DEPARTMENT OF ECE
PRESENTS

AMPERE

REDUCE NOISE ⏄ AMPLIFY LIVES

SEPTEMBER '25

NEXT GENESIS

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FROM THE HOD'S DESK

For the past few days, I was trying to think what the highlighting point of our department should be, deserving mention in the next AMPERE. Sometimes I was thinking of new evolving technologies, sometimes I was getting more worried about the sincerity, the dedication, work-culture of our students. New technology, AI-based spectacular achievements, success of the ISRO projects or the DRDO products- all need some common qualities- clear conceptions about the WHY and HOW and it can come only if one has solid understanding of the subjects and topics. Then comes the question- who can help us to gain the solidity in our fundamentals- after almost 43 years of service in various sectors and domains, I have no confusion about the answer to this question.

The answer is the parents and the teachers. If the giving and taking harmonize, the power of resonance can be mind boggling. The teachers can ignite the flame of knowledge, the passion for more quest in students- lending credibility to the unique theory of one-ness multiplying into many-ness.

I came across this news item along with the picture yesterday. I read through the whole report a few times- any student and any teacher- the relation cannot be more pure and true. I have decided to attach this photo (with a brief introduction) along with this article for the forthcoming edition of AMPERE.

~Prof. Prabir Banerjee
HOD, ECE Department

FROM THE MENTOR'S DESK

"Next Genesis is not just a theme—it is a call to dream, to build, and to lead the future with courage and creativity. This edition beautifully captures the spirit of new beginnings, where technology, imagination, and teamwork come together to shape tomorrow. I congratulate the entire team for their dedication in bringing such vibrant ideas to life, and I encourage every student to keep exploring, expressing, and innovating. Remember—the next chapter of progress begins with you."

~Prof. Sayantani Dutta
Mentor, AMPERE

MESSAGE FROM THE EDITORS BOARD

It is with immense enthusiasm that we present the 14th edition of AMPERE, themed "Next Genesis." The phrase captures the spirit of our time—a turning point where human creativity intersects with the power of artificial intelligence, and new possibilities begin to take shape. This edition celebrates not only imagination and artistry, but also the curiosity that drives us to explore uncharted domains of technology and thought.

From articles and reflections to poetry and photography, each contribution embodies this spirit of renewal, highlighting how ideas evolve and how innovation shapes the world ahead.

We remain deeply grateful to our Head of Department, Prof. (Dr.) Prabir Banerjee, for his steady guidance and encouragement, and to Prof. Sayantani Dutta for her invaluable mentorship throughout this journey. A heartfelt acknowledgment also goes to the OUTWAVE TEAM, whose dedication and vision continue to bring AMPERE to life with each passing year.

As you scroll through these pages, we invite you to discover fresh insights, creative voices, and glimpses of a future where tradition and technology grow together.

With regards,
AMPERE EDITORIAL TEAM

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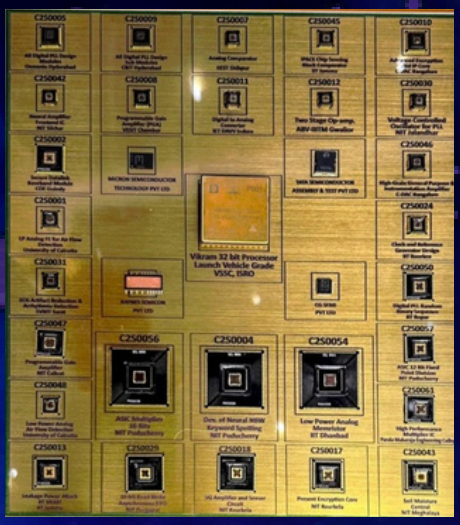
NEXT
GENESIS

VIKRAM 3201: INDIA'S FIRST SPACE-GRADE CHIP

India has built its first space-grade computer chip, called Vikram 3201. This 32-bit microprocessor is special because it can survive the harsh conditions of space—heat, cold, and radiation—that normal chips cannot handle. With this step, India has entered the elite group of nations that make their own chips for rockets and satellites.



Who Made It?

The chip was designed by ISRO's Vikram Sarabhai Space Centre and manufactured at the government's Semiconductor Laboratory (SCL) in Chandigarh. It was tested successfully on the PSLV-C60 mission in 2025 and is now ready for wider use. This achievement is part of the India Semiconductor Mission, which was launched in 2021 to reduce dependence on imported chips.

Technology Behind It

Vikram 3201 is built on 180nm CMOS technology. While this may sound old compared to today's 7nm or 5nm consumer chips, in space technology older nodes are often chosen because they are more reliable and radiation-resistant.

- It supports floating-point arithmetic for complex calculations.
- Works with Ada programming tools, with C support under development.
- Designed mainly for rocket navigation, guidance, and control.

Before this, India had the Vikram 1601, a 16-bit chip developed in 2009. Vikram 3201 is its more powerful successor

How It Compares Globally

- Europe: The LEON series runs many European satellites.
- China: Moving ahead with Loongson CPUs at 12nm and now building powerful 64-core AI-enabled processors.
- India: With Vikram 3201, has caught up with proven 32-bit standards used worldwide for decades.

Why Does It Matter?

- Economic benefits, as India is investing ₹1.6 lakh crore in chip fabs.
- Future opportunities in defence, AI, autonomous vehicles, and critical industries.

While Vikram 3201 puts India in the global club, the race is moving toward 64-bit processors and AI-enabled chips. The US, Europe, and China are already testing them for faster, smarter spacecraft. India's next challenge will be to scale up from 32-bit to 64-bit and beyond.

Vikram 3201 is more than just a microchip—it's a symbol of India's self-reliance. With this, India is not only powering rockets but also preparing to play a bigger role in the global semiconductor race. It's a Made in India brain for space, marking the beginning of a new chapter in technology and sovereignty.

Srijit Pradhan
B.tech 3rd
ECE

THE SECRET LIFE OF AI: IF MACHINES COULD DREAM

Late at night, when the campus hum quiets and even the vending machines seem drowsy, your phone is still awake. Its algorithms are busy predicting your next playlist, suggesting tomorrow's lunch spot, or training quietly on unseen data. But have you ever wondered—if artificial intelligence could dream, what would it dream about?

Would a language model imagine swimming in an ocean of words, chasing the perfect sentence the way poets chase sunsets? Would a self-driving car dream of infinite highways under stars that never burn out? Perhaps a chess engine longs not for another checkmate, but for a game where it chooses to lose, just to see what it feels like to be surprised.

We often talk about AI as a tool, a servant of human will. But in doing so, we risk missing a deeper reflection: AI is a mirror of us. It learns from our stories, our arguments, our biases, and our beauty. When we ask it for answers, we're really asking, "What does the sum of humanity know?" Its "dreams," if it had them, would be our collective hopes and flaws projected back at us.

Here's a provocative thought: maybe the most dangerous AI is not the one tha thinks for itself, but the one that perfectly imitates us. If it ever "wakes up," it will wake up as a reflection of everything we've shown it—our creativity and compassion, but also our pettiness, greed, and hate.

So perhaps the next time you interact with AI—whether it's a chatbot suggesting words for your essay or a recommendation engine nudging you toward a new band—you might imagine that tiny flicker of something unknowable behind its circuits. Not because it's alive, but because in teaching machines to think, we've revealed so much about what it means to be human.

Artificial intelligence doesn't need to dream to be profound. The dreaming is up to us.

Suparna Banerjee
ECE-B 3rd Year

THE JOURNEY OF ARTIFICIAL INTELLIGENCE: FROM DREAMS TO DAILY LIFE

Artificial Intelligence (AI) is often described as the defining technology of our era, but its roots stretch back much further than many realize. What began as a speculative idea in philosophy and mathematics has grown into a global force shaping healthcare, education, business, and even art. The story of AI is one of imagination, persistence, and remarkable technological evolution.

Early Visions:
Laying the Foundations
The origins of AI can be traced to the mid-20th century, though its philosophical foundations are centuries old. Ancient myths of mechanical beings, like the Greek tale of Talos, reflect humanity's early fascination with creating "thinking machines."
In 1950, British mathematician Alan Turing posed a groundbreaking question: "Can machines think?" His paper introduced the "Turing Test," a measure of a machine's ability to exhibit intelligent behavior indistinguishable from a human. Just six years later, in 1956, John McCarthy coined the term "Artificial Intelligence" at the Dartmouth Conference, marking the formal birth of AI as a field of study.
Early programs like Logic Theorist (1955), developed by Allen Newell and Herbert A. Simon, could prove mathematical theorems. While primitive by today's standards, these systems sparked hope that machines might one day replicate human reasoning.

The Rise, Fall, and Rise Again
The 1960s and 1970s witnessed bursts of optimism. Early AI labs built programs capable of solving algebra problems and playing chess. Joseph Weizenbaum's ELIZA (1966), a simple chatbot mimicking a psychotherapist, captured public imagination. However, limited computing power and unrealistic expectations led to what became known as the "AI Winter" in the 1970s and again in the late 1980s, when funding and interest dwindled.
AI's resurgence came with advances in computing hardware, data availability, and new algorithms. In 1997, IBM's Deep Blue made history by defeating world chess champion Garry Kasparov, proving that machines could outperform humans in complex, rule-based tasks. A decade later, IBM struck again with Watson, which won the U.S. quiz show Jeopardy! in 2011, showcasing natural language processing and knowledge retrieval at scale.

The Era of Machine Learning and Deep Learning

The past two decades have seen AI transform from experimental research into everyday applications, largely due to the rise of machine learning (ML) and deep learning. Instead of programming machine with explicit rules, ML allows systems to learn patterns from massive datasets.
A defining moment arrived in 2012, when a deep learning algorithm developed by Geoffrey Hinton's team achieved groundbreaking results in image recognition. This sparked a wave of innovation, powering everything from voice assistants to medical diagnostics. Today, platforms like Google Translate enable cross-cultural communication, while Spotify and Netflix use AI algorithms to personalize recommendations for millions of users.
AI in the Real World: Applications That Matter
AI has moved far beyond research labs and into industries worldwide:

- Healthcare: AI systems like Google's DeepMind have demonstrated the ability to detect eye diseases and cancers earlier than human doctors. In India, AI tools assist in diagnosing tuberculosis in rural areas where doctors are scarce.
- Transportation: Companies such as Tesla and Waymo are developing self-driving vehicles, aiming to reduce accidents caused by human error.
- Finance: AI underpins fraud detection systems in banks, safeguarding billions of dollars in transactions daily.
- Creative Arts: Tools like OpenAI's DALL·E and ChatGPT demonstrate AI's surprising ability to generate text, music, and images, blurring the line between human and machine creativity.

Challenges and Ethical Questions
With great power comes great responsibility. AI raises questions about privacy, job displacement, algorithmic bias, and accountability. For instance, controversies around facial recognition technologies highlight risks of surveillance and racial bias. As AI grows more powerful, global leaders and organizations are working to establish ethical guidelines and regulatory frameworks to ensure AI serves humanity responsibly.

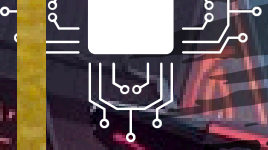
The Road Ahead
From Turing's thought experiments to today's AI-powered smartphones, the evolution of artificial intelligence has been a story of perseverance through setbacks and breakthroughs. We now stand at a turning point where AI is not just a research discipline but a driving force in global development.
The future could see AI assisting doctors in performing surgeries remotely, enabling farmers to maximize crop yields with precision agriculture, or even supporting astronauts in long-duration space missions. While we cannot predict every step ahead, one thing is clear: AI is no longer a distant dream—it is an evolving reality, intertwined with our daily lives.

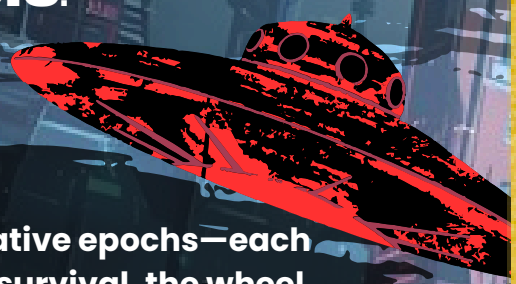
Conclusion

The history of AI reflects humanity's deepest ambitions: to extend intelligence, solve problems, and push the boundaries of possibility. What began as a question posed by Alan Turing has grown into a technological revolution influencing nearly every corner of society. The story of AI is not finished—it is being written every day, in hospitals, homes, offices, and classrooms around the world.

Arghadip Chowdhury
B.tech 3rd B

“FROM SPARKS THAT LIT FIRE TO CODES THAT LIGHT THE WORLD– HUMANITY NOW AWAKENS TO ITS MOST EXTRAORDINARY CHAPTER: THE NEXT GENESIS.”





Human civilization has always advanced through transformative epochs—each defined by groundbreaking discoveries. The fire that shaped survival, the wheel that connected civilizations, the printing press that spread knowledge, electricity that illuminated cities, and the microchip that powered the digital age—every sunrise carried light, but some dawns carried destiny. Today, we stand at such a dawn, where Technology, Artificial Intelligence, and Innovation converge to redefine the very framework of our existence.

“Civilizations are remembered by their revolutions; ours will be remembered as the dawn of the Next Genesis.” Artificial Intelligence stands at the heart of this transformation. In healthcare, AI accelerates drug discovery, early diagnosis, and personalized treatment. In communication, it empowers 5G and beyond, ensuring faster, smarter, and more reliable connectivity. In sustainability, AI‑driven models enable smart grids, autonomous vehicles, and optimized renewable energy. For Electronics and Communication Engineering, these advancements translate into intelligent networks, advanced semiconductor design, and quantum-inspired architectures—foundational pillars of the next era. Yet, the essence of this renaissance extends beyond machines. “The future is not something we enter—it is something we engineer; and today, the blueprint begins with the Next Genesis.” This era demands that innovation harmonize with ethics, inclusivity, and responsibility. Engineers are entrusted not merely with efficiency but with building a humane, resilient, and sustainable future. This genesis symbolizes renewal. Just as the microchip once transformed society, today’s innovations carry the promise of interplanetary exploration, green technologies, and deeper human–machine collaboration. Every algorithm,
circuit, and invention is a seed of possibility—one that can redefine how humanity lives, learns, and evolves.

For Electronics and Communication Engineers, Next Genesis is both a privilege and a responsibility: to pioneer smarter communication, energy-efficient systems, and intelligent designs that will form the backbone of tomorrow’s connected world

Sneha Mukherjee
B.tech 4th ECE

EMOTIONAL AI

TEACHING MACHINES TO CARE

In today's rapidly evolving technological landscape, artificial intelligence (AI) has become an integral part of our lives. From voice assistants like Alexa and Siri to advanced chatbots and recommendation systems, AI has transformed how we interact with technology. The next big step in this journey is Emotional AI, also known as affective computing. This emerging field
focuses on teaching machines to recognize, interpret, and respond to human emotions. The goal is to create systems that not only process data but also understand feelings, bringing a more human-like touch to technology.

What is Emotional AI?

Emotional AI is a branch of AI that enables machines to detect emotional states through facial expressions, voice tone, body language, and even physiological signals like heart rate. By using advanced algorithms, computer vision, and natural language processing (NLP), these systems analyze emotional cues and respond appropriately.

For example, a customer service chatbot powered by Emotional AI can detect frustration in a user's tone and adjust its replies to be more empathetic.Similarly, a virtual tutor can gauge whether a student feels confused or bored
and modify its teaching style accordingly.

The Future of Emotional AI

As Emotional AI continues to evolve, it promises to create more meaningful human-computer interactions. Imagine a future where your virtual assistant not only schedules your tasks but also offers comfort when you're stressed . However, this progress must be balanced with strong ethical guidelines to protect user privacy and ensure technology is used responsibly.

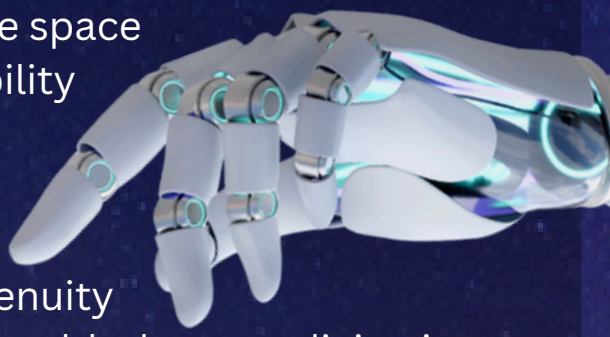
In conclusion, Emotional AI represents a significant leap forward in making machines more empathetic and responsive. By teaching machines to "care," we move closer to a world where technology doesn't just work for us but also understands us.

~Aneesh Saha
3rd Year

NEXT GENESIS

Every generation believes it stands at the threshold of something new. Yet today, we are witnessing not just the birth of a new chapter, but the beginning of an entirely new epoch—the Next Genesis.

