

KERNEL_{2.0}

JANUARY 2026

DEPARTMENT OF COMPUTER APPLICATIONS
UNIVERSITY OF ENGINEERING & MANAGEMENT, JAIPUR



SECOND EDITION



Paul Klee



Salvador Dalí



Ideogram 3.0

! Cover Page Artwork by AI

In the style of Paul Klee and Salvador Dalí — a surreal fusion of geometric abstraction and dreamlike realism, combining vivid symbolic forms with precise, luminous detail to evoke creativity, intellect, and modern innovation.

Conceptualized By: *Gaurav & Sayak*

KERNEL

Vol. 02



"Dedicated to the pursuit of knowledge, innovation, and the relentless spirit of progress."



UNIVERSITY OF ENGINEERING & MANAGEMENT
Good Education, Good Jobs

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Message from the Chancellor

“ *Education is the bridge that connects dreams to reality, and innovation is the path we walk together.* ”



It gives me immense pride and happiness to witness the release of the second edition of Kernel, a magazine that continues to grow from the strong foundation laid by its inaugural volume. Building upon the creativity, intellect, and dedication of the Department of Computer Applications at the University of Engineering & Management, Jaipur, this edition reflects the evolving spirit of our academic community. Kernel has now established itself not merely as a publication, but as a meaningful expression of our university's vision—where knowledge is celebrated, creativity is encouraged, and academic excellence is pursued with unwavering commitment.

The domain of Computer Applications remains at the core of modern innovation, seamlessly connecting human imagination with technological advancement. As an institution, our mission has always been to nurture individuals who not only achieve professional excellence but also contribute responsibly and thoughtfully to society. The continued journey of Kernel stands as a testament to this mission. Through its pages, students and faculty alike present their achievements, insights, and ideas, fostering a culture of learning that extends beyond classrooms and laboratories.

I am confident that this second edition of Kernel will further strengthen its role as a window into the vibrant and intellectually enriching environment of the Department of Computer Applications. I extend my heartfelt congratulations to the editorial team, contributors, and all those who have worked diligently to bring this edition to fruition. May Kernel continue to serve as a beacon of knowledge, growth, and excellence, inspiring future generations of learners and educators in the years to come.

With warm regards,
Prof. Banani Chakrabarti
Chancellor, UEM Jaipur

“ *In every challenge lies an opportunity to create, learn, and lead towards a brighter tomorrow.* ”

Message from the Vice-Chancellor

“ Empowering minds through education and innovation is the cornerstone of progress.



It gives me immense pride and satisfaction to extend my heartfelt congratulations to the Department of Computer Applications on the release of the second edition of Kernel. Building upon the success of its inaugural volume, this edition reflects the sustained creativity, dedication, and collaborative spirit of our students and faculty. In an era marked by rapid digital transformation, initiatives like Kernel play a vital role in shaping academic thought, encouraging innovation, and nurturing a culture of intellectual curiosity within the university community.

The field of Computer Applications continues to stand at the forefront of global progress, driving technological revolutions, enabling transformative solutions, and connecting societies in unprecedented ways. At the University of Engineering & Management, Jaipur, we remain committed to cultivating talent that not only achieves academic excellence but also dares to push boundaries and explore new possibilities. Kernel serves as a powerful platform that captures this spirit, offering readers a window into the dynamic ideas, aspirations, and achievements that define the Department of Computer Applications.

Innovation, however, extends beyond technology alone. It also encompasses values such as ethical responsibility, sustainability, and inclusivity. As readers engage with this edition of Kernel, they will encounter a rich blend of knowledge, creativity, and thoughtful perspectives that reflect these ideals. The magazine highlights not only technical proficiency but also the department's conscious effort to address real-world challenges with a humane and socially responsible outlook.

I encourage our students and faculty to continue pursuing knowledge with passion, integrity, and perseverance. Let Kernel remain a source of inspiration, motivation, and meaningful dialogue for the academic community and beyond. As Kernel moves forward with its second edition, I am confident it will continue to grow as a symbol of excellence for the Department of Computer Applications. Let us remain steadfast in our commitment to innovation, scholarship, and impact, ensuring that UEM Jaipur continues to shine as a center of academic and intellectual distinction. My best wishes to the entire Kernel team and to all those who contribute to shaping a better and more informed future.

With best wishes,
Prof. Dr. Biswajoy Chatterjee
Vice-Chancellor, UEM Jaipur

Message from the Pro-Vice-Chancellor

“ *Education is not just learning; it's about transforming potential into excellence.* ”



It gives me great pleasure to extend my warm congratulations to the Department of Computer Applications on the release of the second edition of Kernel. Building upon the strong foundation of its inaugural volume, this edition continues to serve as an impressive platform for showcasing the intellectual depth, creativity, and technical excellence of the department's students and faculty. The sustained effort behind Kernel reflects not only academic rigor and innovation but also the collaborative ethos that lies at the heart of our university.

In an age where technology is reshaping every aspect of modern life, the discipline of Computer Applications remains a driving force of progress and transformation. Through this edition of Kernel, I am confident that the department will continue to present insightful perspectives, emerging trends, and innovative projects that address contemporary challenges. Such initiatives transcend the mere dissemination of knowledge—they stimulate dialogue, ignite curiosity, and encourage creative thinking among readers.

At the University of Engineering & Management, Jaipur, we strive to nurture a culture of excellence where learning extends far beyond classroom boundaries. Kernel embodies this vision by motivating students to think critically, innovate with confidence, and contribute responsibly to society. It is encouraging to see how this magazine not only highlights academic and technical accomplishments but also celebrates teamwork, perseverance, and collective growth.

As the journey of Kernel continues with its second edition, I encourage the department to keep striving for new milestones. Let this magazine stand as a reminder of what vision, dedication, and collaborative effort can achieve. My best wishes to the editorial team, contributors, and everyone involved in making this edition a success. May Kernel continue to inspire future endeavors and set higher benchmarks of excellence in the years ahead.

Warm regards,
Prof. Dr. Satyajit Chakrabarti
Pro-Vice-Chancellor, UEM Jaipur

“ *Knowledge evolves when curiosity meets perseverance.* ”

Message from the Registrar

“ *In every challenge lies an opportunity to grow and excel.* ”



It is with great pride and satisfaction that I extend my heartfelt congratulations to the Department of Computer Applications on the release of the second edition of Kernel. Building upon the success of its inaugural issue, this edition reflects the continued creativity, dedication, and collaborative spirit of the students, faculty, and staff who have worked diligently to carry this vision forward. In an institution where academic excellence and innovation go hand in hand, Kernel serves as a meaningful platform to showcase the diverse talents, ideas, and achievements emerging from the department. It stands as a reflection of the vibrant intellectual culture of the University of Engineering & Management, Jaipur, and highlights how our academic community continues to contribute thoughtfully to the evolving landscape of technology and society.

I firmly believe that Kernel transcends the role of a conventional magazine—it represents the holistic growth and development of our students. This publication captures their ability to think critically, communicate with clarity, and innovate with confidence. It also recognizes the unwavering commitment of the faculty, whose guidance and mentorship consistently inspire students to explore new horizons. I extend my sincere congratulations to the editorial team and all contributors for their commendable efforts in bringing this second edition to fruition. May Kernel continue to inspire its readers and reinforce a culture of excellence, innovation, and continuous learning in the years ahead.

Congratulations,
Prof. Dr. Pradeep Kumar Sharma
Registrar, UEM Jaipur

“ *Discipline and dedication are the foundation stones of success.* ”

Message from the Associate Dean

(Academics & Foreign Relations)

“Curiosity and learning are the keys to unlocking limitless opportunities.



It is a privilege to address the readers of Kernel as it continues its journey with the release of the second edition of the Department of Computer Applications' magazine. Building upon the strong foundation of its inaugural volume, this edition reaffirms the department's unwavering commitment to academic excellence and global engagement. In an ever-evolving world where technology underpins progress across disciplines, nurturing intellectual curiosity while embracing international perspectives remains essential. Kernel stands as a meaningful step in this direction, showcasing the talent, insights, and innovative ideas that continue to drive the department forward.

Over time, I have closely observed the dedication and diligence with which the department prepares its students—not only by imparting knowledge but also by equipping them with the adaptability and resilience required to thrive in dynamic environments. The articles, projects, and creative expressions featured in this edition of Kernel reflect a mature and evolving spirit of learning and growth. This magazine goes beyond being a compilation of content; it is a celebration of academic achievement, collaborative effort, and a shared commitment to shaping a promising future.

Equally encouraging is the role Kernel plays in strengthening global connections. Knowledge knows no boundaries, and initiatives such as this provide an effective platform to share the accomplishments of the Department of Computer Applications with a wider academic and professional audience. Through this magazine, students and faculty alike are able to engage in cross-cultural dialogue, foster international collaboration, and contribute to a global exchange of ideas that enriches both learning and research.

I extend my heartfelt congratulations to the editorial team and all contributors for their continued hard work and dedication in bringing this second edition to life. May Kernel continue to inspire, educate, and create opportunities for its readers, encouraging them to think globally, aspire boldly, and strive for excellence in all their endeavors.

Best regards,
Prof. Dr. Mukesh Yadav
Associate Dean (Academics & Foreign Relations),
UEM Jaipur

“Education bridges borders, shaping minds for a global tomorrow.

Message from the Associate Dean (Engineering)

“ *Engineering is not just a profession; it's the art of turning ideas into reality.* ”



It is with immense pride and admiration that I extend my warmest congratulations to the Department of Computer Applications on the release of the second edition of Kernel. Building upon the success of its inaugural volume, this edition stands as a significant milestone that continues to showcase the passion, creativity, and academic commitment that define the students and faculty of the department. In today's rapidly evolving technological landscape, Kernel remains a vital platform for students to articulate their insights, demonstrate their capabilities, and celebrate their journeys of growth and achievement.

What makes Kernel particularly noteworthy is its ability to transcend traditional academic boundaries. More than just a magazine, it acts as a bridge connecting diverse engineering disciplines, encouraging collaboration, and highlighting interdisciplinary innovation. Through its pages, readers gain meaningful insights into innovative projects, thought-provoking research, and inspiring accomplishments that reflect the collective effort, determination, and ingenuity of the department's academic community.

I am especially encouraged by the way Kernel emphasizes the close relationship between technology and engineering. This edition captures the evolving spirit of innovation, showcases cutting-edge work, and offers a glimpse into the promising future being shaped by our talented students and dedicated faculty members. Such initiatives enrich the academic ecosystem of the university while inspiring future learners and researchers to pursue excellence.

My heartfelt congratulations to the editorial team and all contributors who have worked tirelessly to bring this second edition to fruition. Your commitment, creativity, and perseverance have resulted in a publication that will continue to inspire its readers, instill pride within our university community, and serve as a lasting source of knowledge and motivation.

With warm regards,
Prof. Dr. G. Uma Devi
Associate Dean (Engineering), UEM Jaipur

“ *Innovation begins where curiosity meets determination.* ”

Message from the Associate Dean (Management)

“ *Effective management bridges innovation and execution, turning ideas into impactful realities.* ”



It is a matter of great pride to witness the continued journey of Kernel with the release of its second edition, further strengthening its role as a flagship publication of the Department of Computer Applications. Building upon the success of the inaugural issue, this edition once again highlights the creative brilliance, technical expertise, and collaborative efforts of students and faculty. It is encouraging to see how the department continues to nurture an intellectual ecosystem that promotes innovation, critical thinking, and academic excellence.

Management, much like Computer Applications, is fundamentally grounded in problem-solving, strategic vision, and adaptability to change. Together, these domains possess the ability to drive transformation across industries and shape the future. Kernel stands as a reflection of the multidisciplinary ethos of UEM Jaipur, where academic knowledge seamlessly converges with real-world relevance and impact.

As readers explore this second edition, I am confident they will discover valuable insights, innovative viewpoints, and inspiring narratives that reflect the evolving academic journey of the department. Each contribution echoes a commitment to learning, leadership, and excellence—qualities that define the core values of our institution.

I extend my sincere congratulations to the editorial team and all contributors for their commendable efforts in bringing this edition to life. May Kernel continue to grow as a source of knowledge and inspiration, and may it remain a beacon of academic and creative excellence for the university community and beyond.

With best regards,
Prof. Dr. Preeti Sharma
Associate Dean (Management), UEM Jaipur

“ *Leadership in any field begins with curiosity, collaboration, and the courage to adapt.* ”

Message from the Associate Dean (Research)

“ *Research is the bridge that connects curiosity to innovation, shaping a brighter future for humanity.* ”



It gives me immense joy to witness the continued journey of Kernel with the release of its second edition, further strengthening its role as a platform for showcasing innovative research and creative ideas emerging from the Department of Computer Applications. Building upon the foundation laid by the inaugural volume, this edition reflects the sustained dedication, curiosity, and intellectual rigor of our students and faculty. The articles and contributions featured here highlight the vibrant research culture that continues to drive academic excellence at the University of Engineering and Management, Jaipur.

I am confident that this edition of Kernel will further inspire a culture of curiosity, collaboration, and interdisciplinary exploration within our academic community. By embracing diverse research themes and encouraging the exchange of ideas across domains, the magazine motivates experienced scholars to share their insights while empowering young learners to embark on their own journeys of discovery. Kernel stands as a testament to the department's collective commitment to advancing knowledge and fostering meaningful academic dialogue.

My heartfelt congratulations to the editorial team and all contributors for their continued dedication in bringing this second edition to life. Kernel not only celebrates the achievements of our academic community but also reinforces our promise to keep pushing boundaries and contributing to the ever-evolving landscape of knowledge. May it continue to inspire future generations of researchers while nurturing innovation, creativity, and academic pride within the department.

Best wishes,
Prof. Dr. Tapas Si
Associate Dean (Research), UEM Jaipur

“ *At the core of progress lies the relentless pursuit of knowledge through research and discovery.* ”

Message from the HoD

(Department of Computer Applications)

“ *In a world driven by innovation, we are committed to inspiring and nurturing the next generation of tech leaders.* ”



With immense pride and enthusiasm, I present to you the second edition of Kernel, the official magazine of the Department of Computer Applications. Building upon the strong foundation laid by its inaugural issue, this edition stands as a reflection of the continued hard work, creativity, and academic accomplishments of our students and faculty. Kernel has now evolved into a meaningful platform where ideas mature, insights deepen, and innovations find their voice.

The journey of Kernel mirrors the vibrant and dynamic academic culture of our department. It serves as a space where students and faculty come together to share perspectives, document experiences, and celebrate collective achievements. This magazine captures the spirit of growth and progress that defines us—a community driven by curiosity, excellence, and a relentless pursuit of knowledge in an ever-evolving technological landscape.

I extend my sincere gratitude to the editorial team, contributors, and everyone who has played a role in shaping this second edition. Your dedication and commitment continue to strengthen Kernel as a symbol of our department's academic vision. May this magazine continue to grow, inspire, and serve as a source of pride, learning, and motivation for the UEM Jaipur community and beyond.

With pride,
Prof. Sayak Pramanik
Head of the Department,
Computer Applications, UEM Jaipur

“ *Empowering students with knowledge today to shape the technology of tomorrow.* ”

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4th International Conference on Human-Centric Smart Computing (ICHCSC-2025)

ADVANCING INNOVATION AND COLLABORATION IN HUMAN-CENTRIC SMART COMPUTING ON A GLOBAL STAGE.



The banner features a purple background with a faint molecular structure. At the top left are logos for AAIA and Springer. The main text reads: "4th International Conference on Human-Centric Smart Computing (ICHCSC-2025)" followed by "10th - 11th October, 2025" and a large "WELCOME" in quotes. Below this, it says "Organized by: Department of Computer Applications". At the bottom left is the UEM logo with the tagline "Good Education, Good Jobs". At the bottom right is the ICHCSC logo.

