CHANDIGARH
ENGINEERING COLLEGE
CGC, LANDRAN, MOHALI

Building Careers. Transforming Lives.

The Communiqué

(Capturing Moments, Preserving Memories)

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An Institution of Excellence

2025

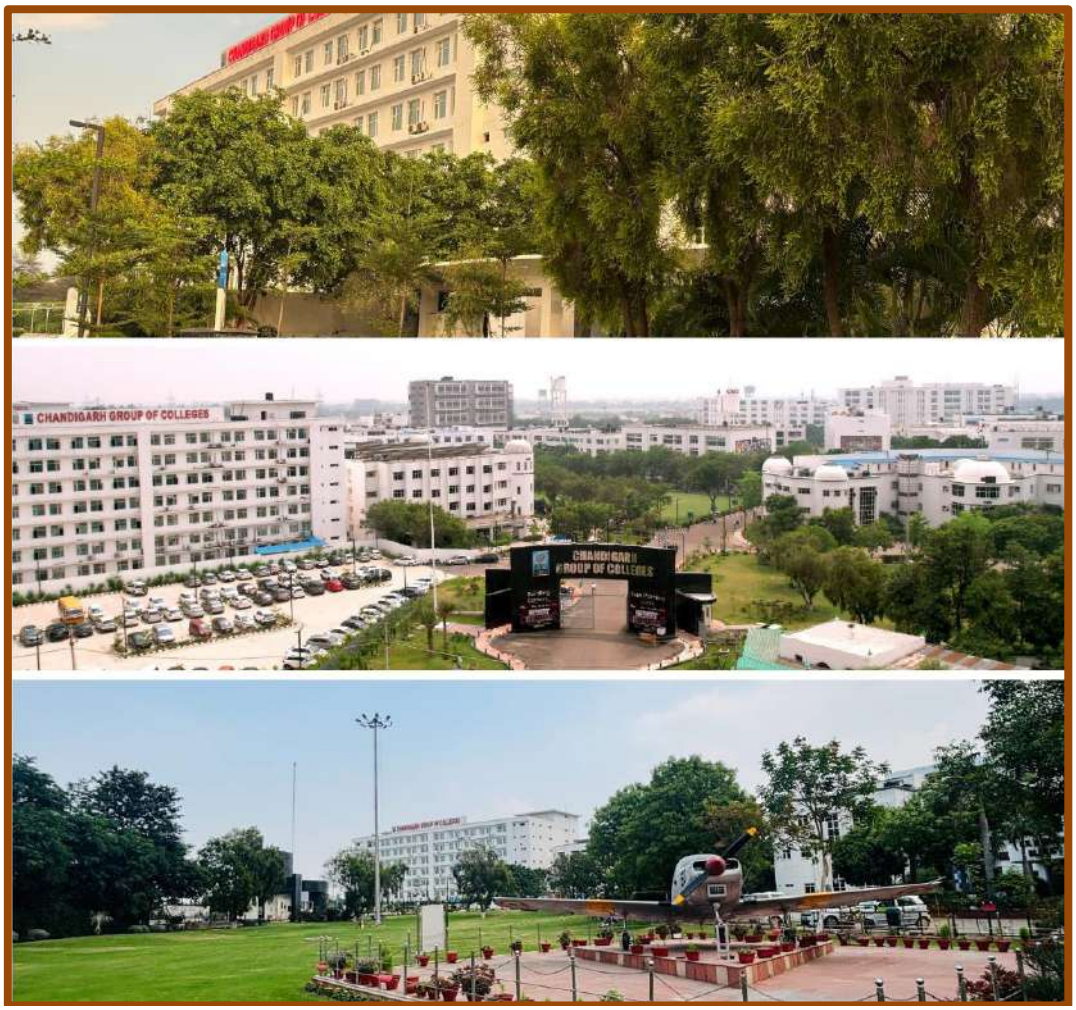
www.cgc.edu.in

Vision of the Chandigarh Engineering College- CGC, Landran, Mohali

To become a leading institute of the country for providing quality technical education in a research based environment for developing competent professionals and successful entrepreneurs.

Mission of the Chandigarh Engineering College- CGC, Landran, Mohali

1. To provide state of the art infrastructure and engage proficient faculty for enhancing the teaching learning process to deliver quality education.
2. To give a conducive environment for utilizing the research abilities to attain new learning for solving industrial problems and societal issues.
3. To collaborate with prominent industries for establishing advanced labs and using their expertise to give contemporary industry exposure to the students and faculty.
4. To cater opportunities for global exposure through association with foreign universities.
5.To extend choice based career options for students in campus placements, entrepreneurship and higher studies through career development program.



(Prof.) Dr. Rajdeep Singh
Director Principal
Chandigarh Engineering College-CGC, Landran, Mohali

Dear Students, Faculty, and Staff,

It is with immense honor that I address our academic community through this edition of our esteemed quarterly publication. I am imbued with profound admiration for the extraordinary endeavors of each individual within our scholarly tapestry. Our college ascends beyond traditional paradigms, standing not merely as an educational bastion but as an incubator of aspirations, a crucible of talent, and an architect of futures. Within these pages, we immortalize the quintessence of intellectual daring, inventive brilliance, and resolute commitment that forms the bedrock of our identity.

In addition to above, I would like to recognize our excellent teachers for their tireless efforts to share knowledge and wisdom. Their focus on academic excellence and passion for teaching have been vital in shaping our students' minds. To our students, I want to say how much I admire your endless curiosity and strong determination to succeed. Your achievements in studies, arts, sports, and many other areas clearly show your hard work and perseverance. Lastly, a big thank you to the magazine team and all contributors for your careful work and dedication. This magazine shows our creativity, vision, and commitment to high standards. My best wishes to everyone.

Dr. Vinay Bhatia
Professor & Head, ECE Department

Greetings Everyone!!!

Dear Colleagues and Students,

It is an immense privilege to put my thoughts into words through the college magazine. Chandigarh Engineering College-CGC's legacy of excellence speaks volumes, as we have consistently distinguished ourselves through progressive foresight and an unwavering competitive edge. Observing the blossoming of student potential across diverse contexts and developmental stages remains a daily source of inspiration. Our dynamic team, fortified by expertise and vision, continues to catalyse extraordinary achievements.

The college has emerged as a benchmark for exemplary career placements, reflecting the synergy of rigorous academic frameworks and holistic development initiatives. This magazine stands as a vibrant chronicle of our institution's multifaceted journey, illuminating the intellectual prowess and creative ingenuity of both faculty and students. I extend heartfelt commendations to the editorial team for their meticulous dedication in crafting this publication—a testament to their artistry in capturing the essence of our ethos. Bravo to all contributors!

From the Editor's Desk….

Dear Readers,

It is with profound honour that we unveil the 35th edition of *Communiqué*, the venerated quarterly chronicle of CEC-CGC. This edition stands as a testament to our collective intellectual vitality, weaving together the tapestry of institutional heritage and avant-garde vision that propels our academic voyage.

Within these pages, we orchestrate a symphony of time-honoured traditions and radical innovation—a duality that fuels our identity as a beacon of enlightenment in higher education. Our contributors, ablaze with an indomitable spirit, have transmuted raw passion into literary artistry, crafting narratives that resonate with the ethos of this institution. These compositions do not merely document; they immortalize the luminescence of our community, positioning CEC-CGC as a lodestar in the constellation of academia.

We cast a spotlight on the polymathic brilliance of our students, whose triumphs across disciplines are magnified by the erudite stewardship of our faculty. Their pedagogical alchemy—forging intellects through rigor and inspiration—sculpts pioneers poised to redefine tomorrow's frontiers.

The editorial team stands humbled by the boundless creativity, ephemeral yet eternal memories, and unyielding resolve poured into this endeavour. Each contributor has transcended mere participation, elevating this volume into a mosaic of collective genius. Herein lies not just a magazine, but an archival treasure—a bridge between legacy and possibility. Enjoy the read!!!

Dr. Inderjot Kaur
Editor-in-Chief

RANKING & AWARDS 2025

1 **Chandigarh Engineering College-CGC, Landran** has been ranked 7th in Punjab in the **Education World India Higher Education Rankings 2025-26** under the category **Private Engineering Institutes.**

2 **Dataquest T School Rankings 2025**

- 4th rank in the Northern Region.
- 13th rank among the Top Private T-Schools in India.
- 16th rank among Top 100 T-Schools (Government and Private) in India.
- 41st rank among Top 50 T-Schools (North Zone).

3 **Chandigarh Engineering College-CGC Landran, Punjab**, has been **selected for certification** under the prestigious **"Institution of Happiness (IOH)" project 2024** conducted by QS I-GAUGE.

4 **NAAC A+ Grade obtained in March 2024**

- CEC-CGC Landran has achieved NAAC A+ Grade by NAAC

5 **Dataquest Tech School survey, 2024**

- 1st in Punjab in Top 100 T-Schools (Overall) – Government and Private
- 1st in Punjab in Top T-Schools (Private)
- 5th rank in North India (Zone Wise)
- 12th rank in Top 100 T-Schools (Private)
- 17th rank in Top 100 T-Schools (Overall) – Government and Private

6 **India Today Ranking 2024**

- 7th In Top 10 Colleges with Best Value for Money (Private All Over India)
- 1st Rank in Private College in Punjab (Self-Financed)
- 57th Rank across country Private Colleges
- 85th Rank across country Private and Govt Colleges

7 **DQ-CMR T-School Employability Index Survey 2024**

- 13th Top 100 T-Schools (Factual Ranking) Employability Index
- 7th Top Private T-Schools (Factual Ranking)
- 7th in North Zone- Top 10 Zone Wise Institutes
- 90th in Top 100 T-Schools (Perceptual Ranking) Employability Index
- 16th in Regional Top 50 Ranking (North - Perceptual Ranking)

8. **Outlook 2024**

- 138th among top 160 private institutes in India

9. THE WEEK-Hansa Research Survey 2024

- 64th Rank in Govt and Private All Over India
- 38th Rank in Private Colleges In all over India
- 8th in North Zone Govt and Private Colleges in all over India

10. Times of India Engineering Survey 2024

- 141st in Top 175 Engineering Institute Rankings 2024

11. NIRF 2024 (Engineering Category)

- CEC-CGC Positioned in the band of 101-150 in the Engineering Category

12. NIRF 2024 (Overall Category)

- CEC-CGC Positioned in the band of 151-200 in the Engineering Category

CEC-CGC Landran conferred with Autonomous Status for 10 Years

Chandigarh Engineering College-CGC community commemorates a remarkable accomplishment with the conferral of Autonomous Status for a decade, signifying a pivotal moment in its scholarly progression. This esteemed accolade highlights the institution's dedication to scholarly distinction, progressive teaching methods, and substantial resources. The attainment of autonomous status enables the institution to craft innovative curricula, implement adaptable assessment strategies, and cultivate programs aligned with industry needs, thereby improving student outcomes and expanding research possibilities. This prolonged period of independence signifies a profound confidence in CEC-CGC's leadership and foresight, establishing it as a centre for comprehensive education and pioneering advancements. The recognition is a source of pride for students, faculty, and alumni alike, enhancing the institution's standing and fostering ongoing contributions to the realms of higher education and societal advancement.

The advantages of autonomy to the faculty, students, and the institute are given below in detail:

Benefits for the Institute:

- **Academic Excellence and Reputation:** Autonomy helps institutes establish themselves as centers of excellence by offering quality education and research.
- **Efficient Resource Allocation:** Institutes can allocate funds for research, infrastructure, and faculty development based on their priorities.
- **Industry Collaboration and Funding:** Autonomous status attracts funding from industries, government agencies, and international organizations, strengthening financial stability.
- **Increased Innovation and Entrepreneurship:** With a flexible environment, institutes can promote startup incubators and entrepreneurship programs, encouraging students and faculty to innovate.
- **Higher Accreditation and Ranking Potential:** Institutes with autonomous status often gain higher rankings and accreditation due to their independent governance and quality enhancement initiatives.

Benefits for the Students:

- **Industry-Oriented Learning and Career Growth –** A flexible curriculum, specialized courses, and research exposure enhance students' skills, employability, and career prospects.
- **Increased Internship and Placement Opportunities –** Strong industry partnerships provide students with internships, live projects, and job opportunities in reputed companies
- **Student-Centric Assessment and Evaluation –** Autonomy ensures a more practical and student-friendly grading system, improving overall learning outcomes.

Benefits for the Faculty:

- **Academic and Teaching Flexibility** – Faculty enjoy the freedom to design courses, teaching methods, and evaluations, fostering innovation and industry relevance.
- **Enhanced Research and Industry Collaboration** – Autonomy enables greater research opportunities, industry partnerships, sponsored projects, and consultancy work.
- **Career Growth and Recognition** – Increased accountability leads to high academic standards, better career prospects, and recognition in academia.

CEC-CGC Landran once again etched its name in Dataquest T-School Rankings 2025

CEC-CGC Landran has etched its name among India's premier technical institutions, securing exceptional accolades in the Dataquest T-School Rankings 2025. Demonstrating academic prowess and institutional excellence, the college claimed 4th position in the Northern Region, solidifying its stature as a regional leader. Nationally, it soared to 13th rank among Top Private T-Schools, a testament to its cutting-edge curriculum and industry-aligned pedagogy. Remarkably, it also clinched the 16th position in the coveted Top 100 T-Schools category, competing against both government and private institutions, while further showcasing its competitive edge by securing 41st rank among North Zone's Top 50 T-Schools. These milestones underscore CEC-CGC Landran's relentless dedication to fostering innovation, technical expertise, and holistic development, positioning it as a trailblazer in India's evolving educational landscape.

CEC-CGC's Dataquest T-School Rankings 2025

National Science Day 2025: A Grand Exposition of Scientific Splendor and Unbridled Zeal

On 4th March 2025, the National Science Day illuminated CEC-CGC, a celebration rich with enthusiasm and a harmonious array of engaging activities that resonated deeply with all attendees. The organization of this event was undertaken by the Applied Sciences Department in collaboration with the Department of Student Welfare and Rise Department.

The extravaganza commenced with an inaugural ceremony, graced by the presence of Chairman–CGC and Member of Parliament (Rajya Sabha) S. Satnam Singh Sandhu, Honourable President–CGC S. Rashpal Singh Dhaliwal, the Chief Guest Dr. Subash Chander Sc. 'G' who is currently performing duties of Technology Director, C4I in Terminal Ballistics research Laboratory DRDO, Chandigarh, Guest of Honour Dr. Amit L. Sharma, Chief Scientist, (Head, Central Analytical Instruments Facility Division), Professor of AcSIR (Academy of Scientific and Innovative Research), CSIR-Central Scientific Instruments Organization (CSIR-CSIO), Chandigarh, Guest of Honour Mr. Gurinder Singh Sidhu an accomplished professional and well-established entrepreneur based in Ludhiana, Punjab, and other dignitaries. S. Satnam Singh Sandhu emphasized on the importance of inculcating scientific temperament among students. In his keynote address, the Chief Guest eloquently expounded upon the indispensable essence of science in our lives, igniting a luminous flame of understanding and reverence for the noble pursuit of discovery.

The event ascended to great heights, kindling an ardent flame of dedication to cultivate the sacred bond of trust between humanity and the marvels of science. The occasion was meticulously orchestrated under the theme "Fostering Public Trust in Science," harmonizing with the national emphasis on the paramount importance of science and its profound impact on societal progress.

The festivity unfolded as a resplendent mosaic of captivating activities and competitions, each meticulously curated to inspire and enlighten. A crowning moment was the Research for Pioneer project exhibition, where students unveiled their avant-garde projects and scholarly pursuits. Over 250 projects, featuring intricate and operational models of scientific principles, were on display, elevating the event into a dynamic forum for nascent intellects to present their ideas and garner invaluable critiques from faculty and peers.

The oratory contest offered students the platform to articulate their insights on the profound significance of science and its pivotal role in cultivating public trust. Participants delivered eloquent and compelling discourses that underscored the exigency of scientific literacy and the prudent and ethical deployment of scientific knowledge.