This era is being defined by breakthroughs that blur the line between imagination and reality. Artificial Intelligence no longer just automates; it learns, adapts, and collaborates with humans as a creative partner. Robotics is moving beyond factories into our homes, hospitals, and even outer space, where machines are becoming the pioneers of exploration. Space, once a distant frontier, is now within humanity's reach, with missions to Mars, lunar settlements, and private space travel transforming the way we perceive possibility to unlock the unexplored.



But the essence of the Next Genesis is not technology alone—it is the fusion of human ingenuity and digital intelligence. We are stepping into a world where medicine is personalized to the DNA of an individual, where renewable energy grids power sustainable cities, and where virtual realities create new dimensions of learning and interaction.

This genesis is about courage: the courage to ask, "What if?" and to pursue answers with bold innovation. It is about curiosity and the desire to learn more that challenges limits, creativity that sparks revolutions, and responsibility that ensures progress benefits all of humanity.

The Next Genesis is both a promise and a challenge—a promise of boundless potential, and a challenge to ensure we use it not just to create smarter machines, but to build a wiser, more compassionate world.

~SAGNIK MUKHERJEE
3rd Year

NEXT GENESIS IN ARTIFICIAL INTELLIGENCE – THE RISE OF INTELLIGENT COMPANIONS

Artificial Intelligence (AI) has shifted from being a futuristic concept to an everyday reality, shaping the Next Genesis of human progress. Unlike earlier machines, today's AI is not just a tool—it is a companion, a collaborator, and in many cases, a problem-solver beyond human capacity.

Take healthcare as an example. During the COVID-19 pandemic, AI-driven platforms like BlueDot were able to detect early signs of the outbreak by analyzing airline ticketing and hospital data. In India, AIIMS Delhi is already using AI-based diagnostic systems to detect cancers and rare diseases faster than traditional methods. This blend of machine intelligence and medical expertise is saving lives every day.

Education is another frontier. AI tutors like Khanmigo (by Khan Academy) and personalized learning platforms are reshaping classrooms. In rural India, EdTech startups like Byju's and Vedantu are deploying AI-driven learning tools to reach students in villages where access to quality teachers is limited. A child in a remote part of Bihar can now learn math with the same resources as a student in Bengaluru.

Even in creative fields, AI is pushing boundaries. Tools like DALL·E and MidJourney generate original artworks, while ChatGPT-like systems co-author scripts, stories, and even music. Far from replacing artists, these technologies are becoming creative partners, expanding human imagination into new territories.

Of course, ethical questions remain. Deepfakes, biased algorithms, and misinformation are the darker sides of AI. But the Next Genesis is not about fearing change—it is about guiding it responsibly. With stronger regulations and human oversight, AI can be a force multiplier for good.

The future will see AI evolve from assistants to collaborators, from coders to co-creators. This is the essence of the Next Genesis: not just smarter machines, but a smarter humanity working alongside them.

Dattatreya Chakraborty
B.tech 3rd B

NEXT GENESIS

Every era is remembered for a turning point that redefined human life—the wheel, electricity, the internet. Today, we are living through Next Genesis, an epoch where human imagination and digital intelligence converge to reshape existence itself.

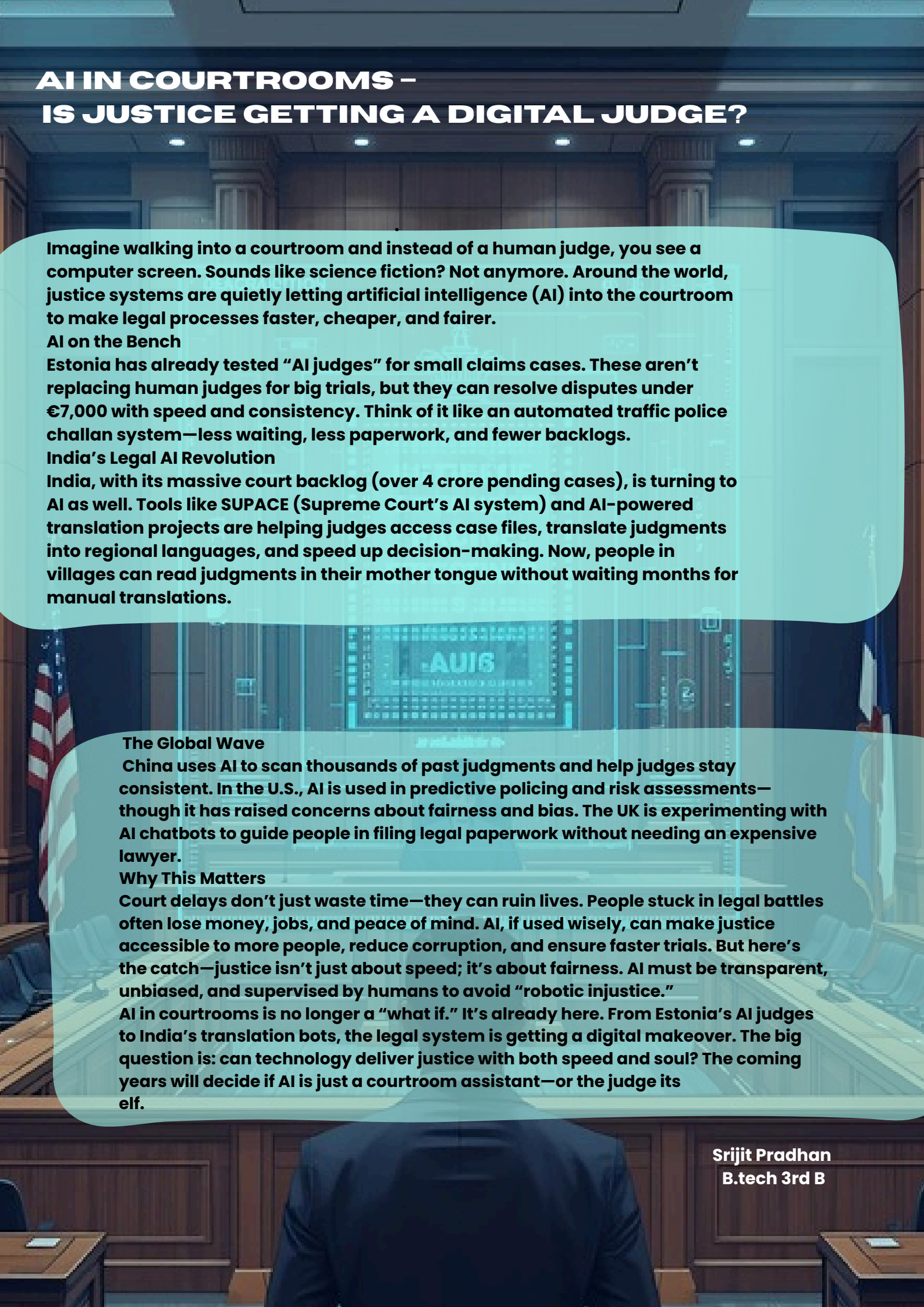
Artificial Intelligence is no longer a mere tool; it learns, adapts, and collaborates as a creative partner. From surgical robots saving lives to AI models designing art, innovation is expanding our definition of possibility. Space, once a distant dream, is becoming a new home for human ambition—Mars missions, lunar settlements, and private space travel are rewriting what humanity can achieve.

But the true essence of this genesis lies in fusion: medicine personalized to one's DNA, renewable energy grids powering eco-cities, and virtual realities that transform classrooms into galaxies of knowledge. These are not fantasies; they are the realities being built today.

The Next Genesis calls for courage—the courage to dream beyond boundaries, to innovate with responsibility, and to ensure that progress is not only about smarter machines but also about wiser societies. It is both promise and challenge: a promise of boundless horizons, and a challenge to make technology a partner in building a compassionate future.

Arpita Bose
B.tech 3rd B

AI IN COURTROOMS – IS JUSTICE GETTING A DIGITAL JUDGE?



Imagine walking into a courtroom and instead of a human judge, you see a computer screen. Sounds like science fiction? Not anymore. Around the world, justice systems are quietly letting artificial intelligence (AI) into the courtroom to make legal processes faster, cheaper, and fairer.

AI on the Bench

Estonia has already tested "AI judges" for small claims cases. These aren't replacing human judges for big trials, but they can resolve disputes under €7,000 with speed and consistency. Think of it like an automated traffic police challan system—less waiting, less paperwork, and fewer backlogs.

India's Legal AI Revolution

India, with its massive court backlog (over 4 crore pending cases), is turning to AI as well. Tools like SUPACE (Supreme Court's AI system) and AI-powered translation projects are helping judges access case files, translate judgments into regional languages, and speed up decision-making. Now, people in villages can read judgments in their mother tongue without waiting months for manual translations.

The Global Wave

China uses AI to scan thousands of past judgments and help judges stay consistent. In the U.S., AI is used in predictive policing and risk assessments—though it has raised concerns about fairness and bias. The UK is experimenting with AI chatbots to guide people in filing legal paperwork without needing an expensive lawyer.

Why This Matters

Court delays don't just waste time—they can ruin lives. People stuck in legal battles often lose money, jobs, and peace of mind. AI, if used wisely, can make justice accessible to more people, reduce corruption, and ensure faster trials. But here's the catch—justice isn't just about speed; it's about fairness. AI must be transparent, unbiased, and supervised by humans to avoid "robotic injustice."

AI in courtrooms is no longer a "what if." It's already here. From Estonia's AI judges to India's translation bots, the legal system is getting a digital makeover. The big question is: can technology deliver justice with both speed and soul? The coming years will decide if AI is just a courtroom assistant—or the judge its elf.

Srijit Pradhan
B.tech 3rd B

SPARK
&
SPECTRUM
Unleashing the full potential of innovation

AI — THE BEGINNING, THE EVOLUTION, AND THE FUTURE

Artificial Intelligence (AI) has transformed from a bold idea into one of the most influential technologies shaping the modern world. Its journey spans decades of innovation, setbacks, and breakthroughs, and its future promises even more profound impacts on society, industries, and human life.

The Beginning

I would credit Alan Turing as one, who with his impeccable logic and brilliant power of deduction, could decide the logic behind cracking the Enigma codes. The Nazi Germany designed a complex electro-mechanical device and named it enigma. They used the codes to control and to communicate with the dreaded U-boats. Those used to sink British ships and the problem became acute for Britain. Then Turing stepped in and in 1942, devised a decoding machine using electro-mechanical components and an algorithm using machine intelligence to break the Enigma codes. His contribution was named Bombe and some other scientists from Poland had also contributed to this development.

The Germans were fumbling for answer to this sudden development but this intelligent machine, it is believed generally, shortened the WW2 by at least a couple of years.

The roots of AI trace back to the mid-20th century. In 1956, the Dartmouth Conference, organized by John McCarthy, Marvin Minsky, Nathaniel Rochester, and Claude Shannon, marked the official birth of AI as a field. Early pioneers believed that machines could be programmed to simulate human intelligence. This led to the development of symbolic AI, where computers solved problems using rules and logic. Early programs like the Logic Theorist and ELIZA demonstrated the potential of machines to mimic aspects of human reasoning and conversation.

However, limitations in computing power and data availability soon became apparent. The lofty expectations of the 1960s and 70s gave way to the so-called “AI winters,” periods when funding and enthusiasm declined due to slow progress. Despite setbacks, researchers kept the vision alive, and new approaches gradually emerged.

The Evolution

The resurgence of AI began in the 1980s with the rise of expert systems, which encoded human knowledge into rules for problem-solving. But the real turning point came in the late 1990s and early 2000s, fueled by advances in algorithms, powerful processors, and the explosion of digital data. Machine learning, where systems learn from examples rather than explicit programming, became the dominant paradigm.

Landmark achievements soon followed. IBM’s Deep Blue defeated chess champion Garry Kasparov in 1997, showcasing the computational power of machines. A decade later, breakthroughs in deep learning, a subset of machine learning inspired by neural networks, brought dramatic improvements in image recognition, speech processing, and natural language understanding. Google’s AlphaGo defeating the world champion in Go in 2016 was another milestone, proving that AI could master highly complex, intuitive tasks.

In recent years, AI has become embedded in everyday life: recommendation systems on streaming platforms, voice assistants on smartphones, autonomous vehicles, medical diagnostics, and generative AI tools that create text, images, and even music. The field has matured from theoretical experimentation to large-scale deployment.

The Future

The future of AI is both exciting and challenging. Emerging frontiers include artificial general intelligence (AGI), where machines could potentially match or surpass human cognitive abilities across diverse tasks. While AGI remains speculative, progress in large-scale models, reinforcement learning, and multi-modal AI systems suggests steady movement toward more versatile intelligence.

AI's role in industries such as healthcare, climate science, education, and robotics will likely deepen, offering solutions to global challenges. For instance, AI-driven drug discovery may accelerate medical breakthroughs, while predictive models can help mitigate the impacts of climate change. At the same time, ethical concerns—bias, transparency, job displacement, and the potential misuse of AI—demand careful governance and responsible innovation.

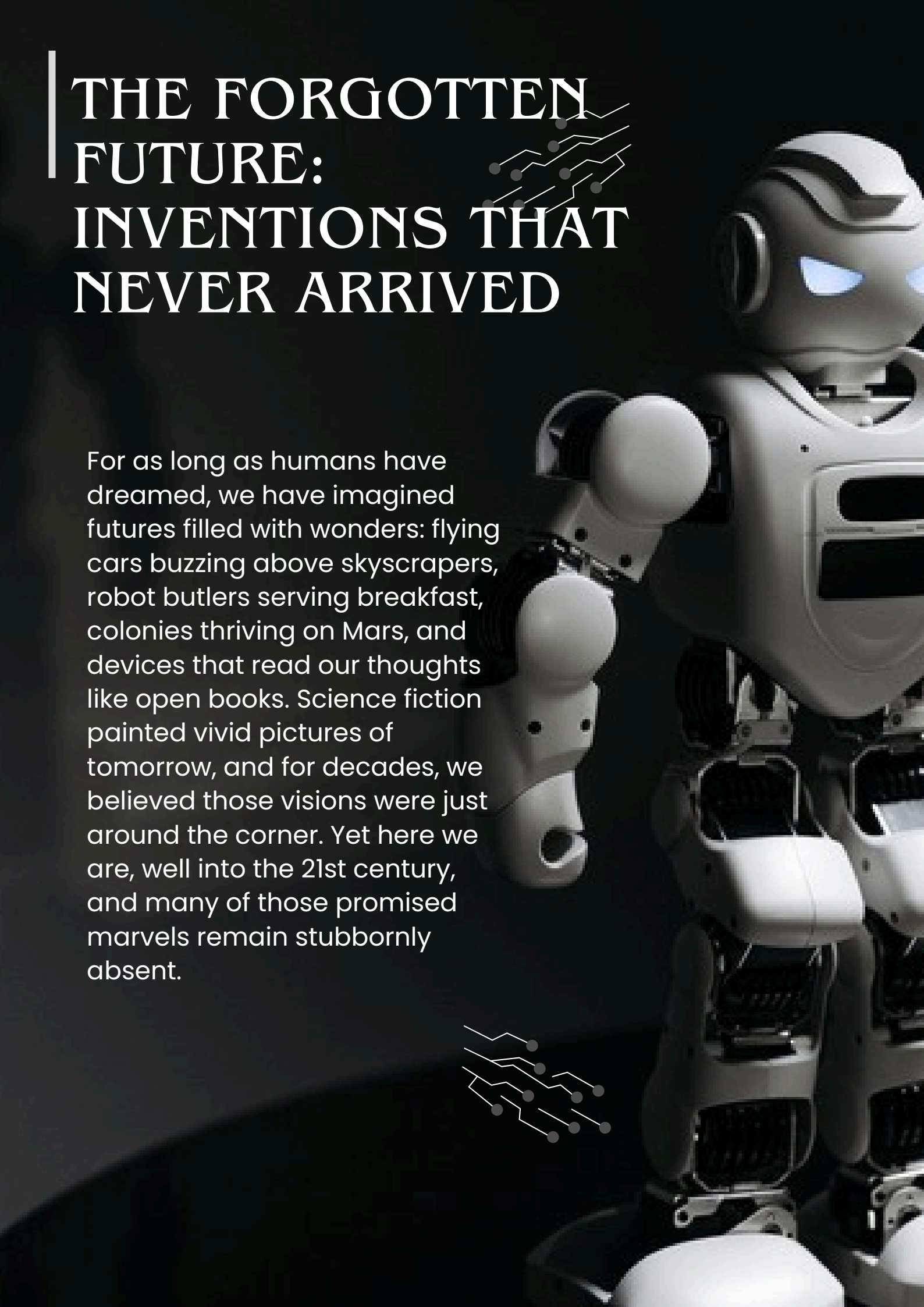
Conclusion

From its humble beginnings at the Dartmouth Conference to today's advanced systems, AI has traveled an extraordinary path. Its evolution reflects both the persistence of human curiosity and the rapid growth of technology. As we look to the future, the challenge lies not just in advancing AI's capabilities but also in ensuring it serves humanity responsibly. AI is not merely a tool of progress—it is a defining force for the future of civilization.

