

# TECHNOPEDIA

## A Quarterly Newsletter

Department of Computer Science & Engineering  
Echelon Institute of Technology, Faridabad

*This is the second issue of "THE TECHNOPEDIA" of the academic year 2023-2024. Here, I would like to encourage all the students to participate in co-curricular activities.*

*Suman Chandila  
(Assistant Professor, CSE Department)*

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### Message from the Editor

We are delighted to bring you the freshest updates from the world of "Technopedia." Creativity is all about harnessing your imagination, and as the saying goes, "Ideas

multiply like rabbits; you get a couple, learn to handle them, and soon you have a dozen." To ensure our readers' continued engagement and respect, this editorial remains committed to keeping you informed about the latest developments within the department.

## **Institute Vision and Mission**

### **Vision:**

"Technical and Management leaders engaged in the evolution of life, being at the frontiers of the continuous technological and administrative breakthroughs, inspired by ongoing exploration of self, society, and nature through self-reflective consciousness by building a culture of inspiration, exploration and growth."

### **Mission:**

Having a culture of inspiration, exploration and invention through effective, experiential teaching-learning giving rise to ever evolving knowledge and wisdom.

To have self-inspired students ever engaged in continually working upon and sharpening and deepening computational, creative, innovative and leadership consciousness.

Having students established in self-reflective consciousness, committed to personal, social & human integrity and engaged in deep inquiry and conversation, giving rise to shared, inter-subjective human values and consciousness.

## **Department Vision and Mission**

### **Vision:**

"To develop competent computer professionals who solve real-world problems through continuous learning and adaptive to rapid changes in computer science and engineering with ethical, social, and managerial capabilities."

### **Mission:**

To produce industry-ready professionals for successful careers in computer science and related domains.

To provide exposure to cutting-edge computational tools in the field of computer science and engineering.

To create competent and ethical computer professionals through quality education, innovative research, and exposure to entrepreneurship.

### Student Speaks

Stepping onto Echelon's campus felt like entering a hub of academic excellence. Modern buildings housed spacious, sparkling classrooms adorned with smart boards – technology seamlessly woven into the fabric of learning. The library, a refuge of knowledge, beckoned with its cool air and endless rows of books. Professors, more than just instructors, transformed into mentors, readily guiding and encouraging. And beyond the academics, Echelon offered a fertile ground for growth. Countless opportunities – seminars, clubs, and competitions–blossomed across the campus, nurturing diverse talents and forging friendships that lasted far beyond graduation. My time at Echelon wasn't just a chapter in my education;

it was a transformative journey, and one I wouldn't hesitate to recommend.

- Tushar Mathur (21-CSE-133)

## Latest Trends in Computer Science

### Quantum Computing

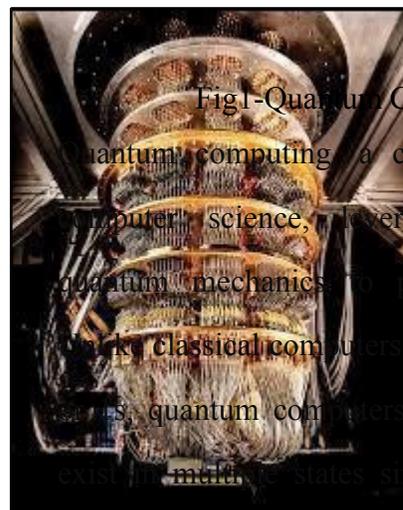


Fig1-Quantum Computing  
Quantum computing, a cutting-edge field in computer science, leverages principles of quantum mechanics to process information. Unlike classical computers, which use bits as 0s and 1s, quantum computers use qubits that can exist in multiple states simultaneously due to superposition. This allows quantum computers to solve complex problems exponentially faster. Key quantum phenomena like entanglement enable qubits to be interconnected, vastly

increasing computational power. Quantum computing promises breakthroughs in cryptography, drug discovery, material science, and optimization problems. Despite significant challenges such as error rates, scalability, and quantum decoherence, rapid advancements are being made. Major tech companies and research institutions are actively developing this technology, highlighting its transformative potential.

### **Internet of Things (IoT)**

The Internet of Things (IoT) is revolutionizing our daily lives by connecting everyday objects to the internet, allowing them to collect and exchange data. This interconnected network includes a wide range of devices, from household items like smart thermostats and refrigerators to industrial machinery. IoT enhances convenience, efficiency, and decision-making across various sectors.