The Sci-Quest (Science Quiz Competition) was another major attraction, testing students' knowledge across various scientific disciplines. The quiz was designed to be both challenging and informative, encouraging participants to delve deeper into scientific concepts. Sci-Stroke (poster making competition) provided a creative outlet for students to visually represent the theme of fostering public trust in science. The posters were judged based on their creativity,

relevance, and ability to communicate the message effectively. Adding to the excitement was a cultural program that was held prior to prize distribution ceremony. The performers enthralled the audience with their wonderful performances. Outstanding contributions in different competitions were recognized through cash prizes, trophies and certificates. Dr. Harpal Singh, Head, Applied Sciences Department proposed a vote of thanks to the gathering.

Thus, the National Science Day celebrations at Chandigarh Engineering College-CGC were an unequivocal triumph, uniting students, faculty, and the community in a collective reverence for the wonders of science. The event not only underscored the paramount significance of science in society but also ignited a fervent spirit of inquiry and innovation among the participants. By cultivating public trust in science, CEC-CGC perpetuates its noble mission of advancing scientific literacy and understanding within the community.

Chief Guest Dr. Subash Chander Inaugurating NSD 2025

Lamp Lighting Ceremony

Chairman-CGC S. Satnam Singh Sandhu addressing the gathering during NSD 2025

President-CGC S. Rashpal Singh Dhaliwal & CGC Management interacting with students during NSD 2025

Students displaying their project during NSD 2025

Group Photograph of the Winners

NSD 2025 Project Winners

The Fusion Club adeptly orchestrated a Tech Talk event

The Fusion Club of CSE department organized a Tech Talk event that delved into contemporary industry trends, the cultivation of technical skills, and strategies for career advancement, showcasing esteemed speakers Love Babbar and Lakshay Kumar. The event took place on 11th February 2025. The session offered profound insights into the realm of emerging technologies, practical coding methodologies, and strategic career development, drawing upon the speakers' extensive knowledge on latest trends. Participants acquired insightful viewpoints on maneuvering through competitive job markets, improving technical skills, and harmonizing personal advancement with industry requirements, rendering the event a significant impetus for professional growth.

Faculty and Students attending the session

Group Photograph of Students and Faculty with Speakers

Team RUDRAKSHA Wins Best Performing Team Award at IDE Bootcamp

Team RUDRAKSHA comprising of Mechanical Engineering students of Chandigarh Engineering College-CGC, Landran, Mohali, was adjudged the “Best Performing Team” at the Innovation, Design and Entrepreneurship (IDE) Bootcamp held at GLA University, Mathura, from February 17-21, 2025. This event was organized by the Ministry of Education, AICTE, and MoE’s Innovation Cell. This mega witnessed the participation of 500+ teams nationwide. The team comprising Rohit Singh, Piyush Kumar Bharwal, Shivam Pandey, and Abhinav Kumar showcased exceptional problem-solving and entrepreneurial skills during the event. Their success was guided by the mentors Dr. Saurabh Chaitanya and Dr. Sachin Mohal.

Team Rudraksha receiving the “Best Performing Team” award

ICT Workshop on "Design Now Challenge"

The Department of Mechanical Engineering at Chandigarh Engineering College-CGC, Landran, organized a five-day ICT workshop, Design Now Challenge, from March 24 to March 28, 2025. The workshop was conducted by Mr. Ravi Sharma, Manager at ICT Academy, Autodesk, and focused on enhancing students' skills in digital design and simulation. Participants engaged in hands-on sessions covering advanced CAD modeling, design optimization, and real-world problem-solving using Autodesk tools. The workshop encouraged creativity and innovation, equipping students with practical knowledge applicable to modern engineering challenges.

Students actively participating in the ICT workshop titled "Design Now Challenge"

IT Department organized Eminence 2K25

The Department of Information Technology, CEC-CGC Landran, successfully hosted Eminence 2K25 on 19th March 2025, featuring 17 engaging events across Technical, Non-Technical, and Cultural categories. The event aimed to provide students with a platform to showcase their skills, fostering creativity, collaboration, and personal growth. Mr. Rachit Mago, Senior Project Manager, Infosys was the Chief Guest for the event. He is having more than 17 years of experience in Banking, Retail and Manufacturing Domains. The technical activities included Debug-a-thon, Tech Quest, Web Art, AI Vision Quest, Project Display, Innovest, Canvas Clash, and Circuit master. The non-technical activities organized were Colour Splash, Pixels, Arm Wrestling, Battlegrounds Clash: BGMI Tournament, Type Racer, Stumble Guys and Chess. The cultural activities included Fashion Show and Singing. The events garnered remarkable success, drawing enthusiastic participation from students across diverse departments. With an impressive 900+ entries from all the colleges of CGC Landran, the turnout was truly exceptional. In the Prize Distribution Ceremony participants and winners were awarded with trophies, cash prizes, and certificates, presented by Dr. Rajdeep Singh (Director Principal), Dr. Amanpreet Kaur, (HOD IT), and Mr. Sachin Majithia. (Faculty Coordinator).

Inauguration of Eminence 2K25

Lamp Lighting Ceremony

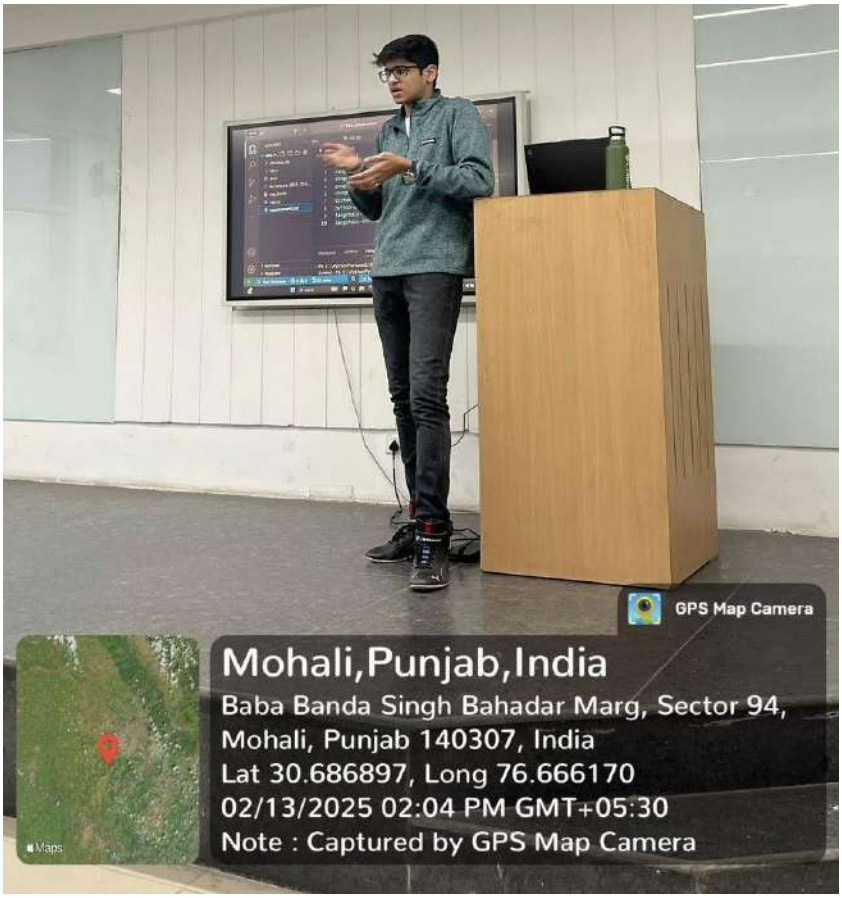
Glimpse of Technical and Cultural Event

HOD IT and Event Coordinator felicitating the Guest of Honor

Group Photograph of Organizing Committee with Dignitaries

CSE Department organized a workshop on “Gen AI and LLMs”

The CSE Department organized a Workshop on Gen AI and LLMs on February 13, 2025. The workshop aimed to provide students with insights into emerging AI technologies and their real-world applications. The session proved to be engaging and impactful. The keynote speaker, Mr. Shaunak Gupta, an intern at Comptech Associates and a student of Punjab Engineering College, shared his expertise in AI, deep learning, and data science, drawing from his experiences at Amazon ML Summer School '23 and eDC IIT Delhi. He provided valuable guidance on leveraging AI tools, solving real-world challenges, and building a strong foundation in machine learning and deep learning techniques. The workshop featured interactive discussions, live problem-solving, and Q&A sessions, allowing participants to explore AI trends, industry demands, and career opportunities. The session concluded with attendees receiving learning resources and practical insights, making it a valuable experience for students aspiring to excel in AI and data science. Students gained knowledge of real-world AI applications and coding strategies, improving their approach to technical challenges. The session provided valuable advice from industry expert Shaunak Gupta, helping students navigate career opportunities in AI.



Speaker interaction with the students

Students attending the workshop

Hands on Learning by Students

Appreciation to the Speaker by Head of the Department

CSE Department organized Technical Event "Code & Canvas"

The Department of Computer Science and Engineering organized a technical event, "Code & Canvas," on March 19, 2025. The event aimed to bridge creativity and technology by providing a platform for students to showcase their skills in UI/UX design and web development. It encouraged innovation, technical excellence, and design thinking, helping participants enhance their expertise while fostering collaboration and competition within the tech community. The event focused on enhancing design thinking, creativity, and usability principles, enabling participants to develop real-world UI/UX skills while fostering innovation and technical excellence. It successfully helped participants improve their design and development skills. Many participants created functional UI designs and landing pages, strengthening their portfolios and gaining valuable hands-on experience. Additionally, the event facilitated networking with fellow designers and developers, allowing participants to gain a deeper understanding of industry best practices. The competition identified and rewarded talented individuals, boosting their confidence and motivation to pursue careers in UI/UX design and web development.

Students Participating in the Event

Group Photograph of Participants with Faculty

Glimpse of Felicitation of the Judges

CSE Department organized Alumni Talk on “Emerging Tech Trends, Innovation and Networking”

The Alumni Talk, entitled "Emerging Tech Trends, Innovation, and Networking," was held on March 21, 2025, for B. Tech 4th semester CSE students. The session, delivered by Ms. Kashika Sharma, an SAP Security & SAP Consultant in Chandigarh, lasted for two hours. Through this alumni discussion, students gained valuable insights and a clear roadmap to success. The session provided guidance on self-improvement, navigating the placement process, and tackling interviews with confidence. By fostering continuous learning and creativity, the session equipped the students with the skills needed to thrive in a dynamic and ever-evolving industry. This Alumni Talk also offered advice on securing multiple job offers and mastering key tech stacks such as DSA, OOPS, and DBMS. Emphasizing continuous learning, creativity, and communication, it encouraged a mindset that enables students to adapt to technological advancements. Students learned the importance of receiving the right career guidance from the right mentors. They were inspired to explore knowledge architecture and embrace adaptability in the evolving tech landscape.

Alumni talk on Emerging Tech Trends, Innovation and Networking

Token of Appreciation being given to Alumni

Expert Talk on " Innovation, Entrepreneurship, and Startup Success"

On 23rd January 2025, the Department of Information Technology at Chandigarh Engineering College-CGC Landran, in collaboration with the Tech Roadies Club and IIC, organized an offline workshop on "Innovation, Entrepreneurship, and Startup Success". The session, led by Mr. Mangat Singh Dhiman (COO of AniWeb Designs, AISM2, and BMDigitech Solutions LLC), was attended by 144 participants. The workshop provided valuable insights into idea generation, funding strategies, and overcoming startup challenges, equipping attendees with essential entrepreneurial skills. Mr. Dhiman emphasized the importance of innovation for competitive advantage, strategies for scaling startups, and ways to navigate common entrepreneurial hurdles. The event successfully empowered participants with practical tools to build and grow startups, understand funding mechanisms, and fostered resilience and adaptability for long-term success.

Interactive session of students and faculty with the expert

HOD IT honouring the expert with Memento

Expert talk on “Cloud Computing Resiliency”

The expert talk on “Cloud Computing Resiliency”, held offline on 30th January 2025 with 120 participants, was organized by the Institution's Innovation Council (IIC) and the Department of Information & Technology of Chandigarh Engineering College-CGC Landran to provide in-depth insights into maintaining uptime, disaster recovery strategies, and building reliable cloud infrastructures. Led by Mr. Mukesh Kumar, Principal Group Software Engineering Manager at Microsoft India (R&D), the session covered essential topics like resilient architecture, redundancy, failover mechanisms, cloud service models (IaaS, PaaS), server virtualization, and cloud migration, supported by real-world case studies. Participants actively engaged in discussions and Q&A, enhancing their practical understanding of resilient cloud systems while networking with industry professionals. The event successfully equipped attendees with practical knowledge and tools to implement effective disaster recovery plans and foster collaboration for future innovations in the cloud computing domain.

Interactive session of students and faculty with the expert

Workshop on "AI Driven Cybersecurity"

On 20th March 2025, the Tech Roadies Club of IT Department at Chandigarh Engineering College-CGC Landran, in collaboration with IIC and the Centre of Excellence AIOT, organized an offline workshop on AI-Driven Cybersecurity, featuring Mr. Lovejot Singh Chhabra, Founder & Director of Cyber Defence Intelligence, as the keynote speaker. The session provided participants with valuable insights into AI's role in enhancing cybersecurity, focusing on AI-powered threat detection, automated risk assessment, and proactive defense strategies. Mr. Chhabra shared practical techniques for strengthening digital infrastructure, addressing cybersecurity challenges such as data breaches and phishing attacks, and emphasized the importance of continuous adaptation to emerging threats. With a focus on real-world applications, the workshop equipped attendees with essential skills to implement AI-driven security solutions and inspired innovation in combating evolving cyber risks.

Interactive session of students and faculty with the expert

Expert Talk on "Operational Efficiency and Employability: Building a Workforce for the Future"

On January 22, 2025, the Department of Mechanical Engineering, organized an expert talk on "Operational Efficiency and Employability: Building a Workforce for the Future." The session was conducted by Mr. Devinder Thakur, Chief Manager at SML ISUZU LTD. The session focused on enhancing workplace efficiency and the key skills required to thrive in today's dynamic job market. Mr. Thakur provided valuable insights into industry expectations, workforce development, and strategies for improving operational effectiveness. He emphasized the importance of technical proficiency, problem-solving, and adaptability in securing and excelling in engineering careers. The talk helped students understand career readiness and industry trends, providing them with practical knowledge for future success.

Mr. Devinder Thakur, Chief Manager at SML ISUZU LTD, delivering an expert talk

Workshop on "Automotive Plastics & Creo: Design, Simulate, Innovate"

On March 21, 2025, the Department of Mechanical Engineering, conducted a hands-on workshop titled "Automotive Plastics & Creo: Design, Simulate, Innovate." The session was conducted by Mr. Pritam Prakash, CEO of P2P Analysis and Solutions. The workshop introduced students to the latest advancements in automotive plastics and the application of Creo software for design and simulation. Mr. Prakash provided in-depth training on material selection, component design, and virtual prototyping, helping participants develop practical skills for the automotive industry.

Students engaged in the hands-on workshop

Peer Mentoring Session on "Market Research for Engineers: Understanding Industry Trends and Consumer Needs"

A peer mentoring session on "Market Research for Engineers: Understanding Industry Trends and Consumer Needs" was organized on March 28, 2025, by the Department of Mechanical Engineering. The session featured Mr. Gagandeep Sohanpal, an alumnus (2007-2011) and Technical Marketing Manager at Cloud Wick Technologies.

The session focused on the importance of market research in engineering, helping students understand industry trends, consumer needs, and data-driven decision-making. Mr. Sohanpal shared insights on how engineers can leverage market analysis to develop innovative solutions and enhance product viability.

This interactive session provided students with valuable knowledge on industry research methodologies and strategic thinking, preparing them for dynamic roles in engineering and technology sectors.

Group photograph of participants with Mr. Gagandeep Sohanpal, distinguished alumnus of the 2007–2011 batch

ECE Department organized Spectrum 2K25

Innovation, competition, and excitement ruled the day at Spectrum 2K25 hosted by the ECE Department, CEC-CGC Landran on 27th March 2025. Dr. Rajdeep Singh (Director Principal, CEC-CGC Landran) and Dr. Jagtar Singh Khatra (Director Academics) graced the event, inspiring students with their invaluable insights and wisdom. From insightful Workshop on Role of AI in Communication & Instrumentation by Dr. Ritesh Kumar, (Principal Scientist, Centre for Excellence for Intelligent Sensors & Systems) to Expert talk on Amplifiers & ADC from Designer Point of View by Dr. Anil Singh, (Associate Professor, Thapar University, Patiala) & Safeguarding ideas with IPR by Er. Kumar Parth, Cloud Analyst, (DXC Technology) to thrilling events, the fest had something for everyone. Thrilling competitions like Startup Showdown, Launchpad, Project Display, and Game On kept the energy soaring.