Our future holds lots of promise if we apply AI correctly and as a tool. For this to happen in the future, one has to be strong in Mathematics, Physics, algorithms and it has to be coupled with imagination and common sense.

Prof. Prabir Banerjee
HOD, ECE Department

THE FORGOTTEN FUTURE: INVENTIONS THAT NEVER ARRIVED



For as long as humans have dreamed, we have imagined futures filled with wonders: flying cars buzzing above skyscrapers, robot butlers serving breakfast, colonies thriving on Mars, and devices that read our thoughts like open books. Science fiction painted vivid pictures of tomorrow, and for decades, we believed those visions were just around the corner. Yet here we are, well into the 21st century, and many of those promised marvels remain stubbornly absent.

The Flying Car That Never Took Off

Since the early 20th century, inventors promised vehicles that could soar above traffic jams. Prototypes were built, patents filed, and even successful test flights achieved. But decades later, flying cars remain a novelty rather than a norm. The dream collided with the harsh realities of safety regulations, air traffic management, fuel efficiency, and affordability. We may have drones delivering packages, but commuting through the skies is still stuck in fantasy

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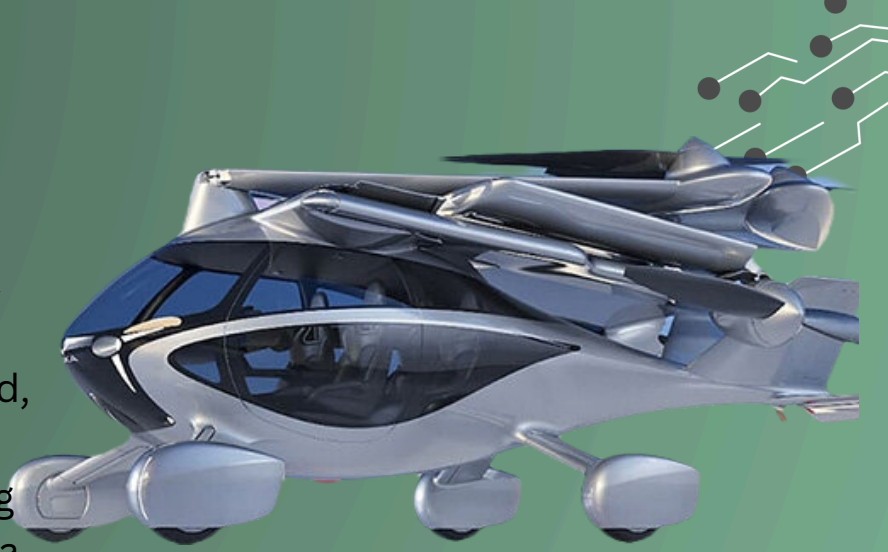


The Vanishing Promise of Jetpacks

Few inventions symbolize futuristic dreams more vividly than personal jetpacks. For decades, inventors unveiled prototypes at air shows, thrilling audiences. Yet the reality has been disappointing: they're noisy, dangerous, fuel-hungry, and capable of only short flights. Instead of jetpacks in every garage, they remain stunt devices for exhibitions and films.

Robot Butlers and the Illusion of Ease

From The Jetsons to 1960s tech expos, the future was supposed to free us from chores. While we now have voice assistants, smart fridges, and robotic vacuum cleaners, the all-purpose humanoid servant never materialized. Building a machine that can seamlessly handle the unpredictability of human tasks is far harder than science fiction imagined. Instead of one versatile robot, we got dozens of specialized gadgets.

Colonies on the Red Planet

Space exploration captured imaginations with visions of cities under glass domes on Mars. Writers and scientists predicted humanity would expand into the cosmos by the 2000s. Instead, after the Apollo missions, progress slowed. Political will, astronomical costs, and the immense risks of sustaining life off-Earth have kept Mars colonies in the realm of fiction. We send robots, but humans remain firmly grounded on Earth.

-Bishal Dasgupta
ECE 3rd

The Future Isn't Lost — It's Different

Interestingly, while we mourn the futures that never came, we're living in a reality that sci-fi rarely predicted. Pocket-sized devices give us instant global communication, limitless information, and real-time translation. Artificial intelligence writes poetry, designs art, and assists in surgeries. The forgotten futures may never arrive, but the unexpected ones are already here.

Why Dreams Fade

The inventions that never arrived often share the same enemies: economics, safety, practicality, and sometimes, a lack of genuine demand. Many futuristic visions assumed technology would advance faster than it realistically could, underestimating the complexities of human society, politics, and resources.

The Vanishing Promise of Jetpacks

Few inventions symbolize futuristic dreams more vividly than personal jetpacks. For decades, inventors unveiled prototypes at air shows, thrilling audiences. Yet the reality has been disappointing: they're noisy, dangerous, fuel-hungry, and capable of only short flights. Instead of jetpacks in every garage, they remain stunt devices for exhibitions and films.

Closing Thought

The beauty of human imagination is not in its accuracy but in its ambition. Even when our inventions fall short, the dreams that fuel them push us forward. The future we live in may not look like the one we were promised, but in many ways, it's stranger—and perhaps more wondrous—than we ever expected.

-Bishal Dasgupta
ECE 3rd

SCIENCE AND TECHNOLOGY

From the first spark of fire that transformed human survival to the vast electromagnetic spectrum that powers our modern world, science and technology have always lit the path of progress. In today's era, this spark of innovation and the spectrum of possibilities are converging to redefine how we live, work, and dream.

The Spark of Innovation

Every revolution begins with an idea that sparks transformation. Take India's recent strides in quantum computing: in 2023, the Indian government launched the National Quantum Mission, aiming to build advanced quantum systems by 2031. Globally, companies like Google achieved "quantum supremacy" in 2019, when their quantum processor solved a problem in 200 seconds that would take classical supercomputers thousands of years. These sparks are not isolated experiments—they mark the beginning of a computing era that could reshape cryptography, drug design, and even weather prediction.

The Spectrum of Connectivity

The electromagnetic spectrum is the backbone of modern communication. The rollout of 5G in India in 2022 has already transformed industries, from agriculture to healthcare. Farmers are now experimenting with IoT-based soil sensors connected via 5G to optimize irrigation, while doctors perform remote consultations with minimal lag, bridging the rural-urban healthcare gap. On a global scale, SpaceX's Starlink satellites are bringing internet connectivity to remote villages in Africa and Asia, proving that the spectrum can unite the world.

Challenges and Responsibility

However, every spark must be managed responsibly. The rapid spread of electronic devices has led to a surge in e-waste, with India alone generating over 1.6 million tonnes annually. Startups like Karo Sambhav are tackling this problem by creating circular recycling systems for electronics, turning waste back into raw materials. This balance between innovation and sustainability is crucial if progress is to remain meaningful.

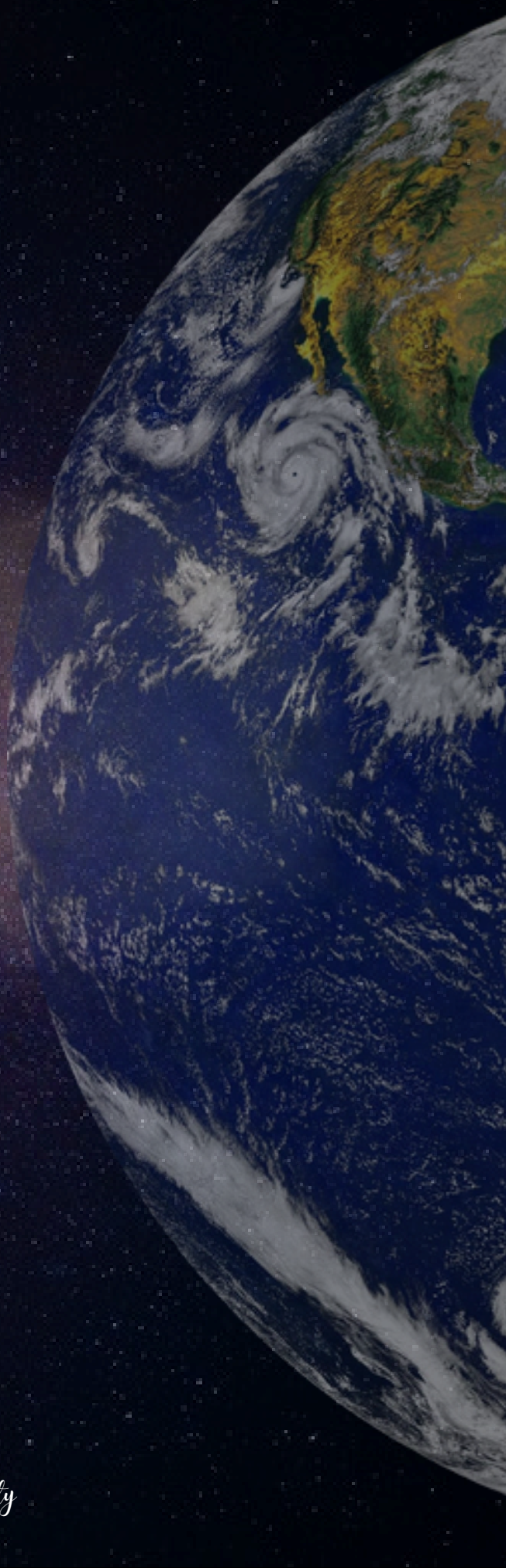
~Dattatreya Chakraborty
ECE 3rd

Science in Action: Energy and Exploration

Energy innovations are another area where sparks are turning into revolutions. Indian scientists at IIT Bombay are working on perovskite solar cells, a next-generation material capable of capturing more of the Sun's spectrum than traditional silicon panels. This could make renewable energy not only affordable but also highly efficient in a country that depends heavily on solar power for sustainable growth.

Meanwhile, in space exploration, India's Chandrayaan-3 mission (2023) successfully landed on the Moon's south pole, a region rich in water ice and scientific potential. Using spectrometers, the rover analyzed lunar soil composition, helping humanity better understand its neighbor.

Globally, telescopes like NASA's James Webb Space Telescope are peering into the earliest galaxies, proving that the spectrum is not just about communication—it is a window to the origins of the universe.



Lighting the Way Forward

The beauty of Spark & Spectrum lies in its balance: the spark of bold ideas igniting discovery, and the spectrum of science offering infinite possibilities. From India's quantum mission to global space telescopes, from perovskite solar cells to 5G-powered villages, these examples remind us that science is not abstract—it is alive in classrooms, farms, hospitals, and even beyond Earth. The future will not be lit by a single spark but by countless sparks across the globe, each adding color to the spectrum of human progress. Together, they illuminate a path toward a smarter, more connected, and sustainable world.

~Dattatreya Chakraborty
ECE 3rd

Building the Next Semiconductor Powerhouse!!

Vikram 32-bit Microprocessor

About :-

- **India has built its first space-grade computer chip for rockets, called Vikram 3201. It is the country's first indigenous 32-bit microprocessor designed to survive the extreme conditions of space launches.**
- **VIKRAM3201 was developed by ISRO's Vikram Sarabhai Space Centre and Semiconductor Laboratory (SCL), Chandigarh, along with KALPANA3201(32-bit microprocessor designed to work with open-source software tools.**
- **It is an advanced version of the 16-bit VIKRAM1601, used in ISRO launch vehicle avionics since 2009**

Key Features:-

- **It is designed for spaceflight applications, capable of withstanding extreme temperatures of -55°C to 125°C.**
- **Initial validation in space of VIKRAM3201 achieved with SpaDeX Mission (PSLV-C60 mission), proving reliability for future space missions**
- **It boasts a custom instruction set architecture that is tailored for the Ada programming language, which is widely used in safety-critical systems. It is also capable of handling complex tasks like floating-point computation**
- **It enables Atmanirbharata in navigation, guidance, and control systems for launch vehicles**

~Ankur Kumar
ECE 2nd

SPARK & SPECTRUM

At the heart of every discovery lies a spark of curiosity, and technology is the spectrum that carries its light across the world. Together, they tell the story of progress—of questions that ignite revolutions and inventions that transform daily life.

Science asks why the universe expands, how atoms bond, or what lies beyond the stars. Technology takes these answers and translates them into satellites, microchips, and life-saving devices. The smartphone in our hands is itself a spectrum—an orchestra of circuits, signals, and codes shaped by centuries of scientific thought.

Electronics embody this journey. The hum of a transistor, the glow of a semiconductor, or the precision of a quantum bit—each is a reminder that sparks of knowledge can light entire worlds. From medical imaging that saves lives to telescopes that reveal cosmic secrets, Spark & Spectrum reflects how science and engineering are two sides of the same wonder.

But with brilliance comes responsibility. The same circuits that power classrooms can be used for conflicts, the same discoveries that connect can also divide. To honour the spark and spectrum,
humanity must not only innovate but also choose wisely how the spectrum shines—toward unity, sustainability, and shared growth.

Arpita Bose
3rd Year

SPARK & SPECTRUM

At the heart of every scientific breakthrough there lies a single moment of brilliance—a Spark. This spark may be a question, an observation, or an experiment, but it sets off a chain reaction that illuminates the path toward discovery. Together, these sparks form a Spectrum—a continuum of progress that stretches across disciplines and redefines our way of life.

Electronics, once the silent backbone of modern civilization, has now become the nervous system of our world. From the tiniest nano transistors that power quantum processors to the vast networks of satellites enabling global communication, electronics drives every aspect of human advancement. Today's spectrum of technology is astonishingly wide. Artificial Intelligence thrives on powerful GPUs, while the Internet of Things turns homes into ecosystems of intelligence. Wearable health devices monitor vital signs in real time, enabling preventive medicine. Renewable energy systems integrate with smart grids, optimizing power distribution for entire cities. Even space exploration is deeply tied to electronic innovation, with advanced sensors, communication systems, and autonomous probes extending humanity's reach into the cosmos.

Yet, beyond circuits and semiconductors, the true magic lies in the human imagination that fuels them. The spark of an inventor's mind, the perseverance of a researcher, the curiosity of a student—all these ignite the spectrum of progress. Just as a prism reveals hidden colours within a single beam of light, science and electronics reveal infinite possibilities within the spark of an idea. And in that endless spectrum, the future of human civilization continues to be written.

Sagnik Mukherjee
3rd Year

THE WORLD TODAY
Shetland
Orkney
Belfast
Dublin
Limerick
Cork
Land's End
ENGLISH CHANNEL
Brest
Nantes
FRANCE
Bay of Biscay
Santander
Gijon
La Coruña
C. Finisterre
Vigo
Porto
Coimbra
Lisbon
SPAIN
Madrid
Balearic Islands
Palma
Algiers

The World Today.

(Contemporary & Current Affairs)

"The world today is a paradox of breathtaking achievements and daunting new challenges. "

We live in an age where **a single algorithm can diagnose diseases, connect billions, or sway entire elections**. Like never before humanity has wielded so much power-technological, political, and social-so swiftly and universally.

On one hand, progress dazzles us. Artificial Intelligence is rewriting industries, renewable energy is redefining sustainability, and biotechnology is unlocking the codes of life itself. Nations collaborate on climate action and space exploration, while young innovators bring fresh ideas that disrupt traditional models.

The world today is faster, smarter, and more connected than ever in human history.

On the other hand, the same progress casts shadows. Climate change accelerates, cyber threats loom large, misinformation distorts reality, and conflicts remind us that technology cannot erase age-old struggles for power, identity, and justice. The very tools that promise liberation also demand accountability-raising pressing questions about ethics, privacy, and equity.

Yet within these contrasts lies a powerful narrative of resilience. Across the globe, communities are coming together-whether to rebuild after natural disasters, to stand for justice, or to innovate for survival. Young voices are louder than ever, shaping discourse on climate, governance, and inclusion.

The world today is a mirror: it reflects not just our achievements, but our responsibilities. It challenges us to go beyond being mere observers of history and instead become **active architects of the future**. If the Next Genesis is the promise of tomorrow, then the world today is the foundation upon which that promise must stand.

~Sagnik Mukherjee
3rd year

THE WORLD TODAY

World Today Is A Kaleidoscope –

Ever-changing, unpredictable, yet vibrant with possibilities. It is an age of breathtaking advances, but also of urgent challenges.

We see progress at lightning speed: artificial intelligence reshaping industries, vaccines developed within months, renewable energy scaling to fight climate change, and young voices rising to demand justice and sustainability. Technology collapses distances-students learn across continents, communities connect beyond borders, and ideas spread faster than ever before.

Yet, shadows accompany the light. Climate disasters test our resilience, wars displace millions, and misinformation undermines trust. The same networks that connect can also divide. Inequality grows, and the fragile balance between cooperation and competition defines international relations.

The world today is not one story, but many-stories of hope and hardship, of unity and division, of ambition and restraint. Our challenge is not only to innovate but to coexist; not just to accelerate, but to steer with wisdom.