In smart homes, IoT devices improve energy efficiency and security by learning user preferences and automating tasks. In healthcare, wearables monitor vital signs and provide real-time health data to patients and doctors, enhancing remote care. Agriculture benefits

from precision farming, where sensors optimize irrigation and monitor crop health. Transportation systems use IoT to reduce traffic congestion and improve safety through connected vehicles.

However, IoT also brings challenges such as security vulnerabilities, data management issues, and the need for standardized protocols. Addressing these concerns is crucial for the sustainable growth of IoT. As the technology continues to evolve, IoT promises to further integrate into our lives, driving innovation and transforming how we interact with the world.

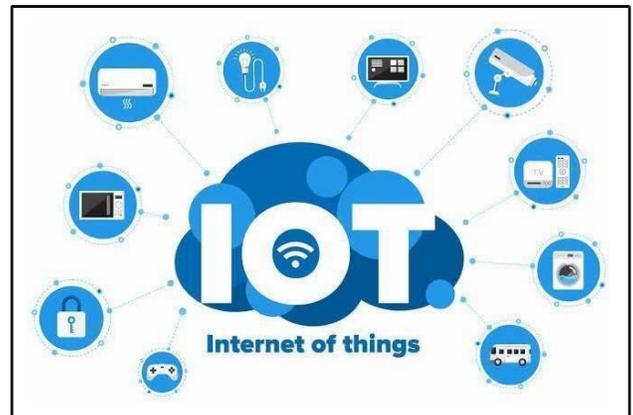


Fig2-Big Data Analytics

### **Activities in the department**

#### **Training on Digital Marketing**



*Glimpses of Digital Marketing Training poster*

Level up your digital game! GTT Barclays is bringing their A-game to campus with a power-packed training session on all things digital marketing. Dive into SEO secrets, master PPC ads, and unleash your inner social media guru. Content, email, even affiliate marketing – this session has got it all! No experience needed, just bring your curiosity and get ready to supercharge your marketing skills. Join us and unlock the doors to a brighter, more clicks-and-conversions future!

## Placement Drive

Lift-off at Echelon! Learning Routes touched down, igniting a launchpad for student careers.

Companies soared in, and our Eagles took flight, wings Lifted with success and smiles. A day of interviews, triumphs, and well-deserved cheers – a campus drive etched in ambition and achievement.

Iktara and Pioneer E Solutions swooped into Echelon, wings spread wide with opportunity. After a series of challenges, including written tests, technical interviews, and HR encounters, our Eagles soared high, securing their positions in the Iktara and Pioneer E Solutions family! We're proud to see these talented students take flight, excited for the impactful contributions they'll make at Iktara and Pioneer E Solutions. The echoes of success still resonate at Echelon.





*Glimpses of Placement Drive*

## Swachata Hi Sewa

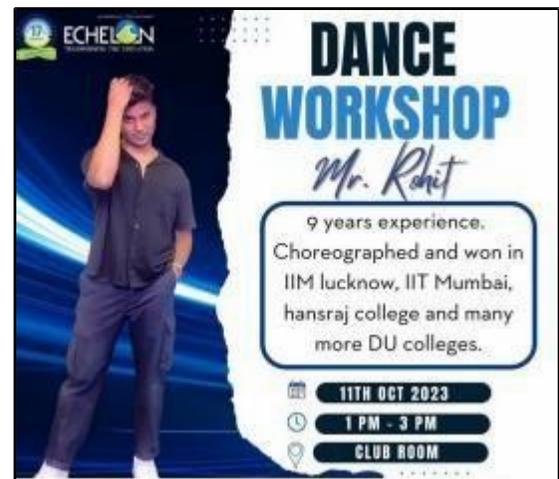
Spark clean, bright futures! Let's "Swachata hi sewa" this semester—ditch the litter, plant some cheer, and spread the clean-green love. Together, we can keep our campus vibrant, healthy, and a canvas for positive change.