Group Photograph during Spectrum 2K25

ECE Department conducted Boot Camp in association with NIELTS Ropar

The ECE Department conducted Boot Camp on Big Data & Data Science and Augmented and Virtual Reality (AVR) in association with NIELTS Ropar under Govt Project Future skills Prime India from 24 Feb 2025 to 28 Feb 2025. A total of 130 students from other departments attended the event which comprised of 79 participants in the Big Data & Data Science (BDDS) group and 54 participants in the Augmented & Virtual Reality (AVR) group. Experts from C-DAC and NIELIT supported by Ministry of Electronics & Information Technology conducted sessions to provide learners with required practical and theoretical materials towards advanced technologies. Dr. Sarwan Singh, Mr. Nikshep Paliwal, and Mr. Lovnish Verma served as the keynote speakers which enriched the participants' learning of the event.

Students attending Boot Camp Session

Felicitation of Keynote Speaker. Dr. Sarwan Singh

FDP on “AI and Cloud based Tools for Research”

The ECE Department organized FDP in collaboration with NITTTR Chandigarh from 24.03.2025 to 28.03.2025 on “AI and Cloud based Tools for Research”. A week-long Faculty Development Program (FDP) familiarized teachers and researchers with cutting-edge AI and cloud-based technology. Training included AI-facilitated literature reviews, automated citation management, and synthesis of research. AI programming workshops focused on improved code creation, debugging, and automation. Digital creativity sessions highlighted AI tools for scholarly infographics, video lectures, and interactive presentations. Adaptive learning platforms and intelligent assistants were used to enhance career development.

Faculty members engaged in an insightful session on AI and cloud-based research tools

ECE Department organized an Expert talk on Entrepreneurship

ECE Department organized an Expert talk on Entrepreneurship on 25th February 2025. The talk on Alumni insights on Entrepreneurship was delivered by Ms. Gayatri Rana, Senior Content Writer at Beesolver Technology, Mohali. During a dynamic panel discussion, alumni made observations regarding determination, adaptability, and creativity. She emphasized on using university networks, learning from setbacks, and evolving with market changes. From bootstrapping to expanding globally, her experience highlighted tenacity and strategic decision-making.

HOD ECE felicitating the guest

ECE Department organized INNOVISION

ECE Department organized INNOVISION on 30th January, 2025. Innovision was a dynamic platform that successfully showcased innovative and technical ideas through engaging presentations. The event functioned as a creative ideathon, where participants were encouraged to think critically, collaborate effectively, and propose ground-breaking solutions to real-world challenges. Innovision provided a unique opportunity for individuals and teams to present their ideas, demonstrate their technical expertise, and receive valuable feedback from experts in the field. It served as a platform for highlighting technical excellence through impactful presentations, while also enhancing participants' problem-solving abilities and critical thinking skills.

Students presenting their innovative ideas

ECE Department students participated in INNOTECH 2025

The INNOTECH 2025 project display competition organized by Pushpa Gujral Science City was a platform for showcasing innovativeness. The event was organized on 18 & 19 March, 2025. Chandigarh Engineering College-CGC Landran actively participated in the competition. It was a opportunity for the participants to learn, collaborate, and gain valuable experience in bringing their ideas to life. Out of total 18 teams from CGC, 2 teams from ECE got shortlisted for the finals in the categories of ENGG Automobiles and ENGG Mechatronics (Self Mechanizing Bridge). In the finals, the ECE department secured 2nd position in Mechatronics category- Self Mechanizing Bridge.

2nd position in Mechatronics category- Self Mechanizing Bridge

ECE Department students excelled in the National Science Day Project Competition 'Pioneers for Research'

The students of Department of Electronics and Communication Engineering (ECE) actively participated in "Research of Pioneer," a project display event held on March 4, 2025, as part of the National Science Day celebrations 2025. A total of 20 projects were showcased by ECE department, out of which 18 competed in the Physics Level 2 category and 2 in the Sustainable category. The department secured remarkable achievements, with the first prize awarded to "Drive - Dynamic Remote Interface for Voice Enhanced Bluetooth Operation" and the third prize to "Electrotile" in the Physics Level 2 category. The event provided an excellent platform for students to exhibit their skills, engage in knowledge exchange, and gain insights into emerging technologies.

1st prize winners - Team : Techno Sapiens

Team Techno Sapiens won 1st prize

Team Querky Minds receiving the 3rd prize

Applied Sciences Department celebrated National Girl Child Day

The Department of Applied Sciences, CEC-CGC Landran, Mohali organized an empowering event to celebrate National Girl Child Day alongside highlighting the crucial importance of safety and self-defense. This event took place on 23rd January 2025. The event featured a dynamic lecture led by a renowned Taekwondo master SUSHIL KUMAR, who shared valuable insights on self-defense techniques and the power of self-sufficiency. The master demonstrated practical methods for protecting oneself in different situations but also emphasized the importance of confidence and awareness in ensuring personal safety. Through motivational words and hands-on exercises, attendees were encouraged to build their physical and mental strength, empowering them to take control of their own security.

Glimpse of National Girl Child Day 2025

Applied Sciences department organized an Expert talk on Nanophysics in energy applications

The Department of Applied Sciences, CEC-CGC Landran, organized an Expert Talk on "Nano Physics in Energy Application" for B. Tech First-Year students held on 25th February, 2025.The session was led by Dr. Ashok Kumar Associate Professor NITTTR Chandigarh, a distinguished researcher and academician in the field of Nanophysics and Energy Applications. The expert talk provided a comprehensive overview of the latest advancements in nano physics and their potential applications in energy harvesting and storage. The talk was well-received by the audience, comprising students and faculty members from the CEC Applied Science Department. The session was highly interactive, with students asking insightful questions about the feasibility of 100% renewable energy adoption in the near future. The discussion that followed the talk provided a platform for the audience to interact with Dr. Ashok and gain deeper insights into the topic.

Expert talk on Nanophysics in energy applications

Expert Talk on "Innovative Vector Space in Linear Algebra "

An expert talk titled "Innovative Vector Space in Linear Algebra" was organized by the Applied Sciences Department on February 13, 2025. Dr. Sanjeev Kumar Bakshi from Thapar Institute of Engineering & Technology, Patiala provided insights to the students based on his extensive experience in Linear Algebra. The session focused on innovative topics including linear algebra, vectors, the rank of matrices, and their applications in real-world scenarios.

Photograph with expert during Mathematics Expert Talk

Applied Sciences Department hosted 'The Ballot Power' Event

The Department of Applied Sciences, CEC-CGC, Landran Mohali organized a poster-making event titled 'The Ballot Power'on 24th January 2025. The event focused on promoting the importance of voting and civic responsibility. There were total 40 participants. The judges of the event were Mr. Satish Kumar and Mr. Gurveer Singh. The winners were Yash Kumar 1st position, Prithvi Kapila 2nd position, and Yash Tyagi along with Dheeraj Kumar shared 3rd position. Students also took the voter's oath, emphasizing the event's message of democratic engagement.

Glimpse of Poster making by students

MBA department organized B-Starter's (Fuel your vision, ignite your future)

The MBA department organized B-Starter's (Fuel your vision, ignite your future) on 4th & 5th February, 2025. The B-Starter's Event was a dynamic two-day entrepreneurship and startup-focused gathering designed to foster innovation, collaboration, and business growth conducted by MBA department. On day one, the event brought together teams from different institutes across the region to pitch their business ideas. The participating teams received mentorship support from expert speakers, including Mr. Abhishek Chauhan, Co-Founder of WeIncubate; Mr. Salil Kaplash, StartUp Coordinator at StartUp Punjab; and Ms. Ritita Singh, Founder of Kontent Factory. These experts guided the teams to further refine and improve their business ideas. Afterwards, the best team from day one advanced to day two to pitch their ideas again, after incorporating the feedback and improvements suggested by the mentors. The event provided invaluable networking opportunities, expert-led discussions, and mentorship for startup enthusiasts. The event concluded with a felicitation ceremony, where the top three teams were awarded cash prizes, incubation support, prototype development support, website development support, and patent filing support from the ACIC RISE Association. Key highlights of the event included the inaugural session, where distinguished guests delivered keynote addresses on the importance of startup ecosystems and incubation, as well as expert addresses that shared valuable insights on startup growth, funding strategies, and industry trends.

Certificate Distribution at B-Starter's (Fuel your vision, ignite your future)

B-Starter’s (Fuel your vision, ignite your future)

Industrial Visit to Sensation Software Solutions Pvt. Ltd.

On 19th March 2025, the Department of Applied Sciences at CEC-CGC Landran organized an industrial visit to Sensation Software Solutions Pvt. Ltd. for B.Tech AIML 2nd semester students. The visit aimed to enhance students' technical skills and provide real-time exposure to software development processes. Students gained valuable insights into various domains such as web development, software testing, product development, and digital marketing. They were introduced to the company's structure and services through an initial presentation, followed by a guided tour of different departments including the software development and quality assurance teams. The visit also featured a Q&A session with company professionals, where students explored emerging tech trends, career opportunities, internship guidance, and essential IT skills. Technically, the visit allowed students to observe the software development life cycle in action, from development to testing and deployment of IT systems on a large scale. They toured the data center, learning about cloud storage, network security, and the role of servers. Emphasis was placed on teamwork, effective communication, and adaptability in a professional environment. This real-world exposure helped students understand the practical applications of their classroom learning, inspired them to pursue excellence in their academics, and encouraged them to explore various career paths in the rapidly evolving IT industry.

Group photo with the faculty members and the expert

Students gaining insights about IT systems

Presentation that outlined the company’s structure

Applied Sciences Department organized Industrial Visit for 1st year students

On 25th March 2025, the Department of Applied Sciences at CEC-CGC Landran organized an industrial visit to Sensation Software Solutions Pvt. Ltd. for B.Tech IOT-B 2nd semester students. The objective was to enhance students' technical skills and provide real-time exposure to software development processes. The visit allowed students to observe industry operations firsthand and gain knowledge in key IT areas such as Web Development, Software Testing, Product Development, and Digital Marketing. Students were welcomed with a company presentation covering its mission, departmental structure, and core services. They then visited various teams, including software development and quality assurance, where they observed live coding and testing practices. A tour of the data centre offered insights into cloud storage, servers, and network security. The visit provided students with a thorough understanding of how IT systems are developed, tested, and implemented on a large scale. Exposure to live projects introduced them to industry-standard software tools and collaborative development practices. A lively Q&A session with company professionals offered clarity on current tech trends, project management tools, essential skills for IT careers, and internship opportunities. Overall, the visit emphasized the importance of teamwork, communication, and adaptability in a professional environment, while inspiring students to connect their academic learning with real-world industry applications.

Group photo with the experts

Students gaining insights about Web Development

Presentation that outlined the company's structure

Group photo at Sensations Software Pvt. Ltd.

Applied Sciences department organized Industrial Visit for First year CSE students

The Applied Sciences Department of Chandigarh Engineering College – CGC, Landran, Mohali, organized an industrial visit on 18th March 2025 for B.Tech 2nd Semester CSE students to Sensation Software Solutions Pvt. Ltd., located at F-7, Phase-8, Industrial Area, Sector 73, Mohali, Punjab. A total of 56 students participated in this visit and gained knowledge through various hands-on practical activities in HTML and JavaScript programming. The aim of the visit was to enhance students' technical knowledge of the software industry. It focused on key aspects such as the roles of Software Quality Analysts and Testers, Teamwork, Technical Business Models, and the integration of these components in developing software business strategies. Experts from the company covered various topics, including hands-on practice in programming domains such as Networking, HTML, Open Source Software (OSS), JavaScript, and Mobile Application Development. Students gained practical insights into programming languages, web development, database management, the roles of AI and IoT in software development, and resolving technical bugs and errors using software testing tools. The industrial visit was a success, providing valuable exposure to students on how the Software Development Life Cycle (SDLC) functions in real-world applications. Students understood the importance of teamwork, the strategic role of team leaders, and the collaborative efforts required to solve global technical challenges. The visit enhanced their technical learning and understanding of business strategies.

Group photo at Sensations Software Pvt. Ltd.

Discussion on Product Development

Presentation that outlined the company's structure

Expert talk on Programming Solutions

Industrial Visit to Solitaire Infosys Pvt. Ltd.

The Department of Applied Sciences organized an industrial visit to Solitaire Infosys Pvt. Ltd. on 7th March 2025 for the B.Tech CSE 2nd semester students. The primary objective of this visit was to enhance students' technical knowledge and expose them to real-world software development processes. This visit provided an excellent opportunity for students to observe the working environment of an IT company and understand industry practices firsthand. During the visit, students gained a comprehensive understanding of IT systems, including their development, testing, and large-scale deployment. The interaction with industry professionals allowed students to grasp the importance of teamwork, effective communication, and adaptability in a professional setting. Additionally, the session provided valuable insights into various career opportunities in IT, essential technical skills, and future job prospects in the industry. The visit was an enriching experience, bridging the gap between theoretical knowledge and practical application.

Group Photo of Students at Solitaire Infosys Pvt. Ltd

. Students gaining insights about IT systems

Presentation that outlined the company's structure

Presentation that outlined company's process

Industrial Visit to Gilard Electronics Pvt. Ltd.

On 28th March 2025, the Department of Applied Sciences organized an industrial visit to Gilard Electronics Pvt. Ltd. for the B.Tech ECE students of 2nd semester. The students gained practical exposure to the functioning of an electronics manufacturing industry, thereby understanding the production processes, and learning about the latest technologies used in the industry. Students acquired practical experience in the design, assembly, and testing of electronic products. They also gained an in-depth understanding of electronic systems, including their development, testing, and large-scale deployment. The visit also emphasized the significance of teamwork, effective communication, and adaptability in a professional environment. The session offered valuable insights into various career roles in electronics, in-demand skills, and future job opportunities.

Group Photo of Students at Gilard Electronics Pvt. Ltd.

Students Attending Session at Gilard Electronics Pvt. Ltd.

Presentation that Outlined the Company's Mission

Q&A Session with the Students

Industrial Visit to Antier Solutions Pvt. Ltd.

The Department of Applied Sciences, CEC-CGC Landran organized an industrial visit to Antier Solutions Pvt. Ltd. on 26th March 2025 for the B. Tech IOT 2nd semester students. The student count was 55. This visit provided students with a valuable opportunity to observe company's working environment and gain insights into industry operations. Throughout the visit, students acquired a deep understanding of blockchain technology, covering aspects such as design and deployment. Interaction with industry professionals helped the students to recognize the importance of teamwork, leadership as well as adaptability inprofessional setting. Additionally, the session shed light on potential career paths within the technical sectorneeded in the field of IOT. Thus, the visit was a wonderful experience for students that bridged the gap between theoretical knowledge and real-world application, further, inspiring students to explore advanced technologies and develop skills pivotal for their professional development.

Students Interaction with Antier Solution's Representative

Glimpse of IOT students at Antier Solution's Pvt Ltd.

Industrial visit to Punjab Communications Limited, Mohali

ECE Department organized an industrial visit to PUNCOM, Punjab Communications Limited, Mohali on 13th February 2025 for the students of ECE 4th sem, under the supervision of two faculty members Ms Priyanka and Mr. Shankarlal. PUNCOM Pvt. Ltd. is a top producer and provider of IT and telecom solutions and equipment. Students learned about PLCC, optical/transmission equipment, power plants, and voice/data multiplexers. Additionally, they provide the students career guidance in a variety of electronics-related fields.

