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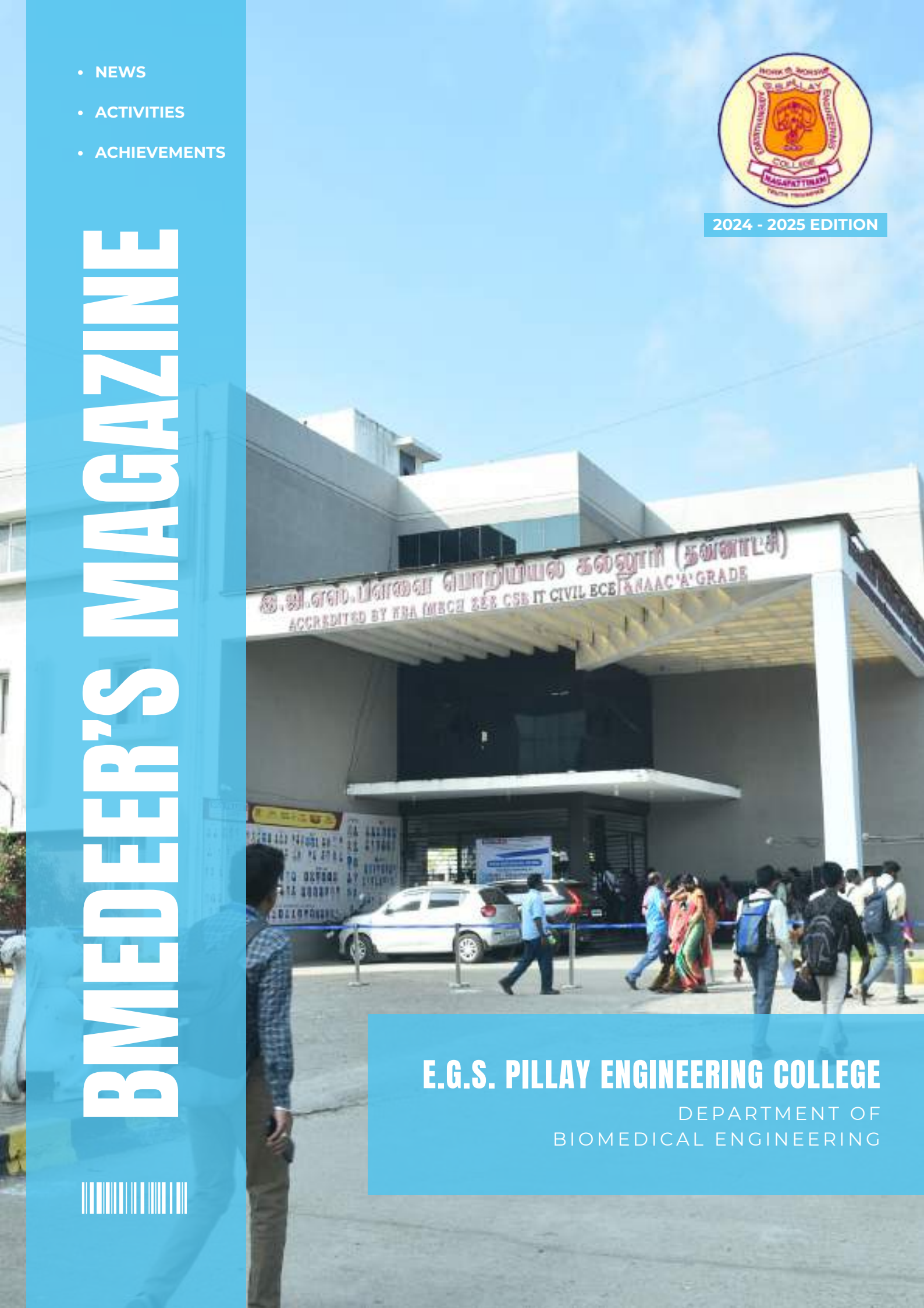
BMEDEER'S MAGAZINE

2024 - 2025 EDITION



E.G.S. PILLAY ENGINEERING COLLEGE

DEPARTMENT OF
BIOMEDICAL ENGINEERING

About the institution:

E. G. S. Pillay Engineering College is one of the pioneering non-grant engineering Colleges in the State. It was established by the G. S. Pillay & Sons Educational & Charitable Trust, Nagapattinam in the year 1995 with the sanction of the Government of Tamilnadu, approval of the All India Council for Technical Education, New Delhi and affiliation to Bharathidasan University, Tiruchirapalli. Its courses are affiliated to Anna University, Chennai, from 2002 and the degrees are awarded by Anna University, as per the Government Orders.