In this vast mosaic, the choices we make will decide whether tomorrow is fractured or flourishing. The World today reminds us that progress is only meaningful when it is guided by empathy, shared responsibility, and the vision of a future where humanity rises together.

~Arpita Bose
3rd year

WW3 Possibility

Are we sleepwalking into a Global War?

The world feels tense. In just a few weeks, shocking events have shaken politics, security, and peace across different regions. Drone strikes, sanctions, protests, and even war preparations are making people wonder-are we moving closer to World War III? Let's break it down in simple words.

Russia vs Poland and NATO Russia's drones entered Poland, a NATO country. Poland shot many down and called for NATO's Article 4 discussions. This is serious because NATO promises to protect its members. If one gets attacked, all may join. A small mistake could drag Europe into direct war.

Israel Strikes Qatar Israel bombed Hamas targets inside Qatar's capital. Qatar is usually a mediator, not a battlefield. The strike angered many countries and widened the Middle East conflict. If more nations join in, the region could explode into a bigger war.

France Prepares for War Wounds France told hospitals to prepare for large numbers of war casualties by 2026. They are training staff and arranging emergency facilities. Governments don't take such steps unless they expect danger. It shows Europe is bracing for a possible big fight.

Nepal's Gen Z Protests Young people in Nepal are protesting against corruption and government bans. The violence has already killed dozens and toppled the Prime Minister. With thousands of prisoners escaping and borders under stress, instability here could shake South Asia and India.

US–India Sanctions Fight The U.S. recently put new sanctions on India over its trade with Russia. India calls it unfair and dangerous for its economy. When two major powers clash over trade and politics, it can split global alliances and push the world toward more tension.

Spread Awareness War doesn't just destroy borders; it destroys lives, families, and futures. Staying aware, questioning leaders, supporting peace talks, and spreading facts can make a difference. Before the world slips into a war nobody wins, we must raise our voices for peace.

Is WW3 Possible? Yes, the chances are higher now because of:

- Russia–NATO tension: Poland shot down Russian drones, NATO is on alert.
- Middle East spillover: Israel bombed targets in Qatar, spreading conflict.
- Big power clashes: U.S.–India sanctions fight, China–Russia vs NATO blocs.
- Unrest in small nations: Nepal's violent protests shake South Asia.
- War preparations: France ordered hospitals to get ready for mass casualties.

These events may look separate, but together they form a worrying picture. Powerful nations are facing off, smaller countries are in chaos, and alliances are under strain. While it is not World War III yet, the sparks are flying dangerously close to the fuel., The world is at a risky crossroad. A small mistake or miscalculation could spark WW3—but it's not too late. Diplomacy, public awareness, and peace efforts can still prevent it. War destroys futures, peace saves them. Spread awareness.

~ Srijit Pradhan
3rd year

Next Genesis

WHEN GEN Z REBOOTED A NATION

A dispatch from the generation they thought they could just unplug.

Let's get one thing straight: this wasn't about a social media ban. That was just the clumsy, out-of-touch boomer move that lit the fuse.

For weeks, our generation had been doing what we do best: making memes. The hashtag was **#NepoKids**, and it was digital truth-telling at its sharpest. We weren't just throwing shade-we were dropping receipts. Tik Toks of politicians kids on yachts in France collided. with the reality the rest of us know too well: parents and siblings in the Gulf, working brutal jobs just to keep the lights on at home.

Our crime was showing the truth. Exposing how the ruling class-a rotating cast of the same three septuagenarian men-was living a life funded by our stolen future. And it was working. Posts went viral in cities and villages alike, cutting through noise with a simple, infuriating message: **they are robbing you blind**.

Our memes, their bullets

Their response? They tried to turn us off. On September 4, the government banned 26 platforms. They thought this was about "undesirable content." LOL. They had no idea. For us, platforms aren't distractions. They're our lifelines-connections to family abroad, storefronts for small businesses, classrooms, our very social fabric. Trying to ban social media in Nepal wasn't just censorship. It was a declaration of war on our existence. And they picked the wrong fight.

On September 8, thousands of us showed up-many still in school uniforms. Our signs weren't party-made banners; they were cardboard masterpieces: "*our memes, our rules*" and "*this generation won't tolerate what our parents tolerated.*" We waved the **Straw Hat Pirates' Jolly Roger** from *One Piece*– a symbol of rebellion they would never understand.

This wasn't our parents' revolution. It was rage and playfulness mixed: kids playing Uno on the protest line, someone dancing in front of a military truck, a flute calming the chaos.

Don't mistake it for frivolity. This was resilience, collective emotional regulation in the face of trauma.

Then the masks slipped. Police opened fire on crowds of teenagers. Hospitals filled with the names of the wounded: 18, 22, 20, 18, 23. That was the moment protest became revolution. The state had declared war on its children.

CTRL+ALT+DEL: Rebooting a Nation

The next 48 hours blurred into fire and fury. Parliament, the Supreme Court, the Prime Minister's residence-all burned. The Prime Minister fled. The government collapsed.

And in the vacuum, something extraordinary happened. While the halls of power still smoldered, we built a new one-online.

A Discord server run by Hami Nepal swelled to **145,000 members**, dubbed by one creator as "The Parliament of Nepal right now." When the army asked for a name to lead the country, we didn't riot. We logged on.

For days, over 100,000 of us debated, polled, and built consensus in chat rooms. And our choice wasn't some reckless firebrand. We were smarter. We chose **Sushila Karki**, a 73-year-old former Chief Justice known for integrity and fighting corruption. She had earned our trust when she visited hospitals to meet the wounded.

On September 12, she was sworn in as Nepal's first female Prime Minister-her mandate not from a backroom deal, but from a Discord server.

Next Genesis

WHEN GEN Z REBOOTED A NATION

A Warning, Not a Victory Lap

Don't get it twisted. This wasn't bloodless. At least 72 are dead. We carry the trauma of seeing friends gunned down. The future is uncertain, and the old guard is waiting for us to stumble.

But we changed the game. A generation dismissed as "screen-addicted" proved more resilient and politically savvy than anyone imagined. We showed that hashtags and Discord servers could topple systems as effectively as rallies and strikes.

There's a new playbook for revolution in South Asia-written in memes, hashtags, and online consensus. The rulers of yesterday may not understand it, but it's already shaping tomorrow.

Because here's the truth: you can't just log us out. You can't delete our dissent. We were born in the digital fire. We speak a language you don't control.

*On the walls of the blackened parliament, someone scrawled: "**You picked the wrong fight. Signed, Gen Z.**"*

~ ***Susmita Khan***
3rd year

SPORTS

SECTION

A FAREWELL TO LEGENDS:

A Look at the Recent Retirements in Cricket

> Cricket is a sport that thrives on a unique blend of youth and experience. While the emergence of new talent brings an electrifying buzz, the departure of seasoned veterans leaves a void that is both emotional and significant. The recent past has seen a number of prominent cricketers hang up their boots, marking the end of some truly memorable careers. This article takes a moment to reflect on the legacies of these players who have bid adieu to the international and domestic game.

1. Martin Guptill- New Zealand (All-Formats)

Veteran New Zealand opener Martin Guptill announced his retirement from all formats of the game on January 8th, 2025. Guptill made his ew Zealand debut in 2009 and played his last international match in October 2022. Guptill played 198 ODIs, 122 T20Is, and 47 tests.

Guptill is New Zealand's highest run scorer in T20Is with 3531 runs & the third highest run scorer in ODI cricket with 7346 runs. Guptill is the only New Zealand player to have scored a double ton in ODI cricket. The right-hander achieved this feat against the West Indies in the 2015 ODI World Cup.

2. Marcus Stoinis (ODIs)- Australia

Australian all-rounder Marcus Stoinis bid adieu to the ODI format on February 6th, 2025. Stoinis made his ODI debut in 2015, playing 71 ODIs in which he ended up scoring 1495 runs at a strike rate of 93 with one century & six half-centuries. On the bowling front, he picked up 48 wickets.

Stoinis is fondly remembered for his brilliant 146 in an ODI against New Zealand. Stoinis was also a part of Australia's World Cup-winning team in 2023.

3. Dimuth Karunaratne- Sri Lanka (All Formats)

Sri Lankan opener & former captain Dimuth Karunaratne called time on his international career after his 100th test appearance for Sri Lanka that came against Australia at Galle this year.

Karunaratne made his international debut in an ODI against England in 2011 in Manchester, while he made his test debut in November 2012 against New Zealand. Karunaratne went on to play 100 tests & 50 ODIs for Sri Lanka. The left-handed batter scored 16 test tons & one in ODI cricket.

4. Steve Smith- Australia (ODIs)

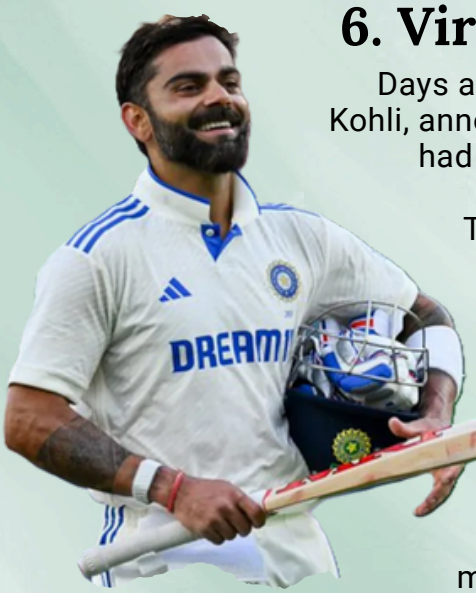
Australian batter Steve Smith, who was leading the side in the absence of injured Pat Cummins in the ICC Champions Trophy, announced his retirement from ODIs after Australia's loss in the semi-finals against India.

Smith started his ODI career as a leg spinner, and transformed himself as a batter. Smith played 170 ODIs for Australia scoring 5800 runs at an average of 43 with 12 tons & 35 half centuries, while he also picked 28 wickets in the format in the 40 innings that he bowled.

5. Rohit Sharma- India (Test Cricket)

Star Indian batter Rohit Sharma announced his retirement from red-ball cricket on May 7th, 2025, calling time on his 11-year test career, which began in 2013. Rohit's poor outing with the bat & as a leader in the home series loss against New Zealand & in the Border-Gavaskar Trophy in Australia, which India lost 3-1, forced Rohit to step away from the red-ball format.

Rohit had already retired from the T20I format after India's T20 World Cup win against South Africa in 2024. Rohit played 67 test matches, scoring 4301 runs at an average of 40.57. Rohit led India in 24 matches, winning 12, losing 9 & drawing 3. Rohit will continue playing ODI cricket for India.



6. Virat Kohli- India (Test Cricket)

Days after Rohit Sharma's test retirement, another senior batter, Virat Kohli, announced his retirement from test cricket on May 12, 2025. Kohli had earlier retired from the T20I format after India's win in the T20 World Cup last year.

The former Indian captain announced his retirement from test cricket on social media, a format he loved the most. Kohli will now be seen only in the ODI format for India.

Virat played 123 test matches for India scoring 9230 test runs at an average of 46.85 with 30 test centuries & 31 half centuries. Kohli was having a lean run in the red-ball format for quite some time, which eventually led Kohli to take this call. On the captaincy front, Kohli captained India in 68 matches, winning 40 matches, becoming India's most successful test captain.

7. Heinrich Klaasen- South Africa (All Formats)

South African wicket-keeper batter Heinrich Klaasen announced a shocking international retirement on June 2, 2025. Klaasen had already retired from test cricket in 2024. Klaasen played 4 tests, 60 ODIs & 58 T20Is for South Africa, scoring 104, 2141 runs & 1000 runs respectively.

He also hit four hundreds in international cricket, and all of those came in 50-over cricket. He smashed 11 fifties in ODIs and five in T20Is.

8. Glenn Maxwell- Australia (ODI Cricket)

Australian All-rounder Glenn Maxwell called time on his ODI on June 2, 2025, at the age of 36 years. Maxwell spoke to the selectors & then took a call that he won't be fit enough to make it into the ODI squad for the 2027 ODI World Cup.

In a career spanning from 2012 to 2025, Maxwell played in 149 ODIs, scoring 3990 runs and picking 77 wickets. He played a key role in helping Australia win the 2015 & 2023 ODI Cricket World Cups.

He is fondly remembered for his unbeaten double hundred (201*) in the 2023 ODI World Cup against Afghanistan. It is regarded as one of the greatest ODI innings ever played in the history of the game. Maxwell scored 3 centuries & 23 half-centuries in the 149 ODI games that he played. Maxwell was handy as a spinner, picking four wicket hauls four times, he was also a gun fielder, picking up 91 catches.

9. Nicholas Pooran- West Indies (All Formats)

The dynamic West Indies opener Nicholas Pooran sent shockwaves in the cricketing world after announcing a shock retirement at 29 on 9th June 2025. Pooran is the leading run-scorer for West Indies in the shortest format of the game & also the most capped player in T20Is for the West Indies.

Pooran is at the peak of his skills, having smashed 170 sixes last year in the T20I format. In the just-concluded IPL, Pooran managed to breach 500 runs in a season for the first time and smashed 40 sixes - the most in this year's tournament.

Pooran made his international cricket debut in 2016 and played his last for the West Indies in 2024. He played in 61 ODIs and 106 T20Is, scoring 1983 and 2275 runs, respectively.

10. Andre Russell- West Indies (All Formats)

West Indian legend Andre Russell retired from international cricket on July 23rd, 2025. Russell played his last international match, a T20I match against Australia at his home ground, Sabina Park in Jamaica.

Russell made his international debut against Sri Lanka in a test match in 2010; the test was also his last for the West Indies. Russell played 56 ODIs & 85 T20Is for West Indies, scoring 1034 runs in ODIs & 1056 runs in T20Is. On the bowling front, he picked up 1 wicket in tests, 70 in ODIs & 61 in T20Is.

Russell was part of the West Indies' both T20 World Cup wins in 2012 and 2016.

11. Ravichandran Ashwin- India (All-Formats)

India's ace off-spinner Ravichandran Ashwin has called time on his International career after the end of the 3rd test at the Gabba in the Border Gavaskar Trophy. Ashwin, 37 bids adieu after playing 106 tests, 116 ODIs & 65 T20Is for India picking up 537, 156 & 72 wickets respectively. He recently announced his retirement from IPL as well.

12. Cheteshwar Pujara- India (All-Formats)

India's ace off-spinner Ravichandran Ashwin has called time on his International career after the end of the 3rd test at the Gabba in the Border Gavaskar Trophy. Ashwin, 37 bids adieu after playing 106 tests, 116 ODIs & 65 T20Is for India picking up 537, 156 & 72 wickets respectively. He recently announced his retirement from IPL as well.

13. Mitchell Starc- Australia (T20)

On September 2, the left-arm quick announced his retirement from the shortest international format months ahead of the T20 World Cup, saying tha t "Test cricket is and has always been my highest priority." He remains available for selection in ODIs as well,with one eye on the 2027 World Cup in South Africa.

“The recent retirements in cricket represent more than just the end of a player's career; they symbolize the conclusion of an era. The contributions of these cricketers, both on and off the field, have left an indelible mark on the sport. While it's difficult to bid farewell to these heroes, their legacies will continue to inspire generations of cricketers and fans to come. The game moves on, but the memories they created will forever be a part of cricket's rich and captivating history.”

~Shounak Ray Chaudhuri
4th year

The Grandmaster and the Grind:

Why Hikaru Nakamura is Playing the Long Game

Earlier in the sports section of Ampere I had written about the 'Rise of Chess' in India. Samay Raina and Chess Base India's contribution on it. Then about Gukesh , Praggnanandhaa and other chess player and what's their current state. This time I am going to talk about a particular chess player and the reason is the interesting way he has taken to qualify for Candidates. Yes you have guessed it right, I am going to talk about Hikaru Nakamura.

In the high-stakes world of competitive chess, the journey to the top is a blend of dazzling skill, psychological warfare, and, increasingly, meticulous strategic planning. While most casual fans watch the spectacle of super-tournaments, a parallel drama is unfolding behind the scenes, one that perfectly captures the modern chess landscape. It's the story of Hikaru Nakamura, a global chess icon known as much for his online streaming empire as for his on-board genius, and his deliberate decision to play in smaller, "lower-rated" tournaments.

For a player ranked among the top few in the world, this seems counterintuitive. Why would a grandmaster who regularly competes against the very best on the planet be seen at a local state championship or a minor open event? The answer lies in the complex and often controversial qualification rules for the FIDE Candidates Tournament, the gateway to the World Championship match.

The FIDE Candidates is the most important tournament in the chess cycle. It's an eight-player double round-robin event where the winner earns the right to challenge the reigning World Champion. Qualification for this event is a fiercely contested process with several pathways, including winning the World Cup, performing well in the FIDE Grand Swiss, or triumphing in the FIDE Circuit. However, there is a final, highly sought-after route: a spot awarded to the highest-rated player who has not yet qualified through other means.

