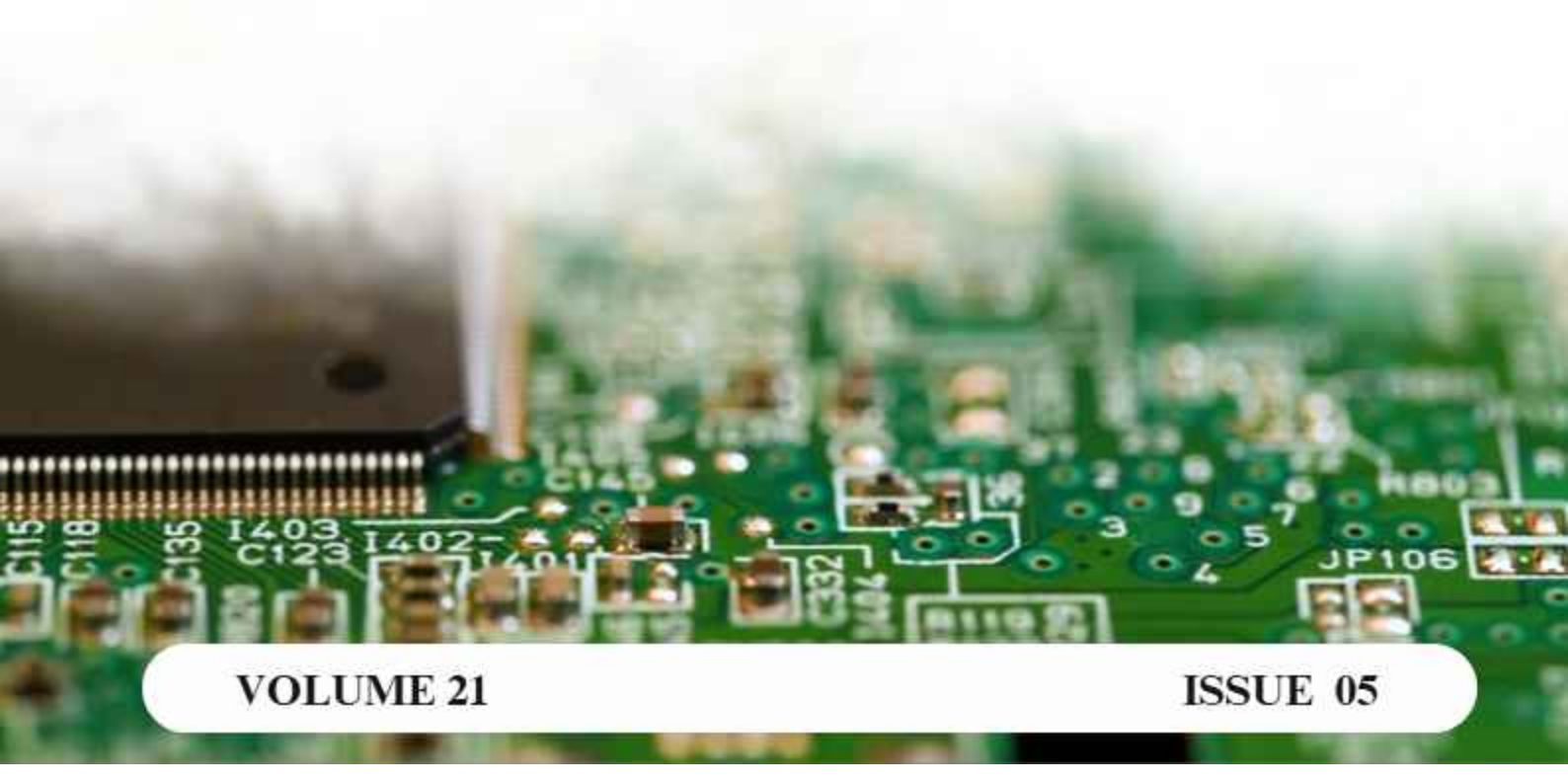


# NEXUS

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Electronics Engineers plays a vital role in designing the future of innovation and technological advancement. The field is constantly evolving, and there are endless opportunities for innovation. There are a number of emerging technologies that are expected to have a major impact on the field, including Artificial intelligence (AI), The Internet of Things (IoT), Quantum computing, Blockchain and Robotics. These technologies are expected to revolutionize the way we live, work, and communicate. Electronics and communication engineers will be at the forefront of this revolution, designing and developing the electronic devices and systems that make these technologies possible. Electronics and communication engineers are the ones who will shape the future of technology, and they will play a vital role in making the world a better place. So be proud to be an Electronics Engineer and upscale yourself to be competent to meet the industrial expectation.

