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#### MESSAGES

Dr. Anuj Kumar Gupt

ear Readers

In an era defined by rapid technological advancements, we find ourselves simultaneously liberated and restrained by the digital world. The theme of this edition, "Digital Arrest," delves into the paradox of our digital lives—a realm where connectivity has brought the world closer, yet sometimes confines us within invisible boundaries.

From the addictive pull of social media to the endless scroll of information, the digital landscape can be as overwhelming as it is empowering. It offers convenience but often at the expense of our attention, creativity, and even mental well-being. Have we paused to consider how our screens have transformed from tools of empowerment to potential sources of constraint? This issue seeks to explore how the digital age has reshaped our lives, both positively and negatively. Through thought-provoking articles, creative expressions, and personal anecdotes, we aim to shed light on the multifaceted relationship between humanity and technology. We hope these reflections inspire you to regain balance in a hyperconnected world and to pause, reflect, and redefine your own relationship with the digital realm.

ship with the digital realm. Let this edition be a gentle nudge toward intentionality—a call to break free from the "arrest" of the digital and rediscover the analog beauty of life beyond screens.

Happy reading!

## List of Contents

Page title	Page no.
Messages	
Articles	2-5
Events	6-9
Collaboration	10
Achivements	11-13
Collaboration	14
Events	15-16
Creative Corner	17-18



### Dear Readers

COE CHRONICLE

It is with immense pride and joy that this magazine stands as a testament to the creativity, intellect, and hard work of our students and faculty members. It offers a glimpse into the vibrant academic and extracurricular life of our college, showcasing the various talents and ideas that flourish within our community.



The contributions of our students reflect the dynamic learning environment we strive to create, where ideas are nurtured, and personal growth is encouraged. As a department, we are committed to fostering innovation, critical thinking, and a sense of responsibility towards society. I hope this magazine serves as an inspiration to all readers to continue exploring their possions and sharing their knowledge with others.

Let us continue to work together towards creating an even more enriching and forward-thinking academic environment. I am confident that with the support of all our stakeholders, our college will continue to be a beacon of excellence. Thank you for your continued dedication and enthusiasm. I hope you enjoy reading this edition!

# COE CHRONICLE

Reflecting the Essence of Campus Life.

OCTOBER-DECEMBER, 2024

# ~ Digital Arrest











# Chandigarh Group of Colleges, Landran

CREATIVE CORNER

ARTICLES

Artificial Intelligence in Digital Evidence: Advancements and Complications



Or. Pardeep Singh Tiwana
Assistant Professor, COE-CSE

Artificial Intelligence (AI) is revolutionizing digital forensics by improving the efficiency and accuracy of evidence collection and analysis. While it enhances investigations, its integration requires careful consideration of ethical, legal, and social implications. Establishing clear guidelines, addressing biases, and ensuring transparency enable law enforcement to harness AI effectively while upholding justice and protecting individual rights. Advancements in Digital Evidence through AI Automated Data Analysis: AI tools rapidly process large datasets, identifying key information like communication records and transactions. Machine learning detects patterns and anomalies, uncovering connections often missed by humans.

Facial Recognition and Biometrics: Al-driven technologies identify individuals from surveillance or social media and verify identities through voice or fingerprint analysis, linking suspects to activities.

Predictive Analytics: Al analyzes crime data to forecast criminal activities, aiding proactive law enforcement and narrowing down suspects or crime-prone areas.

Natural Language Processing (NLP): NLP tools analyze text-based evidence, like chat logs and social media posts, extracting insights and detecting threats through sentiment analysis.

Complications Arising from Al Integration

Algorithmic Bias: Al can inherit biases from training data, leading to unfair profiling and undermining public trust.

Admissibility Issues: Courts may question the reliability of Al-generated evidence, especially when algorithms lack transparency, complicating prosecutions.

Privacy Concerns: Al surveillance tools risk infringing on privacy and constitutional rights, raising ethical

Dependence on Technology: Over-reliance on Al can reduce human oversight, increasing the potential for errors and unethical practices.

