TECHSCAPE

Empowering Minds, Igniting Innovations:
The Essence of Technology in Every Page

CHANDIGARH ENGINEERING COLLEGE
Building Careers. Transforming Lives.
Jhanjeri, Mohali

From Chairman's Desk

Mr. Rashpal Singh Dhaliwal

Dear Students, Faculty and Esteemed Readers,

Greetings from the bottom of my heart as we present the latest issue of our magazine. Developing our strategic plan has underscored the importance of effective internal communication. Through this publication, we aim to showcase our students' outstanding achievements and the vibrancy of college life. We take immense pride in contributing to our students' professional growth and in supporting their families and communities. May this newsletter serve as a window into CGC's accomplishments and our unwavering commitment.

From Managing Director's Desk

Mr. Arshdeep Dhaliwal

Dear Students, Faculty and Esteemed Readers,

I'm thrilled to see the culmination of years of hard work to improve internal communication as we launch our magazine. The stories of cooperation, diversity, and significant contributions to the Indian educational system stand as evidence of our shared commitment. I am excited to highlight the achievements of our professors and students in this edition, as they form the foundation of our success. Cheers to another year of continuous improvement, creativity, and quality!

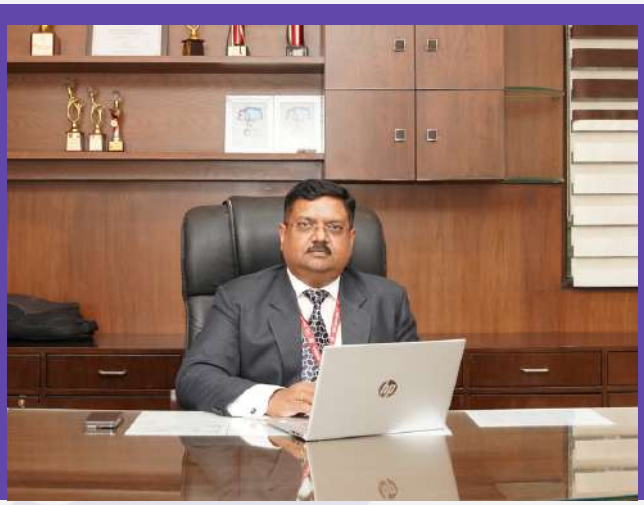
From Executive Director's Desk

Dr. Vinay Goyal

Dear Students, Faculty and Esteemed Readers,

With great delight, I introduce you to the heartbeat of our institution, where academic excellence and teamwork converge. Our commitment to nurturing students' growth and empowering them to make a meaningful impact in Indian families and communities shines through in every section. As we stay rooted in the timeless values of life, this magazine stands as a testament to our collective CEC experience – a celebration of memories, milestones, and the unbreakable bonds we've formed.

From Director Engineering's Desk



Dr. Anish Gupta

Dear Students, Faculty and Esteemed Readers,

It gives me immense pleasure to pen a few words for this edition of our esteemed magazine. As we navigate the dynamic world of engineering and innovation, it is essential to recognize and celebrate the remarkable efforts, ideas, and achievements that shape our community. The fusion of technology and creativity at our institution has always been a driving force, propelling us into new frontiers of knowledge and discovery. This magazine stands as a testament to the dedication, passion, and vision of our students, faculty, and staff, who continually strive to redefine boundaries and challenge the status quo.

From HOD CSE's Desk

Dr. Rini Saxena

Dear Students, Faculty and Esteemed Readers,

As the Head of the Department of Computer Science & Engineering, it is both an honour and a privilege to address each one of you. Our collective journey in the realm of technology and innovation promises to be transformative, and I am confident that with dedication and passion, we will reach new heights. Remember, this department is not just about courses and grades; it's about cultivating a mindset of curiosity, resilience, and lifelong learning. Let's embark on this journey together, shaping the future and making a difference. Wishing you all success and fulfilment in your academic and professional pursuits."

Index

Department of Computer Science & Engineering

Vision

To provide imperative skills to students for meeting industry needs, and to become responsible engineers, entrepreneurs, and citizens.

Mission

- To educate the students in the field of Computer Science with ever-changing technologies and skills.
- To enable the students to solve real-time problems and make use of new technologies.
- To have industry collaboration and interaction with professional societies for continuous development.
- To help students become successful entrepreneurs.

Program Educational Objectives (PEO)

PEO1:

Become competent Computer Professionals.

PEO2:

Have the ability to analyze the requirements of software and provide solutions through efficient product designs.