The College has earned the reputation of being one of the most preferred colleges by the students and parents all these years. Known for its excellent infrastructure and facilities for learning, the outstanding non-grant engineering college has registered impressive performance consistently. A gate-way to success, the college has now set on long-range planning to enlarge and enrich its programs and activities to empower the youth who aspire to become successful Engineers, Scientists and Managers.

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Mission of the Institution:

1. To provide world class education to the students and to bring out their inherent talent.
2. To establish state-of- the-art facilities and resources required to achieve excellence in teaching -learning and supplementary processes.
3. To recruit competent faculty and staff and to provide opportunity to upgrade their knowledge and skills.
4. To have regular interaction with the Industries in the area of R&D and offer consultancy, training and testing services.
5. To establish centers of excellence in the emerging areas of research.
6. To offer continuing education and non-formal vocational education programmes that are beneficial to the society

vIsion of the Institution:

Envisioned to transform our institution into a
"Global Centre of Academic Excellence"

DEPARTMENT OF BIOMEDICAL ENGINEERING

The department of Biomedical Engineering was established in the year 2019.The importance of education lies in translating opportunities into experiences of empowerment, in transcending 'what is' to 'what can be' and transforming limitations into limitless learning. The department constitutes skilled faculty professionals with high academic records. Biochemistry & Human Physiology Laboratory, Microbiology Instrumentation Processing Laboratory, Laboratory, Laboratory, Therapeutic constructed Equipments with higher Pathology and Biomedical Digital Diagnostic laboratory Signal and were end laboratory equipments and best infrastructure facilities which influences the learning abilities of the students. Apart from the regular curriculum and clinical program the knowledge of students are enriched by special lecture series by eminent doctors from the hospital and they learn skills of usage, service and repair the medical equipments in the hospital.

Mission of the Department

1. To produce competent Biomedical Engineers through quality education and training.
2. To maintain state-of-the-art learning facilities, enhance the competence of faculty and evolve as a centre of excellence through R & D.
3. To develop skilled professionals with academic reliability, good communication, attitude towards lifelong learning, ability to be team player.
4. To bridge the gap between the industry and academia with expanding collaboration and partnerships with industry through MOUs, projects and consultancy fulfilling the societal needs.

Vision of the Department

"To achieve excellence in Biomedical engineering education and serve as a valuable resource Centre to the industry and the society"

Dr. A. Sundar Raj M.E., Ph.D.,
Professor and Head

Dr. A. Sundar Raj holds an M.E. and Ph.D. in Wireless Sensor Networks. With over a decade of experience, he has significantly contributed to both academia and research. His area of expertise lies in the development of advanced sensor technologies for biomedical applications. Having joined E.G.S. Pillay Engineering College in 2010, he was recently transferred from the Department of Electronics and Communication Engineering to Biomedical Engineering in October 2022. Dr. Sundar Raj was designated as Professor in 2023 and continues to inspire students through his innovative teaching and research initiatives.

Fig.1 Internship attending image our department student at Bengaluru

Dr. B. Prathish Raaja M.E., Ph.D.,
Professor

Dr. B. Prathish Raaja is a highly accomplished academic with an M.E. and Ph.D. in Electronics and Instrumentation Engineering. His research interests focus on cutting-edge technologies in the biomedical field. With a teaching career that began in 2020, he has made significant contributions to both the department and student development. Dr. Prathish Raaja was designated as Professor in May 2022 and continues to enhance the academic environment through his dedication to research and innovation in biomedical engineering.