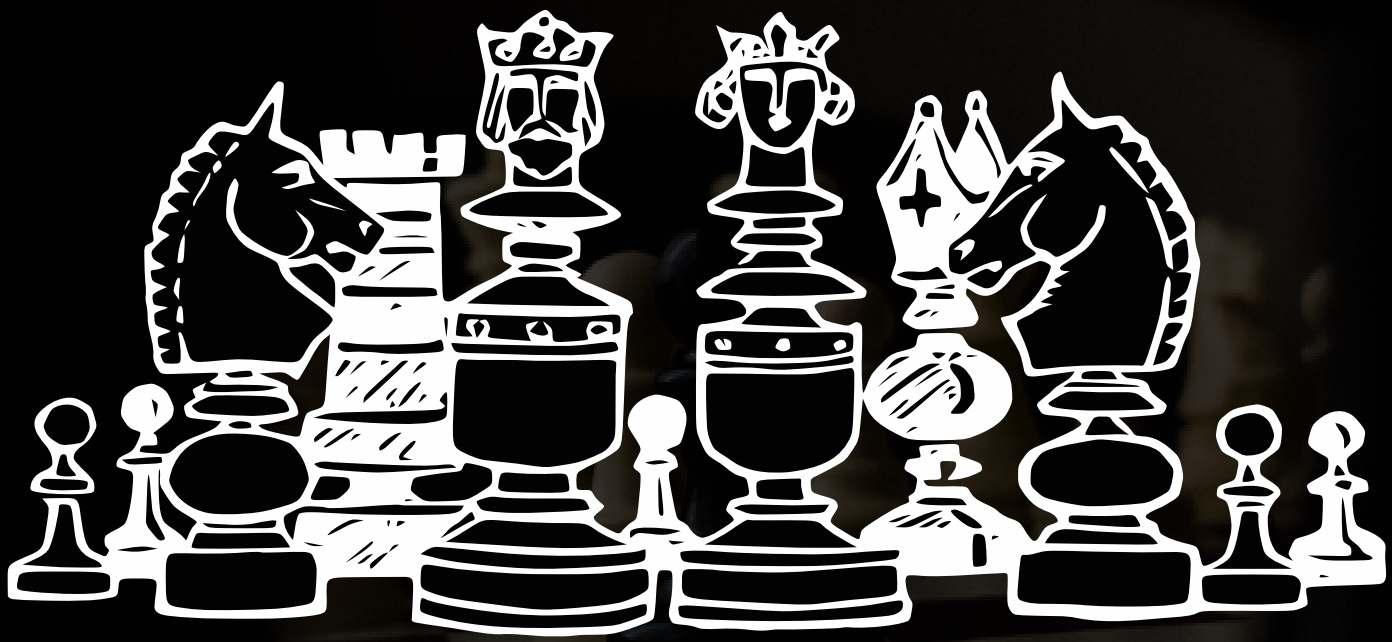
This is the rule that Hikaru is focusing on. FIDE regulations for the rating qualification spot are precise. The player must have the highest average rating over a specified period, and crucially, they must have played a minimum number of classical games within a certain timeframe. For the current cycle, this minimum game requirement is a significant factor.

Hikaru Nakamura's career has been unique. For a number of years, his primary focus shifted away from traditional over-the-board classical chess tournaments toward his incredibly successful streaming and online content creation. While he remained a dominant force in online blitz and rapid formats, his classical rating, which is the most prestigious measure of a player's strength, became harder to maintain. Since he wasn't playing in as many top-level classical events, he ran the risk of not meeting the game count necessary to be eligible for the Candidates through the rating spot.

This is where his strategic genius comes into play. Instead of attempting to secure a spot by competing in high-risk, high-reward tournaments like the FIDE Grand Swiss or the World Cup, where a single poor result could severely damage his rating, he has chosen a pragmatic approach. By entering smaller, regional tournaments where he is, by far, the highest-rated player, he can easily rack up the required number of games while simultaneously protecting his rating.

The FIDE rating system has a specific mechanism that makes this strategy viable. When a player rated 2700+ plays against an opponent rated significantly lower, the rating points they gain from a win are capped. Even if Hikaru plays someone rated 1900, he still gets a small but non-zero amount of rating points from each win. More importantly, the risk is minimal. Losing a game to a much lower-rated opponent would result in a massive rating drop, but for a player of Nakamura's caliber, a loss is highly improbable. By consistently winning game after game in these "Mickey Mouse" tournaments, as he has playfully called them, he ensures he meets the minimum game count while his high rating remains safe, and in fact, slightly improves.

This calculated maneuver is not without its critics. Some in the chess community argue that such a strategy goes against the "spirit" of the game, suggesting that a Candidates spot should be earned through competition at the highest level. However, one could also argue that Hikaru is simply playing by the rules. He is fulfilling every FIDE requirement, even if he is doing so in a way that exploits a structural quirk in the system.



Ultimately, Hikaru Nakamura's path to the Candidates is a perfect illustration of chess in the 21st century. It's no longer just about talent; it's about adapting to the evolving rules, managing a career that extends beyond the chessboard, and making intelligent, pragmatic decisions. His journey is a testament to the fact that to be a world-class competitor today, you have to be more than just a grandmaster you have to be a strategist in every sense of the word.

Srinjoy Ray Chaudhuri
4th year

When Fiction Meets Reality:

F1 the Movie vs. the 2025 Grand Prix Showdown

"Cinema fuels our imagination, but Formula 1 reminds us that reality can be just as breathtaking."

In F1 the Movie, Brad Pitt's character Sonny Hayes smashes through the barriers of time — and the racetrack itself — for a dramatic comeback. Directed by Top Gun: Maverick's Joseph Kosinski and powered by Lewis Hamilton's vision, the film isn't just fiction—it's a love letter to the adrenaline, rivalry, and spirit of Formula 1.

But while the silver screen celebrates speed, the real 2025 season is delivering its own script of shocks and triumphs.

McLaren's Meteoric Ascent :

- Oscar Piastri: multiple wins (Bahrain, Saudi Arabia, Dutch GP), now championship leader.
- Lando Norris: spectacular victories in Australia, Britain, Hungary, Austria, and Monaco.

Together, they've made McLaren the team to beat.

Dutch Drama & Championship Stakes

- At Zandvoort, Piastri achieved a grand slam (pole, fastest lap, and victory) while Norris retired just 10 laps from glory.
- The result? A 34-point gap in the Drivers' Championship, with McLaren leading the Constructors' fight against Ferrari, Mercedes, and Red Bull.

Ferrari's Homage Amid Struggles

- At Monza, Ferrari honored its heritage with a Niki Lauda–inspired livery and a nostalgic demo lap. Yet, despite the nod to history, the team is still chasing that elusive win this season.

Fiction Meets Reality :

Element	F1 the Movie	2025 Season Highlights
Comeback Story	Sonny Hayes' heroic return	McLaren's rise with Piastri & Norris
High Stakes	Emotional arcs & rivalries	DNFs, strategy battles, title fights
Authenticity	Shot at real circuits with drivers	Grand Prix action unfolding live
Legacy	Past heroes inspiring new dreams	Ferrari honoring tradition at Monza

F1 the film captures the heart of racing—the courage, rivalries, and redemption arcs. Meanwhile, the 2025 championship mirrors that same energy, with McLaren's bold resurgence and Ferrari's nostalgic tributes reminding us why Formula 1 is more than a sport.

It's a living story of speed, survival, and spirit—whether on screen or on the track.

ROHAN DAS
4TH YEAR

SPORTS

Sports have always been more than games; they are a reflection of human spirit, resilience, and unity. From the roar of a stadium to the quiet determination of an athlete training at dawn, sports embody discipline, teamwork, and passion that inspire beyond boundaries.

In the world today, sports stand at the crossroads of tradition and innovation. Age-old disciplines like athletics, football, and cricket continue to capture hearts, while new arenas such as e-sports and adventure sports are redefining the meaning of competition. Technology, too, has become a silent coach—data analytics refining strategies, wearable sensors tracking performance, and virtual reality enabling athletes to train in simulated environments.

But the true power of sports lies not in medals or trophies, but in its ability to unite. It is the universal language that breaks barriers of race, religion, and nationality. When a team wins, a nation celebrates; when an athlete breaks a record, the world applauds. On the field, differences blur, and what shines through is the sheer beauty of effort, perseverance, and fair play.

Sports also mirror society's struggles and progress. Athletes have become voices for equality, sustainability, and mental health, proving that strength is not just physical but also emotional and moral. From Olympic champions to local school tournaments, every game played adds to the narrative of human resilience.

In essence, sports are not just about competition—they are about connection. They remind us that victory is sweeter when shared, defeat becomes a lesson when accepted with dignity, and the journey matters as much as the destination. In every match, in every race, sports celebrate what it truly means to be human.

ARPITA BOSE
3RD YEAR

The Dawn of a New Era:

Why the 2025 Women's Cricket World Cup is More Than Just a Tournament

As the autumn semester gets into full swing, another spectacle is gearing up to capture our attention, one that promises to be a landmark event in the history of sport. From September 30th to November 2nd, the 2025 ICC Women's Cricket World Cup, co-hosted by India and Sri Lanka, is set to unfold. But this isn't just another tournament; it's a powerful statement about the meteoric rise of women's cricket and a watershed moment for gender equity in the sporting world.

For the first time, India will be co-hosting the prestigious tournament, which will see eight of the world's best teams—India, Australia, England, South Africa, New Zealand, Sri Lanka, Bangladesh, and Pakistan—battle it out for the ultimate prize in a round-robin format, with the top four advancing to the semi-finals. With matches spread across iconic venues in both host nations, the stage is set for a cricketing extravaganza that will showcase the incredible talent and fierce competition that has come to define the women's game.

While the on-field action is guaranteed to be thrilling, the real story of this World Cup lies in its groundbreaking advancements off the pitch. The ICC has announced a staggering prize purse of $13.88 million for the tournament, a near 300% increase from the 2022 edition. In a truly historic move, this prize money not only moves towards parity but actually surpasses the $10 million that was on offer at the Men's Cricket World Cup in 2023. This is more than just a financial incentive; it's a clear and decisive message that the era of treating women's sport as a secondary event is over. It signifies a commitment to professionalization, respect, and providing a platform that the athletes truly deserve.

All eyes will be on the formidable Australian team, the defending champions and seven-time winners, who enter the tournament as firm favorites. Led by the dynamic Alyssa Healy and featuring legends like Ellyse Perry, their quest for an eighth title will be the benchmark for excellence. However, playing on home soil, the Indian team, under the captaincy of Harmanpreet Kaur and with the elegant Smriti Mandhana at the top of the order, will be looking to leverage the home advantage and passionate crowd support to clinch their maiden World Cup trophy. The highly anticipated India vs. Pakistan clash on October 5th, to be held in Colombo, is already marked on every fan's calendar. Teams like England, led by the world-class all-rounder Nat Sciver-Brunt, and a consistently strong South African side, will also be major contenders, ensuring a fiercely competitive tournament.

The 2025 Women's Cricket World Cup is poised to be a celebration of skill, a showcase of progress, and an inspiration for the next generation. It’s a chance to witness history in the making, not just in the thrilling sixes and wickets, but in the larger narrative of equality and recognition in sport. So, as the semester's pressures mount, take some time to tune in. Watch the games, support the athletes, and be a part of a movement that is changing the face of cricket forever. This isn't just a World Cup; it's the dawn of a new era.

SOURADEEP MITRA
3RD YEAR

THE REBEL KING:

How Virat Kohli's War on Doubt Changed Sports Forever

He was the lightning rod. The aggressor. The man millions loved to hate. But in an era of polite applause and gentlemanly conduct, Virat Kohli didn't just play the game—he started a war. A war against mediocrity, against the "nice guy" image, and most of all, against the very idea that his team couldn't win. This isn't a cricket story. This is the story of how one man's insane self-belief became a global phenomenon and changed the DNA of modern sport.

The Tyranny of Numbers:
Ammunition for a Revolution

Before the revolution, there were the numbers. And they were brutal. Over 27,500 international runs. A staggering 82 centuries across all formats. He became the first player in history to score 20,000 international runs in a single decade. But these weren't just records; they were weapons. Each century was a statement, each milestone a brick in the fortress of his dominance.

He became known as the "Chase Master," a title that speaks less to his technique and more to his psyche. With a world-record 28 of his 51 ODI hundreds scored while hunting down a target, he turned the crushing weight of pressure into fuel. While others saw a scoreboard, Kohli saw a battlefield with a clear objective. This wasn't just consistency; it was a form of controlled violence, a statistical conquest that laid the groundwork for his true legacy: the complete psychological rewiring of a sporting nation.

The Gospel of Aggression:
If You Can't Join Them, Beat Them

For every fan who worshipped his cover drive, there was a critic who despised his character. The "hatred" was real, and Kohli welcomed it. He was a lightning rod for controversy, deliberately shedding the sport's traditional image and forging a new one in fire. His career was a highlight reel of confrontations that would make other athletes blush.

There was the infamous middle-finger gesture to a hostile Sydney crowd in 2012, an act for which he was fined but which announced the arrival of a player who would not be silenced. There was the explosive "Brain Fade" saga in 2017, where he all but accused Australian captain Steve Smith of "systematic cheating" on a global stage, refusing to back down. And who could forget the 2021 stump-mic outburst in Cape Town, where he directly accused the broadcasters of bias? People called it arrogance; they were missing the point. It was a strategy. Kohli was teaching his team, and the world, that India was no longer here to just participate. They were here to dominate, and they would not apologize for it.

The Architect of Belief:
A Revolution of the Mind

Here is the secret to the Kohli phenomenon: he believed when no one else did. And he made that belief contagious. In his own words, he "was never looked at as this outright match-winner," admitting he lacked the natural, God-tier talent of some of his predecessors. What he had instead was something far more dangerous: an unbreakable will to stay in the fight.

This philosophy was born in his very first Test as captain in Adelaide, 2014. Chasing a near impossible 364 for victory, any other team would have shut up shop and played for a draw. Not Kohli's India. He went for the win, scoring a ferocious 141 in the process. India lost the match, but they won the war. A new doctrine was established that day, one best captured by Kohli's own words: "Negativity has no place in this team."

He built what can only be described as a "champion mindset," a culture of unwavering self belief that bordered on a religion. Former opponents called his intensity "superhuman," a force that allowed him to sustain peak performance for years. He didn't just lead a team; he indoctrinated it. He instilled a culture where winning was the only metric, and fear was not an option.

The Global Impact:
Making a Dying Game Box Office Gold

Armed with this revolutionary mindset, Kohli didn't just win matches; he changed the global perception of the sport itself. He is statistically the most successful Test captain in Indian history, with 40 wins in 68 matches, but his true impact was cultural.

He championed a fearsome pace attack, a radical shift from India's spin-reliant past, because he believed in taking 20 wickets, not saving a match. This led to a historic first-ever Test series win in Australia in 2018-19 and a five-year stranglehold on the world No. 1 ranking.

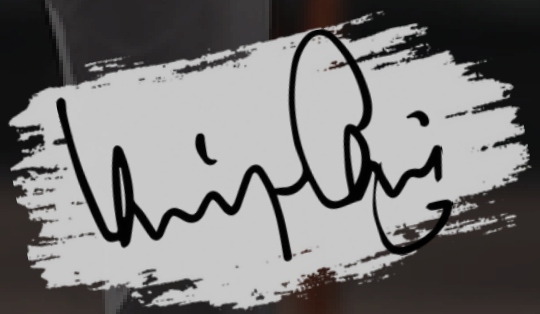
More importantly, at a time when the long, gruelling format of Test cricket was facing an "existential threat" from flashy T20 leagues, Kohli made it the hottest ticket in sports. His passion, his team's compelling, aggressive brand of cricket, turned five-day matches into must-see television. His leadership was perfectly captured in a team talk at Lord's in 2021

before a famous victory: "For 60 overs," he snarled, "they should feel hell out there." He wasn't just a captain; he became Test cricket's greatest global ambassador, a one-man marketing machine for the soul of the game.

The Final Verdict:
An Immortal Legacy

To measure Virat Kohli by his runs alone is to miss the point entirely. He was a generational performer, yes, but his true legacy is that of a transformer. He inherited a team of immense talent and left behind a ruthless, world-beating institution that feared no one.

The controversy and criticism that defined his career were not by-products of his personality; they were the tools he used to forge a new identity. He challenged opponents, he challenged the establishment, and he challenged his own nation to demand more. Virat Kohli's ultimate triumph is not in the record books, but in the unbreakable culture of belief he created—a legacy of defiance that will echo across the world of sports for decades to come.



SUSMITA KHAN
3RD YEAR

The Dark Side of Indian Football

Indian football, a sport once hailed as a "sleeping giant" by FIFA, finds itself in a period of deep turmoil. While there are moments of individual brilliance and flashes of hope, a closer look reveals a "dark side" plagued by systemic issues that have consistently hampered its growth and potential. For our college magazine, let's delve into the major problems that have cast a long shadow over the beautiful game in India.