The 4th International Conference on Human-Centric Smart Computing (ICHCSC 2025) was successfully organized by the Department of Computer Applications, University of Engineering & Management (UEM), Jaipur, on 10–11 October 2025, bringing together researchers, academicians, industry professionals, and students from across the globe.



Centered on the theme “Smart Computing for Human-Centric Innovation and Social Impact,” the two-day conference served as a vibrant platform to explore how intelligent technologies can be designed with empathy, inclusivity, and societal relevance at their core. The event commenced with an auspicious Lamp Lighting Ceremony and Saraswati Vandana, followed by a warm inaugural session led by university leadership and distinguished guests.

The conference featured eminent keynote speakers from premier national and international institutions, including experts from VSB – Technical University of Ostrava (Czech Republic), IIT Patna, BITS Pilani, Central University of Rajasthan, West Virginia University Institute of Technology (USA), Jahangirnagar University (Bangladesh), and Bengal Institute of Technology, Kolkata. Their insightful talks spanned cutting-edge areas such as human-centric AI, machine learning, cognitive intelligence, biomedical signal processing, image analysis, and next-generation smart systems, offering rich perspectives on both theoretical advancements and real-world applications.



Across seven well-structured technical sessions, researchers presented high-quality papers covering diverse domains of smart computing, fostering meaningful discussions and academic exchange in both physical and virtual modes. The hybrid nature of the conference significantly enhanced participation, accessibility, and diversity of thought.

The event concluded with a reflective Valedictory Session, emphasizing the collective achievements of the conference and acknowledging the invaluable contributions of speakers, authors, session chairs, organizers, and student volunteers. The proceedings reaffirmed the conference's commitment to advancing technology that genuinely serves humanity.

With its strong academic rigor, global participation, and focus on societal impact, IHCSC 2025 stood as a significant milestone in the ongoing dialogue on human-centric innovation—setting a strong foundation and high expectations for future editions. Beyond academic exchange, IHCSC 2025 also fostered collaboration, mentorship, and community building among researchers at different stages of their careers. The active involvement of faculty members, student volunteers, and organizing teams ensured the smooth execution of every session, reflecting the institution's strong culture of teamwork and academic stewardship. The conference not only disseminated knowledge but also inspired future research directions, interdisciplinary partnerships, and a shared commitment to developing smart computing solutions that are ethical, inclusive, and human-centered.





PUBLICATIONS



- Sandeep Patidar, "Towards a More Secure Two-Tier ATM System: Proposed Enhancements", International Conference on AI-Driven Innovation for Industry 4.0 to Society 5.0, 2025.
- Poonam Poonia, "A Novel Deep Learning Framework for Enhanced Multispectral Palm-Print Recognition," 13th International Conference on Intelligent Embedded, MicroElectronics, Communication and Optical Networks (IEMECON), 2025.
- Bablu Kumar Majhi, "Breast MRI Registration Using Whale Optimization Algorithm, International Conference on Human-Centric Smart Computing, 2025, https://doi.org/10.1007/978-981-96-3420-0_22
- Bablu Kumar Majhi, "Breast DCE MRI Registration Using Red Kite Optimizer," International Conference on Data Processing and Networking, 2025, https://doi.org/10.1007/978-981-96-3102-5_46
- Bablu Kumar Majhi, Nabin Kumar Mahato, Pabitra Mandal and Yogesh Kumar Jakhar, "Breast DCE MRI Registration Using Golden Jackal Optimization Algorithm," 2025 International Conference on Computing, Intelligence, and Application (CIACON), Durgapur, India, 2025, doi: 10.1109/CIACON65473.2025.11189756.
- Bablu Kumar Majhi, "Kidney MRI Segmentation Using Deep Learning", International Conference on Applications of Artificial Intelligence and Data Science, 2025, https://doi.org/10.1007/978-3-031-98498-3_3
- Bablu Kumar Majhi, "Potato Leaf Disease Classification Using Resnet50ViT", International Conference on Applications of Artificial Intelligence and Data Science, 2025, https://doi.org/10.1007/978-3-031-98498-3_6
- Gaurav Ganguly, Yogesh Kumar Jakhar, "HybridNet: Multi-Backbone Ensemble with Attention Fusion for Face Anti-Spoofing", 4th International Conference on Human-Centric Smart Computing (ICHCSC), 2025.
- Gaurav Ganguly, "Enhancing Early Detection of Cataracts and Retinal Disorders using Machine Learning and Convolutional Neural Networks", 2nd International Conference on Integration of Computational Intelligent System (ICICIS), 2025.
- Gaurav Ganguly, "An Experimental Study of Application of Edge AI for Accelerated Computation", 13th International Conference on Intelligent Embedded, MicroElectronics, Communication and Optical Networks (IEMECON), 2025.
- Gaurav Ganguly, "Bio-Inspired Spiking Neural Networks for Energy-Efficient Anomaly Detection in Wearable Embedded IoT Devices: A Federated Learning Approach", 13th International Conference on Intelligent Embedded, MicroElectronics, Communication and Optical Networks (IEMECON), 2025.
- Gaurav Ganguly, "Improved Deep Learning Framework for CT Imaging-Based Early Lung Cancer Detection", 6th Biennial International Conference on Nascent Technologies in Engineering (ICNTE), 2026.
- Yogesh Kumar Jakhar, "Stock Price Prediction by using Machine Learning Techniques: a Study of TCS Ltd", 2nd International Conference on Sustainable Computing and Smart Systems (ICSCSS), 2024.
- Yogesh Kumar Jakhar, "Predictive Analytics for The Early Detection of Diabetic Foot Ulcers: Investigating Several Machine Learning Algorithms", 2nd International Conference on Engineering, Management and Social Sciences, 2025.
- Yogesh Kumar Jakhar, "Machine Learning Based Stem Cell Investigation: A Review", 54th ISTE National Convention, 2025.

TCDs

The *CIRCLE* Design Studio



CIRCLE
DESIGN STUDIO



HARDIK



RUPSA



SHASHANK



ALGO
CODE MEETS CREATIVITY



KUNDAN



YOGESHWAR



PRIYANSHU



PREM



RAHIL



RUPSA



TANISH





HARDIK



SHASHANK



ESHITA



TEAM



NEERAJ



RAHUL



KHUSHBU



SNEHAL

CHAKRAVYUH

WHERE MINDS BATTLE THROUGH PUZZLES AND
CODE TO EMERGE VICTORIOUS

CHAKRAVYUH was Organized by Algo Club under the Department of Computer Applications as part of TECHUTOPIA 2025 on 14th Sept, 2025 at University of Engineering and Management, Jaipur, this team-based competition tested students' logical thinking, problem-solving, and coding skills through multiple exciting rounds. The event rounds included: QR Code Scanning, Jumbled Word, Crossword Puzzle, Text File Clue, Password Cracking, and the Final Coding Round. Winners received cash prizes, certificates, and medals.

The event was graced by the presence of our HoD, Prof. Sayak Pramanik, along with faculty members of the department. They motivated the students to enhance their analytical, logical, and technical skills through such innovative competitions.

🏆 **Winners :**

- 🥇 1st Place – Mohit Khawal, Yashraj Kumawat [BCA]
- 🥈 2nd Place – Soham Roy, Rudra Raj [B.Tech, CSE]
- 🥉 3rd Place – Trilok Verma, Reman Shah [B.Tech CSE]



VISUALYTICS

TRANSFORMING TECH IDEAS INTO POWERFUL
VISUALS, ONE INFOGRAPHIC AT A TIME.

The CIRCLE Design Studio (TCDS Club), Department of Computer Applications, successfully organized the event Visualytics on 13th September 2025 as part of the annual TechUtopia 2025 Tech Fest.

The competition aimed to test participants' ability to communicate complex technical aspects through creative infographic design. Around 25 registrations were received, and each participant was challenged to prepare a visually compelling infographic within the given timeframe, blending analytical depth and aesthetic presentation.

The event was judged by Prof. Sourav Kumar, along with the guidance of the Faculty Coordinator, Prof. Gaurav Ganguly, carefully evaluated the submissions based on creativity, clarity, technical accuracy, and overall impact. The participants displayed commendable effort and innovation, making the evaluation process both competitive and insightful.

🏆 **Winners:**

- 🥇 1st Place – Devanshu Gotharwal (BCA 3rd Year)
- 🥈 2nd Place – Abhishek Sharma (BCA 3rd Year)
- 🥉 3rd Place – Sonu Jangir (BCA 2nd Year)



Generative Genius 2.0

WHERE TECHNOLOGY MEETS ARTISTRY,
REDEFINING CREATIVITY WITH PROMPT AI.

The CIRCLE Design Studio (TCDS Club), Department of Computer Applications, University of Engineering & Management, Jaipur, successfully organized the event Generative Genius 2.0 on 14th September 2025 as part of the annual TechUtopia 2025 Tech Fest.

A total of around 50 registrations were received, reflecting the strong interest and enthusiasm of the student community. The competition was conducted in two rounds. In the first round, participants were required to create AI-generated images within the given timeframe that depicted an original story through visuals. In the second round, they were challenged to merge two randomly assigned genres into a single seamless image, effectively showcasing their creativity and conceptual clarity.

The event was adjudicated by Prof. Sourav Kumar, Mr. Rakesh Kumar Vishram, and Mr. Sanjay Kumar Dash, under the coordination of Prof. Gaurav Ganguly (Faculty Coordinator). The efforts and innovation displayed by the students were commendable, as they attempted to push the boundaries of imagination, design, and storytelling through generative art.

The event was graced by the esteemed Vice Chancellor Sir, Prof. (Dr.) Biswajoy Chatterjee and Prof. Sougata Banerjee, whose presence added great encouragement to the participants. The winners were delighted to receive their prizes directly from the Vice Chancellor Sir along with other esteemed faculty members, making the occasion even more memorable.

Winners :

-  First Position – Ashish Kumar Jha (BTech CSE 2nd Year)
-  Second Position – Abhishek Sharma (BCA 3rd Year)
-  Third Position – Ayusman Singhal (BTech CSE AIML 4th Year)



Pixel Ki Paheli 2.0

UNRAVELING MYSTERIES AND CONNECTING THE DOTS IN THIS
OSINT-BASED DETECTIVE CHALLENGE.

On 13th September 2025, the HackSec Club, Department of Computer Applications, UEM Jaipur proudly hosted "Pixel Ki Paheli 2.0" under TechUtopia 2K25. The event brought together curious minds and budding cyber enthusiasts for an electrifying solo OSINT-based challenge designed to unlock hidden clues, sharpen analytical thinking, and showcase digital investigation skills.

Tasks Conducted :

Image forensics 🔍

Metadata extraction 📁

Digital footprint tracing 🌐

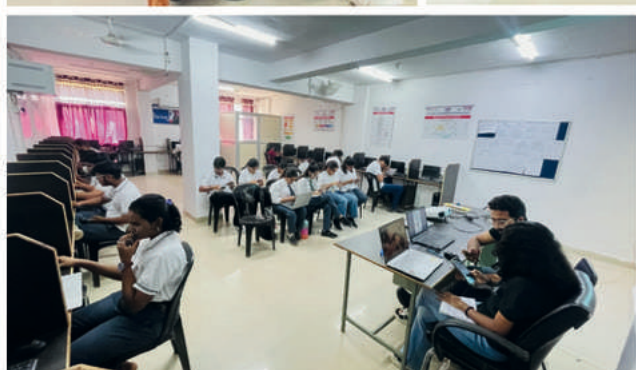
Cyber clue solving 🌱

Winners :

🥇 Yashoda Sharma (BCA 3rd Year)

🥈 Ayusman Singhal (B.Tech 4th Year)

🥉 Piyush Kumar Rai (B.Tech 4th Year)



ANDHADHUN 2.0

THE THRILL OF CODING IN THE DARK, TESTING
PRECISION AND LOGIC WITHOUT VISUALS.

ANDHADHUN 2.0 was Organized by Algo Club under the Department of Computer Applications as part of TECHUTOPIA 2025 on 13th Sept, 2025 at University of Engineering and Management, Jaipur, this individual competition involved coding in C language using the Dev C++ compiler with monitors switched off. The competition had two levels: Level 1 for 1st-year students and Level 2 for 2nd to 4th-year students. Winners received cash prizes, certificates, and medals.

The event was graced by the presence of our HoD, Prof. Sayak Pramanik, along with special guests from SAS, Mr. Freddy Joseph W. and Ms. Yashesve Razdan. They distributed prizes to the winners and delivered an inspiring motivational talk to the students, encouraging them to sharpen their problem-solving and programming skills.

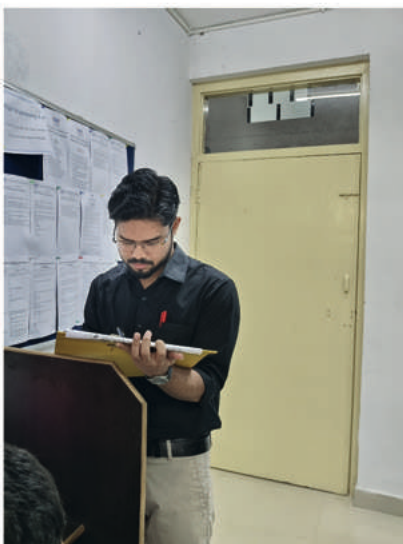
Winners:

Level 1 Winners :

- 🥇 Gorang Kumar Roy (MCA 1st year)
- 🥈 Charu Kanwar (BCA 1st year)

Level 2 Winners :

- 🥇 Pushkar Gupta (B.Tech 2nd year)
- 🥈 Purnagya Raj (B.Tech 2nd year)



Induction Event : The Circle Design Studio - TCDS

EMPOWERING FUTURE CREATORS THROUGH
HANDS-ON DESIGN, ONE IDEA AT A TIME.

The CIRCLE Design Studio (TCDS Club), from the Department of Computer Applications, successfully conducted a Graphic Design Workshop as its Induction Event 2025 on 11th September 2025 at 3:30 PM in the Computer Applications Department.

The session was conducted by Mr. Piyush Kumar Rai (B.Tech CSE 4th Year) as the Resource Person, who introduced participants to design tools such as Canva, Figma, and Inkscape, guiding them on how creativity and technology can come together to produce impactful designs. The event also featured the exciting reveal of clues for the upcoming events of Techutopia 2025 (13-14 September 2025), sparking enthusiasm among the students.



Teachers' Day Celebration

CELEBRATING THE GUIDES WHO TURN
LEARNING INTO LIFELONG WISDOM.

Teachers' Day was celebrated with great enthusiasm and respect at UEM, Jaipur, on 5th September 2025 in the BCA 2nd Year classroom, Academic Block 2. The event was organized to express gratitude towards the teachers for their continuous dedication, guidance, and contribution to the academic and personal growth of students.

The program began with a warm welcome to all the faculty members and guests. Prof. Syak Pramanik, Head of the Department of Computer Applications, graced the occasion with his valuable and inspiring speech, highlighting the importance of teachers as mentors and nation builders.

Faculty members from various departments attended the celebration, making it an interdepartmental event that fostered a sense of unity and joy among all.

To add fun and excitement, two engaging activities – Dumb Charades and Musical Chairs – were organized exclusively for the faculty members. All the teachers participated in these games with great enthusiasm and energy, creating a lively and cheerful atmosphere.

