at the APJ Abdul Kalam KTU Intercollegiate Athletic Meet.

The following students have been selected for internship at reputed institutions during the month of May 2023.



STUDENTS ACHIEVEMENTS

The project titled "GAME CONSOLE BASED REHABILITATION FOR STROKE PATIENTS," guided by Dr. Yuvaraj V and with members ANEENA VARGHESE, JEEVAN VARGHESE, VOYTIEN JOY, and SARA SIMON PAREKKAT, achieved third place at SRISHTI 2023, co-hosted by IEDC and IEEE of Jyothi Engineering College on March 31, 2023, and also participated in the SHRESHTA project competition at Muthoot Institute of Science and Technology.



In the International Conference on Research and Innovation in Biomedical Engineering (RIBE2023) organized by the Department of Biomedical Engineering at Rajalakshmi Engineering College on July 27th and 28th, 2023, Mr. Harisankar S from the 2019 batch presented a paper titled "Automated Medication System for Adult Care" and was honored with the title of BEST PAPER. •



The project titled "PORTABLE CAR STRETCHER," guided by Dr. Jeethu Raveendra and with team members Emil Tom, Albert Limson, Alisha Prasad, and Harisankar K.S secured second place in the Human Centric Design category at SRISHTI 2023 on March 28-29, 2023, at Saintgits College of Engineering, Kottayam. It also earned second place in the SHRESHTA project competition at Muthoot Institute of Science and Technology.

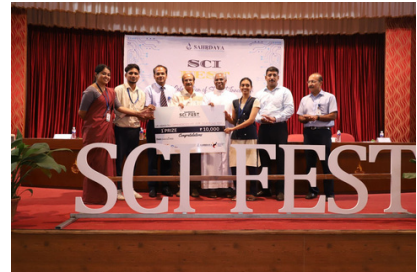


The Project titled "Auto-medication dispenser" under the guidance of Ms. Supriya Mary Sunil and with team members Harisankar S, Biya Rose Babu, and Thomas Gigi, secured the 2nd prize at Innovotex IEEE held at Jyothi College of Engineering.

STUDENTS ACHIEVEMENTS

The project titled "Non-invasive Gastritis and Oral Impedance" has advanced to the second round of the 12th CSI InApp International Student Project Awards 2023. The team consists of Augustin Joseph, Nethin Lazar, Angel George, and Anoop Aji Idiculla, with guidance from Mr. Jibin Jose.

The project "COMMUNICATION AID FOR DEAF-BLIND PEOPLE," guided by Ms. Lavina Joseph and with team members Mrudula A. K, Joel Jacob, and Akshay Das, was awarded the Best Project in the project competition held during SCI-FEST at Sahrdaya College of Engineering and Technology.



The project titled "WEARABLE EXOSKELETON FOR NURSES," guided by Ms. Reshma Jose and team comprising Beryl Paulson, Pranav Seby, Anoop K.M, and Jithin Joy, secured a \$205 grant from the IEEE EPIC grant scheme and was also chosen to participate in the INNOVATEX All Kerala Project Competition, jointly conducted by Jyothi Engineering College and IEEE.

Dear Pranav,

Congratulations! You have been awarded \$205.00 for your WEARABLE EXOSKELETON FOR NURSES project! Please log in to EPICS in IEEE's online system and review and complete the agreement as part of your grant requirements.

Follow these steps to complete the contract:

1. Log in with your username (pranavseby2001@ieee.org) and password.
2. Once logged in you will be on the Applicant Dashboard.
3. Below your application, you will see that it reads Acceptance Packet_2023. Click on the blue "Edit" link to the right of the form to access the form. You can save the form as often as you need but remember to submit by the due date (04/13/2023 11:59 PM EDT).



Teams have been selected for PRISMA 23, the project expo cohosted by IEDC of Christ College of Engineering on April 13th 2023. Among them the following project groups "Smart commode system for bed bound patients", "Active shock absorbing neonatal transfer system", "Stroke rehabilitation".

STUDENTS ACHIEVEMENTS

Vishnu Prajil, Shifa P S, and Josna Wilson from S6 BM secured the top position in the painting competition held by Sahrdaya College's Women Grievance Cell for International Women's Day on March 8th.



