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 2022-2023. Here, I would like to encourage all the students to participate in co-curricular activities.

Shefali Madan
(Associate professor, CSE Department)

Highlights

Message from the Editor

Vision and Mission

Student Speaks

Latest Trends in Computer Science

Activities in the department

Holi and Women's Day Celebration

Lohri celebration

Faculty achievements

Message from the Editor

It gives us immense pleasure to present the latest news of "Technopedia". Creativity involves putting your imagination to work. "Ideas are like Rabbits you get a couple, learn how to handle them and pretty soon you have a dozen". To maintain respect and interest of its readers, This editorial keeps you up to date with the happenings of 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

Whether you want to challenge yourself, have a once-in-a- lifetime experience or just meet other ambitious people, this is the right place for you. At Echelon Institute of Technology you develop yourself as a great leader step by step.

-Sumit Das (20-CSE-051)

It is amazing to be a part of this institution because together we share success! Mentoring sessions, guest lectures and the professional staff helps you take the first steps towards your goals.

-Vidushi (20-CSE-058)

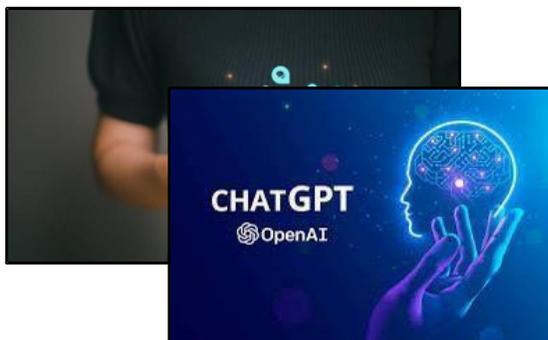## Latest Trends in Computer Science

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.
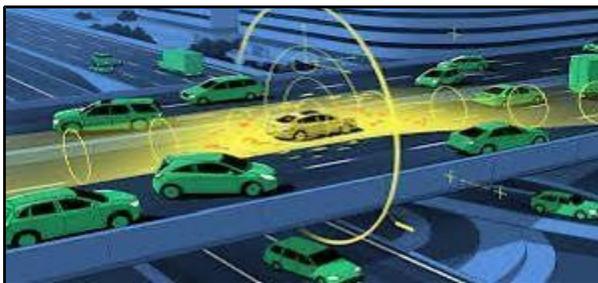
Moreover, ChatGPT is playing a crucial role in personal assistance. It can manage schedules, draft emails, and provide reminders, acting as a virtual assistant that adapts to individual user needs. This personalized interaction is driving

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

Fig 2- 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.

Faculty development program on Research Methodology

Glimpses of FDP on Research Methodology

A Faculty Development Program was jointly organized by the Department of Computer Science and Department of Computer Applications under the aegis of Institution's Innovation Council of the institute. All the faculty members participated in the 6 days FDP, which was held in two phases- Phase 1 - 31st March to 2nd April 2023, Phase 2-7th April to 9th April 2023. The FDP was very

informative and helpful for all the faculty members.

Industrial Visit
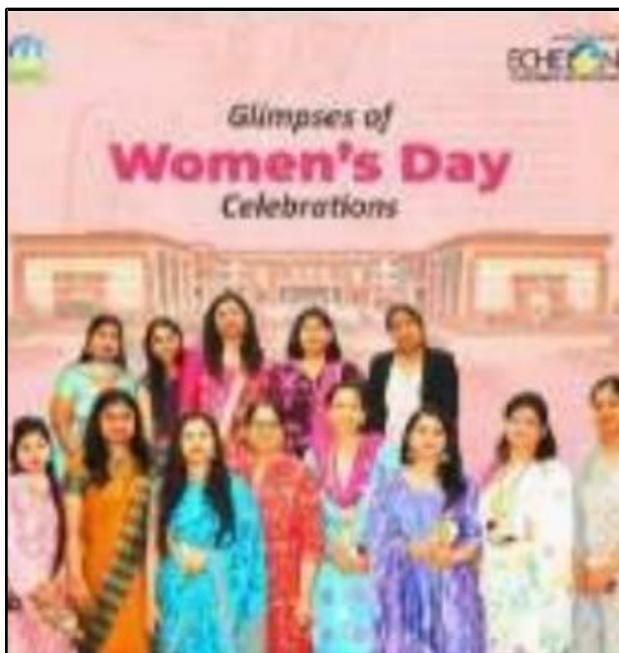

Glimpses of Industrial Visits

The Computer Science and Engineering (CSE) department of Echelon Institute of Technology recently organized a series of industrial visits for its students, offering them valuable real-world exposure. These visits aimed to bridge the gap between academic learning and industry practices, providing students with firsthand insights into the workings of leading tech companies and industrial setups. Participants had the opportunity to interact with industry professionals, observe cutting-edge technologies in action, and understand the practical applications of their coursework. Such initiatives underscore the institute's

commitment to enhancing student learning experiences and preparing them for successful careers in the tech industry.

Holi and Women's Day Celebration

After two years of low-key celebrations owing to Covid-19 pandemic, Echelon Institute of Technology celebrated Holi as well as women's day in the premises with new zeal and fervor on 7th March 2023. It turned out to be a day full of colors, excitement and wishes. And a cake cutting ceremony by all the female faculties was also organized in the admin seminar hall for women's day. The highlight was the eco-friendly way of Holi celebration. Flowers and traditional gulaal were used by the students and teachers for celebrations.

took part in the celebration enthusiastically. The programme kicked off with "Lohri Pujan". Popcorns, groundnuts, and sweets were distributed. Students and Teachers danced to Punjabi folk songs also.

Glimpses of Lohri Celebration

Glimpses of Holi and Women's day Celebration

Lohri celebration

Echelon Institute of Technology celebrated the Lohri festival on 13th Jan 2023 with much enthusiasm. There was an arrangement of bonfire along with music. The event began with a prayer to God for a joyous and successful Hindu New Year. All teachers and students

Faculty Achievements

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

Mr. Sandeep Mittal

Participated in the Time Table Automation Workshop organized by the Department of Humanities & Applied Sciences, Echelon Institute of Technology, Faridabad on 28th January, 2023.

Mr. Ravi Singh Rana

2

participated in the Time Table Automation workshop organized by the Department of Humanities & Applied Sciences, Echelon Institute of Technology, Faridabad on January 28, 2023.

Mr. Rashid Ali

participated in the Time Table Automation workshop organized by the Department of Humanities & Applied Sciences, Echelon Institute of Technology, Faridabad on January 28, 2023.

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.

Shefali Madan
(Associate Professor, CSE Department)