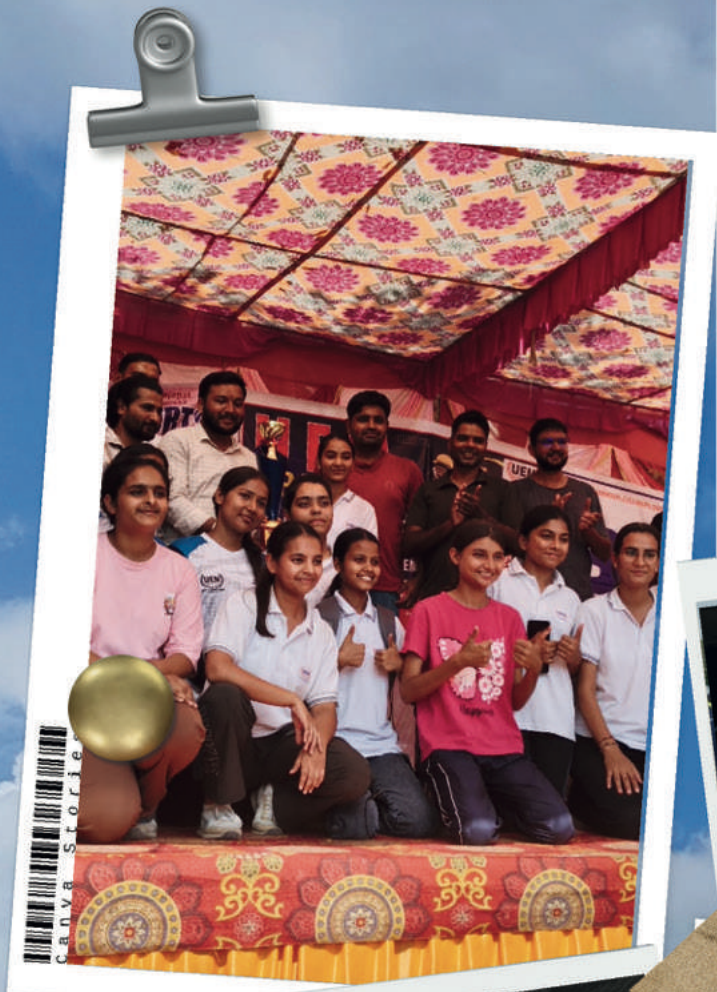
The celebration concluded with a delightful cake-cutting ceremony, symbolizing appreciation and togetherness. Laughter, joy, and gratitude filled the room as everyone shared memorable moments together.

The Teachers' Day celebration at UEM, Jaipur was a memorable and heartfelt occasion. The active participation of all faculty members, along with the inspiring words of Prof. Syak Pramanik, made the event truly special. It served as a reminder of the vital role teachers play in shaping the future and left everyone with a sense of appreciation and pride in their profession.



tech uTopia 2025





FIELD AND COURT DIARIES



METaverse IN EDUCATION: LEARNING BEYOND REALITY

by - Ajay Yadav, BCA 2nd Year

Technology has always played a vital role in shaping education — from blackboards to smartboards, and now, from online classes to the Metaverse. The metaverse is a virtual world where people can interact through digital avatars, attend events, and experience life-like environments without being physically present. It combines the power of virtual reality (VR), augmented reality (AR), and artificial intelligence (AI) to create a 3D digital learning space that goes far beyond traditional classrooms.

Imagine studying history not by reading about ancient Rome, but by actually walking through its streets in virtual reality. Or learning biology by exploring the human body from the inside! That's what the metaverse can make possible. It turns passive learning into an immersive experience, allowing students to see, feel, and interact with the concepts they study.

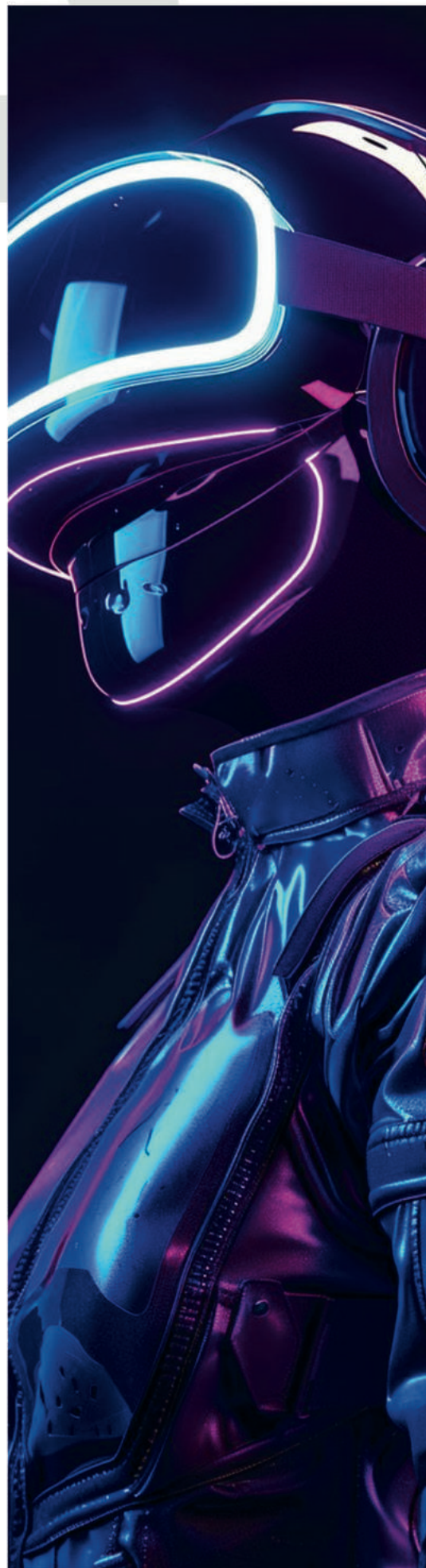
The metaverse also breaks the barriers of distance. Students from different parts of the world can join the same virtual classroom, collaborate on projects, and share ideas as if they were sitting together.



It offers a new level of inclusivity and accessibility, especially for learners who may not have access to advanced labs or real-world experiences. Teachers, too, benefit from this new world. Through metaverse platforms, they can create customized 3D lessons, simulate real-world scenarios, and assess students through interactive activities rather than traditional exams. This helps make education more engaging and skill-focused.

However, the metaverse in education also comes with challenges. High setup costs, data privacy concerns, and the need for powerful hardware could slow down its adoption. Yet, as technology becomes more affordable and internet access improves, these barriers are likely to fade.

The metaverse represents the next evolution of education — a future where learning is not limited by classroom walls but expanded by creativity and technology. It's not just about studying; it's about experiencing knowledge. In the coming years, stepping into a virtual classroom might feel as normal as opening a textbook today.





DIGITAL TWINS: BUILDING A VIRTUAL COPY OF THE REAL WORLD

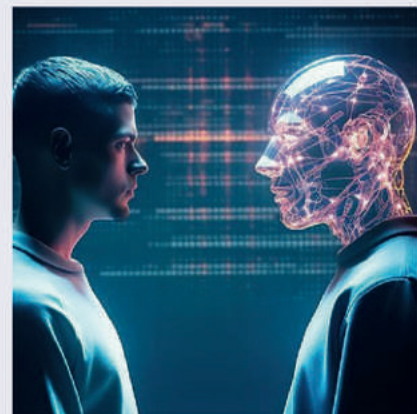
by - Ajay Yadav, BCA 2nd Year

Imagine if we could create a perfect digital copy of the real world — a living, breathing simulation that mirrors every move, reaction, and change happening around us. That's exactly what Digital Twins make possible. A digital twin is a virtual replica of a physical object, system, or process. It uses real-time data and sensors to reflect the current condition of its real-world counterpart.

This technology is transforming industries like manufacturing, healthcare, and urban planning. For example, engineers can create a digital twin of an aircraft engine to monitor performance, predict failures, and make repairs before problems occur. Similarly, doctors can simulate a patient's heart or brain to test treatments virtually before applying them in real life.

Smart cities also use digital twins to plan traffic flow, control pollution, and manage resources efficiently. These virtual models allow decision-makers to test different scenarios — like how new roads or policies might affect a city — without any real-world risk.

The combination of AI, IoT, and cloud computing powers this innovation. Data from sensors and devices continuously update the virtual model, creating a two-way connection between the physical and digital worlds.



While digital twins require large amounts of data and computing power, their potential is limitless. They're helping us predict the future, prevent failures, and improve the quality of life. The day isn't far when every important system — from our homes to our health — will have its own digital twin, quietly working to make the real world safer, smarter, and more efficient.



Brain–Computer Interface: When Technology Meets the Mind

by - Ajay Yadav, BCA 2nd Year

What if you could control a computer or move a robotic arm using only your thoughts? This is no longer science fiction — it's the power of the Brain–Computer Interface (BCI). A BCI is a technology that creates a direct communication link between the human brain and an external device.

BCIs work by detecting electrical signals produced by the brain and translating them into commands that a computer can understand. These signals are captured using sensors placed on the scalp or sometimes even implanted inside the brain. One of the most exciting uses of this technology is in healthcare. BCIs are helping paralyzed patients move robotic limbs, type messages, or even walk again using thought-based control. Projects like Neuralink, founded by Elon Musk, aim to merge human intelligence with artificial intelligence — potentially allowing people to control smartphones, play games, or access digital content directly with their minds.

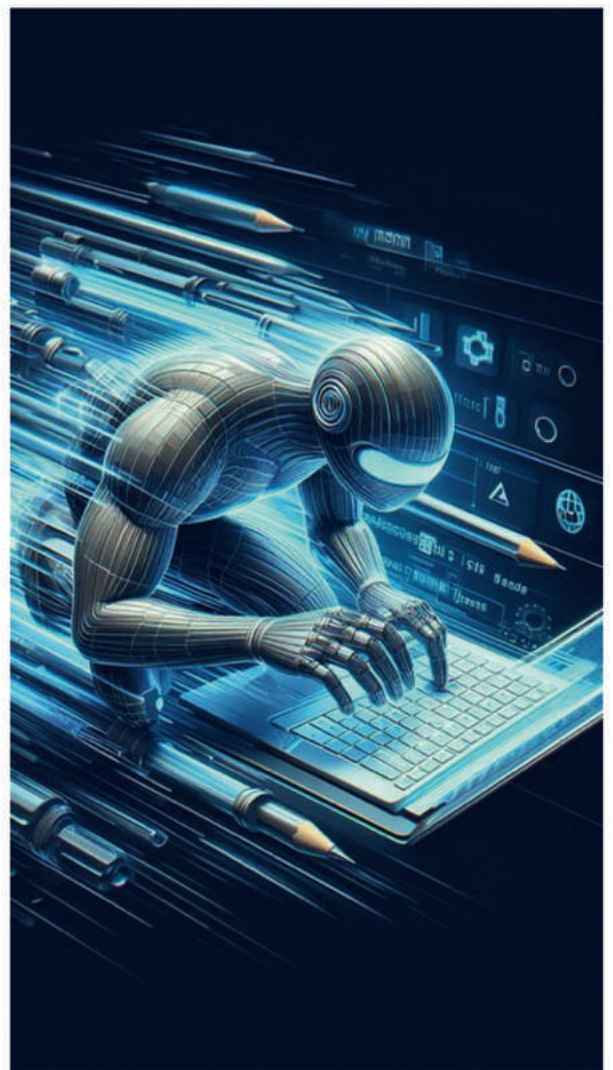
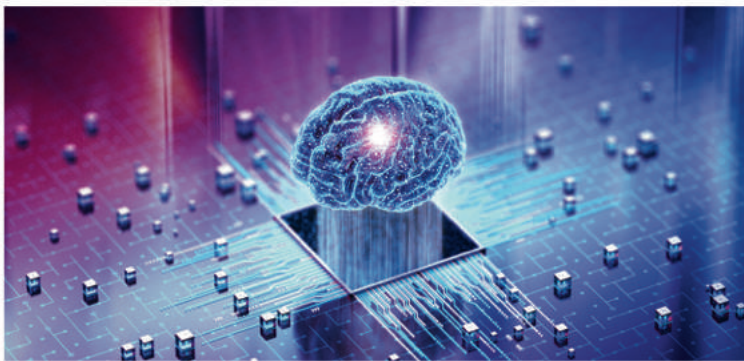




Beyond medicine, BCIs could revolutionize communication, education, and even gaming. Imagine learning faster by directly transferring knowledge to the brain or controlling virtual environments just by thinking.

However, with great potential come serious concerns — like data privacy, safety, and the risk of misuse. Scientists are still exploring how to make BCIs more reliable and ethical.

Brain-Computer Interfaces represent one of the most fascinating frontiers of modern science — a step closer to merging the human mind with machines. The future where thought becomes action is not far away.



CYBERSECURITY AND PRIVACY: THE SHIELD OF THE DIGITAL WORLD

by- Akshit Sharma, BCA 3rd Year

"Cybersecurity isn't just about firewalls — it's about trust."

We live online — from checking notifications the moment we wake up, to attending classes, making payments, shopping, or simply staying connected. The internet has made life easier, faster, and smarter. But the more connected we become, the more we expose our data, identity, and privacy to unseen risks.

That's why cybersecurity is no longer just a technical term; it's a lifeline in our digital world. Today, hackers can lock entire systems with one click, steal money through fake links, and trick people into giving away their passwords. Global studies predict that cybercrime damages will exceed \$10 trillion annually — and that number isn't just statistics, it represents millions of real victims losing trust, safety, and peace of mind.

Equally vital is privacy — the right to control who sees your personal life online. Every app we install and every "Allow access" we tap gives away bits of our digital story — our photos, locations, preferences, and even emotions. Recognizing this, governments have introduced data protection laws like the GDPR in Europe and India's Digital Personal Data Protection Act, 2023, to ensure that companies respect user consent and accountability.



But true protection begins with us. Using strong passwords isn't difficult. Turning on two-factor authentication takes seconds. Avoiding suspicious links is just common sense. Small habits can stop massive disasters.

The truth is: cybersecurity and privacy aren't just about technology — they're about people. About awareness, trust, and responsibility. The internet is like a giant city — full of opportunities, but also full of risks. And in this city, safety doesn't come from strong walls, but from smart citizens.

EMERGING TECHNOLOGIES: SHAPING TOMORROW, TODAY

by- Akshit Sharma, BCA 3rd Year

INTRODUCTION

Technology is no longer just a part of our lives — it defines our future. Every invention, every breakthrough, is reshaping how we live, work, and connect. Emerging technologies like Artificial Intelligence, Robotics, Quantum Computing, and Biotechnology are not just tools; they're the foundation of tomorrow's world.

DEFINING TECHNOLOGIES

These innovations, however, come with responsibilities. As we build smarter machines, we must ensure they make humanity stronger — not dependent. Technology should serve people, not replace them. True progress lies in balance — where innovation and ethics go hand in hand.

CONCLUSION

Emerging technologies remind us that the future isn't something we wait for — it's something we create. With imagination, ethics, and courage, we can shape a world where technology doesn't just make life easier, but also more meaningful.

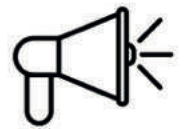
WHY IT MATTERS

Artificial Intelligence is already helping doctors detect diseases early, farmers predict weather patterns, and cars drive themselves. Blockchain is changing how we handle money and trust, while Virtual Reality is transforming how we learn and experience the world. Quantum Computing, though still developing, promises unimaginable processing power that could redefine science and security altogether.





Technology: The Driving Force of Modern Business



by - Rohit Kumawat, MCA 1st Year

In today's rapidly evolving marketplace, technology is no longer a luxury—it's the foundation of success. Every industry, from retail to real estate, banking to biotechnology, is being reshaped by digital innovation. The businesses that adapt quickly are not just surviving; they're defining the future.

Digital Transformation: The New Competitive Edge:

Modern consumers demand speed, convenience, and personalization. To meet these expectations, businesses are turning to digital transformation integrating AI, automation, and data analytics into their operations. Cloud computing has made scalability easier than ever, while artificial intelligence is providing insights that were once unimaginable. In the modern boardroom, data-driven decisions are replacing guesswork.





Efficiency Through Innovation:

Automation has streamlined processes, reducing human error and operational costs. For example, chatbots are handling customer inquiries around the clock, while robotic process automation (RPA) manages repetitive administrative tasks. These tools not only increase efficiency but also allow employees to focus on creativity, strategy, and innovation the real engines of growth.