Students during the industrial visit to PUNCOM, Mohali

Industrial Visit to Solitaire Infosys Pvt. Ltd, Mohali

An industrial visit to Solitaire Infosys Pvt. Ltd., Mohali was organized for 4th sem students of the Department of Electronics and Communication Engineering under the supervision of Dr. Simarpreet Kaur and Mr. Shankarlal on February 27, 2025. The primary objective of the visit was to provide students with practical exposure to the functioning of the company, offering them opportunities to plan, organize, and engage in active learning experiences beyond the classroom. During the visit, students gained valuable insights into UI design, mobile application development, web development, enterprise applications, and digital marketing, along with essential support and maintenance strategies. Additionally, they were introduced to emerging technologies, client interactions, and potential projects available for internships.

Students during their industrial visit to Solitaire Infosys, Mohali

Industrial Visit to IISER Mohali

The ECE Department organized an Industrial visit to IISER Mohali for BTech 6th sem students on 12th March 2025 .This visit was arranged to make students aware of the start-up and research activities being funded by the Government. Besides this, several new laboratories under construction at IISER were shown & students were also given hands-on experience in the Laser lab, Femtosecond lab, Nano scale detection, NMR research facility, Spectroscopy Lab and Incubation centre.

Students at IISER, Mohali

Industrial visit to NIELIT Ropar

The ECE Department organized an industrial visit to NIELIT Ropar for B.Tech 6th semester students on March 26, 2025. This visit aimed to provide students with practical industry experience, enlightening them about the latest developments in the field of electronics over the past few years, as well as insights into Artificial Intelligence (AI) and the Internet of Things (IoT).

Students at NIELIT, Ropar

Industrial Visit to PUNCOM-Punjab Communication Limited, Mohali

An industrial visit to Punjab Communication Limited, Mohali was organized by ECE Department for the students of 4th semester on 26th March, 2025. The primary objective of the visit was to make students aware about the concept of telecommunication system, working of communication channel, devices and methods used for communication medium. Students learnt practical aspects related to Voice/Data Multiplexers, Power Plants, Optical/Transmission Equipment, PLCs and their major field of usage in telecommunications, networking and in broadband needs of major organizations.

Students at PUNCOM, Mohali

Industrial Visit to Swaraj Division Foundry, Mahindra & Mahindra

On January 28, 2025, the Department of Mechanical Engineering, organized an industrial visit to Swaraj Division Foundry, Mahindra & Mahindra. The visit provided students with first-hand exposure to modern manufacturing and casting processes used in the automotive sector. Students observed various stages of metal casting, machining, and quality control, gaining practical insights into foundry operations. Experts at the facility explained the significance of precision engineering, material selection, and automation in enhancing production efficiency.

Group photograph of students during the industrial visit to Mahindra & Mahindra

Industrial Visit to Guru Gobind Singh Super Thermal Plant, Rupnagar

An industrial visit to Guru Gobind Singh Super Thermal Plant, Rupnagar, was organized by the Department of Mechanical Engineering on March 18, 2025, to give students practical exposure to power generation systems and thermal plant operations. During the visit, students explored key aspects of power production, including boiler operations, turbine functioning, and efficiency optimization. Experts at the plant explained energy generation, emission control, and the role of automation in modern power plants.

Group photograph of students at Guru Gobind Singh Super Thermal Plant

Industrial Visit to ThinkNEXT Technologies Pvt. Ltd

The IT Department of Chandigarh Engineering College-CGC Landran organized an industrial visit to ThinkNEXT Technologies Pvt. Ltd., on 30th January 2025 with 120 participants, provided students with hands-on exposure to industry practices in IT solutions, web development, digital marketing, and emerging technologies. Experts emphasized the importance of coding consistency, problem-solving skills, and preparation for technical interviews.

Students and faculty with the industry expert

Industrial Visit to Grazitti Interactive, Panchkula

The IT Department of Chandigarh Engineering College-CGC Landran organized an industrial visit on 13th February 2025, for 54 IT students, accompanied by 2 faculty members who visited Grazitti Interactive in Panchkula for an enriching industrial visit. The visit featured expert talks starting with Mr. Vikas Bedwal, Technical Manager, who explained full stack development and its role in modern web technologies. Sr. Business Analyst Anjali Mittal elaborated on Salesforce solutions, including sales cloud, marketing cloud, and agent force. Apurav Gupta, QA Technical Lead, emphasized the importance of quality assurance, various testing methods, and maintaining software quality. Mr. Dinesh presented on Gen AI, detailing how AI automates tasks, enhances creativity, and impacts job roles in the industry. The visit concluded with Mr. Manik Garg, Assistant Manager, who introduced Skillstone, Graziti's training initiative offering industry-relevant courses.

Students and faculty during the visit

Industrial Visit to Xenonstack, Mohali

On 5th March 2025, 32 students from the IT Department of Chandigarh Engineering College-CGC Landran, along with 2 faculty members, visited Xenonstack for an industrial exposure visit. The session began with a warm welcome from Mr. Vinod Kumar, who shared insights about the company's vision and contributions to AI. Mr. Akash then led an informative session on advancements in AI, particularly Large Language Models (LLMs), their training process, and real-world applications.

Students and faculty during the visit

The Evolution of Study Spaces: From Libraries to Digital Spaces

Article by: Ms. Saloni Sharma
Assistant Professor, Applied Sciences Department

Study spaces have come a long way over the years, evolving in ways that reflect the shifting needs of education, technology, and society. What once were quiet, dusty corners in libraries have transformed into vibrant, tech-savvy environments that are designed to support today's learners. This change isn't just about moving from one place to another—it's about how we access, share, and process information in ways that are faster, more interactive, and tailored to our modern lifestyles. The evolution of study spaces speaks to a larger transformation in how we learn and connect with the world around us.

For centuries, libraries were the heart of study and learning. In ancient times, places like the Library of Alexandria were the centres of intellectual activity, where the brightest minds of the era gathered to share ideas, debate theories and make discoveries. These libraries were carefully curated, filled with scrolls and manuscripts that held the wisdom of the ages. The quiet, contemplative atmosphere of these spaces encouraged and focused on uninterrupted study. By the 18th and 19th centuries, the power of learning was truly democratized, creating a foundation for the world of knowledge we know today.

The late 20th and early 21st centuries brought a wave of change that transformed how we study and access information. With the rise of computers, the internet as well as digital technology, the landscape of learning shifted dramatically. Online databases, e-books and academic journals became widely available, making physical libraries less essential. As online learning platforms, video lectures, and tools like Google Meets and Zoom gained popularity, study spaces began to move into the digital world. These new and virtual spaces offered students greater flexibility and convenience, allowing them to learn from anywhere, at any time, often connecting with peers and experts from around the globe.

Today, the idea of a "study space" has become more flexible and diverse than ever before. While some students still enjoy the quiet, focused atmosphere of a traditional library, many others are drawn to the freedom and connectivity of digital environments.

Virtual study rooms, interactive platforms and AI-powered tools have become a regular part of the learning experience, making the line between physical and digital spaces increasingly blurred. Now, students can tap into resources, join live discussions and work on projects with classmates from anywhere even without stepping outside their homes.

The shift from traditional libraries to digital spaces reflects a larger change in society: moving away from a one-size-fits-all approach to learning and towards something more personalized and flexible. While libraries still hold important cultural value, the digital age has completely transformed how we study, learn and engage with information. With technology constantly advancing, the study spaces of the future will likely become even more integrated and immersive, offering experiences tailored to each person's unique needs and learning style. It’s an exciting glimpse into how the way we interact with knowledge will continue to evolve.

In conclusion, the journey from traditional libraries to digital platforms highlights the dynamic way education, technology and society are constantly evolving. What once was a quest for knowledge confined to the pages of books has now grown into an expansive virtual world, opening limitless possibilities for learning and personal growth. It is an exciting transformation, one that continues to reshape how we access and engage with information every day.

The Literature and the Digital Age: How Technology is Changing the Way We Read and Share Stories

Article by: Dr. Kavita Dhillon
Assistant Professor, Applied Sciences Department

The digital age and new media technologies have altered almost every aspect of human existence and human survival, and the field of literature is no different. With the outbreak of cyber age and new technologies, the way we read, write, and share stories and narratives is constantly evolving. From e-books to interactive stories, digital tools are reshaping and transforming the way we experience and interact with literature.

One of the biggest changes is the rise and the popularity of digital books and e-books. Instead of carrying around heavy books or waiting for new releases, we can now store entire libraries on e-readers like Kindle. E-books have made reading more easy and accessible for all, with just a few taps or clicks needed to access different stories and narratives. To make reading more enjoyable and interesting, they also enable us to change the font size and type, underline or highlight our favorite lines and paragraphs, and quickly search up for new words.

In addition, the internet has made self-publishing/solo publishing possible. Authors and writers no longer need a traditional publisher or publishing houses to share their stories and narratives. With the use of platforms like Amazon's Kindle Direct Publishing (KDP), Google Play Books, Barnes and Noble Press, anyone can publish their stories and make them widely known. This has led to a surge in new and unique stories, with genres that might not have fit traditional publishing but are now flourishing on different online platforms.

Social media channels have also become a platform for sharing stories. Authors and readers now connect in real time on platforms like Twitter and Instagram. Writers share updates,

previews, and even complete stories, while readers can give instant feedback, creating an engaging and interactive experience.

Because of this, there are now new forms of storytelling, such as the way Charles Dickens released his works, in which stories are told in segments. Twitter threads, Webcomics, and serialized novels on sites like Wattpad and SmartSites, where authors release chapters regularly to keep readers engrossed, are a few examples.

Even with these developments, some people still prefer the tactile experience of a real and a physical book. There is no substitute for the tangible experience of holding a printed book and turning and smelling the pages. Digital reading can also come with distractions, like pop-up messages, notifications from different applications or endless scrolling. However, for many people, the handiness of having books available anytime, anywhere, outweighs these drawbacks.

In conclusion, the digital age has unlocked exciting and new opportunities for literature. Digital books, self-publishing, and social media platforms are making it easier for readers to access new stories and for writers to share their work. As technology advances, the way we experience and engage with stories and narrations will keep evolving, offering even more exciting ways to connect with literature enthusiasts and avid readers.

The Future of Education: How Technology is Shaping Learning

Article by: Ms. Vasundhara Singh
Assistant Professor, Applied Sciences Department

Education system in 21st century has undergone a drastic change. As the world continues to embrace technological advancements, the system of education is changing right before our eyes. By 2025, technology has reshaped the way we learn, from interactive virtual classrooms to AI-driven paths. Education has become more dynamic, offering endless opportunities for students and teachers to connect, collaborate, and explore in ways that were once unimaginable.

One of the first thing that comes to our mind when we think of technological advancement now-a-days is Artificial Intelligence. AI is already making an impact in the classroom and soon it will play an even larger role in shaping our learning experiences. Imagine having an AI tutor that understands your strengths, weaknesses and interests, adjusting its teaching methods to match your learning style. Whether you are finding a concept difficult or easy to understand, AI will adapt in real-time to help you progress at your own speed. This personalized approach on one hand will ensure that no student is left behind, while on the other hand it will help students who are trying to reach their full potential.

The pandemic has taught us how effective online learning can be, and in future we will be shifting more towards blended learning which includes mixing the flexibility of online classes with the valuable face-to-face interactions of in-person learning. Students will have more options, a wider range of resources from around the world, and the ability to learn at their own pace and in the environment that suits them best. This change will help eliminate barriers related to location and cost, making quality education accessible to more people everywhere.

In the future, learning will be all about collaboration. Students will be able to work with peers from all over the world, tackling group projects, sharing valuable insights, and supporting each other.

With the help of collaborative platforms, students can easily communicate, video chat, and share documents in real time, no matter where they are. These connections will not only broaden their perspectives but also create richer, more meaningful learning experiences. Now-a-days our government is also taking some initiatives to enhance learning opportunities where not only students but also teachers are collaborating with each other around the world.

Furthermore, as technology is evolving the role of the teacher is also evolving. Teachers are moving away from simply delivering lectures to becoming guides who support students. Rather by using data and technology, teachers are helping students develop critical thinking, creativity, and problem-solving skills—essential abilities for the future. Teachers are now focusing on fostering an environment where students can explore, experiment, and grow, preparing them for the challenges of tomorrow.

Despite the rapid rise of technology, the heart of education will stay the same—its primary goal will continue to be to inspire, nurture, and help students grow. Technology may change the way we learn, but it will always serve the purpose of empowering learners to reach their full potential. As we look to the future, it's clear that the integration of innovative tools will create new ways of learning, offering meaningful and impactful experiences that will shape the next generation of thinkers, creators, and leaders.

The Need for Inculcating Healthy Dietary Habits

Article by: Ms. Harjeet Kaur
Assistant Professor, Applied Sciences Department

"Our health depends on the food we eat."

Food is very essential for our survival. We need food to do everyday tasks like studying and playing. A pure, balanced and nutritious diet prolongs our life and serves as a mode of body development. Food helps us in making our body strong and healthy. It gives life to our veins and smoothens our circulatory system. For the proper development of our body we require healthy dietary habits. All the body building elements are available in the food. In the olden days, people used to relish pure and fresh food. Thus they were rather strong and sturdy. But the old days have gone and we have become addicted to fast food which is quite unhygienic in nature. The traditional healthy diets are being replaced by unhealthy stale and junk food which contains chemicals. Such food proves a great health hazard.

Due to our laziness, we have become dependent on fast food. The trend of fast and junk foods has come from the West and this menace is growing day by day. Due to the fast pace of life, we have taken to food that can be cooked fast and eaten fast. But we should know the fact about a food that is cooked with an undue haste loses much of its values and real taste. Fast foods are generally prepared at wayside eating stalls and cheap restaurants. They are ill-cooked and prepared in unhygienic conditions. They are also very oily and spicy. The owners prepare such food items of low quality. They lack proteins and vitamins. They harm our liver and digestive system. Thus addiction to fast foods can cause a number of problems in our digestive system. Most often we hear the cases of food poisoning and illness among the people. It is due to the poor quality of food that leads to various diseases like gastroenteritis, vomiting, dehydration, dysentery, worms in the stomach etc. A man starts losing his strength by eating fast food continuously. He becomes a victim of depression, blood pressure, acidity, sugar and other ailments.

We eat so that we may live. Then why should we eat foods that take us nearer to death? Even a rich man cannot live his life happily without having good health because health is considered one of the most crucial parts of life. To develop healthy eating habits, we need to understand what our body needs to be healthy. We can follow some simple methods to be healthy. We should be careful about our diet. It must be simple and nourishing. We should have our meals at fixed times every day and never overeat. We should take milk instead of tea, milk is the perfect food. We should not talk or laugh while eating. We should not eat uncovered food. We must wash our hands before and after meals. We should wash fruits and vegetables with clean water before cooking and eating them. We should eat green vegetables, fruits, pulses and nutritious food every day. We must always eat fresh, balanced and nutritious food. We should drink a lot of water. We should eat one food item at a time. To stay fit and healthy we should avoid junk food and eat more fruits, vegetables and home-cooked meals. Saying no to junk food is a step towards a healthy and happy life. For the sake of our healthy and long life, we should abstain from poor quality of food. We should inculcate only healthy dietary habits and say ‘No’ to fast food.

World Economic Outlook Update, January 2025: Global Growth Stabilizes Amid Uncertainty

Article by: Dr. Ashima Kalra

Associate Professor, ECE Department

As the global economy collides with 2025, the World Economic Outlook (WEO) Update released in January (WEO) paints a mixed but cautiously positive picture. The world economy has managed to avoid the sharp declines that were predicted previously, but there is still a long uneven path ahead towards reliable recovery. Inflationary issues, geopolitical issues, and the relatively harsh policies that were instigated in prior years are still shaping the global economy.

Global Growth: Resilient but Slowing

According to the International Monetary Fund, the global deep will increase by 3.1% in 2025, which is a dip from 3.3% in 2024. This is predicted in the new report by IMF. This means that the world deep is recovering, however, there is still relative danger for more severe vulnerabilities. This happens to coincide with the perceived global lacking productivity and risk. There is also considered to be shirking technological exchange. Developed countries are slowly starting to better, while emerging economic areas in Africa and Asia continue to outpace other economies.

Advanced Economies: Gradual Recovery with Friction:

United States: Growth is predicted to be around 2.2%. The spending on consumers, tech innovations, and a strong labour market offer the US economy a high baseline growth rate. However, inflation and interest rates are concerning due to their still relatively high value.

