

# TECHNOPEDIA

## A Quarterly Newsletter

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

*This is the third 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

Innovation’s heartbeat is in Technopedia’s latest pulse. This season, we delve into the fertile fields of creativity, where imagination breeds like rabbits and spawns groundbreaking advancements. We’ll equip you with the knowledge and inspiration to navigate the frontiers of technology, ensuring you stay ahead of the curve.

“Education is the key to unlocking your full potential. It’s the key to becoming the best version of yourself. So don’t be afraid to learn and grow”

## 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, 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 Mahur (21-CSE-133)

## Latest Trends in Computer Science

### Chat GPT



Fig1-ChatGPT

ChatGPT, developed by OpenAI, is at the forefront of conversational AI, revolutionizing how humans interact with machines. As an advanced language model, ChatGPT leverages the GPT-4 architecture to understand and generate human-like text, making it a powerful tool for a wide range of applications.

One of the significant trends in computer science is the integration of ChatGPT into customer service, content creation, and personal assistance. Businesses are increasingly adopting ChatGPT to enhance customer support, providing instant, accurate responses to inquiries and significantly improving user

experience. This not only increases efficiency but also reduces operational costs.

In content creation, ChatGPT is becoming an invaluable asset for generating articles, reports, and even creative writing. Its ability to produce coherent and contextually relevant text helps writers and marketers streamline their workflows, saving time and effort.

Moreover, ChatGPT is playing a crucial role in personal assistance. It can manage schedules, draft emails, and provide reminders, acting as a virtual assistant that adapts to individual user needs. This personalized interaction is driving the trend towards more intelligent and user-centric AI applications.

As ChatGPT continues to evolve, its potential applications are expanding, making it a pivotal component in the future of human-computer interaction. The advancements in ChatGPT highlight the rapid progress in natural language processing and AI, promising a future where conversational AI becomes an integral part of everyday life.

## Autonomous vehicles



Fig2-Autonomous vehicles

Autonomous vehicles (AVs) are at the cutting edge of computer science and engineering, poised to revolutionize transportation. These self-driving cars utilize a combination of advanced technologies such as artificial intelligence (AI), machine learning, computer vision, and sensor fusion to navigate and operate without human intervention.

One of the major trends in autonomous vehicles is the advancement of AI and machine learning algorithms that enable these vehicles to

perceive their environment accurately, make real-time decisions, and learn from various driving scenarios. This includes sophisticated neural networks that process vast amounts of data from cameras, LiDAR, radar, and other sensors to identify objects, predict movements, and respond appropriately.

Safety is a critical focus area in AV development. Enhanced safety features, such as automatic emergency braking, lane-keeping assistance, and adaptive cruise control, are becoming standard. Moreover, extensive testing in simulated environments and real-world conditions is conducted to ensure these vehicles can handle diverse and unpredictable situations.

Another significant trend is the integration of autonomous vehicles into urban mobility solutions. Companies are piloting autonomous ride-sharing services and delivery vehicles, aiming to reduce traffic congestion and improve logistics efficiency. This has the potential to transform public transportation and urban planning, making cities smarter and more sustainable.

Regulatory frameworks are also evolving to accommodate the deployment of autonomous vehicles. Governments and industry stakeholders are collaborating to establish standards and guidelines that ensure safety, privacy, and ethical considerations are addressed.

As technology continues to advance, autonomous vehicles are set to become a fundamental aspect of modern transportation, promising increased safety, efficiency, and convenience.

## **Activities in the department**

### **Industrial Visit**

Echelon Institute of Technology's first-year B.Tech, BBA, and BCA students recently embarked on an enriching visit to Barclays Noida. This industry exposure trip provided them with a firsthand look at how cutting-edge technology is utilized within the world of finance. The visit offered valuable insights that will undoubtedly shape their understanding of

their chosen fields and prepare them for their future careers.



*Glimpses of Industrial visit*

Glimpses of Training Session poster

undoubtedly benefit them in their future endeavors.

## **Training on Python & Digital Marketing**

Echelon Institute of Technology, Faridabad, recently hosted a valuable training session on Python and Digital Marketing. Partnering with experts from GTT Foundation and Barclays, the program provided students with an immersive deep-dive into these in-demand fields. This intensive training, held from February 26th to March 2nd, equipped students with practical skills and industry insights that will

## **Workshop on Java Full Stack**

Echelon College students recently benefited from an enriching workshop conducted by Cetpa Infotech Pvt Ltd. This interactive session delved into Full Stack Java, equipping participants with valuable knowledge and practical skills. The workshop's engaging format fostered a deeper understanding of the material, allowing students to apply theoretical concepts to real-world scenarios, gain hands-on experience with industry-standard tools. This collaborative learning environment provided a valuable platform for students to ask questions, share ideas, and gain insights from industry experts at Cetpa Infotech Pvt Ltd.