The Rise of Remote Work and Collaboration:

Technology has also redefined the workplace. Remote collaboration tools like Zoom, Slack, and Microsoft Teams have proven that productivity isn't confined to an office. Businesses are embracing hybrid models, enabling teams to connect seamlessly across borders. This shift has opened doors to a global talent pool, allowing companies to recruit the best minds regardless of location.

Cybersecurity: The New Business Priority:

As companies go digital, the threat landscape expands. Data breaches, ransomware, and cyber espionage have become critical concerns. Businesses are now investing heavily in cybersecurity infrastructure—protecting not only data but also customer trust. A secure digital environment is now synonymous with a reputable brand.

Sustainability Through Smart Technology:

Green technology is becoming a central pillar of corporate responsibility. From energy-efficient data centers to digital paperless operations, businesses are leveraging technology to reduce their carbon footprint. Sustainability is no longer just ethical it's profitable, as consumers increasingly support eco-conscious brands.

Conclusion: Innovate or be Left Behind. The message is clear: technology is not just a tool—it's a strategic asset. In an era defined by rapid change, adaptability and innovation determine who leads and who lags. Businesses that invest in technology today are building the foundation for tomorrow's success.

The future of business belongs to those who can balance innovation with integrity, efficiency with empathy, and data with human insight.



THE POWER OF INNOVATION IN SHAPING THE FUTURE

by - Chetany Kalaneya, MCA 1st Year

In today's rapidly changing world, innovation has become the heartbeat of progress. From artificial intelligence transforming industries to renewable energy redefining sustainability, innovation is no longer optional—it's essential. It drives economic growth, solves complex problems, and improves the quality of human life.

Innovation begins with a simple idea. Great inventions and discoveries were not born overnight—they were the result of curiosity, persistence, and the courage to think differently. Whether it's developing new technologies, reimagining education, or finding creative solutions to social issues, innovation empowers us to challenge the status quo and build a better tomorrow.



For students, innovation means more than just learning from textbooks. It's about applying knowledge to real-life situations, experimenting fearlessly, and staying open to new possibilities. As future leaders, we must embrace a mindset of continuous learning and adaptability to thrive in this dynamic world.

In the end, innovation is not just about machines or algorithms—it's about people. When creativity meets purpose, extraordinary things happen. Every idea, no matter how small, has the potential to make a difference. The future belongs to those who dare to imagine and innovate.

Deep Learning: The 'Brain' Behind Modern Artificial Intelligence

by - Himanshu Kumawat, BCA 3rd Year



For decades, Artificial Intelligence (AI) was a concept mostly found in science fiction. We dreamed of machines that could think, learn, and see the world as we do. For a long time, it remained just a dream. The "AI" we had was often just clever programming—a set of "if-then" rules. Then, everything changed. The engine behind that change is Deep Learning (DL).

So, what is Deep Learning, and how is it different from the broader concept of AI?

Think of AI as the main goal: building an intelligent machine. Machine Learning (ML) is a method to achieve that goal, where we teach a computer by showing it lots of examples (data) instead of programming explicit rules.

Deep Learning is the super-powered, advanced form of Machine Learning. It is the breakthrough that finally unlocked AI's potential.

The "deep" in Deep Learning refers to its structure, which is inspired by the human brain. Our brain is made of billions of neurons connected in a vast network. Deep Learning models do the same, but with "artificial neural networks." These are layers of computational nodes that process information. When a network has many layers, we call it "deep."

How does this work? Imagine you want to teach a computer to recognize a cat.

In old ML, a programmer would have to tell the computer what to look for: "Look for pointy ears," "Look for whiskers," "Look for fur."

In Deep Learning, you don't. You simply show the neural network thousands of pictures labeled "cat" and "not cat."

- The first layer might learn to detect simple edges and colors.
- The second layer might combine those edges to find shapes (like an ear or a whisker).
- The final layer combines all those features to confidently say, "This is a cat."

It learns these features on its own, just by processing the data. This is why Deep Learning is so powerful. It can find complex patterns in data (images, sound, and text) that no human programmer could ever define.

From your phone's face unlock and the Google Assistant understanding your voice, to self-driving cars navigating a busy street and advanced medical tools detecting diseases in X-rays, Deep Learning is the "brain" doing the heavy lifting.

It is not an exaggeration to say that Deep Learning is the technology that took AI from a futuristic fantasy to a practical, everyday reality.



The Double-Edged Screen: Social Media's Complex Impact on Youth

by - Rahil Saini, BCA 3rd Year

It's no secret that social media is a massive part of life for young people. But just how big? Research describes it as a "double-edged sword." It's not just a hobby; it's deeply woven into their daily lives. Studies show that at least 92% of U.S. teenagers are active on social media, and in Ghana, 86% of youth have a profile on a social network.

The Search for Connection

So, why is everyone online? The main driver is a basic human need for connection. A 2024 Pew Research Center study found that 74% of U.S. teens feel more connected to what's going on in their friends' lives because of these platforms. It's also a key place for self-expression, with 63% of teens saying it gives them a place to show their creative side.

But this connectivity creates what researchers call a "high-stakes emotional economy." It's all about the reactions. A study on Somali youth found that 76% feel happy when they get reactions on a post, but 33% feel anxiety when they don't. This pressure isn't just happening far away.

In the U.S., 39% of teens say they feel "overwhelmed by all the drama," and 27% admit to feeling "worse about their own life" after scrolling.

A Deeper Impact

This emotional toll isn't just a "feeling"; it shows up in clinical data. A major 2020 systematic review by Keles et al. found that all aspects of social media use—including time spent, specific activities, and addiction—were correlated with depression, anxiety, and psychological distress. One of the biggest pathways for this seems to be sleep.





The Dilemma Continues

A striking 45% of U.S. teens say that social media hurts the amount of sleep they get. This is a global issue—a study in Ghana found 70% of youth named sleep deprivation as a major problem. Clinical reviews back this up, identifying insomnia as a key link between heavy social media use and a depressed mood.

Of course, not everyone has the same experience. Research consistently shows that teen girls in the U.S. live a more "intense" online life. They are more likely than boys to say social media hurts their mental health (25% vs. 14%) and their confidence (20% vs. 10%).

But, here's the paradox: girls are also more likely to report positive effects, like feeling supported (57% vs. 45%) and having a creative outlet (68% vs. 58%).

The Big Question

So, what's the final verdict? It's complicated. Researchers are quick to point out that most of these studies are "cross-sectional." This means that while we can see a clear correlation (a link) between social media and distress, we can't say for sure that it's causative (that one causes the other). It's a classic "chicken or the egg" problem: does social media cause depression, or are people who are already feeling distressed simply more likely to use social media in a different way? The research continues, but it's clear this is a complex issue we all need to be aware of.



EDUCATION

THE IMPORTANCE OF EDUCATION AND THE ROLE OF TEACHERS IN SHAPING IT

by - Sahil Yadav, BCA 1st Year

Importance of Education

Education is the most powerful tool for personal and social transformation. It helps individuals gain knowledge, develop critical thinking, and acquire skills that are essential for a successful life. Through education, people can improve their standard of living, contribute to society, and promote equality and understanding among communities. In today's competitive world, education opens doors to new opportunities and helps us adapt to rapid technological changes. Therefore, it is essential for every individual to pursue education with dedication and enthusiasm.



Role of Teachers in Education

Teachers play a vital role in shaping the future of students and society. They not only impart knowledge but also inspire and guide students to achieve their goals. A good teacher encourages curiosity, creativity, and confidence in learners. Teachers act as mentors, helping students understand moral values, discipline, and the importance of hard work. Their dedication and patience create a positive learning environment that motivates students to perform better. Thus, teachers are the foundation of an educated and progressive society.



Poetry

"Poetry validates the oneness of all humans,
it reveals and connects us to our deepest feelings."

काश कोई मिल जाए ऐसा...

काश कोई मिल जाए ऐसा, जो खामोशी भी पढ़ ले मेरी,
बिन कहे ही समझ ले दिल की, हर उलझन, हर पहली मेरी।

जिसकी आँखों में हो सुकून सा, जैसे बारिश के बाद की धूप,
जो हाथ थामे इस तरह से, जैसे हो कोई टूटी हुई रूप।

जिसे कहानियाँ न सुनानी पड़ें, जो आँखों से ही सुन ले बातें मेरी,
जो पास होकर भी कुछ न कहे, पर दे जाए सबसे गहरी सौगात ।

काश कोई हो जो ठहरे पल में, जो दौड़ती ज़िंदगी को थाम ले,
जो ज़ख्मों पर मुस्कान रख दे, और हर दर्द को आराम दे।

ना हो शर्ते, ना हो वादे, सिर्फ एहसासों का रिश्ता हो,
काश कोई मिल जाए ऐसा, जिससे खुद से मिलना हो।

महिला दिवस...

हर सुबह की पहली किरण में तेरी छवि बसी है,
स्त्री तू अनमोल है।
सपनों की उड़ान, हिम्मत की पहचान,
तेरे बिन अधूरा है हर एक इंसान।
स्त्री का जीवन भी नन्ही पुत्री, बेटी से होकर बहन,
पत्नी और मां के रूप में दिव्य विशाल हो जाता है।
महिला दिवस की यह घड़ी है खास,
तुम हो तो हर पल में है उल्लास।
तेरी शक्ति, तेरी ममता, तेरा सम्मान,
दुनियां में तुम हो सबसे महान।
हम करते हैं तुम्हें नमन तुम्हारे हौसलों को सलाम,
महिला दिवस की हार्दिक शुभकामनाएं।



by - Rohit Kumawat, MCA 1st Year

F1: THE MOVIE

HOLLYWOOD MEETS FORMULA 1 IN HIGH-OCTANE SUMMER BLOCKBUSTER

by - Abhishek Sharma, BCA 3rd Year

Plot and Characters

At its core, F1 is about redemption, mentorship, and legacy. Brad Pitt portrays Sonny Hayes, a seasoned driver who retired after a turbulent but glittering career. Hayes is drawn back into the sport when he joins a struggling team, not only to compete but also to mentor rising star Joshua Pierce (Damson Idris). Their mentor-protégé dynamic forms the emotional spine of the narrative, exploring themes of relevance, ambition, and the personal sacrifices behind glory.

The supporting cast strengthens the film's depth. Javier Bardem plays the determined team principal striving to restore past glory, while Kerry Condon brings sharp wit and emotional weight to her role within the team. Together, the ensemble transforms what could have been a conventional sports drama into a layered, character-driven story.



Apple Original Films has delivered one of the summer's most talked-about releases with F1, a thrilling Formula 1 drama that fuses motorsport authenticity with Hollywood spectacle. Directed by Joseph Kosinski (Top Gun: Maverick) and starring Brad Pitt, the film has struck a chord with both racing enthusiasts and general audiences, combining adrenaline-fueled race sequences with heartfelt storytelling.





Authenticity on the Track

What sets *F1* apart is its unparalleled commitment to authenticity. The production partnered directly with Formula 1, gaining access to real race weekends, cars, and paddock environments. Unlike films that lean heavily on CGI, *F1* blends genuine racing footage with cinematic storytelling, immersing audiences in the sport's intensity.

Kosinski's direction—renowned for the breathtaking aerial combat of *Top Gun: Maverick*—delivers equally electrifying track sequences. From the roar of engines to hair-raising overtakes, the film captures the razor-thin margins that define Formula 1. Brad Pitt described the experience as “extraordinary,” crediting the drivers, teams, and fans who embraced the production.

Reception and Criticism

Early reception has been largely positive. With a 7.8 IMDb rating, critics and fans alike have praised the film's balance of technical realism and emotional storytelling. It resonates not only with seasoned followers of the sport but also with newcomers unfamiliar with Formula 1.

Cultural Impact

Beyond entertainment, *F1* marks a cultural milestone. With Formula 1's growing popularity in North America—boosted by Netflix's *Drive to Survive*—this film cements the sport's place in mainstream culture. Apple's dual release strategy, combining global theatrical distribution with Apple TV+ streaming, ensures accessibility for a worldwide audience.

Perhaps the greatest achievement lies in the collaboration with Formula 1 itself. Rather than sensationalizing the sport, the film honors its traditions, complexities, and raw intensity. For newcomers, it's an exhilarating entry point; for fans, a cinematic tribute.

Conclusion

F1 is more than a racing drama—it's a cultural event. By marrying authentic motorsport with Hollywood artistry, Kosinski and Pitt have crafted a film that transcends the track. With breathtaking realism, emotional depth, and blockbuster energy, *F1* proves that stories from the world of racing can resonate with audiences everywhere.



OPERATION SINDOOR: India's Integrated Strike Against Terror

by- Abhishek Sharma, BCA 3rd Year



The 2025 India–Pakistan crisis flared after the April 22 Pahalgam massacre in Jammu & Kashmir, where 26 tourists were killed. In response, India launched “Operation Sindoor” before dawn on May 7, striking multiple Pakistan-based terrorist facilities with stand-off munitions. The four-day exchange (May 7–10) was the most serious India–Pakistan military confrontation in years and ended with a ceasefire amid dueling narratives and heavy online misinformation. Targets: Independent and official accounts converge that India hit nine locations linked to groups like Jaish-e-Mohammed and Lashkar-e-Taiba across Pakistan and Pakistan-administered Kashmir. Pakistan alleged some civilian sites were struck; India said it targeted only terror infrastructure. Both sides claimed success, and some battlefield claims remain unverified. What India used: Reporting points to a playbook centered on precision, speed, and staying outside hostile air defenses. Analysts detail a mix of cruise missiles and loitering munitions for deep strikes, paired with decoys and electronic warfare to complicate Pakistani defenses. Both sides claimed success, and some battlefield claims remain unverified. What



India used: Reporting points to a playbook centered on precision, speed, and staying outside hostile air defenses.



Analysts detail a mix of cruise missiles and loitering munitions for deep strikes, paired with decoys and electronic warfare to complicate Pakistani defenses. Open-source and broadcast coverage highlighted French-origin SCALP (Storm Shadow) and HAMMER as part of the air-launched mix, consistent with India's Rafale inventory and a stand-off strike concept. Exact aim points and battle damage assessments are still contested.

Air defense and counter-UAS: Pakistan responded with drones, loitering munitions, and long-range fires. India's Integrated Air Command and Control System (IACCS) fused radar and sensor data to cue a layered shield. Indian media and think-tank writeups describe the employment of the Russian-made S-400 for high-end threats, indigenous Akash for short-to-medium range, plus legacy systems like Pechora/OSA and point-defense guns, alongside counter-UAS measures. Specific shoot-down tallies—especially long-range kills deep inside Pakistan—should be treated cautiously pending independent confirmation.

The Army's role included ground-based air defense, MANPADS, and low-level air defense guns to protect bases, logistics nodes, and urban areas against swarming drones. This knitted into IACCS for common air-picture and engagement authority, illustrating the "multi-domain" integration India has been building toward.

At sea, India surged a carrier battle group into the northern Arabian Sea to impose maritime pressure and complicate Pakistan's calculus. Open reporting and official remarks emphasized readiness to strike if required and highlighted the Navy's role in any future escalation ladder. The naval posture limited Pakistan's air-sea maneuvering space and signaled deterrence without opening a new front.





Endgame and aftermath: Fighting tapered by May 10 with a U.S.-facilitated ceasefire. Both governments claimed they had imposed costs and deterred the other. Beyond the immediate clash, the episode showcased India's shift to intelligence-led, stand-off precision strikes under a joint command-and-control umbrella—while also underscoring how fast claims, counter-claims, and mis/disinformation can distort wartime perception. Expect future crises to feature even denser drone/counter-drone battles, more electronic warfare, and greater reliance on networked air defenses.