PEO3:

Have a successful career and meet the requirements of Indian and other multinational companies.

PEO4:

Have exposure to advanced technologies, technical skills, and opportunities to work as team members on multidisciplinary projects.

PROGRAM SPECIFIC OUTCOMES

PSO1:

To use principles of Computer Science & Engineering (such as software engineering, computer networks, data structures & computer programming high-level languages) for developing software solutions.

PSO2:

To clearly understand the concept of programming languages, computer architecture and their applications in different field of technologies to develop cost-effective solutions in the area of computer science by the use of various methodological algorithms and different tools.

Programme Outcomes (PO)

PO1:

Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

PO2:

Problem analysis: Identify, formulate, research literature, and analyze complex engineering problems, reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

PO3:

Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for public health and safety, and the cultural, societal, and environmental considerations.

PO4:

Conduct investigations of complex problems: Use research-based knowledge and research methods, including design of experiments,analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

PO5:

Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.

PO6:

The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal, and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

PO7:

Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

PO8:

Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO9:

Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO10:

Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

PO11:

Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

PO12:

Life-Long Learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

Our Top Recruiters

Introduction

As we embrace an era of rapid technological evolution, this magazine serves as your trusted guide, navigating the ever-changing landscape of advancements, innovations, and discoveries in Computer Science and Technology.

Technology continues to push boundaries, reshaping how we live, work, and interact with the digital world. From Artificial Intelligence and Machine Learning to Cybersecurity, Blockchain, and Quantum Computing, each breakthrough opens new horizons for innovation.

Our aim is to keep you informed and inspired, providing insights into the latest trends, expert analyses, and future prospects shaping the digital age.

Join us on this exciting journey and stay ahead in a world where technology is constantly transforming every aspect of our lives. This magazine is more than just a source of information—it is a platform for insight, inspiration, and forward-thinking exploration. We are committed to delivering in-depth analysis, expert commentary, and forward-looking perspectives that illuminate the trends and technologies shaping our digital future. Whether you're a seasoned professional, an enthusiastic learner, or a curious reader, our mission is to keep you informed, engaged, and ahead of the curve.

AI's Ubiquitous Influence: Artificial Intelligence (AI) is transforming diverse sectors, enhancing human capabilities and driving innovation, while also raising ethical concerns around privacy and bias.

Sustainable and Ethical Imperatives: There is a growing focus on aligning technological advancements with sustainability goals and ethical principles, fostering a more inclusive and responsible tech ecosystem.

As we advance deeper into the digital age, a powerful shift is unfolding—the rise of human-centric technology. No longer is innovation just about speed or automation; it's about people. Today's technological breakthroughs are increasingly designed to elevate the human experience, focusing on usability, accessibility, and ethical intelligence. From AI-driven learning platforms that adapt to individual needs, to assistive tools that empower those with disabilities, the spotlight is now on inclusivity and empathy. Human-centric design ensures that technology doesn't just function—it resonates, supports, and uplifts. Ethical considerations are also becoming central, guiding the development of transparent, fair, and responsible AI systems. Whether it's smart healthcare, intuitive user interfaces, or AI that understands emotion and context, the ultimate goal is clear: to build technology that serves humanity, not the other way around. This new wave of innovation is not just smarter—it's more compassionate, personal, and profoundly impactful..

Faculty Research

Dr. Rini Saxena

Head of Department

- Energy-Aware Dynamic Offloading over IoT-based Mobile Edge Networks.
- Development of Smart Motion Biosensor for Power Management and Monitoring.
- Automated Road lights Powered by Solar Energy.
- Smart Grid Sensor Monitoring Based on Deep Learning Technique with Control System Management in Fault Detection
- A Comprehensive Analysis of Testing Efforts Using Avisar Testing Tool for Object-Oriented Software.
- Smart Grid Sensor Monitoring Based on Deep Learning Technique with Control System Management in Fault Detection.
- An Efficient Artificial Intelligence Model to Predict the Values of Cryptocurrencies.
- Energy-Aware Dynamic Offloading over IoT-based Mobile Edge Networks

Sakshi Sharma

Assistant Professor

- Unconventional Research on the Consequences of Insulating Material Damage Problem within Distribution Transformers Laminations

Divyanshi Chhabra

Assistant Professor

- Management of automation activities in the production process for a motor transport manufacturing using smart machine learning model.
- A reliable security model that protects ultra-dense enterprise cloud networks from highly vulnerable cyber attacks.

Harinder Kaur

Assistant Professor

- The intelligent management and monitoring human capital asset model for network monitoring organization using machine learning model.
- An efficient Artificial Intelligence based data detection model for complex data communication networks.