Dr. S. Chitra M.E., Ph.D.,
Assistant Professor

Dr. S. Chitra, with an M.E. and Ph.D. in Image Processing, brings a wealth of expertise to the Biomedical Engineering Department. She has been an integral part of the institution since 2010. Recently transferred to the Biomedical Engineering Department from Electronics and Communication Engineering in August 2023, Dr. Chitra continues to lead students and faculty alike in the exploration of new technological solutions in medical imaging. Her passion for research and teaching makes her an essential asset to the department.

Fig.2 Group picture of students and staff at Symposiyum

Dr. R. Venkatesan M.E., Ph.D.,
Assistant Professor

Dr. R. Venkatesan holds an M.Tech. and Ph.D. in Electronics and Instrumentation Engineering. His area of specialization lies in the integration of instrumentation systems in medical technologies. Joining the department in July 2022, he has quickly become a vital member of the academic team. Dr. Venkatesan's commitment to both education and research ensures that his students are always at the forefront of the biomedical engineering field.

Mr. S. Jim Hawkinson M.E., (Ph.D).,
Assistant Professor

S. Jim Hawkinson, with an M.E. and a Ph.D., specializes in VLSI Design. He joined the faculty in 2015 and recently transferred to the Biomedical Engineering Department from Electronics and Communication Engineering in October 2022. His interdisciplinary expertise plays a crucial role in the advancement of biomedical instrumentation. Jim's focus on practical applications and research ensures his students are prepared for the dynamic field of biomedical engineering.

Fig.4 Moment of group picture with HoD

Fig.3 Moment of Faculty and Students after a hospital visit

Mr. K. Kalanithi M.E., (Ph.D).,
Assistant Professor

K. Kalanithi holds an M.E. and Ph.D. in Control and Instrumentation Engineering. Having joined the department in 2021, he specializes in automation systems and their applications in medical technologies. His research interests include optimizing control systems for medical devices, enhancing patient care, and advancing biomedical technologies. Kalanithi is dedicated to promoting academic excellence and innovative research within the department.

Dr. N. Vikraman M.E., Ph.D.,
Assistant Professor

With an M.E. and Ph.D. in Medical Electronics, N. Vikraman brings expertise in the design and development of medical devices and systems. He joined the Biomedical Engineering Department in 2022. His research focuses on improving medical instrumentation and enhancing diagnostic technologies. Passionate about teaching and mentoring, Vikraman strives to nurture the next generation of biomedical engineers to make impactful contributions to healthcare technology.

Fig.6 Moment of students participating at future expo

Fig.5 Moment of student attending internship at a reputed hospital at Kuwait

Mrs. K. Ramya M.E.,
Assistant Professor

K. Ramya, with an M.E. degree in Communications Systems, joined the Biomedical Engineering Department in 2022. Her expertise includes communication technologies and their applications in medical devices. Ramya's innovative approach to integrating communication systems into biomedical engineering applications ensures that her students are well-equipped to address the challenges of the evolving healthcare industry. Her dedication to both teaching and research enriches the learning experience for all students.

Dr. S. Sasippriya M.E., Ph.D.,
Assistant Professor

S. Sasippriya specializes in Embedded Systems and holds an M.E. and Ph.D. in this field. She has been a key member of the Biomedical Engineering Department since July 2023. Sasippriya's work on developing embedded systems for medical devices offers students hands-on experience with cutting-edge technologies. Her academic guidance and research in biomedical instrumentation make her a valuable asset to the department.

Fig.8 Faculty and students engaging in the knowledge sharing session at Future Expo

Fig.7 Winning moment of our student in sports

Ms. Louis Anitha M.Tech.,
Assistant Professor

Louis Anitha, an M.Tech graduate in Electronics and Communication Engineering, has been contributing to the Biomedical Engineering Department since July 2023. Her focus on communication systems and their application to biomedical devices enables her to offer students valuable insights into the latest technologies. Anitha is dedicated to advancing student learning and promoting research in the intersection of communication and healthcare technologies.