Balancing Al with human judgment

ssential

Digital Arrest and the Right to Be Forgotten: Striking a Balance



Ms. Gagandeep Kau Assistant Professor, COE-C

In the digital age, the intersection of law enforcement practices and individual privacy rights has become increasingly complex. Two pivotal concepts in this dis-course are "digital arrest" and the "right to be forgotten (RTBF)". Understanding these notions and finding a balance between them is essential for upholding justice and protecting personal privacy. Digital arrest refers to the apprehension of individuals based on evidence colcted from digital platforms. This process enables law enforcement agencies to operate in the digital realm actively tracking, restricting, or apprehending individuals through online evidence and activities. The RTBF allows individuals to request the removal of personal information from the internet, particularly when it is outdated, irrelevant, or no longer necessary. This right was first established in May 2014 in the European Union following a ruling by the European Court of Justice, which recognized individuals' rights to request the delisting of personal data from search engines under certain conditions. Potential Conflicts Between Digital Arrests and the Right to Be Forgotten (RTBF).The RTBF can chalenge law enforcement when individuals request the re moval of online data relevant to investigations, poten-tially hindering accountability. It may also conflict with the public's right to access information, especially about criminal records.Striking a Balance

Contextual Evaluation: Assess RTBF requests individually, considering public interest and law enforcement

Legal Guidelines: Define clear boundaries for the RTBF concerning criminal records and investigations.

Transparency: Ensure search engines handle RTBF re-

quests consistently and with accountability.

Public Awareness: Educate the public on the RTBF's scope and limitations to encourage responsible use.

The balance between digital arrests and the right to be forgotten requires respecting individual privacy while ensuring justice and public safety. Establishing strong legal frameworks and fostering stakeholder collaboration can help achieve a balance

OCT-DEC 2024

that upholds both personal rights and societal interests.

is essential.

Binam sanyashi (B.Sc Multimedia) 2nd semester



6th semester



Arishdeep Singh (B.Sc Multimedia) 4th semester



2nd semester

4th semester



17 COE CHRONICLE OCT-DEC 2024

ARTICLE

### Digital Arrest in India: Challenges and Implications

Crime and scams is a major concern as technology gets more incorporated into our day to day lives. One which has picked up in popularity is a type of scam known as the 'digital arrest scam,' taking advantage of fears and spreading misinformation. The aim of this article is to explore what digital arrest is, how these scams rely on the mechanisms, the human component behind, and a few simple tricks to avoid such deceitful practices. Digital arrest occurs when someone is deceived through digital medium -such as email, messages or phone call that the person is linked with any criminal activity. Typically these scams say that the victim's name appears in allegations of serious actions such as money laundering, illegal activity or tax evasion. This fake story is then used by the scammers to pressure the victim into paying fines, fees or bribes to 'fix' your situation. Often result in victims making rash decisions and doing so without confirming the information. The digital arrest scam pretty much conducts an orchestrated attack to instill fear and get you to take action right away.



Prof. (Dr.) Rajdeep Singh Executive Director, Engineering CGC Landran, Mohali



1. Reaching Out to the Victim: They do this by logos, language, or the caller ID of legitimate organizations such as police departments or

cause of 'unlawful involvement' they will be faced with such severe legal actions as war-

- 3. Payment Demands: Victims are coerced in order to 'clear their name' or 'settle the charges.' There are scams that try to get sensi-
- create immediate pressure by saying they need to take action to avoid public shaming,



### **DIGITAL ARREST**

ARTICLE

As technology shapes our lives, law enforcement adapts with digital arrests. This futuristic approach leverages technology to enhance efficiency and tackle modern crimes. It's a step toward a tech-driven justice system.

A digital arrest involves apprehending individuals through electronic means, such as issuing notices, freezing assets, or restricting online activities, to address cybercrimes like fraud, hacking, and harassment.

- 1. Digital Warrants: Authorities issue digital warrants through secure online platforms, enabling instant notifications to the accused.
- 2. Asset Freezing: Bank accounts, cryptocurrencies, and other online resources linked to the suspect can be frozen temporarily.
- 3. Biometric Tracking: Advanced biometric systems ensure that suspects cannot evade digital monitoring, regardless of their location.