Richa Dogra

Assistant Professor

- A reliable security algorithm that protects ultra-dense enterprise cloud networks from highly vulnerable cyber attacks.
- An implementation of intelligent routing scheme to find the efficient network management in Wireless sensor networks.
- Mitigate Algorithmic Complexities Using Computational Virtual Instruments.

Pooja Verma
Assistant Professor

- “An innovation development” of a short-range communication protocol for a reliable device discovery in “5G communication network.”

Sonia Verma
Assistant Professor

- An implementation of an intelligent routing scheme to find efficient network management in “Wireless Sensor Networks.”
- The efficient data prediction and clustered compressive sensing (CCS) in environmental application of WSN.

Meenakshi
Assistant Professor

- An Easy Console-Based Text Editor for Nano Linux Commander's Built-in Editor for Complex Security Systems.

Aarju
Assistant Professor

- An intelligent battery power control model for cellular devices in 5G ultra wide-band communication networks

Abhishek Dubey

Assistant Professor"

- An intelligent receiver model for locating electrical wiring gaps for cable continuity in tele-communication networks

Kawalpreet

Assistant Professor

- An Intuitive User Interface Model for Circuit Prototyping to Create Powerful Battery in the Form of Transient Diagrams

Khushi

Assistant Professor

- An innovation development of smart data protection mechanisms and its related parameters in financial institutions

Sumanpreet Kaur Mand

Assistant Professor

- Authentication tokens based smart backup and recovery system for modern android systems

Rohini
Assistant Professor

- Calculation of permissible current strength for cables and wires with long-term permissible current loads by heating the conductors in fire alarm

Neha Dhiman
Assistant Professor

- Management of automation activities in the production process for a motor transport manufacturing using smart machine learning model

Neeraj Sharma
Assistant Professor

- Next generation smart routing optimization of network storage devices using hybrid data management model

Rohini Mahajan
Assistant Professor

- Non-standard foundation for fixed installations of broadcasting nodes and collective television reception systems in Wireless communication

Student Achievements

U. Roll No. - 2027210
Name - Neelam
Branch – CSE
Semester - IV
SGPA 8.76
RanK – 1st

U. Roll No. - 2026944
Name - Ayushi
Goswami Branch – CSE
Semester - IV
SGPA – 8.76
Rank – 1st

U. Roll No. - 2027193
Name - Ashima
Branch – CSE
Semester - IV
SGPA – 8.71
Rank – 2nd

U. Roll No. - 2027207
Name - Manav Mehta
Branch – CSE
Semester - IV
SGPA – 8.57
Rank – 3rd

Student's Technical Corner

Aryan Mehat 1915050
Sharanjeet Singh 1915122
Komal 1915079

Algorithm Visualizer

The "Algorithm Visualizer" is an interactive web-based tool designed to simplify understanding complex algorithms through real-time, animated visualizations.

In the digital era, where data structures and algorithms form the foundation of computer science, learners often struggle to grasp the abstract logic behind these concepts. This project aims to bridge that gap by offering a dynamic and intuitive learning experience. The visualizer supports a wide range of algorithms, including sorting, searching, pathfinding, and graph traversal, presenting each step in an animated and color-coded format. Users can control the speed, and input data, and observe the internal state changes, such as array swaps or node visits, which demystify the algorithm's flow.

Aakashdeep Syal 1915027
Vanshika 1915145
Shivam Bhatt 1915123

Smart Health Disease Prediction

The rapid advancement of artificial intelligence (AI) and machine learning (ML) has opened new frontiers in healthcare diagnostics. This project, Smart Health Disease Prediction aims to develop an intelligent system capable of accurately predicting potential diseases based on patient symptoms, medical history, and other health parameters. This project holds immense potential in improving preventive healthcare, especially in remote or underserved regions, by providing an affordable, scalable, and intelligent solution. It not only empowers users to make informed health decisions but also assists healthcare professionals in early diagnosis and treatment planning.

Student's Technical Corner

Tauseef Ahmad 1915382
Manish 1915356
Saurabh Kumar 1915376
Mohamad Yasar 1927760

Helmet Detection and Number Plate Recognition

The increasing number of road accidents and traffic rule violations highlights the urgent need for intelligent surveillance systems. This project presents a dual-purpose computer vision solution that integrates helmet detection

Using real-time video feeds from traffic cameras, the system first employs a deep learning-based object detection model to identify motorcyclists and classify whether they are wearing helmets. Simultaneously, for riders detected without helmets, the system isolates the vehicle's number plate and applies optical character recognition (OCR) techniques to extract alphanumeric details for further action. Unlike traditional systems that operate independently, this unified framework ensures efficient monitoring with minimal hardware requirements.