**"The world is a playground for electronics engineers." - Gordon Moore**

**Prof. Dr. Anto Sahaya Dhas**  
HEAD OF DEPARTMENT  
Electronics And Communication Engineering  
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.

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## 6G Technology and Quantum Communication in Shaping Future Communication Systems

6G technology, projected to become a reality by the 2030s, represents the next major leap in telecommunications beyond the capabilities of 5G. It is expected to deliver data transfer speeds of up to 1 terabit per second (Tbps), drastically reducing latency to the microsecond level, and providing near-instantaneous connectivity for a wide range of applications. The backbone of 6G will be built on advanced technologies like terahertz (THz) frequency bands, which enable high-bandwidth communication over short distances, as well as artificial intelligence (AI) integration, which will drive real-time network optimization and intelligent resource management. Additionally, edge computing will reduce the need for data to travel to distant data centers.

6G will enable a host of cutting-edge applications, including immersive holographic communication, extended reality (XR), and tactile internet, where haptic feedback can be transmitted over networks, allowing users to feel and interact with remote objects. These advances will transform industries such as healthcare (through remote surgery and diagnostics), education (via virtual classrooms), and entertainment (with 3D holographic projections). It will also play a key role in the growth of smart cities, autonomous vehicles, and massive IoT (Internet of Things) systems, supporting billions of connected devices in a highly efficient manner.

In parallel, quantum communication is emerging as a groundbreaking technology that will redefine how data is securely transmitted.

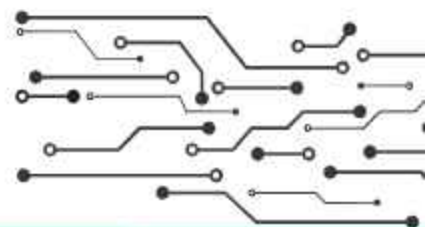


The convergence of 6G and quantum communication will pave the way for new scientific and technological advancements. For instance, the creation of quantum internet, where quantum information can be transmitted over long distances using entangled particles, may enable highly secure global communication networks and revolutionary applications in computing and sensing. This combination will also support emerging fields like quantum AI and quantum-enhanced machine learning, which could significantly enhance decision-making processes and automation.

In conclusion, the future of communication systems will be defined by the seamless integration of 6G's ultra-fast, low-latency networks and quantum communication's unparalleled security features. Together, they will create an intelligent, hyper-connected, and secure global infrastructure, transforming industries, enhancing everyday life, and addressing complex challenges in areas such as data privacy, cybersecurity, and network performance. As these technologies continue to evolve, they will not only meet the growing demands of our digital world but also open up entirely new possibilities for innovation and societal development.



**GAYATHRI O**  
S7 ECE





# GRADUATION DAY

On June 9, 2024, Vimal Jyothi Engineering College (VJEC) celebrated its Graduation Day, a significant milestone for the institution and its graduates. The event was graced by Dr. Saji Gopinath, the esteemed Vice Chancellor of APJ Abdul Kalam Technological University (APJKTU), who served as the chief guest. The ceremony honored the achievements of 41 B.Tech graduates and 2 M.Tech graduates, marking a proud moment for both the students and the department. The day was a reflection of the hard work, dedication, and academic success of the graduates, symbolizing their transition from students to professionals ready to contribute to society and industry.

2024





# JYOTHIRGAMAYA 2024

On September 7, 2024, Vimal Jyothi Engineering College (VJEC) officially welcomed the new B.Tech batch for 2024-28 during a well-organized orientation program. The event aimed to familiarize the incoming students with the campus environment, introduce them to the faculty, and provide an overview of the academic programs. This orientation marked the beginning of their academic journey at VJEC, setting the tone for their educational pursuits and preparing them for the challenges and opportunities ahead. The program played a crucial role in easing the transition into college life and fostering a sense of community among the new students.





# ONAM





# PTA MEETING

The Parent-Teacher Association (PTA) meetings for S3 and S5 students were held at Vimal Jyothi Engineering College on August 31, 2024, and September 4, 2024, respectively. These sessions provided a platform for discussing key aspects such as academic performance, attendance, and other important issues concerning the overall development of the students. Faculty members offered valuable insights into the curriculum, addressing parents' concerns about their children's progress and well-being. Both meetings encouraged active participation and open dialogue between parents and teachers, fostering a collaborative environment aimed at enhancing student success. The PTA meetings played a vital role in strengthening the partnership between the college and parents, ensuring a shared commitment to improving students' academic achievements and personal growth.





# TEACHER'S DAY





IEEE Photonics & CASS Societies conducted an Online Quiz Competition on Teachers Day and honored the winners with Cash prizes from Dr Roshini TV .



*Congratulations!*



## PROGRAMME EDUCATIONAL OBJECTIVES (PEO)

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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**

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