The top-performing students from the 2019 batch in the University's S8 exams are as follows:

- Deepika- SGPA(9.56)
- Aswathy KB- SGPA (9.47)
- Emil Tom- SGPA (9.38)
- Aleena Biju Aricatt- SGPA (9.21)
- Megna Daison- SGPA (9.15)



The project titled "Active Shock Absorbing Neonatal Transfer System" was chosen as one of the top 10 projects at Ingenium 2023, an event focused on solving the world's toughest engineering challenges and was honored with the Best Project Award for 2022-23. The project team includes members Mishel Prinson, Jerin Joy, Evelin Elsa Suresh, and Aaron Shajan, with guidance provided by Ms. Arathy M.

FACULTY ACHIEVEMENTS

Mr. Jibin Jose

- Mr. Jibin Jose, Nodal Officer, IEDC Sahridaya delivered an expert talk on Process of Innovation Development, Technology Readiness Level, Commercialization of Lab Technology- Transfer to the students of Sahridaya College of Advanced Studies on 25/3/2023.
- Mr. Jibin Jose was invited for Digital Science Park inauguration by the Honorable Prime Minister of India on 25/4/2023.
- Mr. Jibin Jose was invited to deliver the inaugural address and keynote presentation for NXplorers Junior LAUNCH EVENT and PRINCIPAL'S orientation program organized by smile foundation and shell company on 19th and 20th June 2023 at Hotel White Palace Thrissur.
- Mr. Jibin Jose participated in the 10th Induction cum Training Programme on "Materiovigilance Programme of India " on 13th and 14th of July 2023 at Indian Pharmacopoeia Commission, Ghaziabad



Mrs. Jeethu Raveendran | Mrs. Reshma Jose

- The proposals submitted by Ms. Jeethu Raveendran- Universal Colorimeter and Ms. Reshma Jose- Communicative and Assistive Device for Differently Abled Children was shortlisted for Kerala Startup Mission's 'Research Innovation Programme for Women Startups' partnered by Sahridaya College of Engineering & Technology providing opportunity for Women PG students / research scholars / fellows / scientists / faculty members and received funding of Rs. 2,50,000 and Rs, 2,00,000



Dr. Remya George | Mr. Jibin Jose

- Dr. Remya George and Mr. Jibin Jose have been selected as members of Expert Committee constituted by KSCSTE for the brainstorming session of the Designathon contest in connection with National Technology Day celebrations.



Dr. Finto Raphel



- Dr. Finto Raphel was promoted as the new Vice Principal of Sahrdaya College of Engineering and Technology

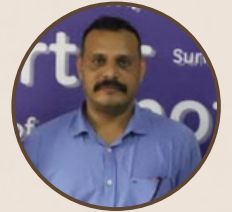
Dr. Jis Paul



- Dr. Jis Paul was promoted as the new Head of the Department of Biomedical Engineering

Dr. Yuvaraj V

- Mr. Yuvaraj has been elected as a chair, student activities, IEEE Education Society, Kerala Section and Professional Activity Chair of IEEE Kochi Sub-Section.
- Dr. Yuvaraj V was the speaker for the session on "Perspectives on Next Generation Engineering" held on 8th April 2023 organized by IEEE Education Society Kerala Chapter .
- Dr. Yuvaraj V has been nominated as the Chair of Membership Development, Photonics Society, IEEE Kerala Chapter



Mr. Jis Paul | Mr. Jibin Jose | Ms. Jeethu Ravindran | Ms. Supriya Mary Sunil | Ms. Sukanya

- Mr. Jis paul, Mr. Jibin Jose, Ms. Jeethu Ravindran, Ms. Supriya Mary Sunil and Ms. Sukanya from Biomedical department attended a one day workshop on "Technical paper Writing using Latex" on 22nd October 2022 organized by the Department of Computer Science and Engineering, SCET, Kodakara.



Dr. Remya George | Ms. Reshma Jose

- Dr. Remya George and Ms. Reshma Jose published a paper titled "Effects of long-term exercise training on physiological signals and personality traits in women in law enforcement" in the Journal of Intelligent and Fuzzy Systems Systems 44 (2023) 1085-1097, DOI:10.3233/JIFS-221588.