Divya Alok (1915062)
Honeydeep (1915070)

DROWSINESS DETECTION SYSTEM

Many accidents occur due to driver drowsiness, a critical cause of roadway accidents now a days .By advancing

Latest statistics indicate that many of the accidents were tied to algorithmic failures, highlighting the role of the MRS in contributing to the broader field by establishing benchmarks and improving accuracy

Vehicle accidents caused by drowsiness in drivers result in the loss of thousands of lives, with more than 30% of accidents attributed to this issue. To address this, a robust system is necessary to detect drowsiness and alert the driver, ultimately saving lives. In this project, we propose a scheme for driver drowsiness detection. The system continuously monitors the driver through a webcam, utilizing image processing techniques that primarily focus on the driver's face and eyes.

Student's Technical Corner

Piyush Gupta (1915091)
Ravin Devi(1915107)

FAKE NEWS DETECTION

We consume news through several mediums throughout the day in our daily routine, but sometimes it becomes difficult to decide which One is fake and one is authentic. Do you trust all the news you consume from online media? Every news is not real, right? How will you detect fake news? The answer is Python. By practicing this advanced Python project of detecting fake news, you will easily make a difference between real and fake news. Before moving ahead in this machine learning project, get aware of the terms related to it like fake news, tf idf vectorizer, and Passive Aggressive Classifier. The idea of fake news is not a novel concept. Notably, the idea has been in existence even before the emergence of the Internet as publishers used false and misleading information to further their interests.

Sagar (1915116)
Santosh Kumar(1915118)

MOVIE RECOMMENDATION SYSTEM

This abstract presents a comprehensive overview of developing a Movie recommendation application. The key steps Rigorous testing, comprising both Involved in developing a Movie recommendation application including defining the project scope, The MRS employs a hybrid recommendation approach, integrating collaborative filtering and content-based filtering models. This fusion aims to provide precise and tailored movie suggestions, harnessing user behavior patterns and intrinsic movie features. The project addresses challenges such as data sparsity and algorithmic complexity through innovative solutions like data augmentation and systematic algorithm development.

U. Roll No. - 1915112
Name - Riya Ranjan
Branch – CSE
Semester - VI
SGPA – 9.18
Rank – 1st

U. Roll No. - 1915069
Name - Hitesh Sharma
Branch – CSE
Semester - VI
SGPA – 9.05
Rank– 2nd

U. Roll No. - 1915358
Name - Mukta Sharma
Branch – CSE
Semester - VI
SGPA – 8.91
Rank – 3rd

itechnocrat Club

The Technocrat Club is a dynamic community that nurtures technological talent and fosters innovation among its members. Its primary objectives are to equip students and tech enthusiasts with the skills, knowledge, and experiences needed to succeed in the ever-evolving world of technology. The club aims to bridge the gap between theoretical education and practical application through workshops, hackathons, seminars, and collaborative projects. iTechnocrat Club strives to inspire creativity among its members while promoting problem-solving and leadership skills development through hands-on learning and experimentation. Additionally, the club actively promotes interdisciplinary collaborations to address global challenges with innovative solutions.

List Of Activities under Itechnocrat Club

Sr. No.	Name of the Activity	Date of Activity	No. of Participants
1	Expert Talk on Machine Learning and Artificial Intelligence	Sep 29, 2022	85
2	Workshop on Full Stack Development	Oct 18, 2022	100
3	Webinar on introduction to 3.0 Block chain DEFI	Nov 4, 2022	110
4	Industrial Visit to Solitaire Infosys Pvt Ltd	Nov 11, 2022	65
5	Industrial Visit to Meander software Mohali	Nov 15, 2022	65
6	Webinar on Writing Research Proposal for seeking funding, grants from government agencies	Oct 31, 2022	96
7	GDG Techshow-Google Cloud Various Technologies	Feb 18, 2023	75

D4 Community

D4 Communities is a collaborative platform dedicated to fostering growth, learning, and innovation among its members, with a primary focus on design, development, data, and digital transformation. The community's objectives revolve around empowering individuals to excel in these areas by providing resources, mentorship, and opportunities for hands-on practice. D4 Communities creates an environment where members can acquire technical skills, enhance their creativity, and solve real-world problems through workshops, webinars, collaborative projects, and hackathons. By promoting interdisciplinary collaboration, the community bridges the gap between technical expertise and creative thinking, fostering holistic development for all members.