Professor & Head DSc DSC-College of Engineering



#### Why is it Trending?

- 1. Efficiency: Digital arrests can be executed faster than traditional methods, saving time and resources. 2.Global Reach: With crimes often crossing borders, digital arrests allow international cooperation without geo-
- 3.Deterrence: Knowing that digital footprints can lead to instant consequences makes potential criminals think

#### **Controversies Surrounding Digital Arrests**

- > Privacy Issues: Critics argue that digital surveillance could violate individuals' privacy rights
- > Misuse of Power: In the wrong hands, such tools could be used to suppress dissent or target vulnerable com-
- > Digital Divide: Not everyone has equal access to technology, making this system potentially biased against those who lack digital literacy.

#### The Future of Policing

Digital arrests mark a shift toward tech-driven law enforcement, but their success hinges on safeguarding rights and preventing misuse. Balancing security and freedom remains a key challenge as this approach reshapes the intersection of technology and justice. The future of law enforcement is undeniably digital.

2

#### **AWARDS AND ACHIEVEMENTS**



We are excited to announce that CGC College of Engineering. Landran has received an outstanding 3.5 ranking certificate from the Institution's Innovation Council (IIC) for the academic year 2023-24. This prestigious recognition comes as a result of our consistent efforts in promoting Innovation and Start-up culture on campus.

The IIC at CGC College of Engineering has successfully undertaken a variety of activities, as prescribed by the Innovation Cell, Ministry of Education, Government of India, aimed at fostering innovation, creativity, and entrepreneurship. Our initiatives have not only empowered students to develop entrepreneurial mindsets but also helped create a vibrant start-up ecosystem within the college.



CGC College of Engineering, Block-10, has achieved an impressive All India Rank of 276 in the Internshala . Annual Rankings 2024, out of over 740 participating colleges. This accomplishment highlights our commitment to providing students with valuable internship opportunities that build industry-relevant skills. A special thanks to Prof. Neha Sharma for her dedicated efforts in securing internships for our students. This achievement reflects our continued dedication to student success and career growth. We look forward to reaching even greater milestones ahead!

This achievement reflects our commitment to nurturing the next generation of innovators and entrepreneurs. We are proud to be a part of this transformative journey and look forward to further enhancing the innovation landscape at CGC College of Engineering.

Together, let's continue to inspire and lead the way in inno-





#### **EXCITING PLACEMENT SUCCESS AT CGC COLLEGE OF ENGINEERING!**





Monika Choudhary, Philips India Ltd. – Intern, Product, CSE – 14.5 LPA

Khushdeep Kaur, Philips India Ltd. – Intern, Product,

Sumit, SanDisk India Device Design Center Pvt. Ltd.

tional skills and dedication of CGC College of Engineering students. With these prestigious offers, our



15

### Article

### How the Digital Age Has Reshaped Our Lives?

The digital age has fundamentally transformed our lives, influencing how we communicate, work, learn, and connect with tools like email, social media, and video calls, bridging global distances and making staying in touch easier than ever. However, this ease of connection often comes at the cost of meaningful, face-to-face interactions, leaving many curated nature of social media also adds to feelings of in-



Dr. Anui Kumar Gupta **Director Principal CGC College of Engineering** 

Workspaces have seen a significant shift with the rise of remote work and automation. Digital tools and collaborative platforms have enhanced productivity and enabled businesses to operate across borders seamlessly. However, the constant connectivity has blurred the lines between work and personal life, creating a culture of being "always on," which often leads to burnout. Additionally, automation and artificial intelligence, while creating new opportunities in some sectors, have also disrupted traditional job markets.

Education has perhaps benefited the most from digitalization. Online learning platforms, virtual classrooms, and access to resources have democratized education, making it possible for students worldwide to learn from top instructors. Yet, the digital divide remains a significant barrier, as not all have equal access to devices or the internet. Over-reliance on digital tools can sometimes hinder the development of critical thinking and interpersonal skills, essential for holistic growth.



In terms of social dynamics, the digital age has created new avenues for forming relationships and amplifying marginalized voices through online The anonymity of the internet can sometimes encourage toxic behaviors

In healthcare, advancements such as telemedicine, wearable technology, and Al diagnostics have made healthcare more accessible and personalized. However, the downside includes the rise of screen addiction, sedentary lifestyles, and stress from constant notifications and information overload. Mental health challenges linked to digital dependency are becoming increasingly common, highlighting the need for balance.