Bottom line: India's toolset in May 2025 combined stand-off air-launched weapons (e.g., SCALP/HAMMER), cruise/loitering systems, electronic warfare, and a layered air-defense grid (S-400, Akash, legacy SAMs, counter-UAS), backed by a carrier-led maritime posture. Many headline-grabbing kill claims remain disputed; the verified takeaway is the centrality of jointness, networks, and precision in India's crisis playbook.





Hostel NEWS

by- Abhishek Kumar, MCA 2nd Year



The Hostel Room Conflict

When I entered the Hostel Room in the UEM College for the first time, I had no idea that I would need more than language or code to survive. I needed a translator, a philosopher, and sometimes even a firefighter. My roommates were Apurba from West Bengal—emotional, foodie, always saying “Bhai, chai na hole ami porte parbona!” And then there was Yogeshwar from Rajasthan—calm, royal-minded, but he slept like a buffalo. And of course, there was me, Abhishek from Bihar.

One Thursday night, the mess had served something that looked like dal but tasted like sadness. We were starving. Apurba suddenly announced, “Ami chai banabo!” I said I would make maggi, and Yogesh immediately agreed, claiming he felt “Rajasthani hunger.” So we began our secret mission of cooking inside the room. Apurba brought tea leaves, I brought Maggi, and Yogesh brought a steel glass for reasons unknown.

We had an ancient electric Kettle that looked like it was donated during the British period. We plugged it in. It sparked, but we ignored it because hunger felt more important than safety. Soon, tea was boiling, Maggi was boiling, and honestly, the room was boiling too. And then it happened—BOOM! The kettle exploded. Smoke filled the room instantly. I yelled first because my Maggi dreams were gone.

Apurba desperately tried to revive the Kettle by fanning it with his notebook like a doctor trying CPR. Yogesh just stood there calmly and asked, “Room par havan chal raha hai kya?” We opened the windows to clear the smoke, but that only made things worse because the warden noticed smoke coming from room. He barged in like CID and demanded, “Yeh kya ho raha hai?”

Apurba, covered in steam, said, “Sir... experiments.” I added confidently, “Sir, practical kar rahe the—heat and energy.” Yogesh supported us immediately, saying, “Haan sir, physics ka.” The warden stared at us like we were the biggest mistake of his career. He confiscated the Kettle and said, “Next time, mess se kha lena... ya phir biscuit kha ke so jana.”

For the next three days, we survived only on biscuits and hope. Apurba stayed sad over the loss of chai. Yogesh continued sleeping like nothing ever happened. And I proudly told everyone in the building that we survived an explosion and didn’t panic. Every night, we remembered the Kettle like a brave soldier who lost its life in service. Apurba even suggested putting a framed photo of it on the wall.

I joked that next time we should buy a cooker instead. Yogesh asked if we wanted to blow up the entire hostel. We agreed that biscuits were the safest option.

UEM hostel life taught us three things—never trust the mess, never trust the kettle, and never trust our own ideas.

But honestly, life was chaotic, funny, and unforgettable in the Hostel Room...



ALUMNI

Thoughts



Sachin Kumawat
MCA 2023-2025

I'm really glad to be a part of UEM Jaipur. The college offers a perfect balance of academics, innovation, and personal growth.

The faculty members are very supportive and knowledgeable, always ready to help students both inside and outside the classroom.

The infrastructure is modern, with well-equipped labs, libraries, and smart classrooms that create a great learning environment. What I like most is the emphasis on practical learning and placement opportunities.

UEM Jaipur has strong industry connections and brings in many reputed companies for campus placements, and the college also encourages extracurricular activities and technical clubs, which help students build confidence and develop leadership skills. The campus

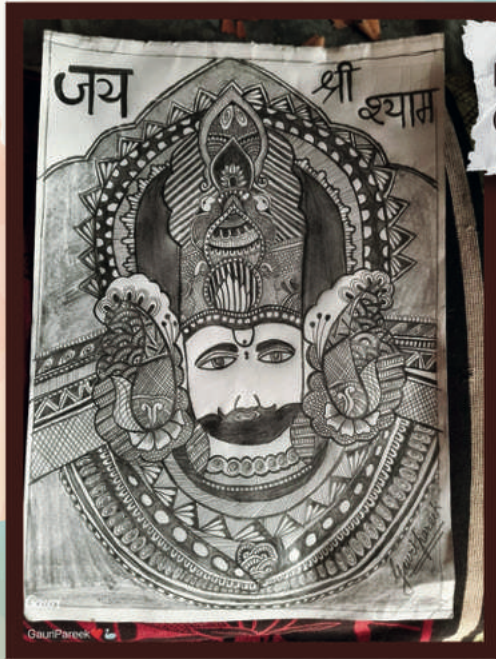
life is vibrant and friendly, and the hostels are safe and well-maintained.

My journey at the University of Engineering and Management, Jaipur, as an MCA student, has been one of the most memorable phases of my life. It was a time filled with learning, growth, and experiences that shaped both my career and personality. From the first day, the welcoming campus environment, experienced faculties, and diverse group of students made UEM Jaipur a truly inspiring place to learn. The MCA program provided a perfect mix of theory and practical exposure through projects, workshops, and hackathons, helping me strengthen my technical and problem-solving skills. Beyond academics, UEM Jaipur offered a vibrant campus life. Cultural events, annual fests, and sports activities created lasting memories and taught me the value of teamwork, leadership, and communication. As I graduated in 2024, I carried with me not just a degree but a collection of lessons, friendships, and experiences that will always remain close to my heart. I am deeply grateful to UEM Jaipur for helping me become a more confident and capable individual, ready to take on new challenges.



Sk. Anjarul Hossain
MCA 2022-2024

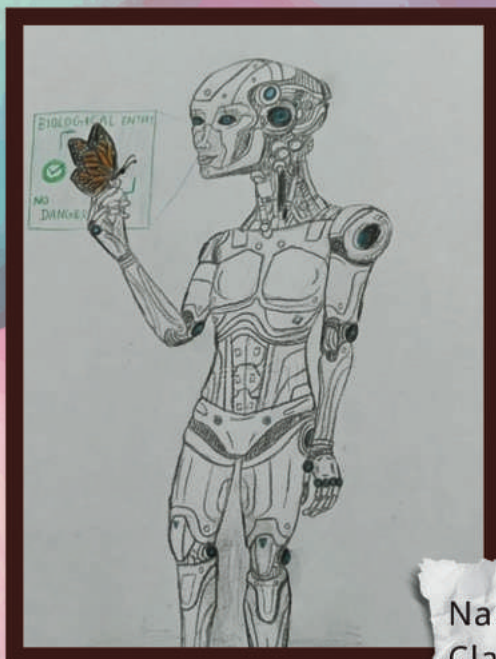
ARTWORKS



Name - Gauri Pareek
Class - BCA 2nd Year

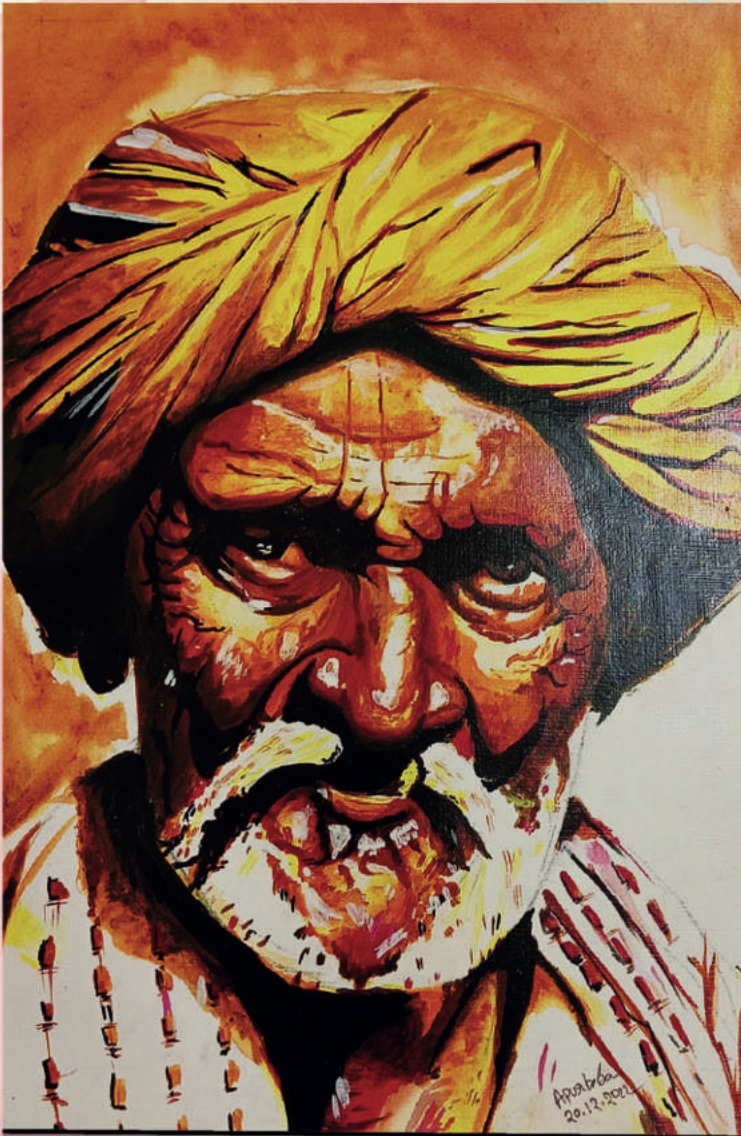


Name - Gauri Pareek
Class - BCA 2nd Year



Name - Gorang Kumar Roy
Class - MCA 1st Year





Name - Apurba Sau
Class - MCA 2nd Year



ARTWORKS

USING GEN AI



NAME - ABHISHEK LAMA
CLASS - BCA 1ST YEAR



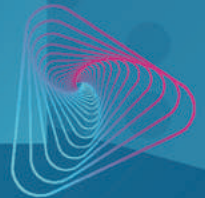
A futuristic cyberpunk city street at night, drenched in rain and illuminated by vibrant neon signs in Japanese and Chinese characters. The tall skyscrapers line both sides of the street, glowing with pink, blue, and purple lights reflecting on the wet pavement. A few cars drive through the road, their headlights cutting through the mist, while silhouettes of people walk with umbrellas along the sidewalks. The atmosphere is moody and cinematic, with a deep blue tone, misty horizon, and a strong sense of depth. Highly detailed, ultra-realistic lighting, reflections, and atmosphere – art style inspired by Blade Runner and Ghost in the Shell. Rendered in 8K resolution, digital painting style.

- With Canva AI



Minimalist abstract wall art, modern bohemian aesthetic, soft earthy color palette with beige, sand, terracotta, burnt orange and charcoal tones, abstract geometric circles floating in balance, thin organic lines resembling branches or stems, textured watercolor and acrylic paint effect, calm and serene mood, contemporary interior decor art, Scandinavian and Japanese zen influence, soft gradients, hand-painted look, elegant composition, high detail, aesthetic poster design, neutral background, abstract landscape elements, fine art print style remove two sticks and make it tree don't put it in frame and make sun red

- With Leonardo.Ai



Masterpiece artistic portrait, close-up human face, abstract color-blocked painting style, face divided into bold geometric and organic color shapes, vibrant saturated colors with strong contrast, modern art inspired, expressive eyes in sharp focus, painterly texture with visible brush strokes, smooth yet dynamic color transitions, no realistic skin tones, creative visual expression, fine art portrait, dramatic soft lighting, minimal background, gallery-quality illustration, ultra-detailed, 4K resolution, striking and iconic artwork face zoom out with whole face inside the frame

- Leonardo.Ai

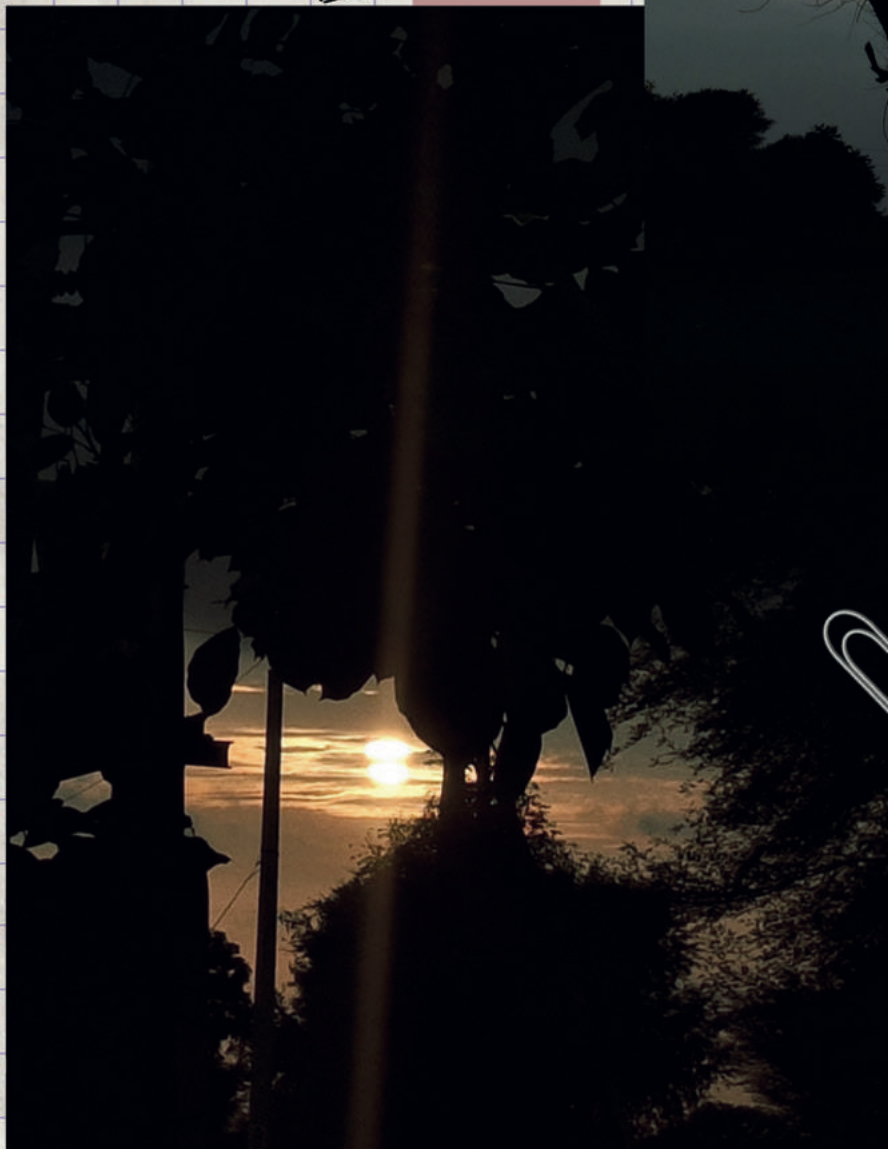


NAME - ABHISHEK LAMA
CLASS - BCA 1ST YEAR



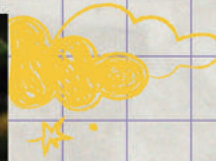


CAPTURES



Name - Rohit Kumawat
Class - MCA 1st Year



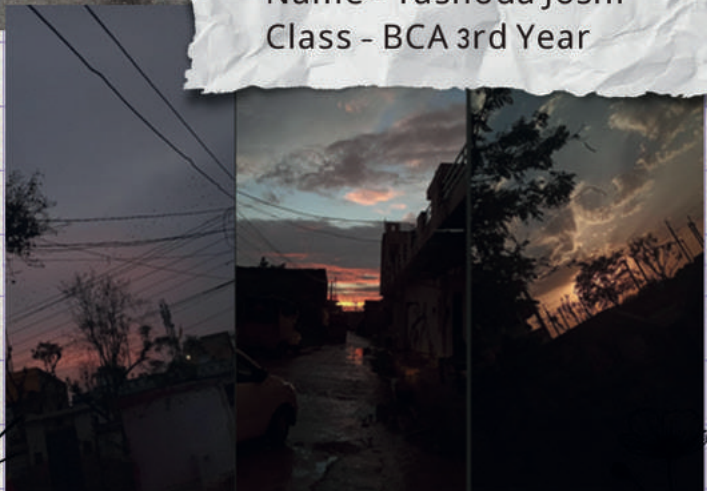


Name - Eshita Agarwal
Class - MCA 2nd Year



Name - Yashoda Joshi
Class - BCA 3rd Year

NATURAL



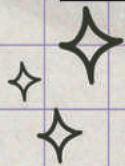
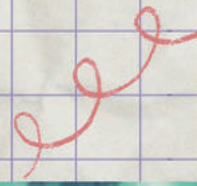
“Beautiful things don’t ask for attention.”