List Of Activities under D4 Community

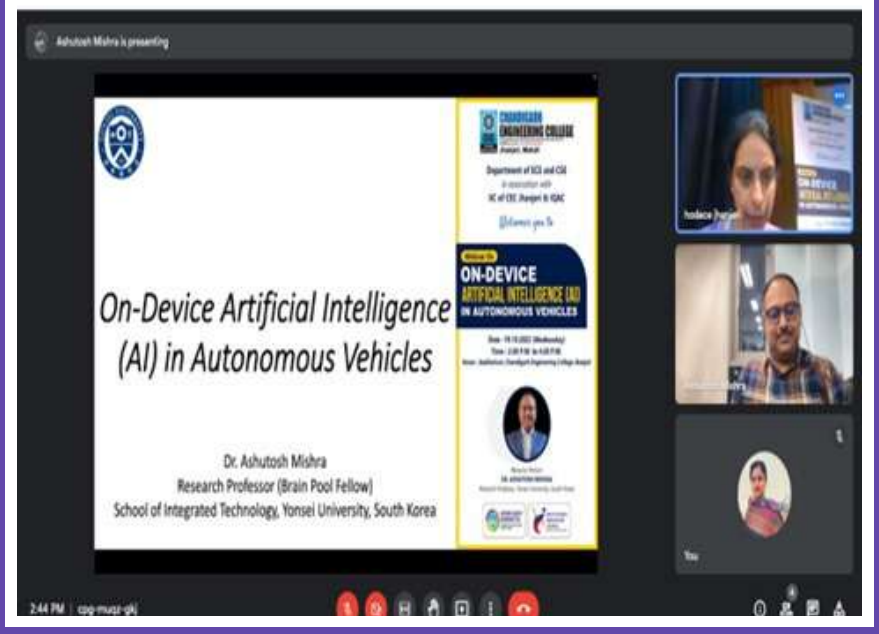
Sr. No.	Name of the Activity	Date of Activity	Speaker	No. of Participants
1	Ideathon on Recent Trends and Technologies	Feb 13, 2023	Dr Sahil Verma	55
2	24-hour InnoSprint D4 Hackathon Challenge at CEC Jhanjeri Hackathon	7-8 October 2023	-	500+
3	Innovation/Prototype Validation- Converting innovation into Startup	Aug 30, 2023	Mr. Varun Sharma	100
4	Expert talk on the future of Blockchain scholarships and next-gen tech careers	Mar 15, 2023	Ms. Sheila Ms. Ragini Pathak	76

Workshop on Full stack development

CSE,CECJ organised a workshop on “Full Stack Development” under the iTECHNOCRAT Club of the Computer Science & Engineering Department. This workshop was conducted on 18th October 2022 by Cybertron Technologies, Mohali, a company that provides website design, web development, and mobile development services.

Mr. Simarpreet Singh, Senior Software Developer, was the resource person who emphasized the basic concepts of Full Stack Development and its future projections.

Webinar on 'On-Device Artificial Intelligence (AI) in Autonomous Vehicles



Webinar on “On-Device Artificial Intelligence (AI) in Autonomous Vehicles”
The iTECHNOCRAT Club of the CSE Department organized a webinar on “Artificial Intelligence (AI) in Autonomous Vehicles” on 19th October 2022 in collaboration with Yonsei University, South Korea.

Dr.Ashutosh Mishra, Research Professor, was the resource person who discussed the significance of AI implementation in research projects. He also introduced students to the basic concepts and importance of Artificial Intelligence in the current technological landscape

Faculty Development Program on IoT & AIML

Chandigarh Group of Colleges organized an FDP on “IoT & AIML” under the iTechnocrats Club of the Computer Science & Engineering Department from 1st August 2022 to 5th August 2022. The event featured distinguished speakers: Dr. Vinay Arora, Dr. Shruti Wadhwa, Mr. Devrat Rana, Dr. Kuldeep Singh (online), and Ms. Megha Rohila (online). The FDP focused on advancements in IoT and AIML, providing faculty members with insights into emerging technologies, practical applications, and future trends.