The digital age has undoubtedly brought immense opportunities, making our lives more interconnected and efficient. However, it has also introduced challenges that demand thoughtful navigation. Striking a balance between embracing technology and maintaining our well-being is crucial. By leveraging the benefits of the digital age while addressing its downsides, we can ensure that technology serves as a tool for empowerment and growth rather than a source of constraint.

### Digital Arrest in India: Challenges and Implications

Those digital arrest scammers are usually part of rings of organized cyber criminals, or they may be talented individual fraudsters. Both in India and abroad they use anonymity tools such as fake phone numbers, VPNs and secure communication apps. While their targets are often just random, it's quite common for them to target people that are unfamiliar with digital literacy, for instance older adults, or people who aren't familiar with the legal or cybercrime issues. As it gained more people's attention, so the growth of these scams, due to more people with more access to internet resulting in less awareness from users.

2. Protect Personal Information: Never provide sensitive details like bank account numbers,





3. Verify and Report: To confirm any such claims contact the alleged agency through official chan-Cybercrime authorities

(Cybercrime.gov.in or local police.

4. Enhance Digital Awareness: Learn what common cyber fraud strategies are. Get to know haps most importantly — when you come across suspicious requests, ask critical questions.

viduals to freely roam the digital landscape, and protect technological trends from being used as a







OCT-DEC 2024

Collaborations

### MEMORANDUM OF UNDERSTANDING (MOU) SIGNED WITH DIGIMANTRA LABS

rvice-based software company comlemia. Bridging the gap between aca n developing the next generation of skilled professionals and driving innovang with educational institutions for Industry-Academia Collaboration aiming o bridge the gap between theoretica ands-on experience and contributing cutting-edge











We are delighted to announce the signing of Memorandum of Understanding (MoU) between our institution CGC COE and DigiMantra Labs, a renowned IT solutions provider, marking the beginning of a promising partnership aimed at fostering innovation and excellence in technology

education. This collaboration is set to open new avenues for our students and faculty, offering them access to industry- aligned training, internships, live projects, and cutting-edge technological advancements. DigiMantra Labs, with its expertise in software development, digital marketing, and Al-driven solutions, will play a pivotal role in bridging the gap between academic knowledge and industry expectations.

- · Organize workshops, seminars, and hands-on training sessions for
- Facilitate internships and placements for deserving candidates.
- · Collaborate on research initiatives to explore emerging trends in Arti ficial Intelligence, Machine Learning, and other advanced technologies.

· Develop a centre of excellence for skill enhancement and knowledge



The MoU was officially signed in the presence of esteemed dignitaries from

both organizations, highlighting the shared vision of empowering young minds and nurturing talent. We are confident that this partnership will be instrumental in creating a technology-driven ecosystem and producing industry-ready professionals. This is a significant step forward in our commitment to providing holistic education and fostering industry-academic collaboration.

COE CHRONICLE -- 5 -14 OCT-DEC 2024 OCT-DEC 2024 ACHIEVEMENTS

#### CONGRATULATIONS TO OUR IKGPTU YOUTH FESTIVAL 2K24 CHAMPIONS!

#### CGC COE Giddha Team Youth Festival 2024





The vibrant spirit of tradition and culture shone brightly as the Giddha team from our department brought laurels by securing the second position at the prestigious Youth Festival. Their mesmerizing performance, marked by grace, energy, and synchronization, captured the essence of Punjabi heritage and left the quidinger shellbund.

This achievement is a testament to the team's hard work, dedication, and passion for preserving and showcasing our rich cultural traditions. Each member of the team demonstrated exceptional talent, enthusiasm, and unity, making this victory a proud moment for our department.

We extend our heartfelt congratulations to the entire team and their mentors for their outstanding effort and dedication. Their success inspires us to celebrate our roots and embrace the spirit of teamwork and perseverance.

Essay writing Competition (Short Story Writing)

The CGC College of Engineering is thrilled to celebrate the outstanding achievement of our talented student, Sweeni From B.Tech CSE, who secured Second Position in the Essay Writing Competition at the prestigious Youth Festival 2024.