Eurozone: The bloc's economy is projected to grow by 1.3% in light of energy volatility, sluggish industrial output, and weak external demand. Germany and Italy are showing slower rebounds, while France and Spain provide some resilience.

Japan: Moderate growth of 1.1% is being anticipated while inflation remains above the Bank of Japan's target. Structural reforms and wage growth will keep the momentum going.

Emerging Markets: The Engine of Growth:

China: Growth is forecasted at 4.6% in comparison to previous 5.1% for 2024. The real estate sector remains weak, but domestic consumption and investments in green technology are providing an uplift.

India: With an expected growth of 6.8%, India remains the fastest growing major economy driven by digital innovation, infrastructure spending, and favourable demographics.

Sub-Saharan Africa: Regional growth stands at 4.2% with Nigeria, Kenya, and Ghana performing well amid climate shocks and debt burdens.

Inflation and Monetary Policy: Turning the Corner

We expect headline inflation to drop from 7.8% in 2022 to 4.5% by 2025. Currently, inflationary pressures are easing on a global scale. However, core inflation persists in many areas. The Federal Reserve and the European Central Bank continue to adopt a wait and see approach, not implementing rate cuts until there are clearer signs that inflation has been sufficiently subdued.

Risks to Outlook: Persistent and Multifaceted

Geopolitical Tensions: The Eastern European and Middle Eastern conflicts combined with issues impacting maritime trade have injected volatility to supply chains as well as energy prices.

Debt Stress: Coordination and multilateral support are needed to alleviate the increasing debt stress faced by a number of low-income countries.

Climate Events: Agriculture and food security are being impacted in more vulnerable regions because of droughts and floods caused by climate change.

Technology and Labor Shifts: Construction alongside the expansionary policies of AI, machine learning, and automation may lead to unemployment and social displacement if upskilling is not widely pursued.

Conclusion: A Call for Policy Coordination

In the year 2025, the global economy finds itself in a precarious balancing act. It is cautiously moving toward stability but is significantly vulnerable to evolving risks. As such, the IMF calls on policymakers to observe fiscal balance, refine social protection systems, and bolster green and digital policies. There is still a long way to go in achieving global cooperation to address common issues and achieve inclusive and sustainable growth.

The predictions for the year 2025 reveal that the resilience of economies will be determined not only by markets or policies, but by how flexible, inventive, and collaborative society remains in the face of global insecurity.

The Mark of True Visionaries: What Sets Inspirational Leaders Apart

Article by: Dr. Ramanpreet Kaur
Assistant Professor, MBA Department

Leadership is more than just holding a position of authority; it's about inspiring, guiding, and transforming people and organizations. Inspirational leaders don't just manage—they ignite passion, foster growth, and leave an indelible mark on those they lead. But what exactly sets these exceptional individuals apart? Let's delve into the qualities that distinguish inspirational leaders from the rest.

A Clear and Compelling Vision

At the heart of every inspirational leader is a clear, compelling vision. They don't just focus on the "what" and the "how," but also the "why." This vision acts as a beacon, guiding their team through challenges and uncertainties. Inspirational leaders articulate this vision with clarity and conviction, making others feel part of something greater than themselves. This sense of purpose is a powerful motivator, driving people to exceed expectations.

Emotional Intelligence and Empathy

Great leaders understand that leadership is not just about strategies and goals; it's about people. Inspirational leaders exhibit high emotional intelligence, allowing them to recognize, understand, and manage their own emotions while also empathizing with others. They listen actively, value diverse perspectives, and create an environment where team members feel heard, respected, and supported. This emotional connection fosters trust and loyalty, which are crucial for team cohesion and success.

Courage to Take Risks and Embrace Change

Innovation and growth often require stepping into the unknown. Inspirational leaders are not afraid to take calculated risks and challenge the status quo. They view failure not as a setback but as a stepping stone to success. Their resilience in the face of adversity, coupled with a willingness to adapt and evolve, inspires others to do the same. This fearless approach encourages creativity and fosters a culture where experimentation and learning are valued.

Authenticity and Integrity

Authenticity is a cornerstone of inspirational leadership. Leaders who are true to themselves, uphold strong ethical principles, and lead by example earn genuine respect and admiration. They don't put on a façade to please others; instead, they are transparent, consistent, and accountable in their actions. This integrity builds a foundation of trust, which is essential for effective leadership and long-term success.

The Ability to Inspire and Motivate

Perhaps the most defining trait of inspirational leaders is their ability to inspire and motivate. They know how to connect with people on a deeper level, igniting enthusiasm and a shared commitment to a common goal. Whether through powerful speeches, personal stories, or everyday actions, they uplift others, instilling confidence and a belief in their own potential. Their passion is contagious, creating a ripple effect that energizes entire teams.

Commitment to Growth and Development

Inspirational leaders are lifelong learners. They continually seek personal and professional growth, not only for themselves but also for their teams. They invest in mentoring, coaching, and providing opportunities for others to develop their skills and reach their full potential. This commitment to growth fosters a culture of continuous improvement, where learning and progress are celebrated.

Conclusion

Inspirational leaders are not born; they are shaped by their experiences, values, and the choices they make. While their paths may vary, the core qualities they embody—vision, empathy, courage, authenticity, inspiration, and a commitment to growth—are universal. By embracing these traits, anyone can aspire to be a leader who not only achieves success but also leaves a lasting impact on the lives they touch.

AI in Healthcare: Transforming the Future of Medicine

Article by: Ms. Mandeep Kaur

Assistant Professor, CSE Department

Artificial Intelligence (AI) is revolutionizing various industries, and healthcare is no exception. From diagnosing diseases to personalizing treatment plans, AI is reshaping how medical professionals provide care. With the integration of machine learning, deep learning, and natural language processing, AI is enhancing patient outcomes, reducing costs, and improving efficiency across the healthcare sector.

Enhancing Diagnostics and Early Detection

One of the most significant applications of AI in healthcare is in diagnostics. AI-powered tools can analyze medical images, such as X-rays, MRIs, and CT scans, with remarkable accuracy. Algorithms trained on vast datasets can detect anomalies, such as tumours or fractures, often more efficiently than human radiologists. For instance, AI-driven software is being used to identify early signs of cancer, enabling early intervention and improving survival rates.

Personalized Treatment and Precision Medicine

AI is also driving the shift toward precision medicine. By analysing genetic information, patient history, and real-time health data, AI can recommend tailored treatment plans that are more effective for individual patients. This approach is particularly beneficial in treating chronic diseases like diabetes, cancer, and cardiovascular disorders. AI-powered platforms assist doctors in selecting the most suitable medications and therapies, minimizing adverse effects and enhancing patient recovery.

AI in Surgery and Robotics

Surgical procedures have greatly benefited from AI and robotics. AI-assisted robotic surgery enhances precision, minimizes human error, and allows for minimally invasive procedures. Robots like the da Vinci Surgical System enable surgeons to perform complex operations with enhanced dexterity and accuracy. These advancements lead to shorter recovery times and reduced post-surgical complications for patients.

Virtual Health Assistants and Chatbots

AI-driven chatbots and virtual health assistants are improving patient engagement and accessibility to healthcare. These digital assistants provide instant medical advice, schedule appointments, and offer reminders for medication adherence. By handling routine inquiries, they free up healthcare professionals to focus on critical cases, thus enhancing overall efficiency in medical institutions.

Predictive Analytics and Disease Prevention

AI is playing a crucial role in predictive analytics, helping identify potential health risks before they become severe. Machine learning algorithms analyse vast amounts of data, such as patient records and lifestyle habits, to predict the likelihood of diseases like heart disease, diabetes, and even mental health disorders. This proactive approach allows healthcare providers to implement preventive measures, reducing hospitalizations and improving public health.

Challenges and Ethical Considerations

Despite its potential, AI in healthcare comes with challenges. Data privacy and security are major concerns, as patient information is highly sensitive. Ethical considerations, such as bias in AI algorithms and the need for human oversight, must also be addressed. Additionally, the integration of AI into healthcare systems requires significant investment and training for medical professionals.

The Future of AI in Healthcare

The future of AI in healthcare is promising, with continuous advancements expected in areas such as drug discovery, mental health treatment, and telemedicine. As AI technologies evolve, they will further enhance patient care, improve operational efficiencies, and support healthcare professionals in delivering high-quality medical services.

In conclusion, AI is transforming healthcare by improving diagnostics, personalizing treatment, enhancing surgeries, and optimizing patient care. While challenges remain, the benefits far outweigh the risks, making AI an indispensable tool in the future of medicine.

Artificial Intelligence: Revolutionizing the Future

Article by: Dr. Monika

Assistant Professor, IT Department

Artificial Intelligence (AI) is no longer just a buzzword—it's an integral part of our daily lives, shaping industries, economies, and even our personal experiences. At its core, AI refers to the ability of machines to perform tasks that typically require human intelligence, such as reasoning, learning, problem-solving, perception, and decision-making.

The roots of AI go back to the mid-20th century, with pioneers like Alan Turing, who proposed the concept of a machine that could simulate human intelligence. Since then, AI has evolved significantly, driven by advancements in computer science, mathematics, and data processing. Today, AI is categorized into two main types: narrow AI and general AI. Narrow AI is designed to perform specific tasks—like facial recognition or language translation—while general AI, which remains largely theoretical, would have the capability to understand, learn, and apply knowledge across a wide range of activities, much like a human being.

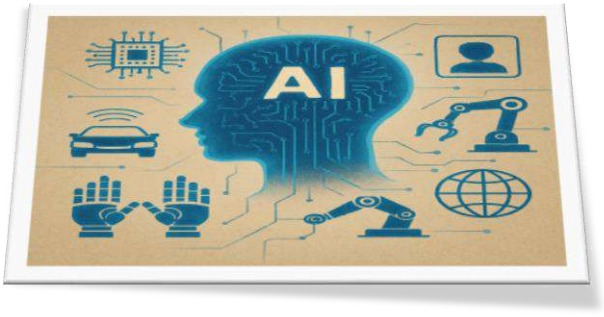
One of the driving forces behind AI's progress is machine learning (ML), a subset of AI where systems learn from large amounts of data and improve their performance without being explicitly programmed. Deep learning, a further specialization of ML, has been especially impactful in areas like image and speech recognition. The rise of big data and powerful computing resources has enabled these advancements, making AI more efficient and accessible.

In everyday life, AI is found in a variety of applications—from virtual assistants like Siri and Alexa to recommendation engines on Netflix and Amazon. In healthcare, AI is being used to analyze medical data, assist in diagnosis, and even develop personalized treatment plans. In finance, AI is used for fraud detection, algorithmic trading, and risk management.

While AI holds immense promise, it also raises concerns about its potential impact on jobs, privacy, and ethical considerations. As AI continues to develop, experts emphasize the need for responsible and transparent use, ensuring that AI systems are fair, unbiased, and beneficial to society.

In the years ahead, AI will undoubtedly continue to transform the world in ways we can only begin to imagine. The key challenge will be balancing innovation with the ethical and societal implications that accompany this powerful technology.

AI is not just the future—it's already here, reshaping the way we live, work, and interact with the world.



Carbon Capture 2.0: Turning Emissions into Usable Products

Article by: Ms. Ravdeep Kaur

Assistant Professor, IT Department

As the world grapples with the growing threat of climate change, scientists and innovators are reimagining what we can do with carbon emissions. Instead of simply reducing or storing CO_2, the new wave of technology—Carbon Capture 2.0—focuses on transforming carbon into valuable products, giving pollution a second life and a purpose.

At its core, carbon capture involves collecting CO_2 emissions directly from industrial sources like power plants, cement factories, or even the atmosphere. Traditional methods aimed to bury the captured carbon underground, a technique known as carbon sequestration. While effective, it's often expensive. That's where Carbon Capture 2.0 comes in—with a fresh approach that's both sustainable and economically viable.

This strategy focuses on carbon utilization. Using advanced chemical and biological processes, captured CO_2 can now be turned into everyday products—like building materials, fuels and even carbon-negative concrete. For instance, some start-ups are converting it into synthetic fuels that could power vehicles and planes without relying on fossil resources.

One of the most exciting breakthroughs is the production of carbon-infused cement, where CO_2 is used to cure concrete during manufacturing. Not only does this reduce emissions, but it also makes the concrete stronger—a win-win for both the planet and the construction industry.

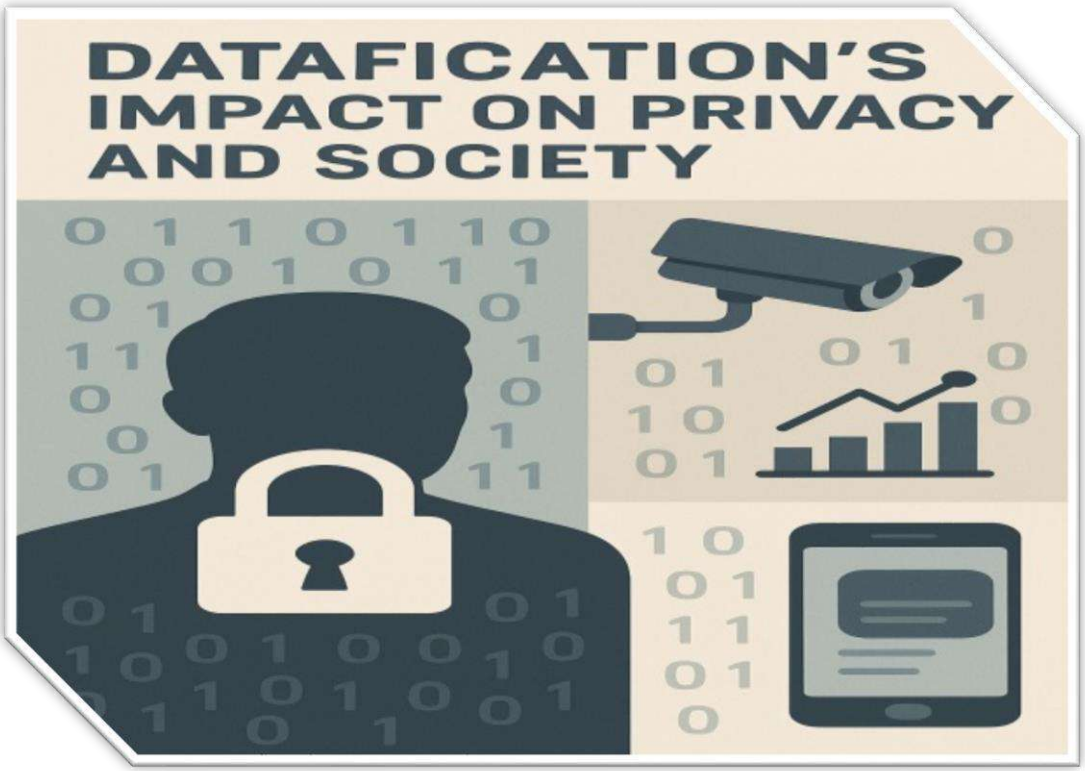
While the technology holds immense promise, challenges remain. Capturing CO_2 directly from the air—known as Direct Air Capture (DAC)—is still energy-intensive and costly. Despite these hurdles, Carbon Capture 2.0 offers a bold new way to look at emissions—not just as waste to be removed, but as a raw material to be reused. With growing interest from industries, investors, and governments worldwide, the idea of a circular carbon economy is becoming more realistic every day.

Datafication's Impact on Privacy and Society

Article by: Dr. Arvinder Kaur

Associate Professor, IT Department

Our digital age is characterized by datafication, which is the conversion of human behaviors, actions, and relationships into quantifiable data. Although it provides strong instruments for efficiency and creativity, it also poses serious problems, particularly with regard to privacy and wider societal ramifications.



Datafication has a significant effect on privacy issues. Everyday activities, including social media posts, GPS locations, online searches, and even in-person transactions, are monitored. Even with anonymised datasets, people can be re-identified by algorithms. The culture of monitoring is another aspect of datafication. Organizations and governments are able to keep an unprecedented amount of eye on people. There are ethical questions raised by technologies like facial recognition and predictive policing. It has also raised issues with Consent and Transparency. Users frequently lack a thorough understanding of the types of data that are gathered and how they are used. Typically lengthy and intricate terms of service restrict informed consent.