E-Seminar on Tips to Crack Interviews for Fortune 500 Companies

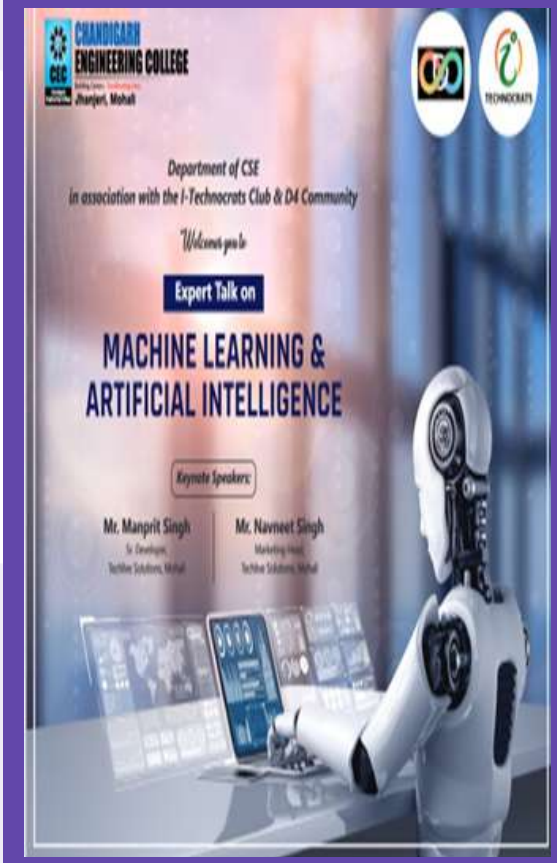
Deaprtment of Computer Science and Engineering of Chandigarh Engineering College, Jhanjeri organized an interactive session on “Tips to Crack Interviews for Fortune 500 Companies” on 9th August 2022. The session was led by Mr. Sandeep Jain, Founder and CEO of GeeksforGeeks, under the guidance of Dr. Rajneesh Talwar. Faculty members and students from the ECE and CSE departments participated.

The event began with a warm welcome for Mr. Sandeep Jain, followed by a lamp-lighting ceremony. Dr. Rajneesh Talwar, Director of Engineering, delivered the welcome address, highlighting the importance of interview strategies and industry expectations for aspiring professionals.

Expert Talk on Machine Learning and Artificial Intelligence

The Computer Science and Engineering Department of Chandigarh Engineering College, Jhanjeri, in association with the i-TECHNOCRAT Club and D4 Community, organized an Expert Talk on Machine Learning and Artificial Intelligence on 29th September 2022 for second-year students. The session was conducted by Mr. Manprit Singh, Senior Developer at Techlive Solutions, Mohali.

The objective of the talk was to educate students about the latest trends and technologies related to Machine Learning and Python, providing them with valuable insights into industry applications and advancements.



Industrial Visits

Industrial Visit to Solitaire Infosys Pvt. Ltd., Mohali

The industrial visit provided students with valuable insights into the functioning of the company, offering opportunities to plan, organize, and engage in active learning experiences both inside and outside the classroom.

Students gained knowledge in UI design, mobile application development, web development, enterprise applications, and digital marketing, along with support and maintenance strategies. They were also introduced to new technologies, client interactions, and project opportunities for internships.

Industrial Visit to Meander Software, Mohali

An industrial visit to Meander Software, Mohali, was organized on 15th November 2022 for the students of the Department of Computer Science & Engineering. The company, based in Mohali, Chandigarh, emphasizes building long-term relationships, which has been a key factor in its business growth.

Industrial visits provide students with valuable industry exposure, helping them bridge the gap between theoretical learning and real-world applications. This visit allowed students to gain practical insights into industry operations, enhancing their understanding of professional environments.

Current Affairs in Computer Technology

◈According to Times Higher Education's subject-specific rankings, the Indian Institute of Science (IISc), Bangalore, and Indian Institute of Technology (IIT), Bombay, are among the top 200 universities globally for engineering and computer science, respectively. IISc ranked 89th, while IIT Bombay was placed in the 126–150 range.

◈ India's second-largest data centre was inaugurated in Mumbai by the Union Minister of Communications, Electronics, and IT. Developed by the Hiranandani Group, it is the largest data centre in Asia and the second-largest in the world.

◈ OpenAI has launched ChatGPT, an AI-powered chatbot available for free public testing. Designed to provide technical yet jargon-free responses, ChatGPT allows users to ask queries in a conversational manner.

◈ NASSCOM, in collaboration with Microsoft, TCS, IBM Research, Deloitte, and Fractal Analytics, has launched the Responsible AI Hub and resource kit to promote ethical AI adoption at scale.