Echelon Institute of Technology, Faridabad - Department of Computer Science & Engineering and Computer Application is organizing a hands-on training session on AI & ML using Python. This interactive session delved into AI & ML, equipping participants with valuable knowledge and practical skills. The workshop's engaging format fostered a deeper understanding of the material, allowing students to apply theoretical concepts to real-world scenarios, and gain hands-on experience with industry-standard tools.



*Glimpses of Workshop poster*

Echelon College recently empowered future leaders with an Entrepreneurship Skills Workshop titled & “Igniting Innovation and Fostering Success”. This workshop equipped students with the knowledge and tools to navigate the exciting world of entrepreneurship.

### **Informative Session**

Echelon Institute of Technology recently hosted an informative session on Bharatiya Nyaya Shastra, the ancient Indian system of jurisprudence. Led by guest speaker Ms. Renu Dhawan, Director of Zafar Judicial Academy, the session delved into the core principles of this legal philosophy. Attendees explored the historical significance and ongoing influence of Bharatiya Nyaya Shastra, examining its relevance in the contemporary legal landscape. This event was a valuable opportunity for law students, legal enthusiasts, and anyone interested in Indian history and philosophy to gain insights into this fascinating aspect of Indian legal tradition.



### **Parents-Institute Conclave**

Echelon Institute of Technology recently held a successful Parents - Institute Conclave, focusing on building a strong foundation for student success. This week-long interactive session (March 23rd-29th, excluding 24th & 25th) emphasized the importance of a three-way partnership between the Institute, Parents, and Students. The conclave fostered collaboration and innovative strategies to benefit second-semester students enrolled in B.Tech, BBA, BCA, MBA, and MCA programs.



*Glimpses of Parents-Institute conclave poster*



*Glimpses of AWS cloud Seminar poster*

## Seminar on AWS Cloud

Echelon Institute of Technology Department of CSE and DCA recently empowered students with a Power Seminar on AWS Cloud. Led by industry expert Mr. Aditya Jha, Technical Trainer at ICT Academy, the seminar offered a deep dive into the vast potential of AWS Cloud. Students gained valuable insights into cloud computing fundamentals, explored various AWS services and their applications, and networked with peers and faculty. This informative session provided a valuable opportunity for students to enhance their cloud computing skills and gain a competitive edge in the job market.

## UI/UX Design Workshop



*Glimpses of UI/UX workshop poster*

The field of UI/UX design is constantly evolving with the latest trends and

best practices is essential for creating exceptional digital experiences. By embracing micro-interactions, dark mode, voice interfaces, accessibility, AI personalization, and minimalistic design, you can ensure your designs are not only current but also future-proof.

## LinkedIn in Workshop

Echelon College recently empowered future leaders with a LinkedIn Workshop titled “Igniting Innovation and Fostering Success.” This workshop equipped students with the knowledge and tools to navigate the exciting world of entrepreneurship. Learn to use LinkedIn, the world’s largest professional network, to tell your unique story, craft your personal brand, and build a diverse and meaningful network of contacts to enhance your social impact career. With LinkedIn, you can showcase your skills, accomplishments, and passions to potential employers and collaborators, and stay up-to-date with the latest trends and opportunities in your field.



*Glimpses of LinkedIn in Workshop*

## Industrial Visit

This Bridge the Gap between Theory & Practice with Echelon’s Industrial Visits!

Echelon Institute of Technology, Faridabad, takes your learning beyond textbooks!

Through our industry visits, you’ll gain firsthand experience at leading companies like:

Infosys

SAMSUNG

Yakult

MOOK SOLUTION

Panasonic

MOTHER DAIRY



APEX Splendour

YUVA

BARCLAYS

And many more!

See how theory applies in real-world scenarios, gaining practical knowledge for a successful career.



*Glimpses of Industrial visit*

## Shooting at Echelon

Echelon, where education meets the spotlight! Our campus has been the backdrop for numerous web series, short films, and ad shoots, including College Romance (Netflix), Philips, Red Tape, and more! Now, our legacy

continues with the release of TV serials and regional Haryanvi songs. Come be a part of the action at Echelon! Echelon Institute of Technology: Launch Your Future! Ready to take your education to the next level? Echelon Institute of Technology offers a variety of programs to equip you with the skills and knowledge you need to succeed.



*Glimpses of Shooting at Echelon*

## Faculty Achievements

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

### Mr. Manish Kumar

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)

### *EDITORIAL BOARD*

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