Issue No. 06 NEWSLETTER Volume No. 22

NEXUS

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

DECEMBER 2024

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HOD 'S DESK

It is with great delight that I share the news of another edition of NEXUS ready for launch. It is a testament to the fact that sustainable excellence is driven not by class, cadre, or calibre, but by the strength of vision and its dynamic reach. Today, the spotlight is on nurturing creativity and innovation alongside academic pursuits.

The rise of entrepreneurial ventures and wealth creation, especially through technology start-ups, has been phenomenal. At the core of this success lies research and development, which fuels innovation and encourages out-of-the-box thinking, both in design and implementation. Engage with your predecessors—those who have ventured into entrepreneurship or excelled as professionals—and you will hear a common truth: career growth and wealth creation happen only when one's vision extends beyond conventional boundaries.

Approach every task, whether it's a short laboratory project or a semester-long undertaking, with curiosity and intent. Seek to understand the "Why," challenge the "Why not," and explore the "How else." By doing so, you will set yourself on the path to becoming an inventor or a pioneer.

As we embark on a new year, I extend my heartfelt wishes to our dedicated faculty, supportive staff, and enthusiastic students for a prosperous and inspiring 2025. Remember, "Never Ever Give Up."

Prof. Dr. Anto Sahaya Dhas
HEAD OF DEPARTMENT
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Vimal Jyothi Engineering College, Chemperi

VISION

To be a pacesetter in the field of Electronics and Communication Engineering.

MISSION

To provide quality education for the students in the field of Electronics & Communication Engineering. To educate student about professional and ethical responsibilities and train them to build life skills for their career development.

THIS ISSUE:

Navigating the Future: Technology Trends Shaping 2025

As we step into the New Year 2025, the world of technology is advancing at an unprecedented pace, reshaping industries, societies, and our daily lives. This year, the intersection of innovation, sustainability, and human-centric solutions is more significant than ever, guiding us toward a smarter and brighter future. Among the most transformative trends, Artificial Intelligence (AI) continues to evolve beyond automation, empowering creativity, decision-making, and personalized experiences. Generative AI is revolutionizing content creation, enabling writers, artists, and developers to collaborate with machines like never before, while AI-driven healthcare solutions are delivering faster, more accurate diagnostics, saving countless lives. AI is not just a tool for efficiency but a critical partner in solving complex global challenges.

Quantum computing has also emerged as a game-changer, with advancements now addressing real-world problems like drug discovery, financial modeling, and cryptographic security. In 2025, hybrid quantum systems are accelerating computational capabilities exponentially, taking us closer to solving problems once thought impossible. Simultaneously, green technologies are taking center stage as the world prioritizes sustainability. Innovations like smart energy grids, solar paint, and green hydrogen are enabling us to meet energy demands . These breakthroughs show that innovation and environmental responsibility can go hand in hand.

Meanwhile, the metaverse has transitioned from a futuristic buzzword to an integral part of work, education, and entertainment. Virtual offices now eliminate geographical barriers, enhancing collaboration, while immersive educational platforms provide experiential learning like never before. The metaverse is redefining how we interact, bringing a new level of engagement and accessibility. In parallel, space exploration is entering a new phase, with private players and governments working on Mars colonization and lunar bases. Advanced propulsion systems and space mining technologies are not just dreams anymore—they are the first steps toward unlocking extraterrestrial resources to meet Earth's growing demands.

However, with greater technological connectivity comes greater vulnerability. Cybersecurity is undergoing a major transformation, with AI-driven threat detection systems providing real-time protection and quantum encryption ensuring data privacy in an era of advanced cyber threats. As technology evolves, so must our measures to safeguard it. Entering 2025, it is clear that the future is brimming with possibilities. Yet, with this power comes the responsibility to innovate ethically.

As we venture further into this transformative year, it becomes imperative to harness the power of collaboration and interdisciplinary thinking. The convergence of fields such as artificial intelligence, biotechnology, renewable energy, and quantum computing holds the key to addressing some of humanity's most pressing challenges. From combating climate change to revolutionizing healthcare, technology is not just about innovation but also about creating meaningful impacts that resonate across generations.Education and skill development will play a pivotal role in preparing individuals to thrive in this dynamic era. Emphasizing creativity, critical thinking, and adaptability will empower the workforce of tomorrow to embrace change and contribute to technological advancements. Governments, industries, and academic institutions must come together to foster an ecosystem that supports research, entrepreneurship, and innovation. Initiatives that bridge the gap between academia and industry will ensure that ideas transition seamlessly from laboratories to real-world applications.Furthermore, inclusivity and accessibility must remain at the core of technological progress. As we move forward, it is essential to ensure that the benefits of innovation are equitably distributed, leaving no one behind. Bridging the digital divide, empowering underrepresented communities, and prioritizing ethical practices will define the true success of technology. Let us strive to build a future where progress uplifts everyone, creating a harmonious balance between technological prowess and human values.