Training & Placement Statistics

Total No. of Students	No. of Students Placed	Students Joined PG/ Business	Major Recruiters with Packages
203	150	10	ZOP SMART /10 LPA, ISCHOOL CONNECT /10LPA, DELL TECHNOLOGIES /9.6 LPA, FIS /8.64LPA, AU Small Finance Bank /8 LPA, SANGHVI BEAUTY TECHNOLOGIES PVT LTD /7.2LPA, DROOM TECHNOLOGIES LIMITED /7.2 LPA, ECOLAB DIGITAL CENTRE PVT LTD /7.14LPA, ACCENTURE/6.4LPA, VASSAR LABS /6LPA, VOLKSWAGEN IT SERVICES INDIA/6 LPA, PwC Acceleration /6 LPA, HEXAWARE TECHNOLOGIES LTD /6 LPA, Goodera Information Technologies Pvt Ltd /6 LPA, CLICK LABS PVT LTD /6 LPA, All State Solutions /5.5LPA, SUNSTONE EDUVERSITY/5 LPA,

Students' Forum

Student's Forum

"Eyes of the Machine "

In circuits born and wires spun,
The age of sight has just begun.
No longer bound by human gaze,
Machines now learn in novel ways.

Through lenses sharp and coded mind,
They read the world that lies confined.
A helmet missed, a number clear,
A lawless ride draws justice near.

In fields of green, they watch the leaves,
In silent scans, the plant relieves.
A pixel turns into a clue,
Revealing health in every hue.

Beyond the face, beyond the frame,
Students rise to stake their claim.
From labs and code, they craft with care,
Smart visions born from fresh, bold air.

So here's to minds that dare to see,
What tech can build for you and me.
A world more safe, a life more wise,
Through the machine's all-seeing eyes.

Written By :-Umaid Wahid Lone(1915142)

Student's Forum

"The Code We Weave"

In silent nights and screens aglow,
Young minds ignite, ideas grow.
With every brace and nested loop,
They shape the world in logic's scoop.

A dream in code, a thought set free,
From Python's charm to C's decree.
Each line a thread, each block a seam,
They build the future, byte by dream.

2. "Rise of the Bots"
With gears that spin and limbs that move,
Robots learn and start to prove
That hands of steel and eyes of light
Can lend us strength and deeper sight.

From factory floor to dusty Mars,
They stretch beyond our earthly bars.
Yet in their core, it's plain to see—
They're shaped by student curiosity.

3. "Ethics in the Circuit"
We build with code, with heart, with speed,
But pause—what is it that we need?
A voice that thinks, a car that drives—
But do they care for human lives?

Written By : Umang Goyal(1915143)

Student's Forum

IoT for Social Good: Smart Solutions from Young Minds

The Internet of Things (IoT) is no longer just a buzzword—it's a powerful tool for driving positive social change. Across the globe, young innovators are leveraging IoT to solve real-world challenges with creativity and impact. From smart dustbins that alert municipal services when full, to wearable health monitors for the elderly in remote areas, students are designing solutions that are both practical and purposeful.

IoT systems typically consist of sensors, microcontrollers (like Arduino or Raspberry Pi), and cloud platforms that enable real-time data collection and response. With open-source hardware and affordable connectivity options, even school and college students can build smart devices that serve their communities.

Notable projects include IoT-enabled flood warning systems, air quality monitors for urban neighborhoods, and smart irrigation systems that conserve water in drought-prone areas. These innovations show how technology, when guided by empathy and awareness, can address pressing issues like environmental degradation, public health, and disaster preparedness. By combining technical skills with a desire to make a difference, the next generation of engineers is proving that technology doesn't have to be profit-driven—it can be purpose-driven. IoT for social good is not just a concept; it's a movement led by young minds.

Written By:- Aman Surya (2026924)

Student's Forum

Coding for a Cause: How Students Are Solving Real-World Problems

In today's digital age, students are not just learning to code—they're using it to solve pressing real-world problems. Across schools and colleges, young innovators are developing applications that tackle issues such as public safety, mental health, and environmental sustainability. What sets these projects apart is not just technical skill, but a deep understanding of social impact.

For instance, student teams have built mobile apps for women's safety that include emergency alerts, real-time GPS tracking, and community support features. Others have created platforms that offer mental health assistance using chatbots powered by Natural Language Processing (NLP) to simulate supportive conversations and recommend resources.

Technologies like Python, Flutter, TensorFlow, and Firebase are commonly used to build these solutions. Additionally, cloud services and APIs like Google Maps, Twilio, and Open AI are helping students scale their ideas with minimal resources. Hackathons and open innovation challenges are fueling this trend, encouraging students to collaborate, prototype quickly, and deploy real-world-ready applications. These efforts show that coding isn't just a technical skill—it's a powerful tool for change. As access to technology grows, so does the potential for student developers to build a more equitable, safer, and smarter world.