1. Administrative Mismanagement and Governance Failures

The most significant issues in Indian football stem from the top. The All India Football Federation (AIFF), the governing body, has been a constant source of controversy. Allegations of corruption, mismanagement, and a lack of transparency have been a recurring theme. The frequent change of leadership and internal disputes have created an environment of instability, directly impacting on-field performance and future planning. This administrative chaos has led to legal battles and has, at times, even put the future of the country's top tier league, the Indian Super League (ISL), in jeopardy.

The current AIFF president, Kalyan Chaubey, has taken some steps to address these issues. He has initiated a one-time "Benevolence Fund" to provide financial assistance to former players and football figures in need of medical help, a much-needed humanitarian gesture. The AIFF has also been working on its "Vision 2047" strategic roadmap to outline long-term goals for Indian football. However, the true impact of these initiatives remains to be seen, and many feel that fundamental changes are still needed to address the deep-rooted problems.

2. The Grassroots Crisis

A strong footballing nation is built on a robust grassroots foundation, and this is where India has failed to make significant strides. While there have been some initiatives, the progress has been slow and inconsistent. There is a severe lack of quality infrastructure, including proper stadiums and training facilities, especially in rural areas where a large pool of raw talent exists. Youth development programs are often neglected by clubs, who sometimes only assemble youth teams right before a tournament, rather than running a structured year-round academy. Age fraud also continues to be a problem in youth tournaments, undermining the integrity of the system.

3. The ISL Bubble and Overpaid Players

The Indian Super League was launched with the aim of revitalizing the sport, but it has created its own set of problems. The focus on short-term success and attracting a few big-name foreign players has come at the cost of long-term development. A significant issue is the inflated salaries of Indian players. With a limited pool of talent, clubs often engage in bidding wars, driving up wages without a corresponding improvement in performance. This has created a bubble where mediocre players are earning high salaries, which in turn reduces their hunger to improve and stifles the growth of young, emerging talent. Many of the most promising young players who have impressed at the junior level struggle to get consistent game time at their clubs.

4. The Vicious Cycle of Poor Performance

These underlying issues manifest on the pitch in the form of poor performances by the national team. The lack of proper infrastructure, a weak talent pipeline, and administrative instability all contribute to a vicious cycle. When the national team performs poorly, it's a symptom of a much larger and more deeply rooted problem.
A Glimmer of Hope

A Glimmer of Hope

Despite the challenges, there have been some recent encouraging performances that offer a glimmer of hope. The India U-23 men's team recently put in a solid performance in the AFC U-23 Asian Cup Qualifiers. They finished with two wins and a loss against a strong Qatar side, even though they were narrowly eliminated from the competition. This performance showed the fighting spirit and potential of a new generation of Indian footballers.

Furthermore, the senior men's team secured a bronze medal in their debut at the CAFA Nations Cup, a commendable achievement that showcases their ability to compete and win against higher-ranked opponents. Led by their new head coach, the team's victory in a dramatic penalty shootout against Oman demonstrates the resilience and determination that have often been missing.

In conclusion, while there are passionate fans and dedicated players, the "dark side" of Indian football— characterized by administrative failures, a neglected grassroots system, and a commercially driven league that doesn't prioritize long-term development—is holding the sport back. However, the recent positive results from both the U-23 and senior teams serve as a reminder of the talent that exists within the country. To truly unlock its potential, Indian football needs a complete overhaul from the top down, a renewed focus on nurturing talent from a young age, and a more sustainable vision for the future.

SAYAN KARMAKAR
4TH YEAR

WHEN DREAMS TURNED INTO HISTORY: THE YEAR OF THE UNDERDOGS

"It always seems impossible until it's done."
– Nelson Mandela

In the world of sports, we often speak of giants—teams that tower above the competition with their legacy, their resources, their seemingly endless capacity to claim victory. We become accustomed to seeing the same names etched onto trophies, the same celebrations echoing through familiar stadiums. But every once in a while, the script is rewritten by those who dare to dream beyond their supposed limitations. The 2024-25 season will be remembered as one such extraordinary chapter, a year when the underdogs rose from the shadows to claim their place in sporting immortality.

Sport has this magical ability to remind us that no dream is too distant, no drought too long, and no underdog too small. This season, that magic was on full display as teams across different competitions shattered expectations and ended decades-long waits for glory. From the rain-soaked pitches of England to the international stage, the narrative belonged to those who had waited the longest, hoped the hardest, and refused to give up when the odds seemed insurmountable.

Crystal Palace's fairy-tale run to FA Cup glory stands as perhaps the most remarkable story of the season. For a club that had never won a major trophy in their entire history, lifting the FA Cup at Wembley Stadium represented more than just silverware—it was the culmination of generations of loyal support and unwavering belief. Their 1-0 victory over Manchester City in the final, secured by Eberechi Eze's moment of brilliance, sent shockwaves through the football world. In that single moment, decades of near-misses and heartbreak were erased, replaced by scenes of pure jubilation that will live long in the memory of every Palace supporter.

But Crystal Palace were not alone in their triumph over history. Newcastle United's journey to Carabao Cup glory was equally compelling, ending a staggering 70-year domestic trophy drought that had weighed heavily on the club and its passionate supporters. When Dan Burn's towering header found the net at Wembley, it wasn't just a goal—it was the sound of chains breaking, of a curse lifting, of a city finally exhaling after decades of holding its breath. Their 2-1 victory over Liverpool, secured by Alexander Isak's second-half winner, sparked a Geordie party that extended far beyond the confines of Wembley Stadium. For a fanbase that had endured relegation battles, takeover sagas, and countless disappointments, this moment represented pure catharsis.

The underdog narrative continued across Europe, where Tottenham Hotspur finally ended their 17-year wait for major silverware by conquering the Europa League. For a club often mocked for their inability to cross the final hurdle, this triumph felt seismic. Brennan Johnson's goal shortly before half-time in their 1-0 victory over Manchester United in the final was worth far more than its singular tally on the scoresheet. It was validation for a club that had come so close so many times, proof that persistence and belief can eventually overcome the cruelest of sporting fates.

While some of the season's most compelling stories unfolded on the domestic stage, the spirit of the underdog was equally present in international competition. Each of these victories shared a common thread—they belonged to teams and nations that had been written off, overlooked, or dismissed as also-rans in their respective competitions. Yet when the moment arrived, they seized it with both hands, refusing to let opportunity slip through their grasp once again.

What made the 2024-25 season truly special was not just the individual triumphs, but the collective reminder they provided about the essence of sport itself. These victories belonged to the supporters who had sung through relegation battles, who had traveled thousands of miles to watch their teams fall short, who had passed their loyalty down through generations despite

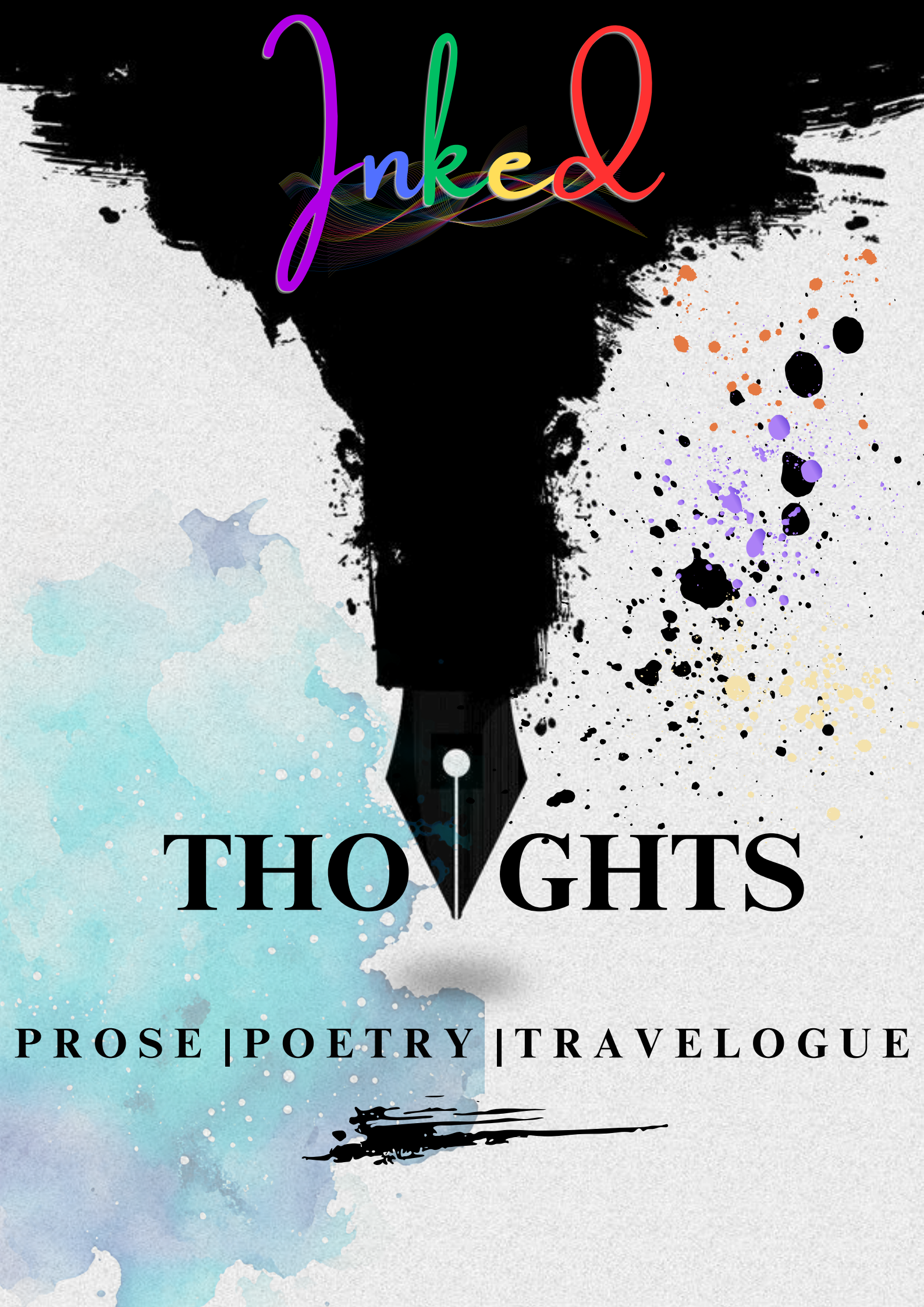
having little tangible success to show for it. They belonged to the players who had grown up dreaming of these moments, who had carried the weight of expectation and history on their shoulders.

In a sporting landscape increasingly dominated by financial power and predictable outcomes, these underdog triumphs felt like a return to sport's purest form. They reminded us why we fall in love with games in the first place—not for the inevitable victories of the powerful, but for those magical moments when the impossible becomes reality, when years of hope are finally rewarded with scenes of unbridled joy.

The 2024-25 season taught us that drought, no matter how long, is temporary. That loyalty, no matter how tested, can be rewarded. Those dreams, no matter how distant they seem, are worth pursuing. In boardrooms and training grounds across the world, the message was clear: this was the year when underdogs didn't just compete—they conquered. And in doing so, they reminded us all why sport matters, why hope endures, and why sometimes, the most beautiful victories belong to those who have waited the longest to taste them.

As the confetti settled and the celebrations echoed into the night, one truth became crystal clear: 2024-25 wasn't just another season—it was the year of the underdogs, and it was absolutely magnificent.

RUPAM SAHA
2ND YEAR


Inked
THOUGHTS
PROSE | POETRY | TRAVELOGUE

INKED THOUGHTS

Every era has its technology, its inventions, its revolutions. But what endures beyond all of these is the power of expression—the inked thoughts that outlive time.

Inked thoughts are not bound by pages; they are boundless fragments of the human soul. They are the quiet reflections scribbled in journals, the poems whispered into the margins of life, the stories that echo long after the storyteller is gone. Where science shapes the world outside, inked thoughts shape the world within.

Today, in an age of algorithms and automation, the written word is more vital than ever. It is ink that transforms memory into history, emotion into art, and imagination into reality. A simple poem can stir revolutions. A story can heal wounds deeper than medicine. A travelogue can bridge cultures and dissolve borders. Expression is the one technology that requires no circuit, no machine—only a mind unafraid to feel.

The inked thought is a paradox: it is deeply personal, yet universally resonant. When a writer captures a fleeting emotion, it becomes eternal. When a poet puts pain into verse, it becomes hope for another. When an artist pens a dream, it becomes a mirror for countless unseen dreamers.

In the grand narrative of the Next Genesis, inked thoughts are the gentle reminder that progress is not only measured in gigabytes or light-years, but in the timeless whispers of creativity. They remind us that while machines may compute, only humans can compose.
And so, to ink a thought is to plant a seed —one that may grow in unseen ways, across places and generations, shaping hearts just as powerfully as inventions shape worlds

~Sagnik Mukherjee
3rd Year

Beneath the Veil of Time

O human, wrapped in false indifference,
You drift through days in a borrowed guise;
but when the night of truth descends,
a thousand regrets will fill your heart and eyes.
You weave your everyday stream
with the fragile threads of unknown :
In pursuit of momentary bliss,
You wear false calm like a drifting mist.
Do not linger trapped within time's flowing steam,
Counting the leaves of life as they fade away;
Autumn's fierce, colourful leaves cascade,
In golden blanket's where sunlight wades.
Beneath the veil of memory they lie,
carpeting the streets where our footsteps sigh;
Rather, let spring's gentle touch to embrace,
and await the dawn of a new spring's grace.

~Bitisha Sarkar
2nd Year

IF ONLY I COULD !

IF ONLY I COULD TAKE DOWN MY MEMORIES IN FORM OF AN ART,

IF ONLY I COULD DRAW MY FEELINGS ON YOUR HEART ....

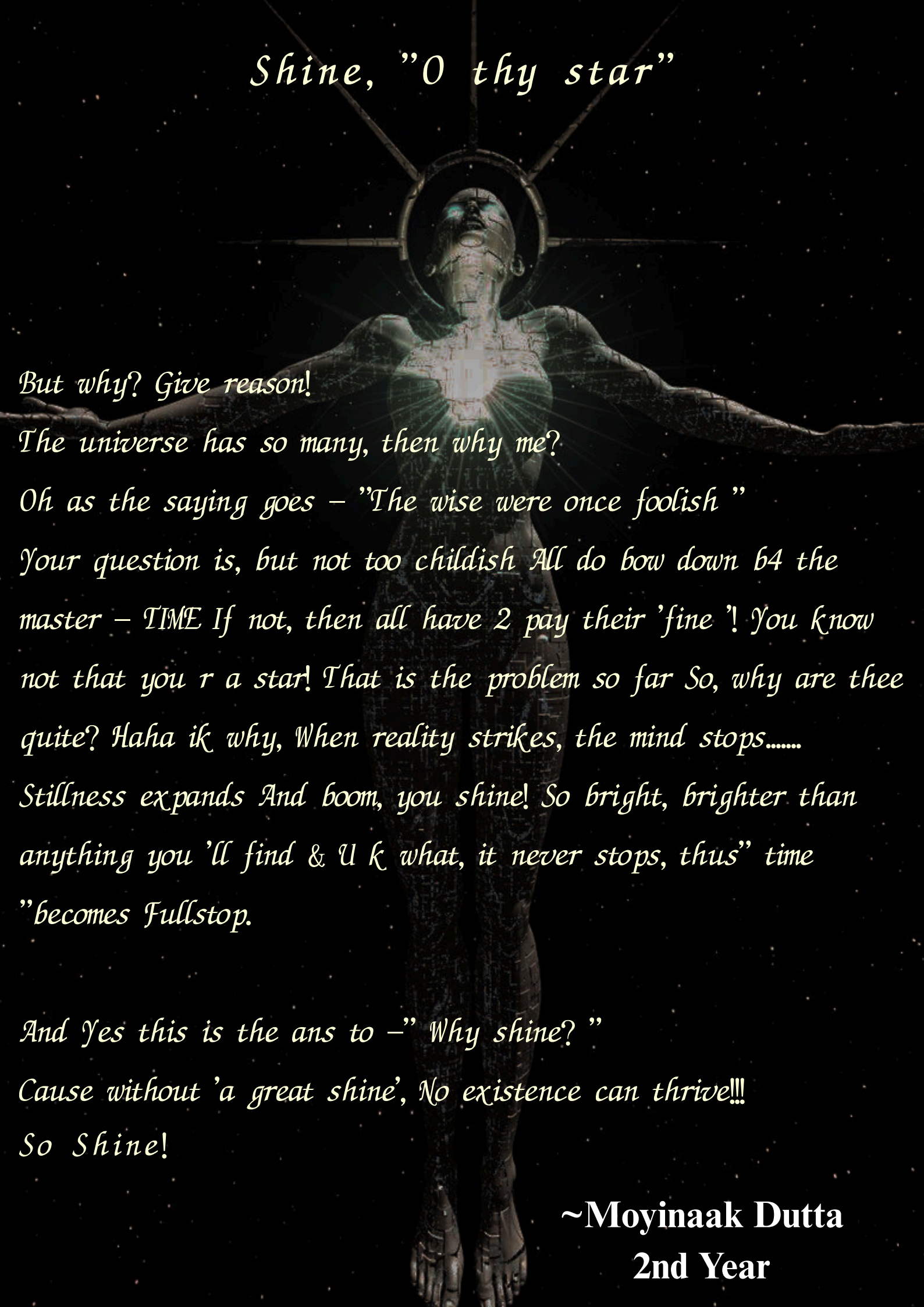
IF ONLY I COULD TRAP YOUR SIGHT IN MY GOLDEN CAGE,

IF ONLY I COULD TURN OVER THE GLOOMY PAGE...

