# **Connecting Minds**

#### SEMESTER NEWSLETTER OF CSE DEPARTMENT, GCE KANNUR

### **Our Vision**

"To be a centre of excellence in the field of computer science & engineering education and research, which extends its appreciated services to the industry and the society."

### **Our Mission**

"To develop engineers with excellent analytic, design and implementation skills, who can expertise themselves as computer professionals, research engineers, entrepreneurs or as managers, while fulfilling their ethical and social responsibilities, in a globally competitive environment."



 ${\bf Devanarayan}~{\bf S}~{\bf R}$  of S5 CSE achieved an impressive SGPA of 9.74 in the B.Tech Examination December 2022



Vaishakh Suresh of S3 CSE was selected as the AI Lead of the special Interest Group within the IEEE CS Kerala Chapter.

Vaishakh Suresh secured the Second position in the Campus Placement Readiness Test conducted by Government College of Engineering, Kozhikode

**Carolene Joy** of S5 CSE got selected as the Campus Lead of Google Developer Student Clubs, initiating and spearheading the establishment of the club chapter at our college.

**Carolene Joy** represented KTU University Badminton Team at South Zone Inter-University Badminton Tournament 2022 conducted at Jain University, Banglore.

**Carolene Joy** achieved Third Position in Badminton Inter-Zone University Tournament conducted at Muthoot Institute of Technology and Science, Ernakulam.

**Alna Benny** of S3 CSE achieved Third Position in Badminton Inter-Zone University Tournament conducted at Muthoot Institute of Technology and Science, Ernakulam

**Alna Benny** achieved First Position in the Badminton Inter-Collegiate Tournament hosted by our college

**Alna Benny** achieved First Position in the Table Tennis Inter-Collegiate Tournament hosted by our college







## Innovator Spotlight Grace Hopper



#### **Grace Brewster Murray Hopper**

(1906-1992) was a pioneering American computer scientist and US Navy rear admiral. She revolutionized computing with COBOL, a high-level programming language, and contributed to early computers like Harvard Mark I. Hopper's visionary leadership and advocacy for standardized programming left an enduring legacy, inspiring modern software engineering. She coined the term "bug" for computer glitches, symbolizing her impactful contributions to technology.

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**Anjal Mohammed V** of S5 CSE was chosen to take on the role of the Technical Coordinator within the IEEE LINK Student Team



**Vyshnav M K** of S5 CSE won the First Prize in 'Oglas' organized as part of Dhruva'22



**Thejus M Manoj** of S5 CSE bagged First Position in Similis, a Website Building Competition conducted by IEEE SB GCEK



**Jithesh Raj M** of S7 CSE won the First Prize in the Exam Preparation Video Contest conducted by GTech MuLearn



**Amal E J** of S5 CSE achieved the First Prize in Optimus -Operations at Tathva'22, conducted by NIT Calicut



**Jeffrey Shijo** of S5 CSE achieved the First Prize in Optimus-Operations at Tathva'22, conducted by NIT Calicut

### Expressions

## Quantum Error Correction: Shielding the Quantum World

In the realm of quantum computing, where bits are replaced by delicate qubits capable of existing in multiple states at once, a critical issue arises: vulnerability to errors. Qubits are highly sensitive, easily disrupted by factors like temperature variations and electromagnetic waves. To tackle this challenge, scientists have developed an ingenious solution called quantum error correction. Unlike classical bits that are either 0 or 1, qubits can exist in superposition, greatly boosting computational potential. But this delicate balance is compromised by external influences that lead to errors, posing a major hurdle for reliable quantum computation. Quantum error correction (QEC) comprises methods to detect and rectify errors in quantum states without directly observing the qubits themselves, as measurement collapses their delicate quantum states. Three key principles underlie quantum error correction: redundancy, entanglement, and logical qubits. Redundancy involves spreading information across multiple qubits, allowing detection and correction of errors. Entanglement enables the inference of errors in one qubit through observations on another. Logical qubits, encoded qubits, are more resilient against errors due to the redundancy in their physical counterparts. While implementing quantum error correction is complex, progress has been made. Various quantum error-correcting codes like the surface code show potential for safeguarding qubits against specific errors, moving us closer to faulttolerant quantum computing. Quantum error correction holds the key to scalable and reliable quantum computation, potentially revolutionizing problem-solving as techniques evolve and hardware advances. With quantum error correction at the forefront, the quantum realm's potential might soon become a reality.



Carolene Joy S5 CSE

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## **Unveiling ChatGPT - Ushering a new Era of Communication**

OpenAl's ChatGPT, powered by the advanced GPT-3.5 architecture, is set to revolutionize interactions between humans and machines. From prompt to response, ChatGPT exhibits a nuanced understanding of context, enabling seamless customer support and dynamic content creation. As industries harness its potential, ethical deployment remains a focal point, with OpenAl actively addressing concerns about biases and misinformation. ChatGPT stands as a testament to the strides Al has made, ushering in an era where technology not only understands human language but collaborates with it to shape the future of communication





Sanika P

9.75

Arjun V K

9.71