Sweeni showcased exceptional creativity, eloquence, and analytical skills in their essay, which impressed the judges with its depth, clarity, and originality. The competition saw participation from students across various disciplines, making this achievement a testament to their hard work and intellectual brilliance.

This accolade not only highlights the individual talent of Sweeni but also reflects the department's emphasis on holistic development, encouraging students to excel beyond the classroom.

We are immensely proud of this remarkable feat and look forward to witnessing more suchaccomplishments in the future. Congratulations once

again on this well-deserved recognition!



ECHRONICLE \_\_\_\_\_\_\_\_ 13 \_\_\_\_\_\_

EVENTS

### Logo Design Competition at Saviskar 2024

We are thrilled to announce that our students secured 3rd place in the prestigious Logo Design Competition at Saviskar 2024, an event celebrating creativity and innovation. Competing against participants from numerous institutions, their logo stood out for:

This achievement reflects their hard work, creativity, and the strong foundation nurtured at our institution. We congratulate the team and mentors for this remarkable success, inspiring all to strive for excellence in their creative pursuits.

Our students recently visited the Antier School of Blocktech (ASB) to gain insights into blockchain technology. The visit included:

Interactive Sessions: Fundamentals of blockchain and its applications. Live Demonstrations: Real-world blockchain solutions in action. Hands-on Activities: Practical exercises in transparency, security, and efficiency.

Q&A with Experts: Career guidance from industry leaders. This immersive experience enhanced their technical knowledge and inspired them to explore emerging technologies. We thank ASB for hosting this enriching session and look forward to more such industry interactions to empower our students for the future.



#### POSTER MAKING PRESENTATION

The Poster Making Presentation Competition provided a dynamic platform for participants to unleash their creativity and convey impactful ideas through art. The event celebrated the intersection of visual storytelling and meaningful messaging, encouraging participants to address significant societal, environmental, and technological themes. Focused on topics such as Environmental Sustainability, Technological Innovation, Social Awareness Campaigns, and Global Challenges, participants were challenged to create posters accompanied by presentations explaining their concepts, design processes, and intended impacts. This unique format blended artistic expression with effective verbal communication, inspiring innovation and fostering awareness of critical issues.



The competition attracted a diverse group of students and professionals, each bringing unique perspectives and ideas. Entries were judged based on creativity, message clarity, relevance to the theme, and presentation quality. Interactive discussions between participants, judges, and the audience enriched the event, making it an engaging and collaborative experience. By promoting innovation and critical thinking, the competition highlighted the power of art as a medium to inspire change and address pressing global challenges. Prizes were awarded to outstanding entries, while all participants were recognized for their efforts, ensuring the event left a lasting impression on everyone involved.

#### **INDUSTRIAL VISIT**

**EVENTS** 

CGC College of Engineering is having research collaborations with institutions like Royal Military College of Canada, Canada; University of Notre Dame, USA; BNI, USA; Fermilab USA; CERN Geneva; Bonn University Germany; University of Bayreuth, Wuerzburg, Munich and Berlin in Germany, Chemistry Deptt., City College of New York (CUNY), New York; KEK Japan, Chinese academy of Sciences, Shanahai China: ICTP etc.

The industrial visit provided valuable insights into high-energy physics, including the use of a cyclotron to understand its applications. Students learned about advancements in simulation techniques through various software tools used to study nuclear reactions in samples. By exploring the labs, they gained a deeper understanding of the scientific research process, discovered career opportunities, and were inspired to contribute to the advancement of science and technology. The High-Performance Computational Facility showcased its role in theoretical studies and modeling physical problems, including simulations. Overall, the visit offered a unique opportunity to explore the world of scientific research and development.









ACHIEVEMENTS

#### LAUNCH OF 'INNOVATE, TRANSFORM, ELEVATE' NEWSLETTER BY CGC COE CSE.

6

#### Exciting News from CGC - College of Engineering

The Department of Computer Science and Engineering at CGC College of Engineering is proud to announce the launch of its official newsletter, "Innovate, Transform, Elevate" covering the July-December 2024 session. This vibrant initiative is designed to capture and showcase the department's achievements, activities, and advancements in the field of technology. This newsletter highlights the incredible strides made by the Computer Science & Engineering Department, including:

including: Innovative Projects shaping the future of technology. Transformative Learning Experiences through workshops, seminars, and guest lectures.