— James Thurber

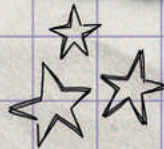


Name - Apurba Sau
Class - MCA 2nd Year





Name - Hardik Pradhan
Class - BCA 3rd Year



MOMENTS

"Every second brings a new promise,
and every moment holds a silent story."



Revolutionizing Data Privacy with Federated Learning

by- Mr. Bablu Kumar Majhi

Federated Learning is transforming the landscape of Artificial Intelligence by addressing one of its biggest challenges—data privacy. In a world where enormous amounts of personal information are generated daily through smartphones, wearable devices, and online platforms, ensuring privacy while enabling machine learning has become a pressing need.



Federated Learning provides an innovative solution by allowing AI models to be trained collaboratively without transferring or exposing raw data. Instead of sending data to a centralized server, each device trains the model locally and only shares the learned updates or parameters. These updates are then aggregated to improve the global model, keeping user data secure and decentralized.

This concept is gaining rapid momentum as industries recognize its potential to combine intelligence with privacy. Technology giants like Google and Apple already use federated learning in applications such as predictive text and personalized recommendations, where the system learns from user behavior while ensuring that sensitive information never leaves the device. In healthcare, hospitals and research institutions can train models on patient data from different centers without sharing actual records, promoting ethical and data-protected innovation in medical AI. Financial institutions are also exploring this approach to detect fraud and assess risks across distributed databases while maintaining confidentiality.

The growth of federated learning is closely tied to the rise of edge computing, the Internet of Things, and stricter data protection regulations like GDPR and India's Digital Personal Data Protection Act. As more devices at the edge of networks generate valuable but sensitive information, federated learning becomes the perfect framework to analyze it responsibly. It reduces communication costs, limits data exposure, and supports the vision of on-device intelligence.

Recent research has explored integrating federated learning with blockchain technology to enhance trust, transparency, and traceability in collaborative learning. Similarly, in emerging fields such as 6G and quantum computing, federated learning is expected to support ultra-fast, decentralized, and secure AI systems. These advancements could make it possible for millions of devices to participate in collective intelligence without sacrificing privacy or efficiency.

However, federated learning is not without challenges. Devices often hold different types and amounts of data, which can affect model performance. Communication overheads and security risks, such as malicious updates, still need to be addressed.

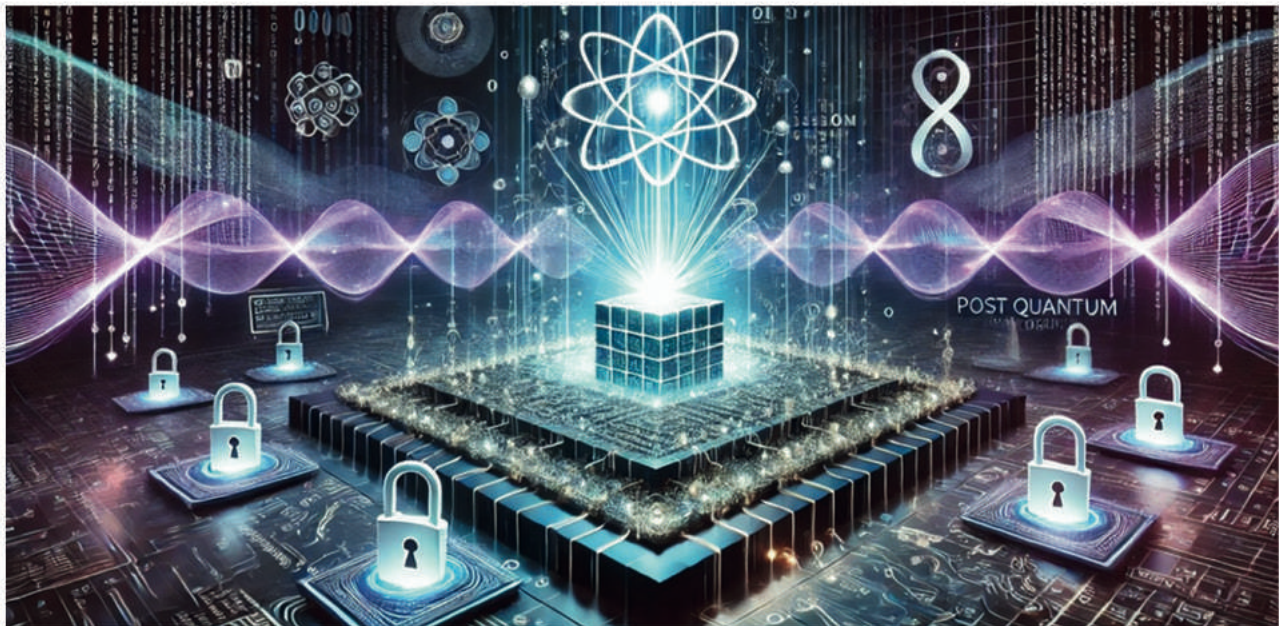
Researchers are working on new optimization methods and secure aggregation techniques to make the process more reliable and efficient.

Federated Learning represents a shift from centralized data collection to decentralized collaboration. It embodies the future of ethical AI, where innovation and privacy coexist. By enabling intelligence that learns from everyone without exposing anyone, it paves the way for a safer, smarter, and more transparent technological era. As the demand for privacy-preserving solutions continues to grow, Federated Learning stands as a cornerstone of the next generation of artificial intelligence—an innovation built on trust, responsibility, and shared progress.



Protecting Our Digital Future: The Quantum-Resistant Revolution

by- Prof. Dr. Poonam Poonia



How quantum physics is transforming the way we protect information

In an age where digital information is paramount, the security of our data faces an unprecedented threat from the looming power of quantum computers. While quantum computers promise to revolutionize many fields, they also pose an existential risk to current encryption methods, potentially rendering our most secure communications vulnerable. This looming threat has spurred the development of **quantum cryptography**, a revolutionary approach to securing information that leverages the fundamental laws of quantum mechanics to create truly unbreakable codes.

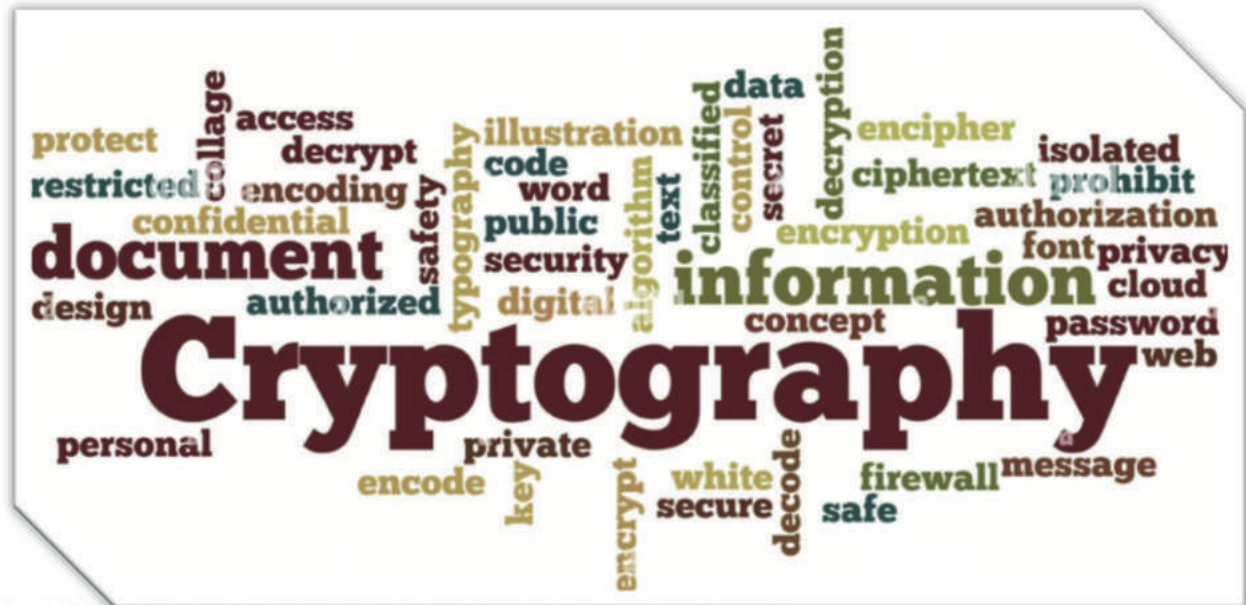
“Quantum computers may break today’s codes – PQC will build tomorrow’s.”

Beyond Classical Limits: The Quantum Advantage

Traditional cryptography, known as **classical cryptography**, relies on complex mathematical problems that are computationally difficult for even the fastest classical computers to solve. For example, the security of RSA encryption, widely used today, depends on the immense difficulty of factoring very large numbers into their prime components. However, quantum algorithms like Shor's algorithm, once run on a sufficiently powerful quantum computer, could factor these numbers with ease, breaking much of the internet's current security infrastructure.

Quantum cryptography, on the other hand, operates on entirely different principles. Instead of relying on computational difficulty, it harnesses the inherent properties of quantum mechanics—specifically **superposition** and **entanglement**—to ensure security.

"The future of cybersecurity is written in qubits – but the defense must start today."

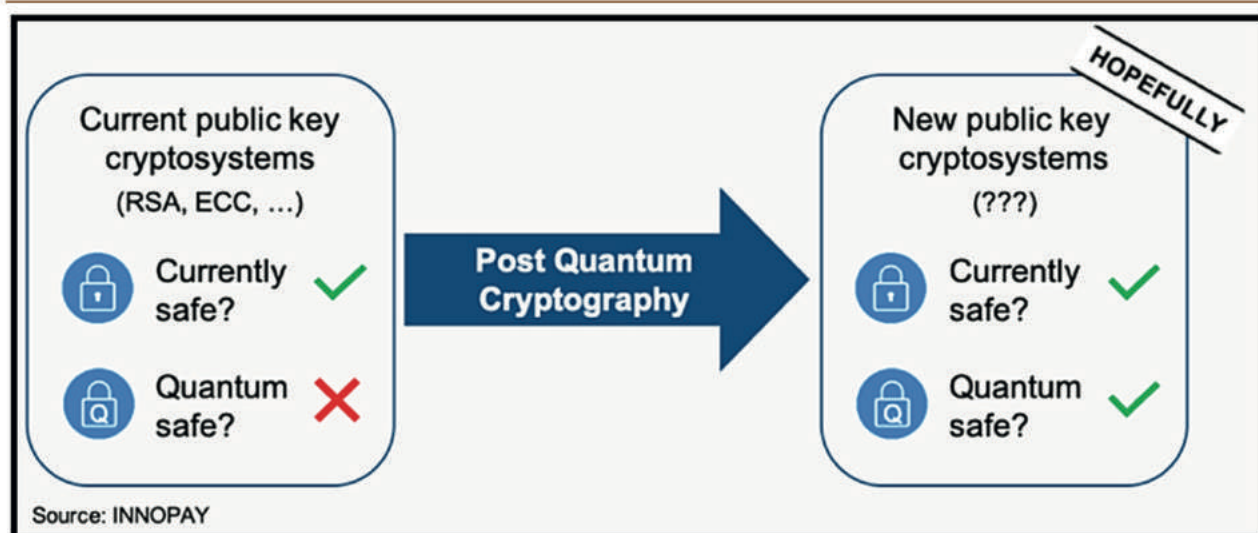


Quantum Key Distribution (QKD): The Core of Quantum Cryptography

The most developed and practical application of quantum cryptography is **Quantum Key Distribution (QKD)**. QKD allows two parties, traditionally named Alice and Bob, to establish a shared secret cryptographic key with unconditional security, meaning its security is guaranteed by the laws of physics, not by computational assumptions.

Here's how it generally works:

1. **Encoding Information in Photons:** Alice encodes the bits of the key (0s and 1s) into the quantum states of individual photons (particles of light). She uses different polarizations (e.g., horizontal/vertical or diagonal) to represent these bits.
2. **Transmission:** Alice sends these photons over a quantum channel (like an optical fiber or free-space optical link) to Bob.
3. **Measurement:** Bob receives the photons and randomly chooses a polarization filter to measure each one.
4. **Key Reconciliation:** After measuring all photons, Alice and Bob communicate over a public (but authenticated) classical channel. Bob tells Alice which filter settings he used for each photon, and Alice tells him which of those settings were correct. They discard the bits where Bob used an incorrect filter.
5. **Eavesdropping Detection:** The beauty of QKD lies in its ability to detect eavesdropping. If an eavesdropper (Eve) tries to intercept the photons, her attempt to measure their quantum state will inevitably disturb them (due to the **Heisenberg Uncertainty Principle**). This disturbance introduces detectable errors in the key shared between Alice and Bob, immediately alerting them to Eve's presence. If errors exceed a certain threshold, they know the key is compromised and discard it, starting the process again.

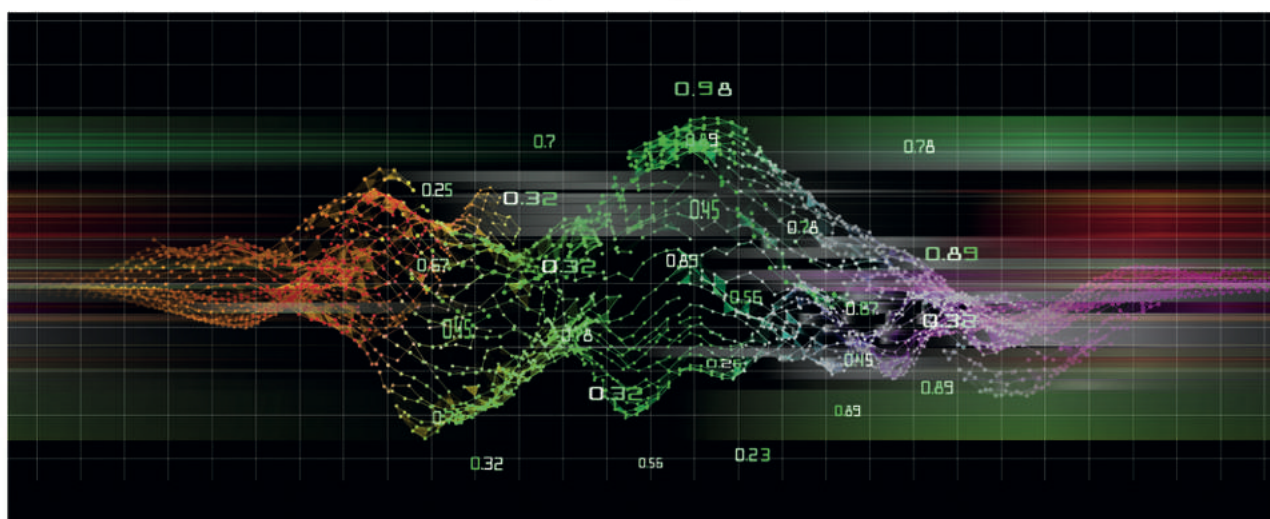


Post-Quantum Cryptography: Securing the Digital World Beyond Qubits

As quantum computers advance, they threaten to shatter the encryption that secures our online lives, from banking transactions to national security. Quantum-resistant cryptography, also known as **post-quantum cryptography (PQC)**, refers to cryptographic algorithms designed to be secure against attacks by both classical and future **quantum computers**.