*Glimpses of Swachata hi Sewa*

## Dance Workshop

Dust off your dancing shoes and get ready to groove! Our college rocked the rhythm with Mr. Rohit, a renowned choreographer and 9-year veteran, leading a workshop on October 11th. His unique moves and award-winning style (IIM Lucknow, IIT Mumbai, Hansraj, and more DU colleges!) captivated everyone. Learn his signature steps, polish your skills, and boost your confidence on the dance floor – all thanks to Mr. Rohit's expertise. So, get ready to move it like nobody's watching (or maybe everyone's cheering!) at the next college event.



*Glimpses of Dance Workshop poster*

## Amrit Kalash Yatra

leadership, currently



*Glimpses of Amrit Kalash Yatra poster*

Echoes of Unity: Amrit Kalash Yatra Resonates Through Campus. The spirit of India still vibrates on our grounds, echoing from the Amrit Kalash Yatra that swept through our college! This incredible journey immersed us in the richness of our heritage, weaving together diverse languages, religions, and traditions with the golden thread of patriotism.

## Expert Talk

Brace for insights galore! Join us for an "Expert Talk" with Mr. Gopal, an HR professional boasting 25+ years across diverse industries like media, education, and security. His wisdom spans academia, research, training, and HR

at SIS Limited, a top-5 employer! Buckle up for trends in organizational behavior that'll blow your mind and boost your resume. Don't miss this chance to learn from the best!



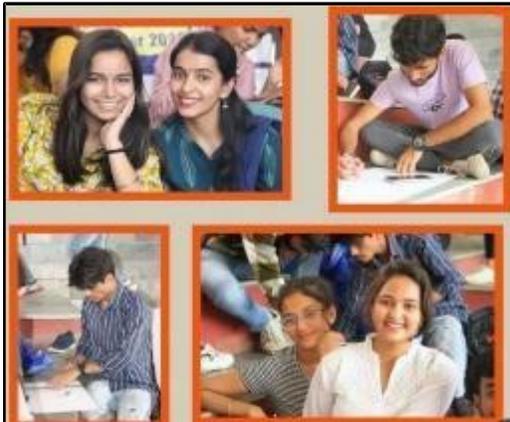
## Cultural Fiesta

Echelon's Cultural Fiesta 2023 painted our campus with global flair! Vibrant rhythms pulsed, colorful costumes twirled, and diverse voices rose in joyful unity. From Bollywood beats to Celtic jigs, the world danced on our stage, celebrating the tapestry of cultures that makes Echelon truly special.





Sardar Patel's vision lives on at Echelon! Unity Day bloomed with vibrant slogans, creative posters, and intricate mehndi, a tapestry of shared spirit. In remembrance, we pledge to honor his legacy, weaving inclusivity and brotherhood into the very fabric of our community.



## *Glimpses of Unity Day Celebration*

## **Entrepreneurship and Innovation Workshop**



*Glimpses of Workshop poster*

Spark your inner innovator! Blast off in the Entrepreneurship & Innovation Workshop, where ideas collide and ignite. Craft your success story – learn from experts, brainstorm game-changing ventures, and network with

inspiring peers. This isn't just a workshop, it's a launchpad to your extraordinary future.

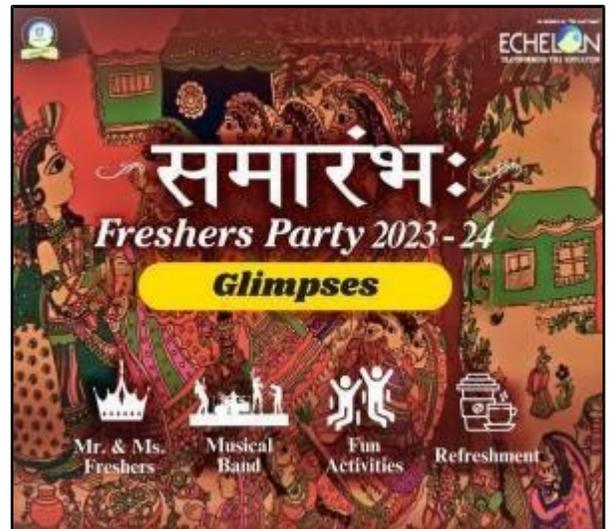
### Farewell 2023 event

Uparambh Farewell 2023 - A bittersweet symphony of laughter, tears, and lifelong memories. Scroll through these snapshots and feel the nostalgia wash over you as our graduates embrace their final moments on campus. A standing ovation to their incredible journey, and a bright future filled with endless possibilities!