Elevating Achievements of our talented students and faculty. We encourage students and faculty to actively contribute to this initiative, ensuring that it becomes a sourc irit of learning and invovation as we continue to transform ideas into reality and elevate the standards of technical education. Stay tuned for the latest updates in every edition of "Innovate, Transform, Elevate"!





The "Innovate, Transform, Elevate" reflects the department's commitment to fostering a culture of innovation, promoting knowledge sharing, and driving academic and professional excellence.



#### **EVENTS**

#### SMART INDIA HACKATHON GRAND FINALE WINNER TEAM CODE CRUSHERS

Team Code Crusher from CGC College of Engineering Shines at Smart India Hackathon

of Engineering, Team Code Crusher has emerged victorious at the prestigious Smart India Hackathon 2024 Grand Finale. The team show-

Competing against hundreds of talented teams Feam Code Crusher's innovative solution stood



# **COLLEGE NOTES**

Team Code Crusher from Chandigarh Group of Colleges, Landran, bagged the first prize in the national-level finale of Smart India Hackathon (SIH) 2024, software edition, bringing laurels to the institution competition. Computer Science Engineering students Piyush Gupta, Prema Jain, Rahul Sharma, Prachi Saini, Priyanshu Chauhan and Ritvik Bhutani bested 26 other teams, with their project, "Raahi - The way to easy travel", a website designed to

The team, comprising six skilled and passionate students from CGC College of Engineering, worked tirelessly to develop a solution that addressed. Their project impressed the jury with its technical brilliance, originality, and ability to address critical challenges.

The management and faculty of CGC College of Engineering extended their heartfelt congratulations to the team for their exceptional performance, bringing laurels to the institution.

This achievement reaffirms CGC College of Engineering's commitment to fostering innovation, creativity, and technical excellence among its students. Team Code Crusher's success at the Smart India Hackathon 2024 serves as an inspiration for aspiring technocrats to push the boundaries of innovation and create a positive impact on society.

# सीजीसी लांडरां की टीम कोड क्रशर ने स्मार्ट इंडिया हैकाथॉन 2024 में शीर्ष सम्मान जीता



Congratulations, Team Code Crusher! You have made CGC College of Engineering proud!

and teamwork of everyone involved. We are grateful to our mentors and CGC College of Engineering for their unwavering support and guidance throughout this journey."

Speaking on their achievement, the leader of Team Code Crusher, expressed their grati-

#### **Event**

visited Vikram Public High School, Kharar to introduce students to the world of digital tools. The session, themed \*Culture Connect: Diversity Through Digital Tools," highlighted how technology bridges

To motivate the students, we concluded by distributing gifts, including stationery and educational materials, fostering excitement and gratitude. The visit was a rewarding experience, inspiring students to explore technology as a means for learning and cultural collaboration. We look forward to organizing more such sessions in the













#### VISIT AT GOVERNMENT SENIOR SECONDARY SCHOOL



Secondary School, Khera, was a resounding success, effectively achieving its objectives of promoting harmony and unity through cultural bonding. Participants, including over 120 school students and faculty, left the event inspired and with a deeper understanding of their potential roles in relationship building. The activities, which included performances and discussions on cultural cooperation, fostered a sense of community and appreciation among the





8 OCT-DEC 2024

#### COLLABORATIONS

# MEMORANDUM OF UNDERSTANDING









CGC College of Engineering Landran, Mohali

The Depatment of Applied Science, CGC College of Engineering Landran signed an MOU with Rock soft Solutions, Mohali today on 18-10-2024. The parties wish to establish a memorandum of understanding to promote academic cooperation and mutual engagement between the two institutions. The cooperation may include, subject to mutual agreement, various academic and educational activities aimed at enhancing the edueach institution.

Conducting Industrial visit programs for students

Conducting Faculty Training Programs
Conducting Student Training Programs

Conducting Workshops, Hackathons and Seminars, Expert talks

Participate in career fairs, recruitment events

Providing Internships and Placement opportunities