"Post-quantum cryptography is not about waiting for the quantum era – it's about preparing for it."
 – Michele Mosca, Co-founder, Institute for Quantum Computing (IQC)

Unlike current methods, which rely on the difficulty of factoring large numbers (vulnerable to Shor's algorithm), PQC leverages alternative "hard problems." For instance, **lattice-based cryptography** (like CRYSTALS-Kyber, shown in Figure 1, a lattice is a regularly spaced collection of points in space) builds security on the complexity of finding the shortest vector within a high-dimensional grid of points, a task even quantum computers find intractable. Similarly, **hash-based cryptography** (where data is irreversibly transformed into a unique fixed-size "hash") relies on the inherent collision resistance of hash functions, a problem where quantum algorithms offer no significant advantage. The NIST standardization process is guiding the deployment of these robust new algorithms, ensuring our digital communications remain secure in the quantum age.



Blurring the Realities of the Digital and Physical Worlds with Spatial Computing

by- Prof. Gaurav Ganguly

"The question of whether a computer can think is no more interesting than the question of whether a submarine can swim."

— Edsger W. Dijkstra

Imagine walking through your city park, and as you pass a tree, an augmented reality (AR) overlay highlights the species, its age, and the number of leaves it shed last autumn. In the blink of an eye, your physical world is enriched with digital depth. This is not science fiction—it's the promise of spatial computing, and by 2025 it's becoming such a big deal that "the physical world around us will become the user interface" is no longer a visionary statement but an urgent reality.

Why spatial computing isn't just about fun and games anymore

According to the latest market research, the spatial computing industry is projected to grow at a compound annual growth rate (CAGR) of approximately 18–22% in the coming years, with estimates putting the global market value at around **USD 168.6 billion in 2025**, and possibly reaching nearly **USD 550 billion or more by 2032–2033**. Hardware still holds a major share—mostly AR/VR headsets and spatial-sensing devices—but software, services, and immersive platforms are scaling fast as enterprises adopt digital-twin models, remote assistance, and real-world/virtual-world mash-ups.

And yet, as this tech becomes more **ubiquitous**, the human implications become more profound. It's no longer about wearing a headset for fun—it's about what it does for us, how it alters our behaviour, our sense of space, and our connection to reality.



Where we can already see it at work

- **Enterprise transformation:** Manufacturers are using spatial computing to overlay digital instructions on physical machinery, significantly cutting error rates and training time. Digital-twin technology is now being treated as a mission-critical tool rather than a novelty.
- **Education & training:** Medical students don VR/AR gear and walk through fully rendered patientscenarios. The phrase "learning by doing" gains a literal meaning when you can practise surgery in your living room.
- **Consumer and lifestyle tech:** Following its Vision Pro launch, Apple defined spatial computing as "a way to describe the intersection between the physical world around us and a virtual world fabricated by technology." Meanwhile, companies like Niantic Spatial, Inc. are building ground-level 3D maps of the Earth, using gamer-collected data from AR apps like Pokémon Go to fuel geospatial AI platforms. This signals that spatial computing is moving well beyond gaming and entertainment into mainstream infrastructure.



What it means for us and for how we perceive reality

What does this merging of worlds mean for the everyday person? Let's unpack a few ways:

- **Redefining context:** Previously, our devices were separate from our world (think smartphone screens). Now, spatial computing embeds digital content into our physical space. As Cathy Hackl notes, "It's all supposed to be very natural."
- **New forms of memory and experience:** Capturing a physical space is no longer just taking a photo. Technologies such as Gaussian splatting let you scan entire rooms in real time and revisit them as immersive 3D experiences.
- **Changing collaboration and presence:** Workplaces are experimenting with virtual meeting rooms where participants appear as holograms, spatially anchored in real-time 3D. The home-office is no longer flat, it's spatial.
- **Privacy and ethics at stake:** If the world becomes your user interface, what does that mean for data collection, consent, and physical safety? Spatial computing doesn't just overlay info—it senses space, motion, people. It raises questions.



The challenges we must not ignore

As with any disruptive shift, spatial computing has its share of hurdles:

- **Hardware cost & adoption:** High-end AR/VR gear is still expensive and bulky, which slows adoption beyond early enthusiasts.
- **Inter-device fragmentation:** Multiple platforms (Apple, Meta, Google, Microsoft) mean inconsistent experiences and standards.
- **Privacy and safety conundrums:** When your device scans your space continuously, you are giving away context, location, and movement data. Regulatory frameworks are still catching up.
- **Design & usability:** If spatial interfaces aren't intuitive, the novelty fades fast. Part of Apple's bet was making it feel "natural" rather than clunky.
- **Workforce readiness:** Using spatial tools demands new skills—not just in tech, but spatial thinking, design, and interface literacy.

A human-centred vision for now and beyond

In his book, *The Future Is Faster Than You Think*, futurist **Peter H. Diamandis** writes: “**Technology is the accelerator of human ambition, not the substitute for it.**” In the context of spatial computing, this means that these tools should augment our human experience, not replace it.

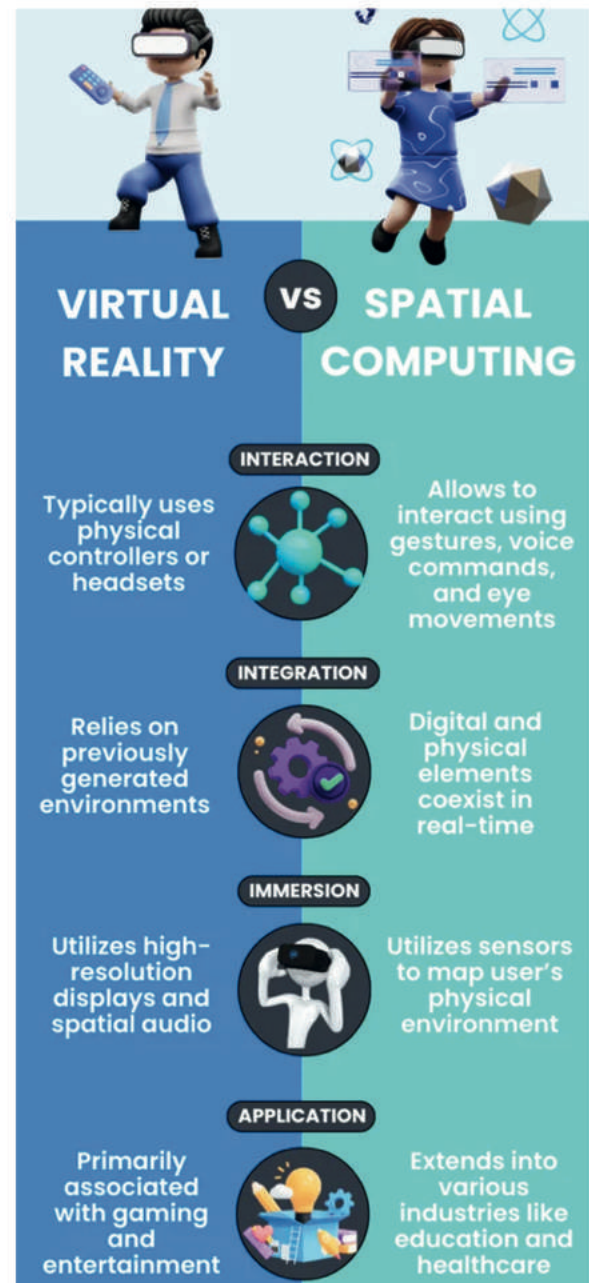


The future of work is likely to be increasingly augmented by spatial computing, providing new opportunities for businesses and individuals alike. This technology will not only change how we perform tasks but also how we think about and solve problems. As spatial computing becomes more integrated into our daily lives, it will open up new career paths in fields like virtual reality development, spatial data analysis, and immersive user experience design. The **innovation potential** is boundless, and those who embrace this technology will be at the forefront of the next digital revolution.

For us:

- Treat spatial computing as a **tool to awaken deeper perception** rather than simply overlaying information.
- Encourage experiences that bring **meaning to place and community**, rather than tech for tech's sake.
- Insist on **inclusive design** so that people with disabilities, older users, or non-tech backgrounds benefit too.
- Spatial computing isn't just a trend—it's a shift in how we inhabit the world. The physical and digital are no longer separate realms but **partners in our daily lives**. It's an exciting moment, but one that calls for thoughtful stewardship. Because in this space, the interface is reality—and how we shape it will matter.

One of the most significant impacts of spatial computing on the workplace is its ability to **revolutionize collaboration**. With spatial computing, remote teams can **collaborate in shared virtual spaces** that replicate the feel of physical offices. This not only improves communication but also fosters a sense of presence and teamwork. Companies like Meta are already developing platforms that enable such collaborative environments.



The Rise of Sustainable Fashion: Transforming the Textile Industry through Ethics and Innovation

by- Prof. Dr. Poonam Poonia



A Movement Woven with Purpose

Fashion is more than just fabric and design—it's a statement of identity, culture, and now, **conscience**. As the world confronts climate change and environmental degradation, the fashion industry—once celebrated for creativity but criticized for waste—is undergoing a remarkable transformation. The new era of style is about **responsibility**, not just aesthetics. It's about creating clothing that looks good, feels good, and does good for the planet.

*"Sustainability is not a passing trend. It's the future of fashion."
— Stella McCartney*

From Fast Fashion to Conscious Creation

For years, fast fashion dominated the global market—quick trends, cheap materials, and faster turnarounds. But the hidden cost was immense: polluted rivers from dyeing, mountains of textile waste, and exploitative labor practices.

Consumers began to ask uncomfortable but necessary questions:

"Who made my clothes?"

"At what cost to the planet?"

Innovation Threads the Needle

Sustainability isn't just a trend—it's a technological evolution.

From biodegradable fabrics to digital design twins, the industry is using innovation to reinvent itself:

- **Recycled textiles:** Turning discarded plastics and fabrics into high-performance wear.
- **Bio-fabrics:** Materials made from algae, mushrooms, and lab-grown leather.
- **Blockchain transparency:** Allowing consumers to trace every step of a garment's journey.
- **3D virtual sampling:** Reducing waste by perfecting designs before production.

Each breakthrough represents a stitch in the larger fabric of a **circular economy**—one where nothing goes to waste, and every creation has a second life.



"The most sustainable garment is the one already in your wardrobe."

— Orsola de Castro, Co-founder of Fashion Revolution

The Future: Fashion with a Conscience

Sustainable fashion signifies not merely a design philosophy but a systemic transformation requiring collaboration across academia, industry, and governance.

Future strategies must prioritize circular economy principles, eco-innovation, and education for sustainable design in fashion curricula. The evolution of sustainability in fashion aligns with the United Nations Sustainable Development Goals (SDGs)—particularly Goals 12 (Responsible Consumption and Production) and 13 (Climate Action)—serving as a benchmark for future industry practices.

"The future of fashion design education must integrate ecology as a core principle, not an elective concern."

— Sandy Black, Professor of Fashion & Textile Design, London College of Fashion



The Chilling Reminder That Seeing Is No Longer Believing

by- Prof. Gaurav Ganguly

The rise of generative AI has transformed how we create, consume, and share information. From ultra-realistic deepfake videos to AI-generated voices and images indistinguishable from reality, the line between truth and fabrication is blurring at an unprecedented pace. While these technologies hold immense creative and practical potential, they also serve as a chilling reminder: in today's world, seeing is no longer believing.



The New Era of Synthetic Reality

Generative AI models can produce visuals, audio, and text that mimic human creation with startling accuracy. What was once the realm of science fiction—fabricated speeches from world leaders, false video evidence, or lifelike replicas of voices—is now an accessible reality for anyone with an internet connection. This democratization of content creation is a double-edged sword: while it fuels innovation, it also lowers the barrier for misinformation, fraud, and manipulation on a massive scale.

From fabricated news clips to fake audio calls mimicking a loved one's voice, generative AI has made deception easier, faster, and harder to detect. This is no longer just a hypothetical risk—it's already being weaponized for political disinformation, corporate sabotage, and personal harassment.

Why AI Safety Is No Longer Optional

AI safety measures are critical to ensuring that these tools are used responsibly. Left unchecked, the same technologies that power creativity could undermine the foundations of trust in society. Developers, regulators, and organizations must prioritize safeguards such as watermarking AI-generated media, creating robust detection tools, and enforcing ethical standards for AI deployment.

Ignoring these measures risks creating a world where truth itself becomes negotiable—a society where even genuine evidence is dismissed as "AI-generated" and accountability becomes impossible.

The Role of Digital Literacy

The fight against AI-enabled misinformation isn't just technological—it's educational. Digital literacy must be a foundational skill, as essential as reading or mathematics. People need to learn how to verify sources, recognize the signs of synthetic content, and critically evaluate what they consume online.

"The ability to take data – to be able to understand it, to process it, to extract value from it, to visualize it, to communicate it – that's going to be a hugely important skill in the next decades."

— Hal Varian

This isn't just about spotting "fake news." It's about understanding how AI works, knowing its capabilities and limitations, and building a healthy skepticism without tipping into cynicism. Empowering the public with these skills is the only way to inoculate society against the erosion of truth.

Platform Accountability – The Missing Piece

Social media platforms and content-hosting services are the primary channels through which AI-generated misinformation spreads. These companies can no longer claim neutrality—they are gatekeepers of information and must take active responsibility for preventing the distribution of harmful AI-generated content.

"In God we trust; all others bring data."

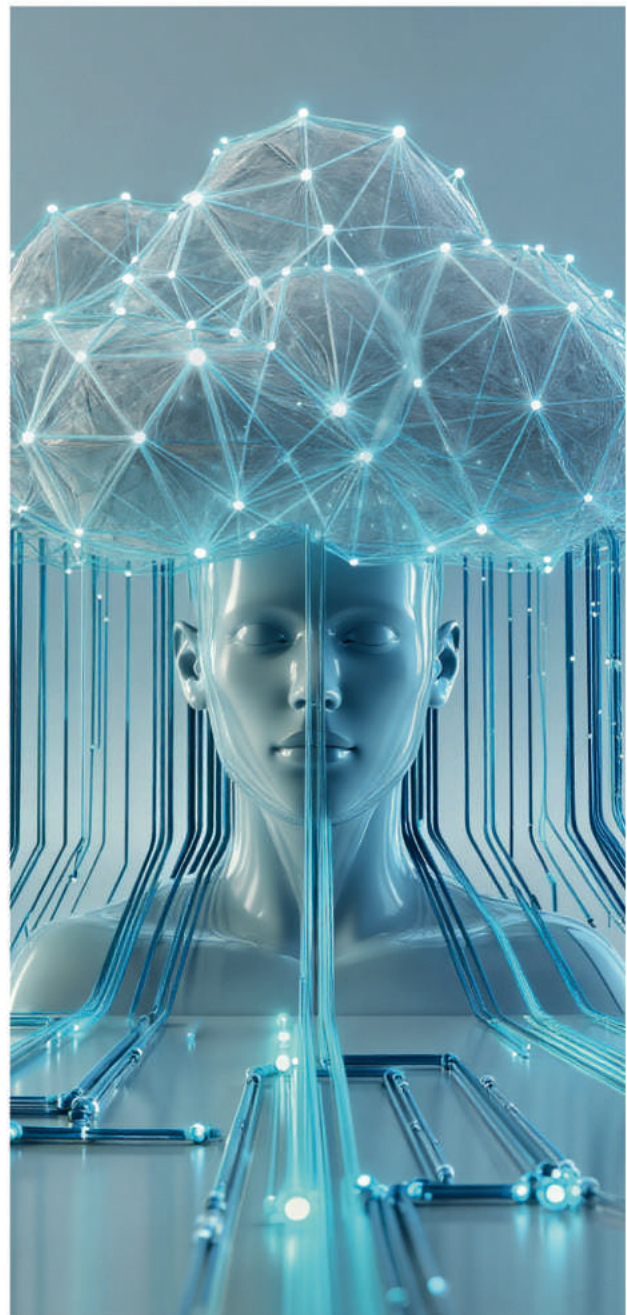
— W. Edwards Deming

This includes implementing rapid detection systems, labeling AI-generated media, and maintaining transparency about how such content is moderated. Failing to act quickly and decisively allows misinformation to spread unchecked, amplifying harm before it can be contained.