Written BY :- Udaybhan Pandey (1915141)

Student's Forum

Green Tech: How Engineering is Powering the Future of Sustainability

In the face of climate change and environmental degradation, green technology has emerged as a powerful ally in the quest for a sustainable future. At the heart of this movement lies innovative engineering—developing systems and solutions that minimize environmental impact while maximizing efficiency. From solar panels to smart grids, engineers are designing technologies that reduce our carbon footprint and promote clean energy alternatives.

One of the most impactful areas is renewable energy engineering, which focuses on harnessing natural sources like solar, wind, and hydroelectric power. Innovations in solar cell materials and energy storage have made clean energy more affordable and scalable than ever. Meanwhile, green building design incorporates energy-efficient materials, automated climate control, and waste reduction systems to create eco-friendly infrastructure. Engineers are also working on waste-to-energy systems, electric mobility, and sustainable agriculture using IoT and AI. These technologies not only preserve natural resources but also create economic opportunities in emerging green industries.
Green tech is more than just a trend—it's a necessity. As future engineers, students have the opportunity to lead this transformation by designing solutions that balance progress with responsibility. Engineering is not only solving problems—it's redefining how we live sustainably.

Written By :- Tripda Goel (1915138)

Tech Writing

"Advantages of Using the MERN Stack for Building Web Applications"

One of the most well-liked and approachable full-stack web Development architectures is the MERN Stack. It greatly aids in the improvement of our applications. Because the MERN stack spans both the front-end and back-end, you do not need to learn several programming languages to construct web applications. You will have the benefit of developing websites using just one language, JavaScript, which makes it incredibly efficient and strong. MERN Stack developers are highly sought after in the market since they are an invaluable resource for any business. All businesses, no matter how big or small, are looking for MERN Stack specialists. For the past five years, full-stack engineers have even seen an increase in Google Trends. We may conclude that the future of the MERN Stack Developer is promising based on current trends. The MERN stack uses open-source components that developers are free to use, thus nothing needs to be created from scratch. For instance, there's a good probability that someone has already created a popular framework like WordPress if you want a blogging platform. It's easy to use and comprehend, making it a great option for those learning web development for the first time. A strong community supports this combination of technologies, making it simple to discover solutions to any technical queries that may arise.

KUMBHAJ SHUKLA B.TECH

Machine Learning Future

Machine Learning is transforming industries and redefining how we interact with technology. Its ability to process large amounts of data and automate complex tasks makes it a key driver of innovation.

By leveraging data-driven decision-making, organisations can enhance efficiency, reduce costs, and gain a competitive edge. Machine learning algorithms can identify patterns and trends beyond human capability, leading to more accurate and reliable insights.

Additionally, machine learning enables personalised customer experiences, such as product recommendations based on past interactions, fostering customer satisfaction and loyalty.

Shuchi Shukla(B.Tech 3rd Year)

Virtual Reality and Augmented Reality

Recent advances in high-speed communication and miniature mobile computing platforms have increased the demand for deeper human-digital interactions beyond traditional flat-panel displays. Augmented Reality (AR) and Virtual Reality (VR) headsets are emerging as next-generation interactive displays, offering vivid three-dimensional (3D) visual experiences. However, despite their potential, these technologies have yet to become widely available consumer products. While their real-life applications remain limited, AR and VR continue to be key technological trends in 2023.

These technologies have valuable applications in education, healthcare, engineering, and gaming, among other fields. Virtual Reality is widely used in video games, while Augmented Reality-based apps have gained popularity in recent years. To maximise their impact, VR and AR must integrate seamlessly into daily life. VR provides a fully immersive experience, whereas AR enables interaction between users, digital content, and the real world, displaying virtual images while maintaining a see-through capability.

Om Kumar-B.Tech

Poem Writing

We in another world.....

If this world is made of atoms
I wish the parallel world is made of
quarks of love and not phantom
Here are zillions of doubts with manifesting desires
But the multiverse grant's wishes as it conspires.
Here is my home, in a parallel universe
Where salary and age is not in numbers
Laying brick is not considered a labor
To paint a canvas strum or ukulele has its own sober flavor.
Parallel universe serves me a glass of wine And says "Here you are with no timelines".
Rating and reviewing your life is done by no one but you

Finances and house works are independent of gender to pursue.

Akash Mishra, B.Tech 3rd

Success Summits

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