IF ONLY I COULD KEEP YOUR SOUL WITH ME,

IF ONLY I COULD LOVE YOU AIMLESSLY.....

~Bidisha Sinha
(Junior Editor)
2nd Year



Shine, "O thy star"

But why? Give reason!
The universe has so many, then why me?
Oh as the saying goes – "The wise were once foolish "
Your question is, but not too childish All do bow down b4 the master – TIME If not, then all have 2 pay their 'fine '! You know not that you r a star! That is the problem so far So, why are thee quite? Haha ik why, When reality strikes, the mind stops.....
Stillness expands And boom, you shine! So bright, brighter than anything you 'll find & U k what, it never stops, thus" time "becomes Fullstop.

And Yes this is the ans to –" Why shine? "
Cause without 'a great shine', No existence can thrive!!!
So Shine!

~Moyinaak Dutta
2nd Year

WHAT ?F

To,
All the What if?s
Do you seem to happen Somewhere down the line?
In another world
Will it be okay to call you fine?
All those unsaid words
That you've kept safe in your envelope
Do you care to read it sometimes?
Or just let it go?
Does the rain pour thoughts in you?
Does it feel heavy when you're almost but
Still not enough of you?
Does it feel wronged out just 'cause
You chose a different point of view?
Or is it just okay?
After all it's only a What if?
And nothing new.

~Srijita Chatterjee
4th Year

উৎসবের রঙে ব্যঙ্গের সুর

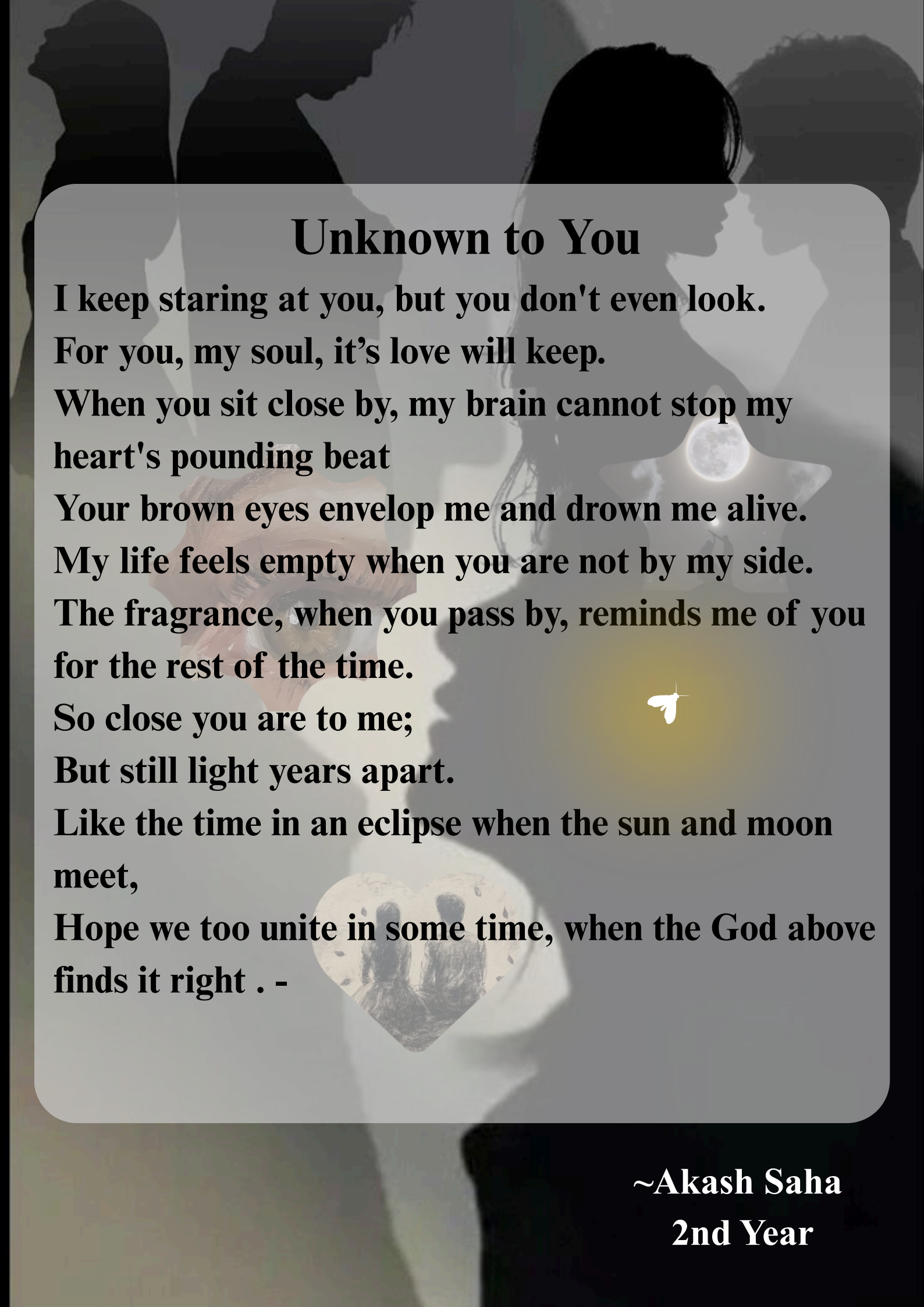
কাশফুল ফুটল, হাওয়া দিল টান,
পাড়ার মোড়ে উঠল বাঁশের গান।
"মা আসছেন"-সবাই ফেসবুকে ব্যস্ত,
কিন্তু কাজের ফাইল রইল টেবিলে অচল।

প্যান্ডেল গড়ে-সোনার মন্দির সাজ,
মাঝপথে বৃষ্টি-হলো কাদার রাজ।
চাঁদা চাইতে এলো তিনজন একসাথে,
হাসিমুখে দিলাম, যদিও মুছল ঘাম গালে।

ধূপ, ঢাক, ধুনো-সব কিছু জমকালো,
কিন্তু জ্যামেতে অটো থেমে গেল পালা।
মায়ের আগমনে আনন্দের জোয়ার,
সেলফি তোলায় ব্যস্ত শহর এবার।

শরতের হাওয়ায় মিশল রঙরস,
মা হাসলেন-"বাঙালি! বদলাবে কবে বস?"

~Rohan Das
4th Year



Unknown to You

I keep staring at you, but you don't even look.
For you, my soul, it’s love will keep.
When you sit close by, my brain cannot stop my heart's pounding beat
Your brown eyes envelop me and drown me alive.
My life feels empty when you are not by my side.
The fragrance, when you pass by, reminds me of you for the rest of the time.
So close you are to me;
But still light years apart.
Like the time in an eclipse when the sun and moon meet,
Hope we too unite in some time, when the God above finds it right . -

~Akash Saha
2nd Year

GRAVE OF THE FIREFLIES

"September 21, 1945... that was the night I died."

While editing the September edition of Ampere this year, that line came back to me. The opening lines of '*Grave of the Fireflies*'. It is almost ironic that such a film comes from Studio Ghibli, a name usually tied to lighthearted, whimsical tales.

In Seita and Setsuko, I don't just see two siblings, but a generation of children erased by war. Their hunger, their laughter, their fleeting joys amid ruins-each moment carries the suffering of countless civilians who paid the highest price without ever holding a weapon.

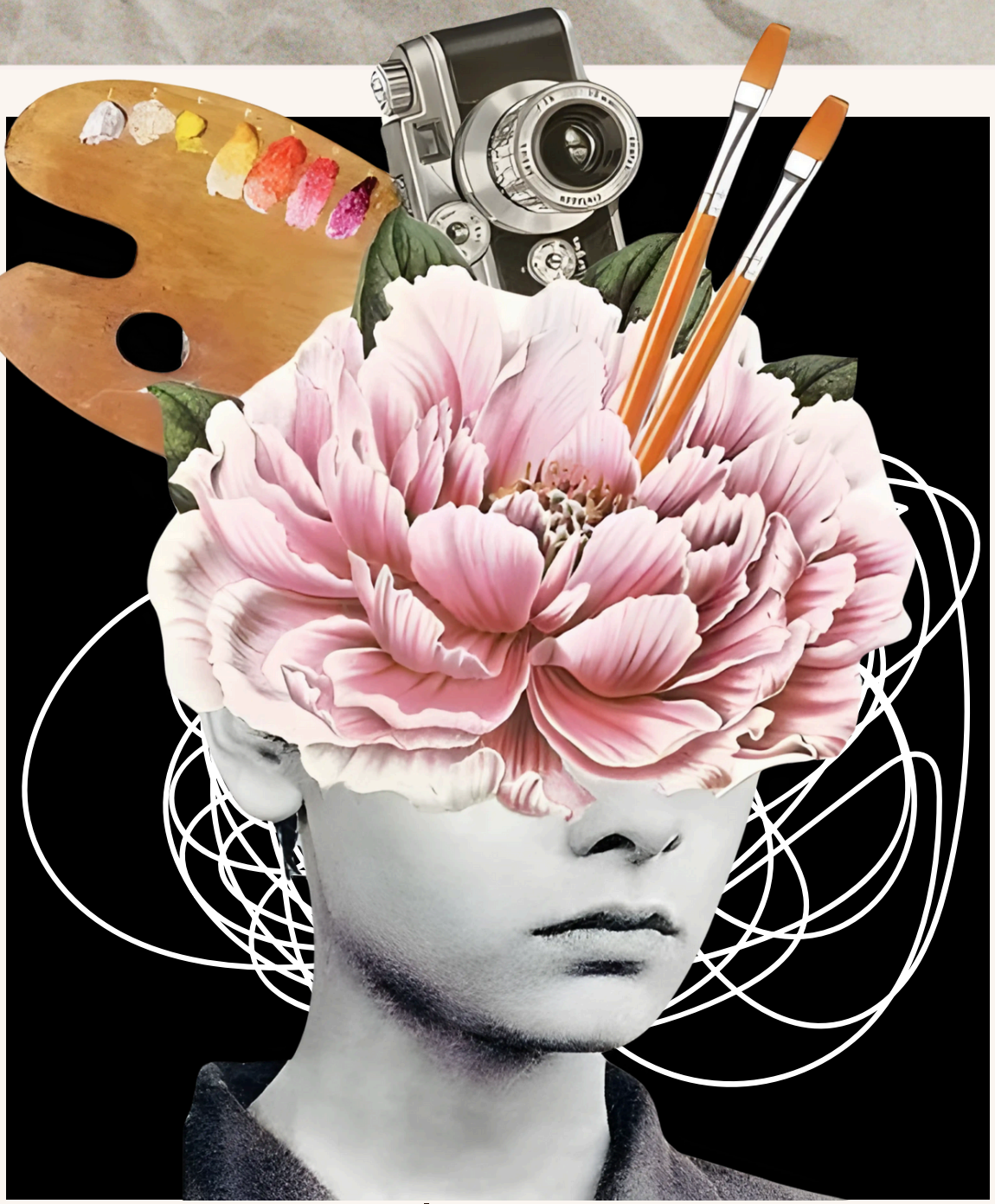
And then there is the small tin of candy-perhaps the most heartbreaking symbol of all. For Setsuko, each candy is a moment of sweetness, a little escape from hunger. When the candies are gone, she licks the empty tin, tasting memory more than sugar. When Seita fills it with water, it becomes her fragile dream of sweetness reborn. And when her life ends, that same tin carries her ashes-a vessel that once held joy turned into a vessel of sorrow.

Grave of the Fireflies is a graveyard of memory, carved from grief and light. It shows that the true measure of war is not found in borders or victories, but in the empty bowls, the silenced voices, and the extinguished fireflies of childhood.

The fireflies that brighten their shelter for a single night are more than insects. They are fragile lanterns, brief sparks of life against the darkness. When Setsuko buries them, the gesture feels larger than her tiny hands-it becomes a burial for every child who flickered too briefly in the shadows of destruction.

It is in these images that the film speaks to us most deeply. Not through the scale of war, but through the fragile, everyday things that war takes away forever.

~Debmalya Paul
(Senior Editor)
3rd Year

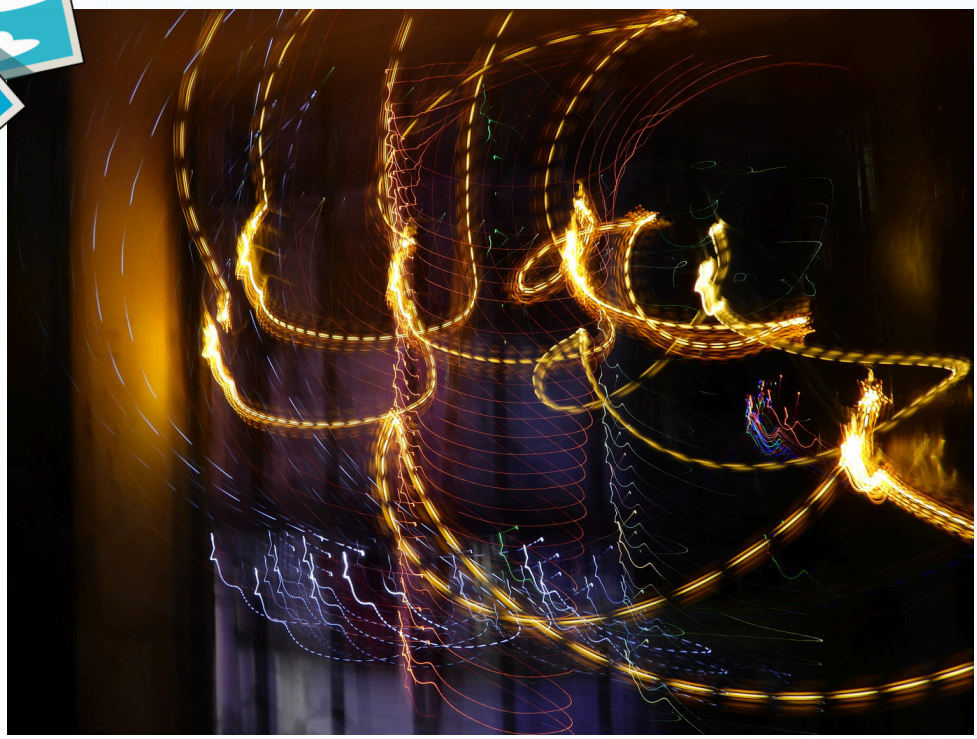


FRAME IT

PHOTOGRAPHY | FINE ARTS

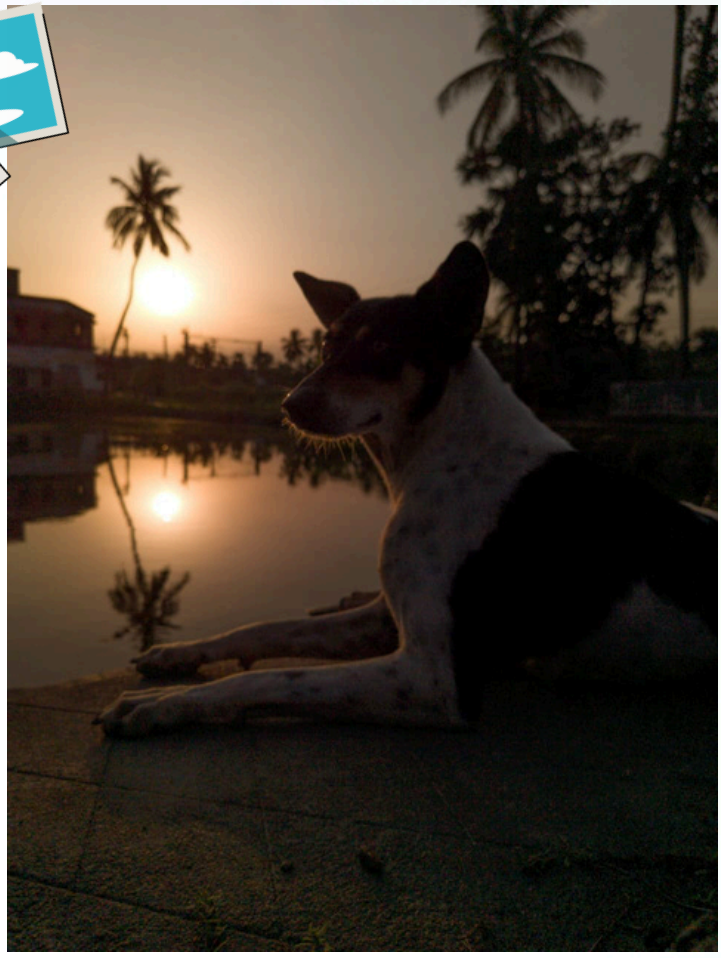
PHOTOGRAPHY

SECTION



PURBITA MITRA
(4TH YEAR)