*Glimpses of Farewell 2023*

### Fresher's Party 2023-2024



Neon lights, booming beats, and Echelon spirits soared at the Freshers' Party 2023! Batch 2023, you were welcomed with open arms and laughter, forging friendships that'll echo through your college years. As you embark on this incredible journey, remember the warmth of this night, the energy of your peers, and the endless possibilities that lie ahead. Welcome to the family Echelon Eagles!



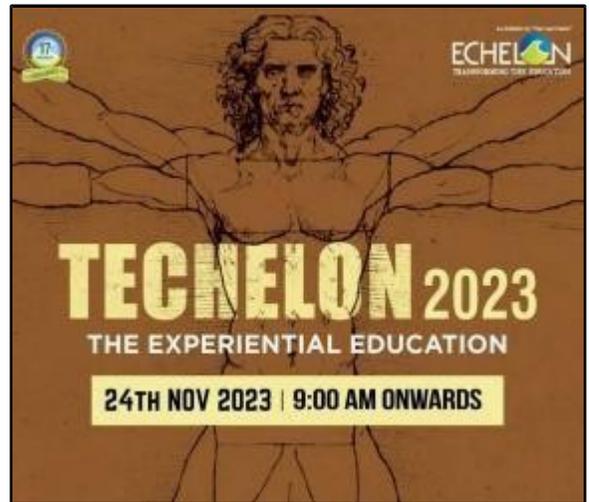


*Glimpses of Fresher's Party*

## Techelon 2023

Techelon roared to life at Echelon, igniting minds and fueling collaboration! Industry titans collided with student sparks, igniting innovation and knowledge like never before. This wasn't just an event, it was a crucible where ideas forged the future! Techies,

assemble! Dive into the future at Techelon! This open-mic innovation fest blasts open doors to the latest tech trends, hands-on workshops, and a network of fellow geeks. Supercharge your skills, fuel your mind, and launch your ideas into orbit – the future of tech awaits!



## Student's Recognition Day

Prashasti 2023 blazed a trail of excellence at Echelon Tech! A tapestry woven with student

achievements, each thread shimmering with hard work, determination, and brilliance. Our deepest gratitude to every star who illuminated this celebration! Your achievements light the path for our future, so keep shining, Echelon Eagles!



*Glimpses of Prashasti 2023*

## Brainstorm 2023

Echelon's Brainstorm Quiz 2023 sparked a region-wide battle of wits. High school minds collided, testing knowledge, sharpening wit,

and crowning a Quiz Champion on December 9. A huge thanks to all participants for bringing the heat.



*Glimpses of Brainstorm 2023*

## Science Exhibition

Science sparkled at Echelon's Expo! On December 9th, our campus buzzed with budding Einsteins presenting mind-blowing inventions and cutting-edge research. From groundbreaking projects to curious discoveries, the air crackled with innovation and scientific

passion. We witnessed the future unfold, thanks to these brilliant young minds!

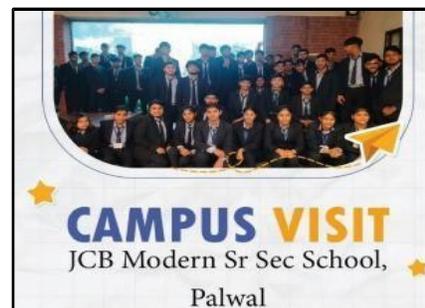


*Glimpses of Science Exhibition*

### Campus Visit Glimpse

Echelon Tech flung open its doors for a field trip of epic proportions! Schools embarked on a whirlwind journey through the future, exploring cutting-edge labs, interactive classrooms, and buzzing with the exchange of ideas. Students brainstormed with brilliant minds, ignited by state-of-the-art tech and the passion of

Echelon's innovators. This wasn't just a visit, it was a spark – a spark that might just set the next generation of geniuses ablaze!



*Glimpses of Campus visits*

### Faculty Achievements

Following faculty members of the department participated in several workshops and FDPs:

#### Ms. Tripti Sharma

Participated in a one day online Unleashing Innovation in Curriculum Design with Outcome-Based Education organized by InPods Ed-tech

## *Acknowledgement*

For the publication of “THE TECHNOPEdia”  
I would like to thank the members of the faculty  
of the CSE department for their valuable  
contribution.

*Suman Chandila*  
(Assistant Professor, CSE Department)

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