Mr. K. Sathiyamurthi M.E.,
Assistant Professor

K. Sathiyamurthi holds an M.E. degree in Power Electronics and Drives and has been with the department since June 2024. His area of research revolves around the integration of power systems in medical devices, ensuring the efficient functioning of biomedical technologies. Sathiyamurthi is committed to advancing biomedical engineering practices through innovative research and practical solutions.

Ms. S. Shapna Priya M.E.,
Assistant Professor

S. Shapna Priya, with an M.E. in Communications Systems, brings expertise in signal processing and communications to the Biomedical Engineering Department. She joined the department in 2024, focusing on the application of communication technologies in medical devices.

Fig.9 Moment of our student explaining about biomedical trends

Mrs. S. Suganya M.E.,
Assistant Professor

S. Suganya specializes in Communications Systems, with an M.E. degree in the field. She joined the department in July 2024 and is passionate about applying communication technologies in medical devices. Her research focuses on enhancing connectivity and data transfer in biomedical systems. Suganya's teaching style emphasizes practical, real-world applications of biomedical engineering concepts, ensuring that students are prepared for careers in the healthcare sector.

SYNOCURA 24

A Grand success in integrating technology and healthcare

MESSAGE FROM THE HEAD OF THE DEPARTMENT

The Department of Biomedical Engineering at E.G.S Pillay Engineering College proudly looks back at the remarkable success of SYNOCURA 24, an international symposium that brought together brilliant minds to explore the fusion of technology and healthcare. As biomedical engineering continues to revolutionize modern medicine, this symposium served as a crucial platform for students, researchers, and professionals to exchange ideas, showcase innovations, and engage in meaningful discussions about the future of healthcare technology.

The enthusiasm and participation witnessed during the symposium were truly inspiring. From thought-provoking paper presentations to hands-on technical workshops, every session was designed to enhance knowledge and encourage interdisciplinary collaboration. The impact of SYNOCURA 24 goes beyond the event itself—it has planted the seeds for future innovations and research that will drive the biomedical field forward. We extend our heartfelt gratitude to all the speakers, participants, faculty members, and student coordinators who played a pivotal role in making this symposium a resounding success. We hope that SYNOCURA 24 has inspired every participant to push the boundaries of biomedical engineering and contribute to a healthier future.

B-MEDEER'S
Association of the department of Biomedical Engineering (EGSPEC)

"TECHNOLOGY AND HEALTHCARE ARE NO LONGER SEPARATE ENTITIES BUT A DYNAMIC FORCE DRIVING MEDICAL EVOLUTION. SYNOCURA 24 IS A CELEBRATION OF THIS TRANSFORMATION—BRINGING MINDS TOGETHER TO ENGINEER THE FUTURE OF HEALTHCARE."

– DR. A. SUNDAR RAJ, PROFESSOR & HEAD, BME

SYMPOSIUM THEME & HIGHLIGHTS

A look back at the event's focus areas and achievements

On October 5, 2024, the Department of Biomedical Engineering at E.G.S Pillay Engineering College hosted the highly anticipated SYNOCURA 24, an international symposium that united bright minds from academia, industry, and research to explore the transformative power of technology in healthcare. With the theme "Integrating Technology and Healthcare," the event highlighted the critical role of biomedical engineering in revolutionizing patient care, diagnostics, and therapeutic solutions.

SYNOCURA 24 was not just a symposium; it was a vibrant platform for exchanging knowledge, sparking innovation, and fostering collaboration across disciplines. From groundbreaking research presentations to hands-on workshops and insightful expert talks, the event resonated with a shared vision: a healthier tomorrow powered by the convergence of engineering and healthcare.

OBJECTIVE

Shaping the future of healthcare through innovation

The primary objective of SYNOCURA 24 was to emphasize the role of biomedical engineering in reshaping the healthcare landscape. The symposium aimed to:

- Showcase cutting-edge AI-driven diagnostics, wearable health technologies, and next-generation medical devices.
- Provide a collaborative platform for students, professionals, and researchers to discuss and share insights on modern healthcare innovations.
- Encourage interdisciplinary discussions that bridge the gap between academic research and real-world medical applications.
- Foster the development of future biomedical engineers and researchers, inspiring them to tackle critical healthcare challenges with innovation and creativity.

