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BASELIOS MATHEWS II COLLEGE OF ENGINEERING

MAY-AUGUST 2023

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

Editorial Board

Prof. Dennise Mathew – Chief Editor
Prof. Jayakrishnan R – Staff Coordinator
Shine Varghese Saju – Student Coordinator

ECHO.

Director's desk

Rev. Fr. Thomas Vargheese
IThis academic newsletter is more than a record of achievements — it is a tribute to the passion, hard work, and resilience of our BMCE family. I take pride in the progress we have made during the year 2024–2025 and encourage our students and staff to keep reaching greater heights.

Principal's message

Prof. Dr. L. Padma Suresh
I am pleased to see the continued tradition of documenting BMCE's achievements through this newsletter. It not only reflects the hard work of our students and faculty but also serves as a motivating force for others. Congratulations to the editorial team for this impressive edition.

Faculty's message

Dr. Anoop Sreekumar R S

IIt is a great honor to guide the students of the Computer Science Department. We place strong emphasis on delivering quality education—where the content, the method, and the environment of learning all play a crucial role in shaping a student's intellect.

Backed by excellent infrastructure, committed faculty, and a dynamic Training and Placement Cell, we strive to prepare our students to meet future challenges with confidence. We are proud to nurture engineers who will serve as valuable assets to their organizations, institutions, and to the nation.

Vision of the Department

To be recognized and respected as a 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.

Workshop on Machine Learning Using Python

Organized by the Department of CSE & AI-DS Club

The Department of Computer Science and Engineering, in collaboration with the Artificial Intelligence and Data Science Club, organized a two-day hands-on workshop on Machine Learning using Python on August 18th and 19th, 2023. The workshop was designed to strengthen students' foundational knowledge and provide practical experience in applying Python for machine learning tasks.

The sessions were expertly led by Prof. Sumod Sundar, Assistant Professor at the Centre for Artificial Intelligence, TKM College of Engineering, who brings over 15 years of academic and industry experience. Currently pursuing his PhD in Machine Learning at VIT, Prof. Sumod guided the participants through core concepts including the types of machine learning, model training, algorithm selection, and dataset handling.

Attended by final-year CSE students and faculty, the workshop offered a balance of theory and hands-on practice. Participants had the opportunity to work directly with datasets and implement various machine learning algorithms using Python. By the end of the session, students were well-acquainted with the basics of training and evaluating models in a real-world context.

The event was a valuable learning experience that emphasized the practical relevance of machine learning in modern technology, and successfully bridged the gap between classroom concepts and industry-ready skills.

Staying Safe in the Digital Age: Why Cybersecurity Matters

— Students' Corner, BMCE Newsletter

In today's world, where almost every aspect of our lives revolves around digital platforms, cybersecurity has become an essential skill for everyone—especially students. From submitting assignments online to participating in virtual classrooms, and from social networking to online banking, we are constantly sharing personal and sensitive information. However, this digital convenience also comes with risks that we must be aware of and prepared to handle.

Cyber threats like phishing attacks, malware, ransomware, identity theft, and data breaches are no longer just challenges for big corporations; they have become very real and frequent for individuals as well. Students, being active internet users, are often prime targets due to their heavy online presence and sometimes limited knowledge of online risks.

One careless click on a suspicious link or downloading an unverified file can expose your personal information, including passwords, financial details, or academic records, putting you at risk of fraud or cyberbullying. Therefore, developing good cybersecurity habits is critical. This includes using strong and unique passwords, enabling two-factor authentication, being cautious about the websites you visit, and avoiding public Wi-Fi for transactions or accessing sensitive data.

Apart from protecting yourself, there is also an exciting side to cybersecurity. With the rise of cyber threats, the demand for skilled professionals in ethical hacking, network security, and information assurance is rapidly growing. As technology students, you have a unique opportunity to learn and contribute to this vital field. Participating in cybersecurity workshops, hackathons, and joining clubs focused on digital safety can sharpen your skills and open doors to promising careers.

BMCE is actively promoting cybersecurity awareness through various initiatives, aiming to create a safer digital campus environment. Awareness drives, seminars, and training sessions are being organized to equip students with knowledge about the latest cyber threats and defense techniques.

Remember, staying safe online is not just about technology but also about developing a mindset of caution and responsibility. The internet is a powerful tool for learning and connecting, but it requires us to be vigilant users. By adopting good cybersecurity practices, you protect not only yourself but also contribute to a safer digital community.

Let's commit to being informed and responsible digital citizens. Stay smart, stay secure!

— Written by Gokul S R
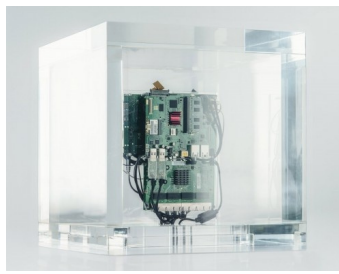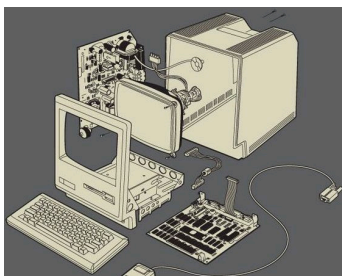
Tech Snippets !

Digital Twins: Bridging the Physical and Virtual Worlds

In today's fast-evolving digital landscape, Digital Twin technology is gaining momentum as a game-changing innovation. A digital twin is a virtual replica of a physical object, system, or process, designed to simulate, predict, and optimize real-world operations using real-time data.This technology allows industries to monitor and analyze the performance of everything from engines and machines to buildings and even entire cities. By creating a digital counterpart, engineers and analysts can test different scenarios, detect issues early, and make informed decisions—all without disrupting the actual system.Digital twins are increasingly used in sectors like aerospace, manufacturing, healthcare, and smart infrastructure. For example, in manufacturing, they help optimize production lines, while in healthcare, they can simulate patient conditions for better diagnosis and treatment planning.By combining data from IoT devices, sensors, and AI, digital twins create a dynamic connection between the digital and physical worlds. As technology continues to advance, digital twins are expected to play a critical role in driving innovation, reducing costs, and improving efficiency across various domains.

~ dr. Anoop Sreekumar, Asst. Prof.

Blockchain: Building Trust in a Decentralized World

In a time where digital transactions and data sharing are more common than ever, Blockchain Technology is emerging as a powerful solution for ensuring transparency, security, and trust. At its core, blockchain is a distributed ledger that records transactions across multiple computers, making it nearly impossible to alter or tamper with data once it's recorded.Originally developed to support cryptocurrencies like Bitcoin, blockchain has now evolved far beyond digital currencies. Today, it is being used in supply chain management, healthcare, voting systems, and digital identity verification, among others. Its decentralized nature removes the need for intermediaries, reducing costs and improving transaction speed and reliability.One of blockchain's biggest strengths is its immutability—each block of data is securely linked to the one before it using cryptographic hashes, ensuring that records cannot be changed without detection. This makes it ideal for applications that require high levels of trust and accountability.As more industries embrace digital transformation, blockchain is expected to play a key role in reshaping how we store, manage, and secure data in the years to come.

~ Dr. Gouri M S , Asst. Prof.