This may lead to Security Risks and Data Breach. Hackers find centralized databases to be profitable targets. Identity theft, doxxing, and harassment may result from compromised personal information.

Datafication affects society in addition to privacy issues. Data-driven decisions (e.g., in hiring, lending, policing) can reinforce systemic biases. If the input data is biased, so will the outcomes—often disproportionately affecting marginalized groups. Furthur, it may lead to power imbalance. Tech giants accumulate massive influence by controlling vast amounts of data. Citizens may lose agency as decisions are increasingly made by opaque algorithms. This can also cause behavior manipulation where platforms use data to nudge user behavior (e.g., content recommendations, targeted ads). It can be used to influence elections, shape public opinion, or exploit psychological weaknesses (e.g., doomscrolling, addiction). This may lead to redefinition of social norms. The constant data capture alters behavior (e.g., self-censorship due to surveillance) and social value is increasingly tied to digital visibility and metrics (likes, views, followers).

To navigate datafication responsibly, it is necessary to balance innovation and ethics. Different principles and strategies can help such as data minimization, stronger regulations, and transparency and explain ability, ethical design and digital literacy.

Quantum Computing: How Close Are We to a Quantum Internet?

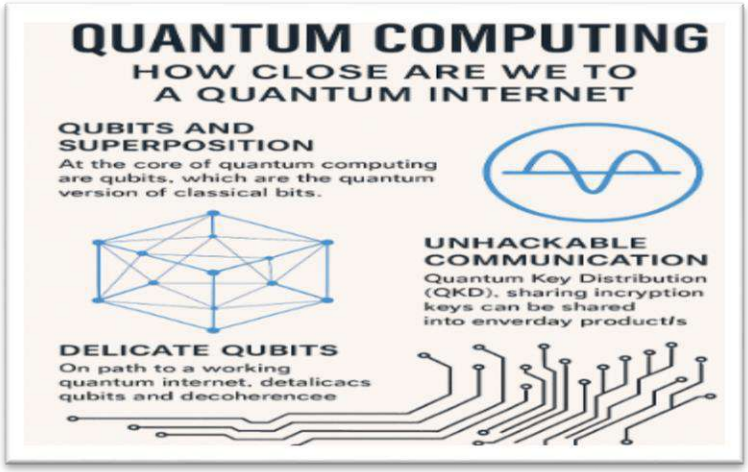
Article by: Ms. Amanpreet Kaur

Assistant Professor, IT Department

The internet, as we know it, may soon undergo a revolutionary transformation with the emergence of the quantum internet—a global network that uses the principles of quantum mechanics to transmit information in ways that are faster, more secure, and fundamentally different from today's digital communication. At the heart of this new technology are qubits, the quantum version of classical bits. Unlike regular bits that are either 0 or 1, qubits can exist in multiple states at once due to a phenomenon known as superposition. Even more fascinating is quantum entanglement, where qubits become linked in such a way that the state of one instantly affects the state of another, no matter the distance between them.

One of the most exciting promises of the quantum internet lies in unhackable communication. Through a process called Quantum Key Distribution (QKD), encryption keys can be shared between two parties with absolute security. If anyone attempts to intercept or measure the quantum signal, the system detects it immediately, ensuring unmatched privacy. This has captured the attention of governments, banks, and security agencies worldwide. Tech giants such as IBM and Google are also heavily investing in quantum research, aiming to link quantum computers through secure quantum channels.

However, the road to a fully operational quantum internet isn't without challenges. Qubits are extremely delicate and prone to losing information due to decoherence, which can be caused by even the slightest environmental interference. To overcome this, scientists are working on advanced quantum repeaters and error correction methods that can maintain data integrity across long distances. For students and aspiring innovators, now is the ideal time to explore quantum science and networking—what was once a futuristic vision is quickly becoming a powerful reality.



The Rise of Personal AI Agents: What It Means for Daily Privacy

Article by: Ms. Megha Sharma
Assistant Professor, IT Department

In recent years, personal AI agents have become increasingly integrated into our daily lives, transforming how we manage tasks, communicate, and access information. These intelligent assistants, capable of autonomously performing a wide range of functions, promise unparalleled convenience and efficiency. However, their rise also brings significant privacy concerns that need to be addressed.

Human and AI Agent walking towards a bright future

Convenience and Efficiency

Personal AI agents can handle various daily tasks, from scheduling meetings and setting reminders to retrieving information and even providing entertainment. They streamline workflows, reduce the burden of mundane tasks, and enhance productivity. For instance, AI agents can manage your calendar, send timely reminders, and even curate personalized content based on your preferences. This level of automation allows individuals to focus on more critical activities, fostering a more efficient and organized lifestyle.

Privacy Concerns

Despite their benefits, personal AI agents pose substantial privacy risks. These agents require access to sensitive data, such as contact information, calendar details, and even financial records, to function effectively. The collection, storage, and processing of this data raise concerns about data security and potential misuse. Instances of data leaks and unauthorized access can lead to severe consequences, including identity theft and financial loss. Moreover, the continuous monitoring and data collection by AI agents can lead to a sense of surveillance, where users feel their every move is being tracked. This pervasive data collection can infringe on personal privacy, making individuals vulnerable to targeted advertising and other intrusive practices.

Balancing Convenience and Privacy

To mitigate these privacy risks, it is crucial to implement robust security measures and transparent data practices. Encryption, anonymization, and strict access controls can help protect sensitive information from unauthorized access and breaches. Additionally, users should be informed about the data being collected and how it is used, allowing them to make informed decisions about their privacy.

Regulatory frameworks also play a vital role in safeguarding privacy. Governments and organizations must establish and enforce regulations that ensure the ethical use of AI agents and protect user data. By striking a balance between convenience and privacy, we can harness the benefits of personal AI agents while minimizing their risks.

Faculty Achievements

- **Dr. Gaurav Goel** and **Ms. Pavneet Kaur**, faculty members of the CSE department at CEC-CGC, appeared for the NPTEL exam and successfully cleared it.

Elite

NPTEL ONLINE CERTIFICATION

(Funded by the MoE, Govt. of India)

Skill India
कौशल भारत-कुशल भारत

This certificate is awarded to

GAURAV GOEL

for successfully completing the course

Edge Computing

with a consolidated score of 77 %

Online Assignments	25/25	Proctored Exam	51.75/75

Total number of candidates certified in this course: 1487

Prof. B. V. Ratish Kumar
Chairman, Centre for Continuing Education
IIT Kanpur

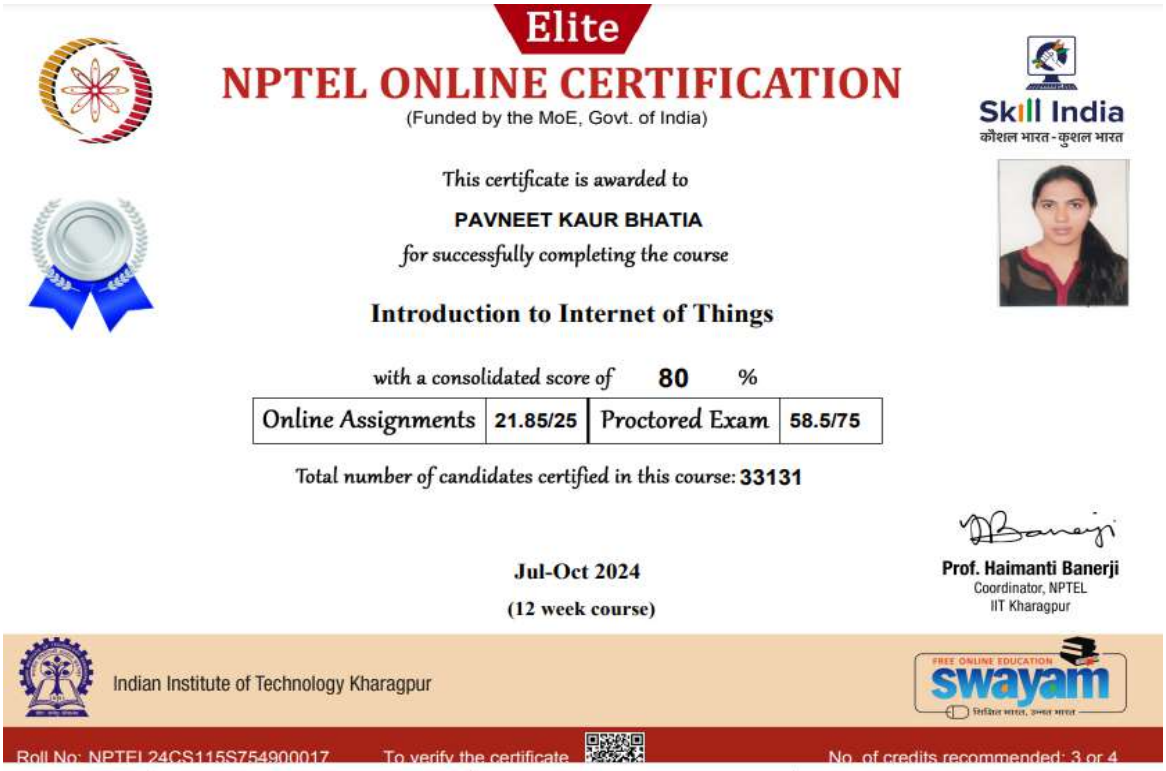
Jan-Mar 2025
(8 week course)

Prof. Satyaki Roy
NPTEL Coordinator
IIT Kanpur

Indian Institute of Technology Kanpur

swayam

Roll No: NPTEL25CS28S435400053 To verify the certificate No. of credits recommended: 2 or 3



Elite

NPTEL ONLINE CERTIFICATION

(Funded by the MoE, Govt. of India)

Skill India
कौशल भारत-कुशल भारत

This certificate is awarded to

PAVNEET KAUR BHATIA

for successfully completing the course

Introduction to Internet of Things

with a consolidated score of 80 %

Online Assignments	21.85/25	Proctored Exam	58.5/75

Total number of candidates certified in this course: 33131

Prof. Haimanti Banerji
Coordinator, NPTEL
IIT Kharagpur

Jul-Oct 2024
(12 week course)

Indian Institute of Technology Kharagpur

swayam

Roll No: NPTEL24CS115S754900017 To verify the certificate No. of credits recommended: 3 or 4

Faculty Achievements

- The faculty members of the CSE department delivered an impressive performance at **Sportathon 25**, earning accolades across multiple disciplines. **Ms. Nidhi** secured 2nd place in Women's Basketball as part of Team CEC. **Ms. Dapinty** excelled with 1st place in Women's Doubles Table Tennis, 2nd place in Singles Table Tennis, and earned runner-up finishes in both Women's Basketball and the Relay Race. **Ms. Ankita** claimed 2nd position in the 400-meter Women's Relay Race, while **Ms. Pavneet** secured the runner-up trophy in Volleyball. **Ms. Sukhdeep** further bolstered the department's achievements as the runner-up in Women's Basketball. Their collective efforts highlighted the department's spirit of teamwork and athletic excellence.

Faculty Achievements

- **Ms. Amanpreet Kaur**, Assistant Professor from the Department of Information Technology grabbed 3rd position in Deadlift during Sportathon 2025 held at Chandigarh Engineering College, CGC Landran.

Ms. Amanpreet Kaur standing on 3rd position

- **Ms. Amanpreet Kaur**, Assistant Professor from the Department of Information Technology snatched the runner-up spot in Basketball during Sportathon 2025 held at Chandigarh Engineering College, CGC Landran.

Ms. Amanpreet Kaur sitting 2nd from left

Faculty Achievements

- **Ms. Amanpreet Kaur**, Assistant Professor from the Department of Information Technology finished as runner-up in Bench Press during Sportathon 2025 held at Chandigarh Engineering College, CGC Landran.

Ms. Amanpreet Kaur standing on 2nd position

- **Mr. Kamlajit Singh**, Assistant Professor from the Department of Information Technology successfully completed the "Machine Learning, ML" under NPTEL Swayam, a Government of India initiative. He secured in top 5% toppers.

Faculty Achievements

- **Ms. Ravdeep Kaur**, Assistant Professor from the Department of Information Technology successfully completed the "Machine Learning, ML" under NPTEL Swayam, a Government of India initiative.

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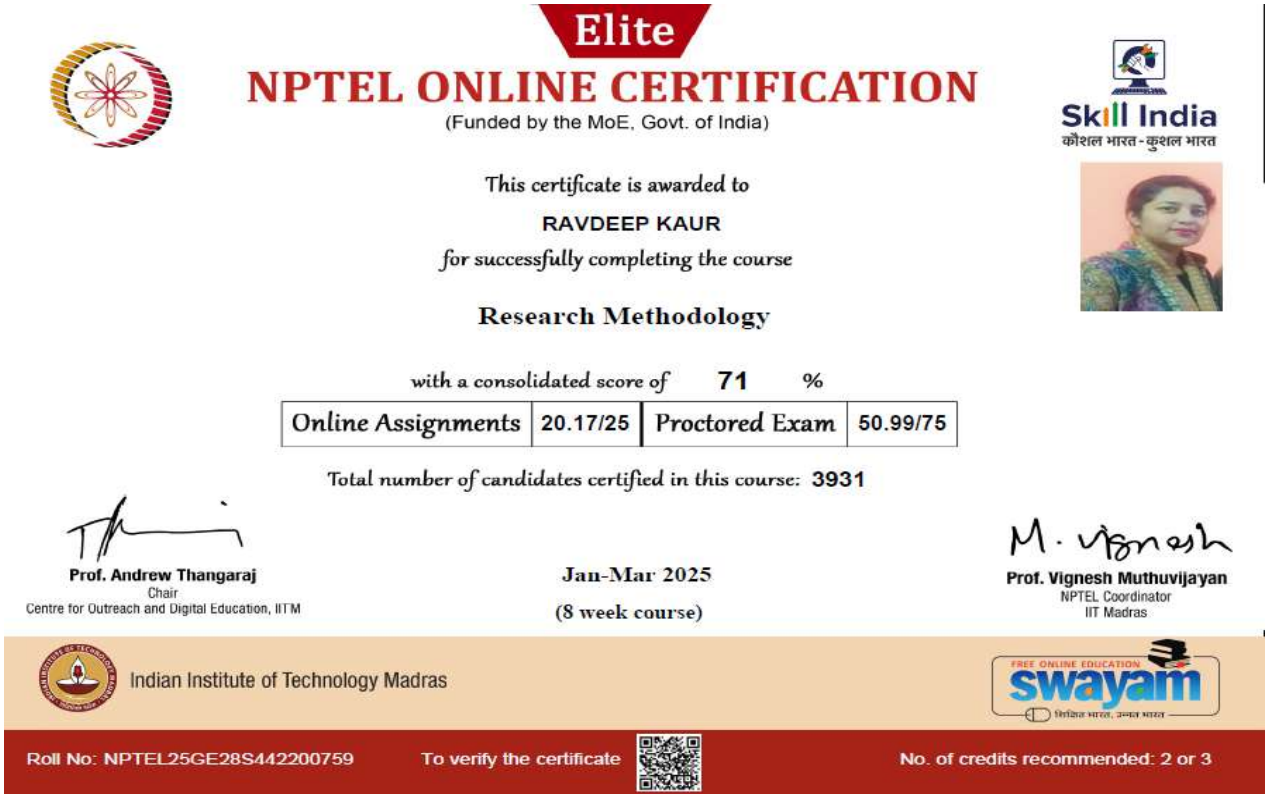


Elite

NPTEL ONLINE CERTIFICATION

(Funded by the MoE, Govt. of India)

Skill India
कौशल भारत-कुशल भारत

This certificate is awarded to

RAVDEEP KAUR

for successfully completing the course

Research Methodology

with a consolidated score of 71 %

Online Assignments	20.17/25	Proctored Exam	50.99/75

Total number of candidates certified in this course: 3931

Prof. Andrew Thangaraj
Chair
Centre for Outreach and Digital Education, IITM

Jan-Mar 2025
(8 week course)

Prof. Vignesh Muthuvijayan
NPTEL Coordinator
IIT Madras

Indian Institute of Technology Madras

swayam

Roll No: NPTEL25GE28S442200759 To verify the certificate No. of credits recommended: 2 or 3

Faculty Achievements (Publications)

- **Dr. Inderjot Kaur, Associate Professor (English)**, Department of Applied Sciences published a book MBD English (Communication Skills) in March 2025. Demonstrating profound expertise in language pedagogy and instructional design, this comprehensive guide has rapidly emerged as an indispensable resource for students and professionals seeking to refine their linguistic competencies. The publication has surpassed 2,000 copies in sales till date.

