

# BASELIOS MATHEWS II COLLEGE OF ENGINEERING

SEPTEMBER - DECEMBER 2022

A glimpse into the vibrant life at BASELIOS MATHEWS II COLLEGE OF ENGINEERING — featuring events, milestones, and student achievements.

**Editorial Board** 

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ECHO.

### Director's desk



#### Rev. Fr. Thomas Vargheese

This publication captures the essence of our shared journey — one filled with learning, growth, and achievement. The academic year 2024–2025 has been a testament to what we can accomplish when we work together with purpose. I commend our staff and students and look forward to many more milestones ahead.

## Principal's message

#### Prof. Dr. L. Padma Suresh

The publication of this newsletter is a celebration of the talent and perseverance that define BMCE. Each page is a testament to the inspiring efforts of our academic community. I commend the editorial team for their dedication in showcasing these remarkable stories.





## Faculty's message

Dr. Gouri M S

Working with students who are eager to learn and grow is incredibly rewarding. Our focus is on developing both competence and character through a balanced, student-centered approach. We emphasize the importance of discipline, dedication, and adaptability. I have no doubt that the values and skills gained here will help our students rise to opportunities, overcome obstacles, and contribute meaningfully to their fields and communities.

### Vision of the Department

To be recognized and respected as he best premier institution producing computer professionals

To create an energetic environment where ethics and morals are maintained & pay attention to edify the students to build value.

To enhance the placement of our students by fostering a better fit between their career goals, imbibing start-up ideas for entrepreneurship, and securing meaningful employment opportunities.

### Mission of the Department

To establish and manage a professional institution, which promotes academic excellence in students for meeting the ever-growing Information Technology demands.

To give a right understanding and to imbibe into the minds of the students a deep sense of morality and ethical standards so as to develop potential personalities

To provide best infrastructural facilities, principle-centered education and competent faculty in the Institution

To bestow special attention in molding the character of the students, enabling them to become responsible citizens.





The Department of Computer Science and Engineering at Baselios Mathews II College of Engineering, established in 2002, offers a B-Tech program with an intake of 120 students, plus six lateral entry seats.

The Department has experienced faculty with postgraduate and doctoral qualifications, actively involved in research and continuous professional development. With world-class infrastructure and modern facilities, it aims to provide quality education that builds a strong foundation for success in the global tech industry.

# BMCE Events Summary (September-December 2022)

#### Workshop on Industry 4.0 Revolution

Date: 22 September 2022

The workshop introduced students to the Fourth Industrial Revolution, covering IoT, AI, and cyber-physical systems. Expert sessions and demos helped students understand the future of smart manufacturing, automation, and digital transformation.

#### Seminar on Research Methodologies and Publication Ethics

Date: 12 October 2022

This seminar educated students on ethical research practices, covering topics like hypothesis development, data integrity, peer review, and avoiding plagiarism. It reinforced the importance of responsible academic publishing.

#### Seminar on Trends in Computer Science Engineering

Date: 12 October 2022

Focusing on emerging technologies like AI, blockchain, quantum computing, and cloud-native platforms, the seminar provided insight into evolving tech domains and their real-world applications across industries.

#### **World Space Week Celebration**

Date: 4-10 October 2022

With the theme "Space and Sustainability," this weeklong event featured model competitions, quizzes, and lectures by aerospace experts. Students explored how space technology aids in environmental and societal progress.

#### **World Students' Day**

Date: 15 October 2022

Held in honor of Dr. A.P.J. Abdul Kalam, this day inspired students through speeches, essays, and group discussions focused on innovation, perseverance, and national service—values epitomized by Dr. Kalam.

#### Talk on Industrial Engineering Concepts and Career Success

Date: 13 September 2022

This session provided insights into industrial engineering tools like Lean, Six Sigma, and process optimization. It helped students discover career opportunities in manufacturing, logistics, and operations planning.

#### Talk on Energy Conservation

Date: 13 December 2022

Focusing on sustainable energy, this talk highlighted energy-efficient technologies, India's energy policies, and everyday conservation practices. Students learned about emerging careers in green tech and environmental engineering.

# The Rise of Al and Why Students Should Pay Attention

#### - Students' Corner, BMCE Newsletter

The world is changing fast—and at the heart of this transformation is Artificial Intelligence (AI). From personalized recommendations on streaming platforms to self-driving cars and automated medical diagnostics, AI is no longer a distant concept from science fiction. It's already here, reshaping industries and redefining how we live, work, and think. For us students at Baselios Mathews II College of Engineering (BMCE), understanding and engaging with this revolution is not just an option—it's a necessity.

Al is not just about coding smart machines. It's about teaching computers to learn, adapt, and even make decisions. At BMCE, students are already stepping into this space—whether through electives, workshops, or final-year projects involving machine learning, neural networks, and data analytics. With access to online tools and platforms like TensorFlow, OpenCV, and ChatGPT, learning AI has never been more accessible.

Take, for instance, recent student projects that used AI for crop disease detection, smart attendance systems, and predictive maintenance in industrial equipment. These aren't just tech demos—they solve real problems. By combining domain knowledge with AI models, students are learning to become problem-solvers in the truest sense.

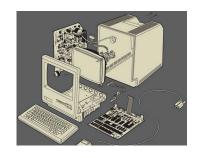
What makes AI even more exciting is its interdisciplinary nature. A mechanical engineer can use AI in automation, an electrical engineer in smart grids, and a computer science student in natural language processing. At BMCE, collaborative learning environments encourage students from different departments to come together, experiment, and innovate with AI-based solutions.

But with great power comes great responsibility. As future engineers and developers, it's crucial that we also understand the ethical side of AI—bias in algorithms, data privacy, and the impact of automation on jobs. Engaging with these questions early helps us build not just efficient systems, but fair and responsible ones.

So, where do you start? You don't need to be an expert in deep learning overnight. Start small—take an online course, build a simple chatbot, join a student tech club, or take up a mini project using AI. The key is to stay curious and keep learning.

At BMCE, we are fortunate to be part of an institution that supports innovation and forward thinking. Let's make the most of it. The AI wave is here—and those who learn to ride it will shape the future.

- Midhun Prasad







# Tech Snippets!

#### Green Tech: Innovation for a Sustainable Future

As environmental concerns grow, the push for green technology is stronger than ever. Green tech refers to innovations designed to reduce environmental impact—such as solar panels, wind turbines, energy-efficient buildings, and biodegradable materials.

Technological progress in areas like renewable energy storage, smart grids, water purification, and eco-friendly transport is driving global sustainability efforts. Engineers and scientists are at the heart of this movement, working to make systems cleaner, smarter, and more sustainable.

For students passionate about both technology and the planet, green tech offers the chance to innovate with purpose—shaping a world that thrives responsibly.

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#### **5G and the Future of Connectivity**

The rollout of 5G is revolutionizing the way devices connect and communicate. With significantly faster speeds, lower latency, and the ability to connect more devices simultaneously, 5G is powering advances in everything from autonomous vehicles and smart cities to remote surgeries and immersive virtual experiences.

This next-generation network infrastructure is setting the stage for real-time applications that were previously impossible on 4G. As the world becomes more interconnected, 5G is enabling the seamless flow of data that fuels innovation.

Students exploring telecommunications, IoT, or software development will find in 5G a foundation for building transformative tech solutions for years to come.

2