Mr. Jis Paul

- Dr. Jis Paul, Asst. Professor, Sahridaya College of Engineering & Technology, Thrissur served as a Resource person in the one-day workshop on "Development of Soft Skills for Entrepreneurship among Agri-Graduates" held at TBI, Mannuthy of Kerala Veterinary and animal Sciences University, Wayanad on 4th March 2023



Dr. Remya George

- Ms. Reshma Jose and Dr. Jeethu Raveendran were invited to sign the agreement on 24th of March 2023 at KSUM office at Kerala Technological innovation zone (KTIZ) and attended an Orientation Bootcamp on 25th of March 2023, where they interacted with the CEO of KSUM



Ms. Reshma Jose

- Ms. Reshma Jose published a paper titled "Liver Tumour Classification using Optimal Opposition Based Grey Wolf Optimization" in the International Journal of Pattern Recognition and Artificial Intelligence (2022) 2240005 (23 pages), DOI: 10.1142/S0218001422400055.
- As part of AAC Device Development Challenge organized by CATI-NISH and APJ AKTU, the faculty advisor, Ms. Reshma Jose was invited for the prize awarding ceremony by Honourable Minister for Higher Education Mrs. R Bindu on 25th July 2022 at NISH Campus.



Dr. Jeethu Raveendran

- Dr. Jeethu Raveendran was awarded the prestigious Chief Minister's Nava Kerala Research Fellowship by the Government of India



PLACEMENT ACHIEVEMENTS

AGAPPE



Amal Roy
BME 2019-23



Ashwin Asokan
BME 2019-23



Voytien Joy
BME 2019-23



Jeevan Varghese
BME 2019-23

ZIFO RnD SOLUTIONS



Aghna N M
BME 2019-23



Aleena Biju Aricatt
BME 2019-23



Anoop Aji Iducula
BME 2019-23



Emil Jom
BME 2019-23



Harisankar S
BME 2019-23

Medtronic



Alosious Baiju
BME 2019-23

Qburst



Akshay Das
BME 2019-23

tcs TATA CONSULTANCY SERVICES



Aleena Biju Aricatt
BME 2019-23



Aswathi K B
BME 2019-23



Megna Daison
BME 2019-23



Angel George
BME 2019-23



Sree Lakshmi
BME 2019-23

SUTHERLAND



Aneena Varghese
BME 2019-23



Savio Samson
BME 2019-23



Aswin Ashokan
BME 2019-23



Deepika A
BME 2019-23



Alisha Prasad
BME 2019-23



Florance Baby Sam
BME 2019-23



Allwino Varghese
BME 2019-23



Jeevan Varghese
BME 2019-23



Sneha Sunil
BME 2019-23



Mishel Prinson
BME 2019-23



Vishnupriya A S
BME 2019-23



Vivek K M
BME 2019-23



Angela Liz Abraham
BME 2019-23



Sruthi George
BME 2019-23



Fathima Hana
BME 2019-23

PLACEMENT ACHIEVEMENTS



Deepika A
BME 2019-23



Emil Jom
BME 2019-23



Mishel Prinson
BME 2019-23



Megna Daison
BME 2019-23



Prayaga M V
BME 2019-23



Pranav Seby P
BME 2019-23



Sree Lakshmi
BME 2019-23



Angel Wilson
BME 2019-23



Aswathi K B
BME 2019-23



Raveena K
BME 2019-23



Alwin Shaji
BME 2019-23



Ashwin Asokan
BME 2019-23



Alisha Prasad
BME 2019-23



Angela Liz Abraham
BME 2019-23



Beryl Paulson
BME 2019-23



Mrudula A K
BME 2019-23



Nikhil Siby
BME 2019-23



Thomas Gigi
BME 2019-23



Vishnu Priya A S
BME 2019-23



Vivek K M
BME 2019-23



Anit Roy
BME 2019-23



Biya Rose Babu
BME 2019-23



Sneha Sunil
BME 2019-23

PROJECT ACHIEVEMENTS

ACTIVE SHOCK ABSORBING NEONATAL TRANSFER SYSTEM



The project titled "Active Shock Absorbing Neonatal Transfer System" was chosen as one of the top 10 projects at Ingenuity 2023, an event focused on solving the world's toughest engineering challenges and was honored with the Best Project Award for 2022-23. The project team includes members Mishel Prinson, Jerin Joy, Evelin Elsa Suresh, and Aaron Shajan, with guidance provided by Ms. Arathy M.