Conclusion – The Urgency of Now

Generative AI is here to stay, and its potential is staggering—both for good and for harm. But the chilling reality is clear: we can no longer rely solely on our senses to determine truth. AI safety, digital literacy, and platform accountability are not optional—they are urgent.

If we fail to address these challenges head-on, we risk entering a "post-truth" era where manipulation is rampant, trust is shattered, and reality itself becomes uncertain. The tools to protect truth exist—it's up to us to use them.



Lensescapes

by Faculties



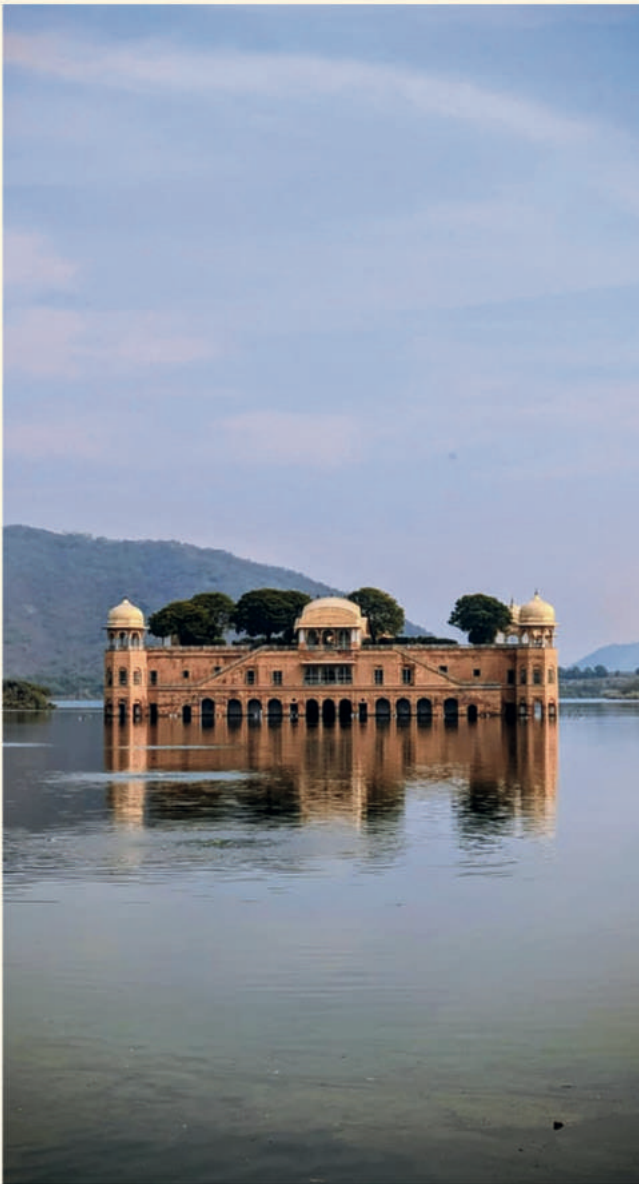
"From the vast expanses of the rivers to the vibrant boats
—where calmness and serenity meet."

Photography by - Prof. Debasish Majhi



"From the towering peaks of monuments to the vibrant trees of old city, in every frame—where grandeur, culture, and nature meet."

Photography by - Prof. Debasish Majhi



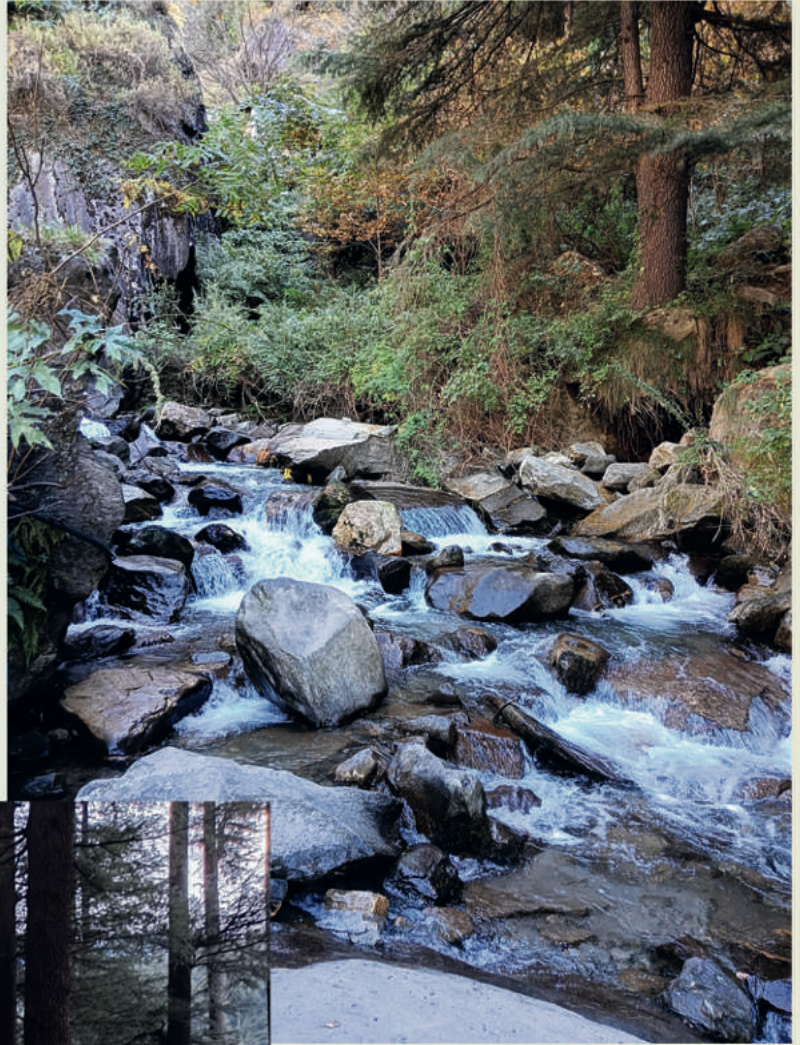
"Journey through India in every snapshot—where tradition, colors, and landscapes blend into a rich tapestry of stories."

Photography by - Prof. Sandeep Patidar



"Exploring India through the lens—capturing its vibrant structures, breathtaking nature, and timeless moments."

Photography by - Mr. Pabitra Mandal



"Nature's beauty, the mighty trees' legacy, and the flowing rapids
– all captured in frames."

Photography by - Prof. Gaurav Ganguly



"Serenity meets the skies at Rohtang La, Himachal Pradesh."

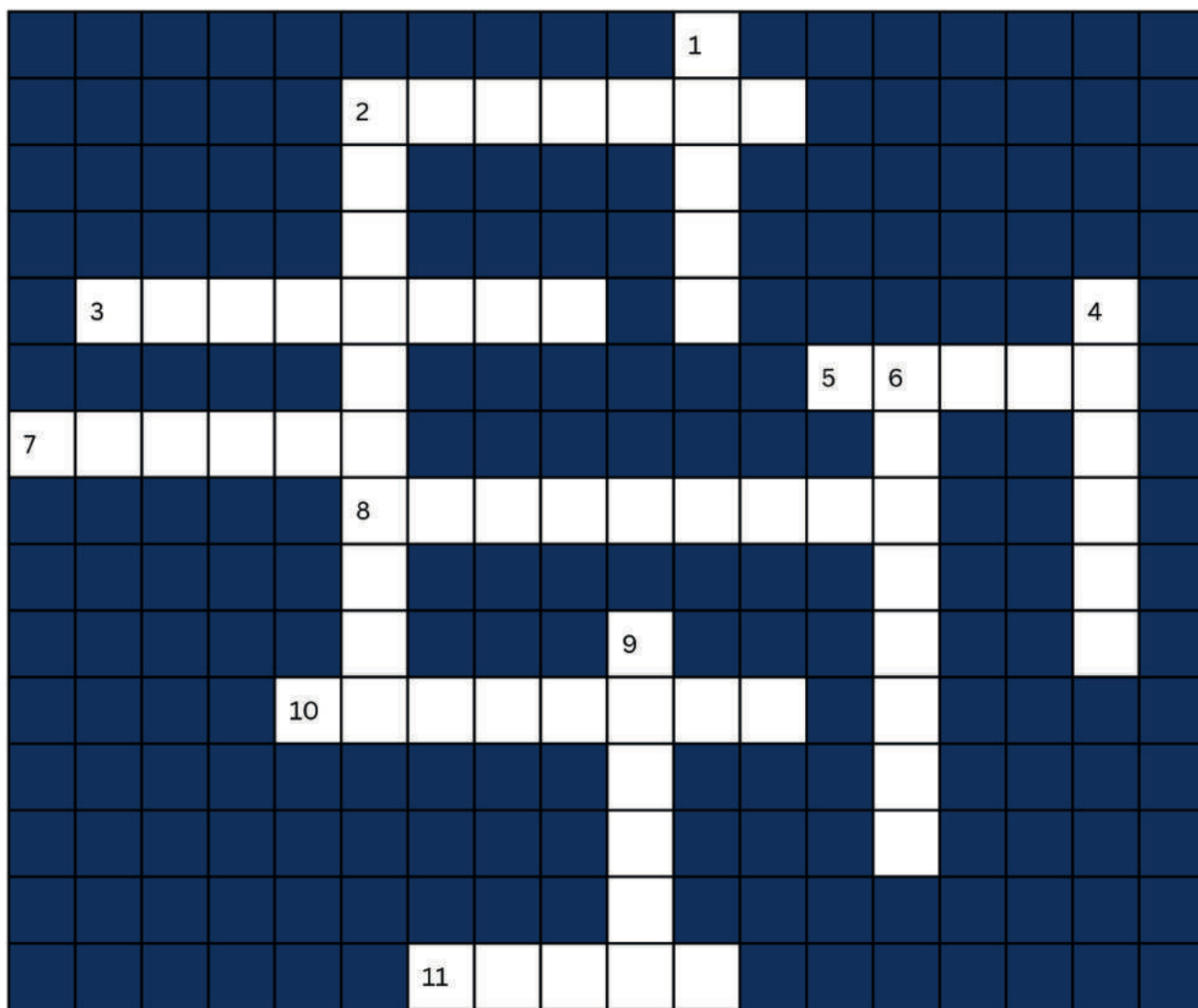
Photography by - Prof. Gaurav Ganguly



Hello World



Read the clues below and complete the grid.



Across

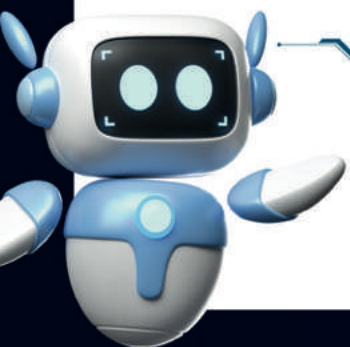
- 2 Watch and View
- 3 Movies Disks
- 5 Carry files with you
- 7 Portable Computer
- 8 Stores Files
- 10 Has letters and numbers
- 11 Squeak

Down

- 1 Sends out signals to the internet
- 2 To speak into
- 4 So people can see you
- 6 Sounds come out
- 9 To connect things

11 MOUSE
10 KEYBOARD
9 CABLES
8 HARDWARE
7 LAPTOP
6 SPEAKERS
5 USB KEY
4 WEBCAM
3 DVD DRIVE
2 MONITOR (DOWN)
1 MODEM (ACROSS)

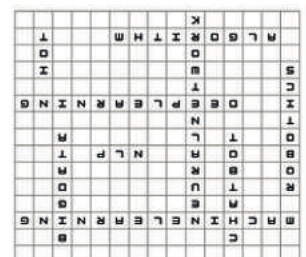
Word Search



Find 9 expressions related to Artificial Intelligence. The expressions will appear either vertically or horizontally within the puzzle.

C	W	R	T	I	O	P	S	V	A	R	B	N	O	E
J	L	R	C	E	P	T	P	Y	U	I	S	B	F	H
M	A	C	H	I	N	E	L	E	A	R	N	I	N	G
U	K	Z	A	S	E	Y	F	C	O	X	E	G	O	E
R	A	U	T	G	U	L	M	K	W	L	N	D	D	K
O	V	L	B	C	R	O	U	N	I	B	U	A	P	C
B	R	F	O	I	A	V	T	N	L	P	G	T	C	T
O	H	O	T	H	L	P	R	D	L	V	Y	A	K	P
T	B	K	T	D	N	J	O	J	D	E	S	O	F	J
I	N	P	D	E	E	P	L	E	A	R	N	I	N	G
C	O	I	R	X	T	A	L	N	L	S	Z	A	B	T
S	I	T	F	A	W	M	U	T	P	S	T	H	I	I
Y	V	L	H	E	O	I	C	B	P	J	K	I	O	O
P	A	L	G	O	R	I	T	H	M	D	R	L	T	T
J	O	I	L	I	K	F	R	C	Y	S	U	A	G	K

The term Artificial Intelligence was first coined in 1956 by John McCarthy, who is often called the father of AI.





Editor's Note

KERNEL VOL. 02

We are thrilled to present the second edition of Kernel, the official magazine of the Department of Computer Applications at UEM, Jaipur. Building on the success of its inaugural issue, this edition continues to celebrate the creativity, innovation, and academic excellence that define our department.

Through this publication, we aim to inspire, inform, and ignite a deeper passion for learning, exploration, and discovery. Your continued encouragement and feedback drive us to make Kernel an even more engaging and enriching platform.

Gaunav Ganguly

Editor-in-Chief



Photography By:
Yogeshwar Singh Rathore
MCA 2nd Year

Inside

In this edition, you'll find an exciting blend of insightful articles on emerging technologies such as artificial intelligence, data science, and cybersecurity, along with glimpses of departmental activities, achievements, and major conferences. Kernel embodies the spirit of curiosity, collaboration, and the relentless pursuit of excellence that fuels our academic community.

STUDENT PARTNERS

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RUPSA



ABHISHEK



SNEHAL



SHASHANK

SECOND
EDITION

KERNEL_{2.0}

JANUARY
2026



About Us

The Department of Computer Applications at UEM Jaipur is a hub of innovation, learning, and excellence, dedicated to equipping students with the skills and knowledge to thrive in the ever-evolving world of technology. With a focus on cutting-edge research, hands-on learning, and industry collaboration, we foster an environment that encourages curiosity, creativity, and a passion for problem-solving. Together, we shape the future of technology and its impact on society.

About the Magazine

Kernel, the official magazine of the Department of Computer Applications, UEM Jaipur, continues its journey of celebrating innovation, creativity, and academic excellence with its second edition. Building upon the success of the inaugural volume, this edition further strengthens Kernel's role as a vibrant platform that highlights the achievements, ideas, and aspirations of our students, faculty, and collaborators. Featuring thought-provoking articles, groundbreaking projects, and inspiring insights, this issue reflects the ever-evolving spirit of curiosity, innovation, and the relentless pursuit of knowledge that defines our department.



E-Magazine