The following faculty members have published their research in esteemed, high-impact academic journals:

- **Kalra, A. (2025).** Introduction to fuzzy logic and its applications in machine learning. In S. Mahajan, Á. Rocha, A. K. Pandit, & P. Chawla (Eds.), *Smart systems: Engineering and managing information for future success* (Vol. 22). Springer, Cham. https://doi.org/10.1007/978-3-031-76152-2_1

- **Sharma, A., Bhatia, R., Sharma, D., & Kalra, A.** (2025). Exploring AI's prowess in advancing cybersecurity. In S. Mahajan, Á. Rocha, A. K. Pandit, & P. Chawla (Eds.), *Smart systems: Engineering and managing information for future success* (Vol. 22). Springer, Cham. https://doi.org/10.1007/978-3-031-76152-2_6

- **Rachna, Kaur, S., & Ruchi.** (Accepted). Predictive maintenance and asset management with IIoT and ML. In *Transforming industries: Capturing the potential of IIoT and ML in the era of industry 5.0*.

- **Rachna, Ruchi, & Kaur, S. (Accepted).** Remaining useful life prediction through deep learning techniques for improved model accuracy. *Journal of Automation, Mobile Robotics and Intelligent Systems (JAMRIS)*.

Faculty Achievements (Patents)

- **Priyanka Verma, Rinkesh Mittal**, got their patent granted on 24th February 2025. The title of the patent is "**Data Transfer Potable Device**."

- **Ashish Chauhan, Akash Bawa, Aayushi Sharma, Abhishek Mathpal, Dr. Pooja Sahni, Dr. Sukhdeep Kaur, Nidhi Chahal, Dr. Parveen Singla**, got their patent granted on 19th March 2025. The title of the patent is "**A Device and Method for Advance Early Flood Warning."**

- **Sonam, Ritik Sagar, Vanshika Thapa, Swati Mehta, Dr. Pooja Sahni**, filed a patent on 20th January 2025. The title of the patent is **"Assistive Writing Pad for Students with Specific Learning Disabilities (SLD)**."

- **Sonam, Ritik Sagar, Tarun Singhal, Vinay Bhatia, Ankur Singhal**, filed a patent on 20th January 2025. The title of the patent is **"Advanced Personal Mobility Vehicle with Robotic Assistance for Persons with Disabilities**."

- **Ritika Bhatia, Piyush Kumar**, **Dr. Ramanpreet Kaur, Nidhi Chahal, Simarpreet Kaur, Preeti Bansal**, filed a patent on 22nd January 2025. The title of the patent is **"Portable Multifunctional Translation Device."**

- **Mayank, Khushi, Mehak Sachdeva**, **Dr. Dinesh Arora**, filed a patent on 20th January 2025. The title of the patent is **"AI-Powered IoT Based Smart Irrigation System."**

- **Mayank, Khushi, Mehak Sachdeva**, **Dr. Dinesh Arora, Dr. Ashima Kalra**, filed a patent on 21st January 2025. The title of the patent is **"MEDIATM."**

Students Achievements

- **Nishant**, a Computer Science and Engineering (CSE) student, has distinguished himself by securing a place among the top teams in Google's *Hack with India* hackathon. His exceptional performance has earned him a coveted spot in the competition's next round, which will be hosted at a Google office.

- **Rimpi Kaur,** a student of the CSE Department, participated in High jump, 100m hurdles, 4*100 Relay race organised by IKGPTU at GNE Ludhiana and got 2nd position in High Jump and 4*100 Relay race.

Students Achievements

- **Ansh Sharma (6th semester) and Aditya Kumar (4th semester)** from ECE department won 1st and 2nd Position in Long Jump during 19th Annual Athletic Meet held on 10th and 11th March, 2025 at CGC Campus.

- **Aditya Chaurasia** from ECE secured first position in a national competition, *The Urban Innovation Challenge 2.0*, organized by the Faculty of Management, CEPT University, Ahmedabad, Gujrat. There were two rounds in the competition, with 150 participants in the first round. Out of them, 10 were shortlisted for the final online pitching round. And he secured the first position and won a cash prize of Rs 25,000/-.

Students Achievements

- **Aditya Kumar (4th semester)** from ECE department won 2nd Position in 400 meters, during 19th Annual Athletic Meet held on 10th and 11th March, 2025 at CGC campus.

- **Sonam Kumari (6th semester)** from ECE department won 1st Position in Javelin Throw during 19th Annual Athletic Meet held on 10th and 11th March, 2025 at CGC campus.

Students Achievements

- **Murari Kumar** from 6th sem AI-DS grabbed 1st Position in Open University level tournament *Eklavya* held at Plaksha University, Mohali from 21-23 Feb 2025.

- **Murari Kumar** from 6th sem AI-DS grabbed 2nd Position in IKGPTU Inter College Volleyball tournament 2025 held at CGC Jhanjeri, Mohali on 6-7 Feb, 2025. He was also awarded as the best player of the tournament.

Students Achievements

- **Nishant Choudhary** from 6th sem AI-DS secured 2nd Position and won Silver Medal in Kabaddi held at Chandigarh Engineering College-CGC Landran on 10th and 11th March 2025.

- **Avinash Kumar** from 6th sem AI-ML clinched 1st Position in SIT-Ideathon 3.0 2025 held Online at Hill Cart Road, Salbari, Sukna, West Bengal organized by Siliguri Institute of Technology on 07 Feb, 2025.

Students Achievements

- **Avinash Kumar** from 6th sem AI-ML grabbed 1st Position in INNO-TECH 2025 held at Pushpa Gujral Science City, Jalandhar, Punjab organized by Pushpa Gujral Science City in collaboration with IKGPTU on 18-19 March, 2025.

- **Avinash Kumar** from 6th sem AI-ML achieved 3rd Position in SPRINT Ideathon 2024 held at IIT Ropar Technology and Innovation Foundation (iHub AWaDH) on 21 Jan, 2025.

Gmail — Avinash Kumar <avicse001@gmail.com>

Congratulations on Your Team's Success in SPRINT Ideathon 2024
2 messages

iHub AWaDH <people@ihub-awadh.in> — 13 February 2025 at 16:03
To: Avicse <avicse001@gmail.com>
Cc: AWaDH - Accounts <awadh-accounts@iitrpr.ac.in>

Dear Dr. AmanPreet Kaur,
Chandigarh Group of College Landran, Mohali Punjab.

Congratulations!

We are pleased to inform you that your team, **Advanced AI Integrated Multipurpose VTOL Plane**, has achieved **Third Prize** in our prestigious **SPRINT Ideathon 2024**, organized by **IIT Ropar Technology and Innovation Foundation (iHub AWaDH)**.

Your guidance and mentorship have played a vital role in their success, and we truly appreciate your dedication and support.

To facilitate the prize money transfer, your team members have provided us with your account details as the mentor of the project. Kindly confirm these details at the earliest so we can proceed with transferring the awarded amount.

Terms & Conditions for Utilizing the Award Money:

- The funds shall be transferred to the account of the mentor:
  AMANPREET KAUR
  918010078607021
  AKSPK0850A
  Third Prize
  INR 10000/-
  https://drive.google.com/open?id=1b65iaWIhWTETul1Feq-5TJCgAJwB4ozj

Mail received from iHub AWaDH

Students Achievements

- **Abhinav Tyagi** from 4th sem AI-DS achieved 1st Position in Exposition battle (Case study competition) during CGC-MUN held at Chandigarh Engineering College-CGC Landran organized by Training Department, CGC Landran on 25-27 March, 2025.

CGC LANDRAN NAAC GRADE A+ TPP

Certificate of Achievement

This is to certify that Mr./Ms. Abhinav of B Tech - IT branch has displayed exceptional teamwork, critical thinking, analyzing, and organizational skills during the Inter-departmental Case Study Competition **"EXPOSITION: BATTLE WITH REASON"**. Student secured the First position in the competition held on 25-27th March, 2025 organized by the Training Department, Chandigarh Group of Colleges, Landran, Mohali.

Associate Director TPP

Campus Director

- **Klsh** from 4th sem IT secured 1st Position and won Gold Medal in IKGPTU Volleyball tournament held at CGC Jhanjeri on 6 and 7 Feburary 2025.

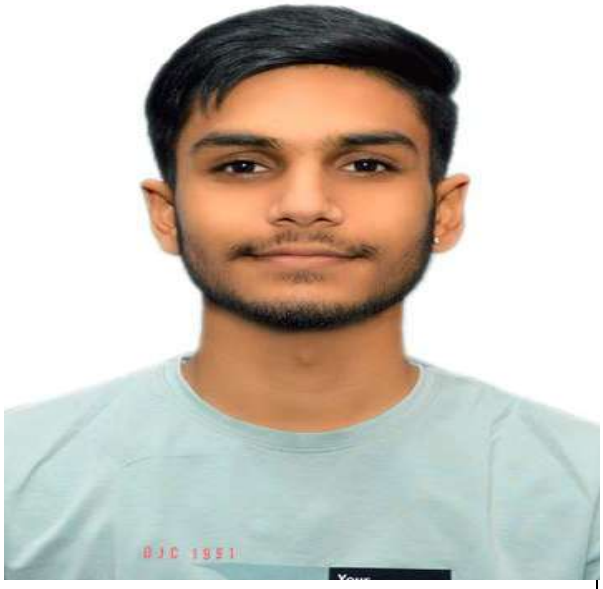
Students Achievements (Placements)

The following students of ECE got placed in reputed companies.:

S.No	Roll No	Name	Company	Package (LPA)
1	2101939	Anjali	Fitelo (No Guilt Fitness & Nutrition India Pvt. Ltd.)	5
2	2101988	K Harish	Fitelo (No Guilt Fitness & Nutrition India Pvt. Ltd.)	5
3	2101978	Harshita Srivastava	Fitelo (No Guilt Fitness & Nutrition India Pvt. Ltd.)	5
4	2102009	Munish Kumar	Fitelo (No Guilt Fitness & Nutrition India Pvt. Ltd.)	5
5	2101986	Jasveer Singh	Mwidm India Pvt Ltd	5
6	2102010	Nandita	Coforge Limited	4.25
7	2237734	Shivam Sharma	Fare Labs Pvt. Ltd	3.6
8	2237733	Saloni Kashyap	TRIPTA'S MARKING EXPERT	8
9	2237735	Suryavanshi	TRIPTA'S MARKING EXPERT	8
10	2101984	Ishu Banga	Wonder Cement Limited	6.15

Students Section

STUDENT EDITORS



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The New Math: Solving Cryptography in the Age of Quantum

In the digital era, cyber security is heavily reliant on cryptography which protects everything from personal emails to government secrets. At the same time, quantum computers pose an unmatched risk for modern security measures due to their increasing capabilities. Unlike standard computers, quantum computers harness qubits which enables them to perform endlessly complex calculations at rates classical machines cannot fathom. While this creates opportunities for unprecedented advancements, it simultaneously works against the cryptographic principles that safeguard the internet today.

Protocols such as RSA, Elliptic Curve Cryptography (ECC), and Diffie-Hellman use encryption based on mathematical problems that are notoriously difficult to solve using traditional computing machines. However, quantum computing alters this dynamic entirely. These problems can be easily solved with the use of Shor's Algorithm and quantum machines, shattering data encryption that is believed would take classical machines thousands of years in mere minutes.

To address the impending dangers posed, cyber security measures are looking into post-quantum cryptography (PQC). These are also referred to as advanced encryption standards that protect both classical and quantum threats. The National Institute of Standards and Technology (NIST) is already working towards the standardization of these algorithms with some of the finalists including CRYSTALS-Kyber and Dilithium paving the way.

New protocols offer solutions for cryptographic challenges through quantum resistant mathematical problems, including those that are lattice-based, code-based, or involve multivariate polynomials.

Alongside software, Google, IBM, and Microsoft are implementing PQC into their cloud services and exploring quantum-resistant frameworks for upcoming products. On the other side, researchers are developing smoother and more secure transitions into post quantum via hybrid encryption models that integrate classical and quantum resistant techniques. That said, this is not a process that can occur overnight. The global coordination of governments, private firms, and researchers will require years to construct a digital infrastructure that supports quantum safe encryption. As of now, organizations need to adopt "crypto-agility" and begin designing systems to facilitate updates with evolving cryptographic standards.

To summarize, quantum computing might pose as an existential threat to the current standards for cryptography, but it gives us the opportunity to strengthen our approach to cybersecurity and propel the development of a more agile and advanced digital infrastructure. The future of cybersecurity will rely on what is called the "the new math of cryptography," which post-quantum algorithms and quantum will reinforce. Taking action needs to happen now while quantum computers are still lab projects.

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6th Semester

15 Most Critical Environmental Issues of 2025

At the midyear mark in 2025, the world is battling a variety of environmental issues that are aggravating and need immediate attention. Climate change has been in news constantly for focus and attention, but it is only a small portion of the crisis list that is growing every second. These crises are endangering people's health and well-being along with the ecosystem, balance of life, and economic growth. Here is a list that highlights the 15 most important environmental issues for 2025 and their significance.

1. Global Warming
With ever-increasing temperatures around the globe, the burning heat, intense storms, and droughts are only getting worse. In 2025, the abnormalities observed in the climate are bound to break previous records, causing further delay in the efforts towards carbon reduction and adaptation techniques which is very much needed.

2. Pollution Due to Plastics
The plastic waste and production levels have gone through the roof despite people being aware of the dire situation we are in as a society. There has been an observable increase in the amount of micro plastics present in the ocean which not only puts marine life in danger but people also harmful due to consuming these through the food chain down the road.

3. Loss of Forests and Habitats
Illegal logging and agriculture are constantly putting to risk the Congo basin, Amazon, and Indo-Malay are from the agriculture. Displacement of natives and loss of biodiversity are incredibly harmful byproducts of this.

4. Shortage of Water
Many places are facing the issue of trying to meet the demand for water to the daily life activities but are unable to do so. Due to drained aquifers and changed rainfall patterns, places like Chennai and Cape Town are suffering with dire symptoms along with agricultural areas.

5. Air Pollution
The fine particulate (PM2.5) pollution is increasing as people face health issues like asthma and cardiovascular disease, to cite problems being faced due to rising premature deaths in the midlands, Asia, and Africa.

6. Soil Degradation
Desertification and nutrient loss which poses a threat to worldwide food security as well as farmer's livelihood, has been caused by irresponsible farming, deforestation, and unchecked chemical usage.

7. Loss of Biodiversity
Pollution, climate change, and loss of habitat is putting the world through its mass extinction. Species Ecosystem resilience are disappearing at a very high rate which is weakens.

8. Overpopulation and Resource Pressure
Nearing 8.5 billion, the world population puts pressure on land, water and energy resources available. The demand for consumer and urban sprawl put the environment under additional strain, deepening the problem further.

9. Ocean Acidification
Oceans absorbing excess Co2 alters marine chemistry needed for shell forming organisms like coral reefs. Fisheries and aquatic food chains are disrupted becasue of this.

10. Waste Management Crisis
Heaps of uncontrolled solid, hazardous, and consumer waste is piling up, especially in undeveloped countries due to lack of resources. Under developed recycling systems and overflowing landfills is further making the situation dire.

11. Melting of Ice Caps and Expansion of Sea Levels
The ice sheets in Greenland and Antarctica continue to melt, which increases sea levels and puts coastal cities and island nations at risk of flooding and erosion.

12. Forest Fires
Wildfires have become more common and more intense, ranging from California to Australia, as a result of increased temperatures and prolonged dry seasons, wiping out natural habitats and displacing people.

13. Chemical Waste and PFAS
Dangerous chemicals, particularly PFAS (‘forever chemicals’), are showing up in water, soil, and even human blood, resulting in serious long-term health and environmental problems.