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The team consists of Augustin Joseph, Nethin Lazar, Angel George, and Anoop Aji Idiculla, with guidance from Mr. Jibin Jose.

GAME CONSOLE BASED REHABILITATION FOR STROKE PATIENTS,



The project titled "Game console based rehabilitation for stroke patients," guided by Dr. Yuvaraj V and with members Aneena Varghese, Jeevan Varghese, Voytien Joy, and Sara Simon Parakkat, achieved third place at SRISHTI 2023, co-hosted by IEDC and IEEE of Jyothi Engineering College on March 31, 2023, and also participated in the SHRESHTA project competition at Muthoot Institute of Science and Technology.

WEARABLE EXOSKELETON FOR NURSES



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AUTO MEDICATION DISPENSER



"The Project titled "AUTO MEDICATION DISPENSER" under the guidance of Ms. Supriya Mary Sunil and with team members Harisankar S, Biya Rose Babu, and Thomas Gigi, secured the 2nd prize at Innovotex IEEE held at Jyothi College of Engineering.

PORTABLE CAR STRETCHER



"The project titled "PORTABLE CAR STRETCHER," guided by Dr. Jeethu Raveendra and with team members Emil Tom, Albert Limson, Alisha Prasad, and Harisankar K.S secured 2nd place in Human Centric Design category at SRISHTI 2023 at Saintgits College of Engineering. Also earned second place in the SHRESHTA project competition at Muthoot Institute of Science and Technology

COMMUNICATION AID FOR DEAF-BLIND PEOPLE



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STUDENTS CORNER



Jose Preejo | S6 BME

ഇതലുകൾ രണ്ടുമെ, കണ്ണിനിമപോൽ ചിമ്മിയാ ഇരുവിരൽ ജനിതൻ ഉയിർവനിയിൽ തൊട്ടനാൾ.

ക്ഷീരബലാൽ ഉന്മാദിയാം നാഥനിന്നെന്തേയിങ്ങനൊരു ക്ഷീണംപോലൊരു ഭാവമെന്നാരാഞ്ഞിടുന്നു ഞാൻ.

വിശപ്പ് വരിഞ്ഞുടുകാൻ പരിച്ച കളരിയിൽ ദക്ഷിണ വച്ചുഞാനെൻ ബാല്യവും മൗനവും മന്മദോന്മാദ സ്വപ്നങ്ങൾക്കൊടുവിൽ കളഞ്ഞുപോയ് ഇന്നോളമോർത്തെടുക്കുവാനാകാഞ്ഞൊരൻ യൗവ്വനം.