KEY EVENTS

A journey through the symposiyum

Technical Sessions & Paper Presentations: Exploring New Frontiers

The heart of SYNOCURA 24 lay in its Technical Sessions where attendees presented and discussed groundbreaking biomedical research. These sessions offered a deep dive into various fields, such as biomedical instrumentation, AI in healthcare, and next-gen medical devices. Attendees were captivated by the innovative findings presented in paper and poster presentations, showcasing the latest breakthroughs in medical science.

Fig.11 Moment of our student delivering Welcome note at Symposium

Fig.10 Moment of honoring our Alumini

Expert Talks & Panel Discussions: Insights from Industry Leaders

One of the most anticipated segments of SYNOCURA 24 was the Expert Talks and Panel Discussions. Industry leaders, researchers, and professionals shared their expertise on topics like regenerative therapies, smart healthcare systems, and AI-driven medical innovations. These sessions provided unique insights into the future of healthcare and inspired participants to push the boundaries of biomedical research.

KEY EVENTS

A journey through the symposiyum

Fig.12 Moment of our student delivering speech at symposiyum

Non-Technical Events: Fostering Creativity & Collaboration

Beyond the technical discussions, SYNOCURA 24 offered a space for creativity and networking through its Non-Technical Events. These included team-building activities, networking sessions, and competitions, allowing attendees to connect with peers and professionals in a more informal yet engaging setting.

Fig.13 Moment of participation delivering their presentation

KEY MOMENTS
Igniting Inspiration and Innovation

A Visionary Opening Ceremony

The opening ceremony set the tone for the event, with participants eagerly awaiting the discussions that would follow. The atmosphere buzzed with anticipation as the organizers, speakers, and participants gathered to explore the fusion of technology and healthcare.

Fig.14 Moment of faculty interaction

Fig.15 Picture of Faculty and student interaction

Impactful Keynote Addresses

The Keynote Addresses were among the most inspiring moments of the event. Esteemed speakers delved into the future of healthcare, highlighting innovations such as AI-driven diagnostics, smart healthcare systems, and regenerative medicine. Their insights not only educated the attendees but also sparked curiosity and encouraged them to embark on their own innovative journeys in biomedical engineering.

Interactive Panel Discussions

Panel discussions brought together thought leaders in the biomedical field, who engaged in lively debates and shared their expertise on a variety of critical topics. These sessions provided a deeper understanding of the challenges and opportunities in healthcare technology, offering participants an opportunity to interact directly with experts.

Fig.16 Moment of student engaging in lab experiment

CLOSING SESSION

Looking ahead to a healthier tomorrow

SYNOCURA 24: A Vision for the Future of Biomedical Engineering

As the symposium drew to a close, participants left with renewed passion and a sense of purpose. The closing session emphasized the symposium's role in setting a new benchmark for biomedical innovation. It was a moment of reflection on the wealth of knowledge shared and the collaborations fostered.

Fig.17 Picture of training students on lab experiments

Fig.18 Moment of Faculty providing instruction

"Great events don't happen overnight; they are built by passionate minds with a vision."

The Department of Biomedical Engineering at E.G.S Pillay Engineering College remains committed to nurturing future engineers and researchers who will continue to innovate and contribute to the evolution of healthcare technologies. The journey doesn't end here; SYNOCURA 24 has merely set the stage for the future breakthroughs that will drive the biomedical field forward.

Fig.19 Moment of faculty teaching students on equipments

ACKNOWLEDGMENTS

Gratitude to All Who Made SYNOCURA 24 a Success

We extend our deepest gratitude to the faculty members, guest speakers, student coordinators, and industry professionals who dedicated their time, expertise, and energy to ensure the success of SYNOCURA 24. Special thanks go to the leadership team for their vision and unwavering support, and to our sponsors for making this event a resounding success. We look forward to future collaborations, and we encourage all participants to continue innovating, inspiring, and transforming the world of healthcare through technology.