14. Inequity of Environmental Social Justice
Environmental abuse tends to fall disproportionately on marginalized populations. Lack of access to clean air and water, as well as safe housing, increases the levels of social injustice and health inequity.

15. Lagging Global Policy Response
International policies such as the Paris Accord are agreements in principle without action, and mainstays of political commitment are are inconsistent and inadequate to avert disaster climate tipping points.

From turning 2025, where the synthesis of all environmental issues and reality collide, solutions can only be derived when all governments, industries, and people cooperate, The promises were made by the Paris Agreement of 2015-2050 But focus should be set on boosting infrastructure of clean energy, and shift the farming to coastal cities and exploit enabling zones of exclusion for the living ecosystems.

Neha
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Universal Human Values: Synthesis of a Just and Humane Society

Human values are concepts that hold ethical significance to every culture and serves as a dividing line for multiple cultures. These values arise from a traditional `values` named essence which is at the core of humanity which includes truth, love, peace, compassion, non-violence, respect and responsibility. They form the basis of philosophy and also argue on the difference between an individual's character and peace within the society. Along with these, in a fast-paced world of immense challenges and rapid technology changes, universal human values are essential. They guarantee that people act with empathy and integrity. This alone gives society the chance to achieve peace, tolerance and justice. Education promotes these values from an early stage and helps in encouraging students to not only acquire knowledge but also ensure and nurture a moral compass.

Spreading universal human values encourages individuals to communicate in an honest manner, care for others, serve the community while creating a positive impact through sustainable living. These acts help in building trust while reducing the negative value in an individual. During crisis such as environmental crises or conflicts and pandemic, shared human values are beyond important as it ensures and introduces people to great unity and collective resilience.

In summation, universal human values form the foundation of a better world—a world where differences are respected, dignity is upheld, and compassion is a common language. Embracing these values is not just a personal responsibility; it is a global necessity for lasting peace and progress.

Anshika
B.Tech ECE
4th Semester

A Novel Integrated Framework for IoT Safety

The rapid expansion of the Internet of Things (IoT) has significantly enhanced automation and connectivity but has also introduced serious security vulnerabilities. This paper presents a novel integrated framework leveraging artificial intelligence (AI) and quantum cryptography to enhance IoT safety. Our approach employs adaptive AI-driven anomaly detection, zero-trust security models, and post-quantum encryption techniques to counter emerging cyber threats. By combining deep learning models with lattice-based cryptography, the proposed framework ensures a robust security architecture capable of mitigating IoT-based attacks. This research outlines the system architecture, implementation methodology, and performance evaluation of the proposed framework. Results indicate a significant improvement in threat detection accuracy and encryption resilience compared to conventional security mechanisms. Keywords IoT security, adaptive AI, quantum cryptography, anomaly detection.

1. Introduction The proliferation of IoT devices has led to unprecedented data generation, but security concerns remain a major challenge. Traditional security methods often fail against sophisticated cyberattacks, necessitating advanced approaches like AI-based anomaly detection and quantum cryptography. This paper introduces a hybrid security model integrating these technologies for comprehensive IoT protection. 2. Literature Review Existing IoT security measures rely heavily on signature-based detection and conventional encryption techniques. However, these methods struggle against zero-day attacks and quantum enabled cyber threats. Recent studies on post-quantum cryptography, AI-based threat detection, and zero-trust architectures suggest promising alternatives for enhancing IoT security. 3. Proposed Framework The proposed model integrates three key components: • Adaptive Security Alerts: AI-driven anomaly detection analyzes real-time data patterns to identify potential threats. • Quantum Cryptography: Post-quantum encryption techniques, such as latticebased cryptography, safeguard data against future quantum computing attacks. • Zero-Trust Security Model: A multi-layered authentication framework prevents unauthorized access to IoT networks. 4. Experimental Results Our model was evaluated using benchmark datasets like KDD CUP 99 and CICIDS2017. The results demonstrated: • Threat Detection Accuracy: 95% (compared to 85% using conventional models) • Encryption Resilience: 40% improvement in computational efficiency These findings validate the effectiveness of the proposed framework in mitigating IoT security risks. 5. Conclusion and Future Work This research presents an AI and quantum cryptography-integrated framework to enhance IoT security. Future work will focus on real-world deployment and optimizing computational efficiency for resource-constrained IoT devices. The combination of adaptive AI, post-quantum cryptography, and zero-trust security is a promising direction for safeguarding IoT ecosystems against evolving cyber threats.

Aryan Raj
B.Tech CSE
6th Semester

Artificial Intelligence in Everyday Products: Will Cybercrimes Skyrocket?

Artificial Intelligence (AI) has seamlessly integrated into our daily lives, powering smart assistants, autonomous vehicles, home security systems, and even personal finance management tools. While AI brings remarkable convenience, it also raises concerns about cybersecurity risks. As AI becomes more sophisticated, will cybercrimes skyrocket alongside its advancements?

AI's Expanding Role in Everyday Products From voice assistants like Siri and Alexa to smart refrigerators and self-learning thermostats, AI has revolutionized the way we interact with technology. Automated decision-making in financial transactions, healthcare diagnostics, and personalized content recommendations showcases AI's potential to enhance efficiency and user experience. However, with great power comes great vulnerability.

The Rising Threat of AI-Powered Cybercrimes

Cybercriminals are leveraging AI for more sophisticated and scalable attacks. Machine learning algorithms enable hackers to automate phishing scams, bypass security measures, and develop malware that adapts to new defense mechanisms. Deepfake technology, which uses AI to create hyper-realistic fake images, videos, and audio, is increasingly being used for fraud, identity theft, and misinformation campaigns.

Potential Cybersecurity Risks

1. Data Breaches and Privacy Concerns: AI-driven products collect vast amounts of personal data. If improperly secured, this information becomes a prime target for hackers.
2. AI-Enhanced Phishing and Scams: AI can generate highly convincing phishing emails and messages, tricking users into divulging sensitive information.
3. Manipulation via Deepfake Technology: Malicious actors can impersonate individuals or organizations, leading to financial fraud or reputational damage.
4. Autonomous AI Attacks: Hackers may deploy AI systems that continuously learn and evolve, making cyberattacks more unpredictable and challenging to counteract.

Safeguarding AI-Integrated Systems

To mitigate these risks, industries must prioritize robust cybersecurity measures. This includes:

- Enhanced AI Security Protocols: Regular updates and patches to counter emerging threats.
- AI for Cyber Defense: Utilizing AI to detect and neutralize cyber threats before they cause harm.
- User Awareness and Training: Educating users on identifying potential cyber threats.
- Regulatory Compliance: Governments and organizations must establish strict regulations for AI development and cybersecurity.

The Future: A Double-Edged Sword

While AI enhances productivity and convenience, its misuse can lead to unprecedented security threats. The key lies in responsible AI development, proactive cybersecurity measures, and global cooperation to combat AI-powered cybercrimes. If addressed effectively, AI can be a force for good rather than a catalyst for cyber threats.

As AI continues to evolve, one question remains: Can we stay ahead of cybercriminals in this digital arms race? The answer will determine whether AI remains a tool of progress or a double-edged sword in the cyber world.

Bhavey
B.Tech CSE

The Ones Who Loved Me First, The Ones I'll Love Forever

I've known them since the very first day.
Since the very first breath, since the very first touch There's no one
in this world like them,
Who would treat me, the way they do.

My first word, my first roll,
My first step, and many, many more. They
keep it treasured in their hearts Never
forgetting for years to come!

They praise me when I do good. They
correct me when I'm wrong.
The face of Almighty, the first teachers, They are the
ones I love the most!

Thanks for everything, Mom, Dad!
There's something I'd really like to tell you both: If next
life truly exists,
I'd like to be born as your daughter, once more.

– Agnes Thomas

The Role of Cloud Computing in Big Data Storage and Processing

In today's digital world, vast amounts of data are generated every second from various sources such as social media, IoT devices, online transactions, and enterprise systems. Managing and processing this enormous volume of data—known as Big Data—requires robust infrastructure, which is where cloud computing plays a crucial role. Cloud computing provides scalable, cost-effective, and high-performance solutions for storing and processing Big Data, making it indispensable in modern data-driven industries.

Why Cloud Computing for Big Data?

Big Data involves handling massive datasets that require extensive computing power and storage. Traditional on-premises infrastructure often falls short in terms of scalability, maintenance, and cost efficiency. Cloud computing addresses these challenges through:

1. Scalability – Cloud platforms provide dynamic resource allocation, allowing businesses to scale storage and processing power as needed.
2. Cost Efficiency – Pay-as-you-go pricing models reduce upfront infrastructure costs, making it more affordable for organizations to manage large datasets.
3. Flexibility and Accessibility – Cloud-based solutions allow remote access to data and computing resources from anywhere in the world.
4. Reliability and Security – Leading cloud providers offer robust security measures, disaster recovery, and automatic backups to ensure data integrity.
5. Integration with AI and Analytics – Cloud platforms often integrate with AI and machine learning tools, enhancing data analytics capabilities.

Big Data Storage in the Cloud

Cloud storage plays a vital role in managing structured and unstructured data efficiently. Some common storage models include:

- Object Storage: Stores large volumes of unstructured data, ideal for multimedia, backups, and large datasets.
- Block Storage: Provides high-performance storage, typically used for databases and applications requiring fast access to data.
- File Storage: Used for hierarchical data storage and shared file systems.
- Data Lakes: Cloud-based repositories that store raw data for further processing and analysis.

Big Data Processing in the Cloud

Processing large datasets requires high-performance computing power, which cloud platforms provide through:

- Distributed Computing: Frameworks like Apache Hadoop and Apache Spark use cloud-based clusters to process large datasets efficiently.
- Serverless Computing: Enables businesses to execute functions on demand without managing infrastructure, reducing costs and complexity.
- Machine Learning and AI Integration: Cloud platforms offer AI and machine learning capabilities for predictive analytics, automation, and advanced data processing.

Top Cloud Platforms for Big Data

Several cloud providers offer Big Data solutions, including:

- Amazon Web Services (AWS) – Services like Amazon S3, AWS Lambda, and Amazon EMR support Big Data storage and analytics.
- Google Cloud Platform (GCP) – Provides BigQuery, Cloud Storage, and Dataflow for large-scale data analytics.
- Microsoft Azure – Offers Azure Data Lake, Azure Synapse Analytics, and AI-powered data processing tools.
- IBM Cloud and Oracle Cloud – Provide enterprise-grade Big Data solutions for analytics and AI integration.

Conclusion

Cloud computing has revolutionized Big Data storage and processing by offering scalable, flexible, and cost-efficient solutions. Organizations can leverage cloud platforms to store, analyze, and extract valuable insights from massive datasets while integrating AI and machine learning capabilities. However, addressing security, latency, and cost challenges is essential for maximizing the benefits of cloud-based Big Data solutions. As technology advances, cloud computing will continue to play a pivotal role in the evolution of data-driven decision-making and digital transformation.

Bhomik
B.Tech CSE

The Transformative Impact of Fintech on Traditional Financial Institutions

The rise of financial technology, commonly known as fintech, has revolutionized the landscape of the financial services industry. Fintech refers to the innovative use of technology to deliver financial services, ranging from mobile payments and peer-to-peer lending to blockchain and robo-advisors. Its rapid growth has significantly impacted traditional financial institutions, challenging their established business models and pushing them to adapt or risk obsolescence.

One of the most profound effects of fintech on traditional banks and financial entities is the disruption of traditional banking services. Fintech companies offer faster, more convenient, and often cheaper alternatives to services like money transfers, loans, and investment management. For example, mobile banking apps and digital wallets have made it possible for consumers to conduct transactions anytime, anywhere, without the need to visit a physical branch. This convenience has shifted customer expectations, compelling traditional institutions to enhance their digital offerings to stay competitive.

Moreover, fintech has democratized access to financial services. Technologies like robo-advisors and peer-to-peer lending platforms have made investing and borrowing more accessible to a broader population, including those who were previously underserved by traditional banks. This shift has intensified competition, as traditional institutions can no longer rely solely on their size and reputation to attract customers. Instead, they must offer personalized, user-friendly services that cater to the evolving needs of tech-savvy consumers.

Another significant impact is the acceleration of innovation within traditional financial institutions. Faced with the agility and efficiency of fintech startups, banks and financial organizations have increasingly embraced digital transformation. Many have established fintech partnerships, invested in technology startups, and developed their own digital platforms to improve operational efficiency and customer engagement. This collaborative approach has led to the adoption of advanced technologies like artificial intelligence, big data analytics, and blockchain, enhancing everything from risk assessment to fraud detection.

However, the rise of fintech also poses regulatory challenges. The rapid pace of innovation often outpaces existing financial regulations, creating gaps in oversight related to data security, privacy, and financial stability. Traditional institutions, accustomed to stringent regulatory frameworks, must navigate these complexities while ensuring compliance. Additionally, fintech's reliance on data-driven models raises concerns about cybersecurity risks and the ethical use of personal financial information.

In response to these challenges, traditional financial institutions are shifting from viewing fintech as a threat to recognizing it as an opportunity for growth and transformation. By embracing digital innovation, fostering partnerships with fintech firms, and prioritizing customer-centric approaches, traditional banks can not only survive but thrive in this new era of financial services.

In conclusion, fintech has catalyzed a fundamental shift in the financial industry, driving competition, innovation, and greater financial inclusion. While it presents challenges for traditional institutions, it also offers pathways for them to evolve, adapt, and redefine the future of finance. As technology continues to advance, the collaboration between fintech and traditional financial institutions will likely shape the next generation of financial services.

Mahima
MBA 2nd
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More Than Petals

You sit there, staring at empty hands,
Wondering why fate never understands.
A single bloom—was that too much to ask?
But the wind just sighs and moves past.

You count the losses, the "not yet," the "no's,"
The seeds you planted that never arose.
The soil feels barren, the sky feels Gray,
And hope feels farther each passing day.

But what if the ache, this hollow space,
Is just the ground where miracles take place?
What if the flower you grieve not receiving
Was never the end—just the start of believing?

Maybe you're sad you don't get a flower,
*But God's plan is to give you **a whole garden**—*
Not just petals, but roots strong and deep,
Not just sunlight, but rains that will keep
Your heart fertile for wonders unseen,
For more than you've dared to dream.

So, wait, dear soul, though it's hard to trust,
The earth knows seasons, and ashes turn to dust
To make way for life, for colours so bright
That one day, you'll stand in your own field of light.

And you'll finally see—what was taken, what grew—
The garden was always meant just for you.

Aaditya Sharma
B.Tech CSE
2nd Semester

Kindness in the 21st Century: Does It Still Matter?

"In a world where you can be anything, be kind,
For a gentle heart leaves the deepest mark behind."

In today's fast-paced, hyper-connected world, kindness often feels like a forgotten value. We are constantly rushing — chasing deadlines, scrolling endlessly, moving from one task to another — leaving little time for genuine human connection. Yet, in this whirlwind of activity, kindness matters more than ever.

Kindness is not about grand gestures. It lives in small, everyday actions — like holding the elevator for someone running late, sharing your notes with a classmate who missed a lecture, or even simply replying to a stressed friend's message with patience and understanding. These simple acts might seem ordinary, but they create ripples that reach far beyond what we can see.

In the digital age, where likes and comments often replace face-to-face conversations, being truly kind demands effort. It requires presence, patience, and empathy. It challenges us to look beyond ourselves and truly see the people around us — their struggles, hopes, and silent battles. For instance, offering a stranger direction with a smile or paying for someone's tea when they've forgotten their wallet may seem small, but it can turn someone's bad day around.

Many believe that kindness makes you vulnerable. In reality, it makes you strong. It builds trust, nurtures friendships, and creates communities where everyone feels valued. In a time when negativity often travels faster than good news, kindness is an act of quiet rebellion — a reminder that compassion still has a place in our lives.

As students, as future leaders, and most importantly, as human beings, it is our responsibility to keep kindness alive. Whether in classrooms, workplaces, or crowded streets, we can choose to be the reason someone believes in goodness again.

In the 21st century, kindness is not just relevant — it is revolutionary. And sometimes, a small act of kindness can be the spark that changes everything.

Aaditya Sharma
B.Tech CSE
2nd Semester

Building Careers.
Transforming Lives.