Vishnu A JI | S4 BME



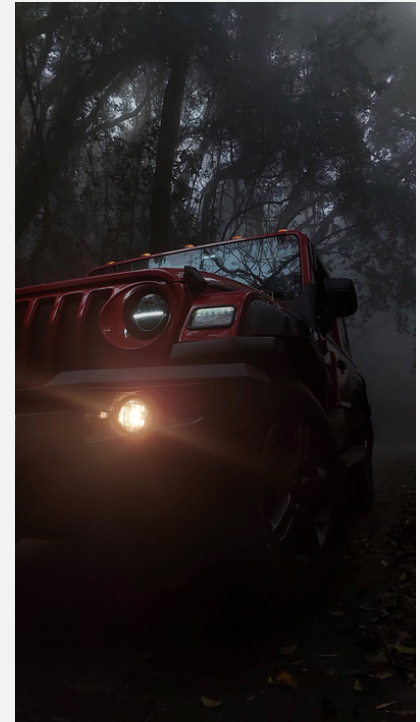
Nimal PS | S6 BME



Shamseena P N | S6 BME



Hewinston Wilfred | S6 BME



Shaheedha E BI | S4 BME



AI IN HEALTHCARE

The integration of artificial intelligence and machine learning into medical diagnostics and treatment planning showed great potential for improving patient care and has made significant inroads into the healthcare industry, offering a wide range of applications and benefits. While AI holds immense promise in healthcare, there are challenges related to data privacy, regulatory compliance, and ensuring the ethical and responsible use of AI. Nonetheless, AI continues to evolve and reshape the healthcare landscape, ultimately aiming to improve patient outcomes, reduce costs, and enhance the overall quality of care.



Thanks to Know

STUDENTS CORNER



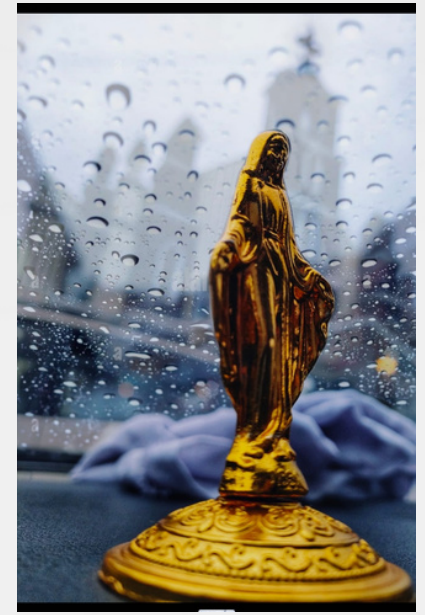
Shifa PS | S6 BME



Joel K Joyl | S6 BME



Aswin Joy | S4 BME



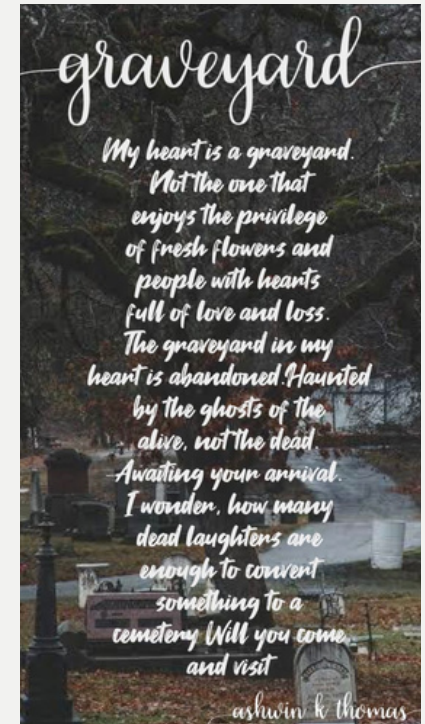
Painting by
Nimal P S | S6 BME



Georgy Lyjul | S4 BME



Ashwin K Thomas | S4 BME



ORGANOID TECHNOLOGY

Advances in creating and studying organoids, miniature organ-like structures grown from human cells.

Organoid technology is a cutting-edge development in the field of biomedical research. Organoids are three-dimensional, miniature versions of organs or tissues that are grown in vitro from human stem cells or tissue samples. These tiny structures mimic the structure and function of real organs, allowing scientists to study human biology and disease in a more accurate and personalized way



Thinks to
Know

BME FAMILY



EDITORIAL TEAM



Ms. RESHMA JOSE
Asst. Professor
Dept. of BME



HEWINSTON WILFRED
Third Year BME



DWASIL JETHENDRAN
Third Year BME

CONTENT CURATION



KEERTHANA KRISHNAKUMAR
Third Year BME



ANNSTACY PHILIP
Third Year BME



GREESHMA NADH P G
Third Year BME

Silience is a biannual news letter published by Dept. of Biomedical Engineering in association with its students association EBSA. Silience carries news, events and achievements of faculties & students of Dept. of Biomedical Engineering. Copies of Silience is available in department website and college library which are also distributed through official online channels.

DEPARTMENT OF BME, SAHRDAYA COLLEGE OF ENGINEERING & TECHNOLOGY, THRISSUR, KERALA - 680684