The dawn of 2025 reminds us of the limitless possibilities that lie ahead. It challenges us to dream bigger, innovate smarter, and act with purpose. With unwavering determination and a shared vision, this year can be a defining chapter in humanity's journey toward a sustainable, inclusive, and technologically advanced future. Let us embrace this moment with optimism, creativity, and a commitment to making the world a better place for all. Together, we can turn 2025 into a year of enduring inspiration and transformative change.

Ben Augustine
S8 ECE

TECHFEST 2024

Tantra'24 was successfully conducted by the Department of Electronics and Communication Engineering on November 8, 2024. The event, which occurred from 9:30 AM to 2:00 PM, featured a diverse array of activities, including project competitions and exhibitions that displayed the innovative projects and talents of the students. In addition, the event included technical competitions and games that encouraged active participation, creating an engaging and competitive setting that enhanced learning and collaboration among participants.

CHARITY PILGRIM

On the 2nd of November 2024, Second Year B.Tech students from the Electronics and Communication Engineering (ECE) and Applied Electronics and Instrumentation (AEI) programs at Vimal Jyothi Engineering College visited "Sneha Bhavan," an old age home in Thirumeni, Thabore, as part of the Charity Pilgrim Program 2024. The group consisted of 32 students from S3 ECE, 12 students from S3 AEI, and four staff members.

The purpose of the visit was to interact with the elderly residents, understand their needs, and provide companionship. The visit aimed to foster empathy, a sense of sharing, and social responsibility among the students while bringing joy and warmth to the elderly. Through conversations, shared stories, and small acts of kindness, the students offered emotional support to the residents while gaining insights into the challenges faced by the elderly in society. This experience served as a valuable lesson in community engagement for the students, encouraging them to approach their future roles as engineers with compassion and a broader sense of responsibility. It highlighted the importance of initiatives like the Charity Pilgrim Program in shaping not just technical skills but also the character and values of future professionals.

FDP Attended

All teaching faculties attended the FDP organized by AICTE Training And Learning (ATAL) Academy

Program on "GENERATIVE AI: INNOVATIONS IN CREATIVITY,INDUSTRY APPLICATIONS, AND ETHICAL CHALLENGES" organized by SRI SHANMUGHA COLLEGE OF ENGINEERING AND TECHNOLOGY from 16/12/2024 to 21/12/2024.

PTA meetings[S1]

On November 5, 2024, at 10:00 AM, a joint Parent-Teacher Association meeting for the SI ECE program, along with Civil, Mechanical, and Electrical and Electronics Engineering, was held in Varikattu Hall. The meeting commenced with a prayer and was attended by 54 parents of students from S1 ECE. Dr. Reema Mathew, the joint coordinator for the first year, welcomed the attendees with an address. Subsequently, Dr. Benny Joseph, the Principal, delivered a presidential speech, discussing various topics including academic activities, discipline, result analysis, and providing a brief insight into autonomy.

Photos & details

ALUMNI INTERACTION

Alumni relations are vital bridges between an institution's past and present. These moments often spark inspiration, as experienced professionals pass on hard-won wisdom about navigating careers and life after graduation.

Alumni interaction isn't just about career networking. It's also about preserving institutional legacy through homecoming celebrations, class reunions, and fundraising initiatives that help provide opportunities for the next generation.

The esteemed alumni from the inaugural batch of VJEC, graduating in 2002-2006 from the Electronics and Communication (EC) and other disciplines such as Electrical Engineering (EE) and Computer Science Engineering (CSE), visited the department on January 4, 2025, to share their insights regarding the future prospects for the S4 EC students.

PROGRAMME EDUCATIONAL OBJECTIVES (PEO)

1. Graduates will have successful career in the field of Electronics and Communication Engineering and allied sectors
2. Graduates will have the ability to pursue higher studies and research
3. Graduates will demonstrate entrepreneurial skills to develop innovative products and services
4. Graduates will adapt to different roles in global working environment by respecting diversity and professional ethics