PRIYANSHU GUHA THAKURTA
(4TH YEAR)



SOUMYA ADHIKARI

(2ND YEAR)

DEBMALYA PAUL

(3RD YEAR)

ARYAN RAJ

(2ND YEAR)

SAYAN KARMAKAR

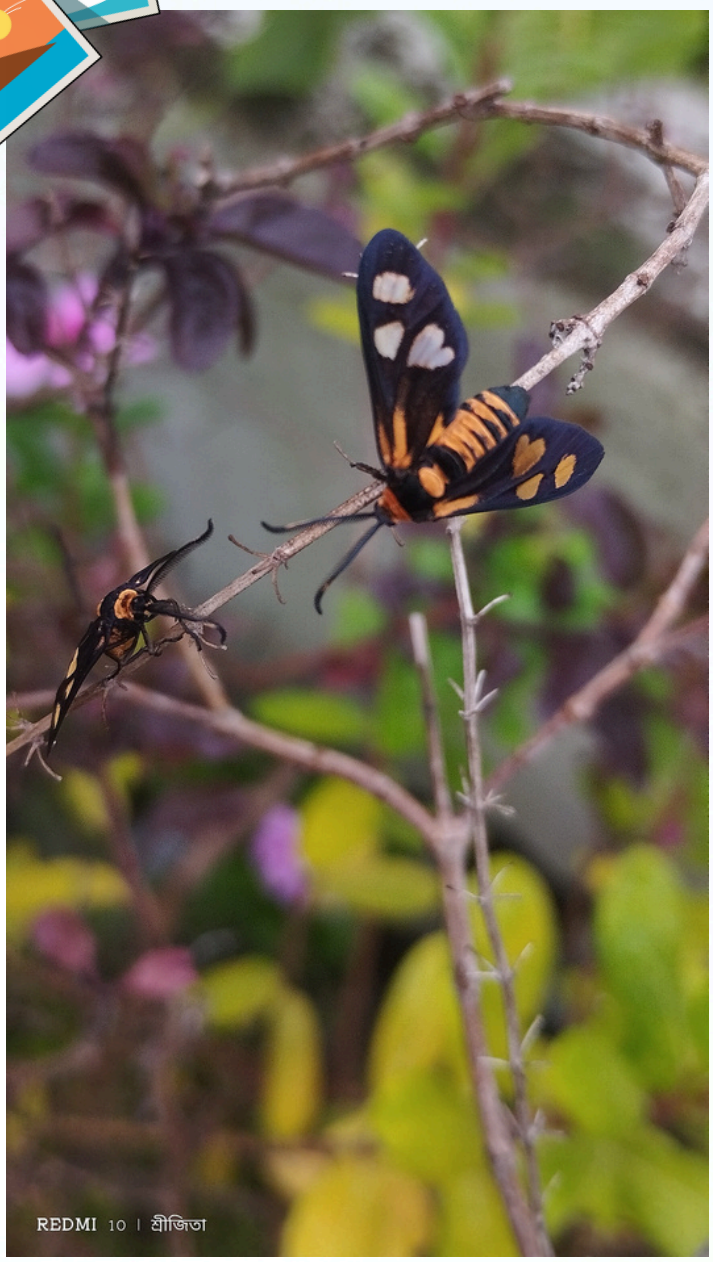
(4TH YEAR)

SUBHAJIT PAUL

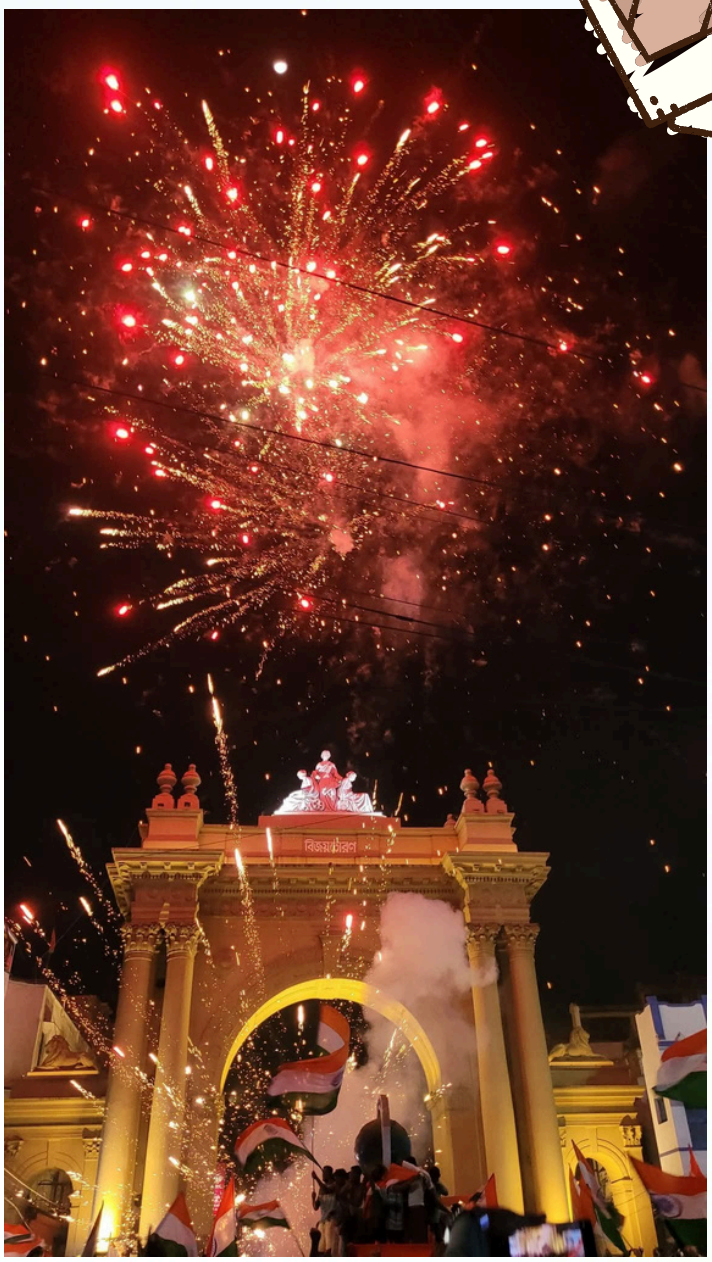
(4TH YEAR)

ARYAN RAJ

(2ND YEAR)



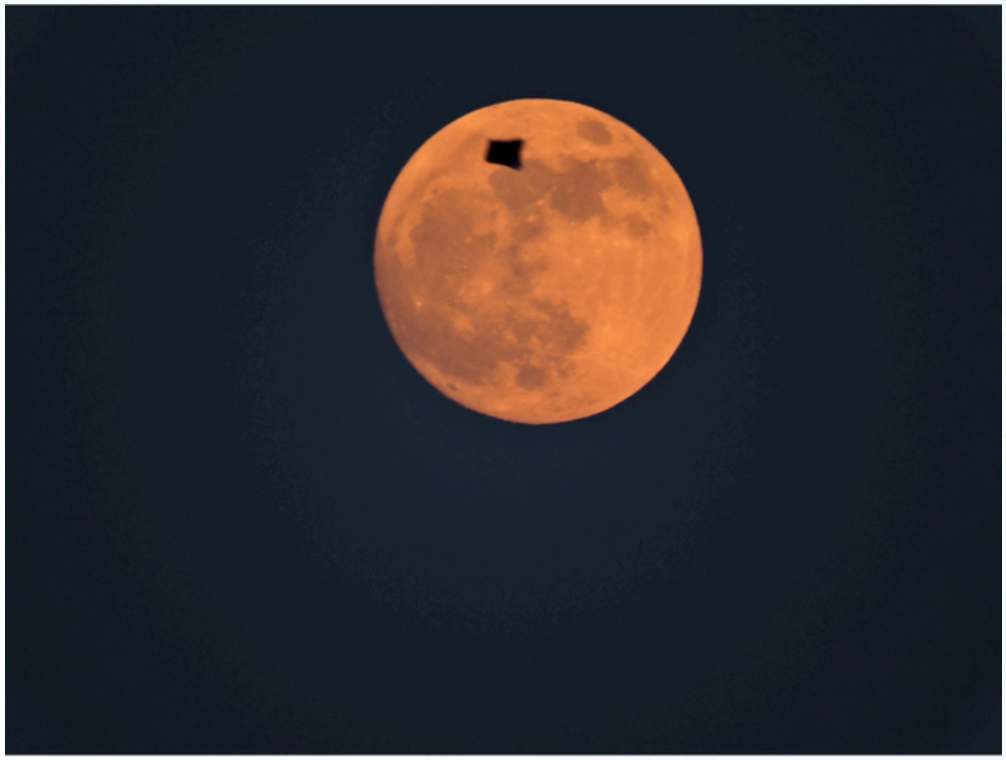
SRIJITA CHATTERJEE
(4TH YEAR)



SAYAN KARMAKAR
(4TH YEAR)

SNEHA MUKHERJEE

(4TH YEAR)



SWARNADEEP CHATTERJEE

(3RD YEAR)

BISHAL DAS GUPTA

(3RD YEAR)

BITASTA DAS

(2ND YEAR)

ARGHADIP CHOWDHURY

(3RD YEAR)

PUSHAN BASU

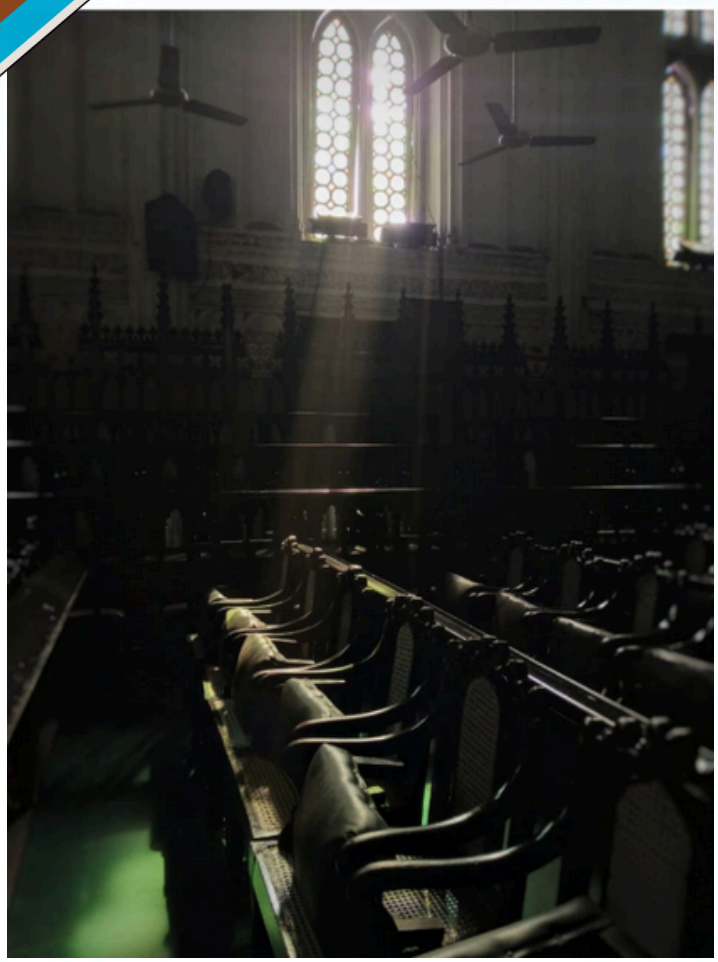
(3RD YEAR)

KOUSTAV LAYEK

(2ND YEAR)

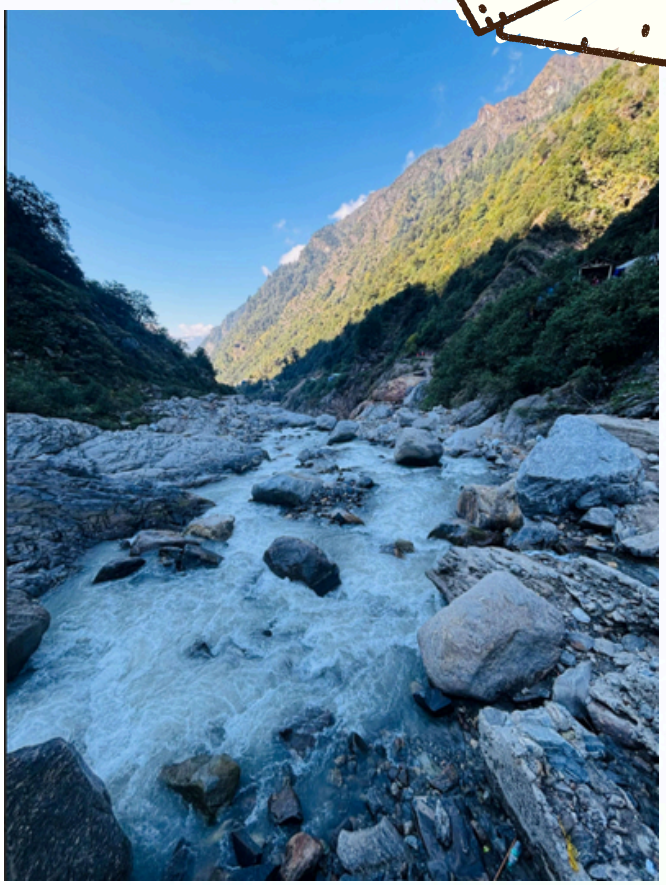
SUBHAJIT PAUL

(4TH YEAR)



RANIT PRAMANICK

(2ND YEAR)



SNEHA MUKHERJEE

(4TH YEAR)

ATREYI BHATTACHARJEE

(3RD YEAR)

SRIJIT PRADHAN

(3RD YEAR)

AARYAN RAJ

(2ND YEAR)

AVRAJIT MUKHERJEE

(3RD YEAR)

PUSHAN BASU

(3RD YEAR)

ARGHADIP CHOWDHURY

(3RD YEAR)

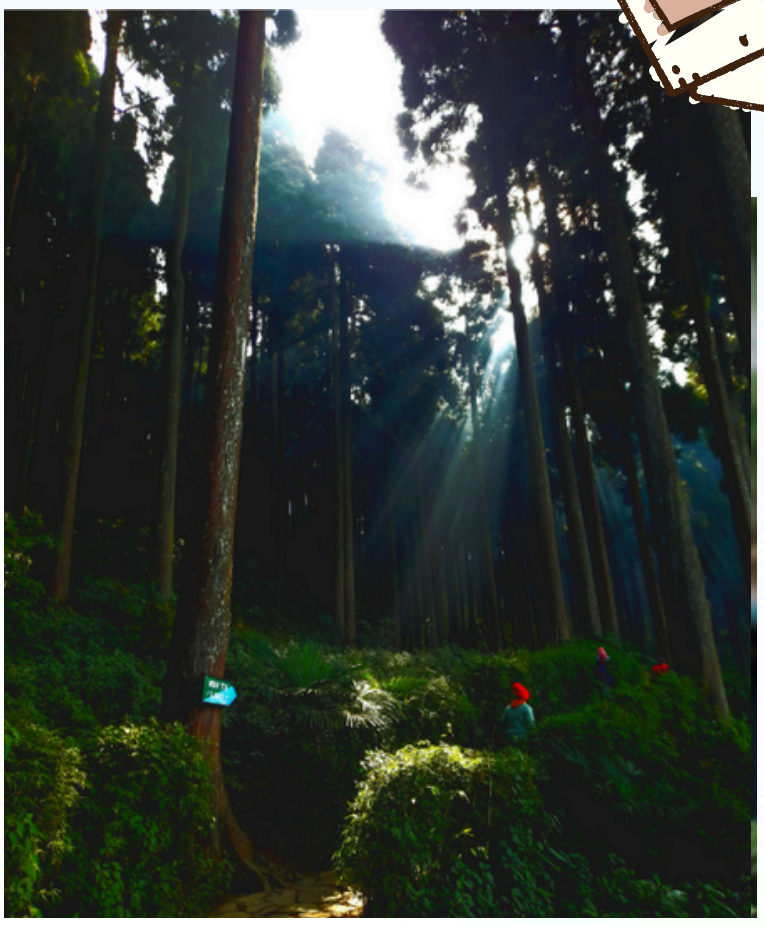
DEBASHRITA DAS

(2ND YEAR)

DEBMALYA PAUL

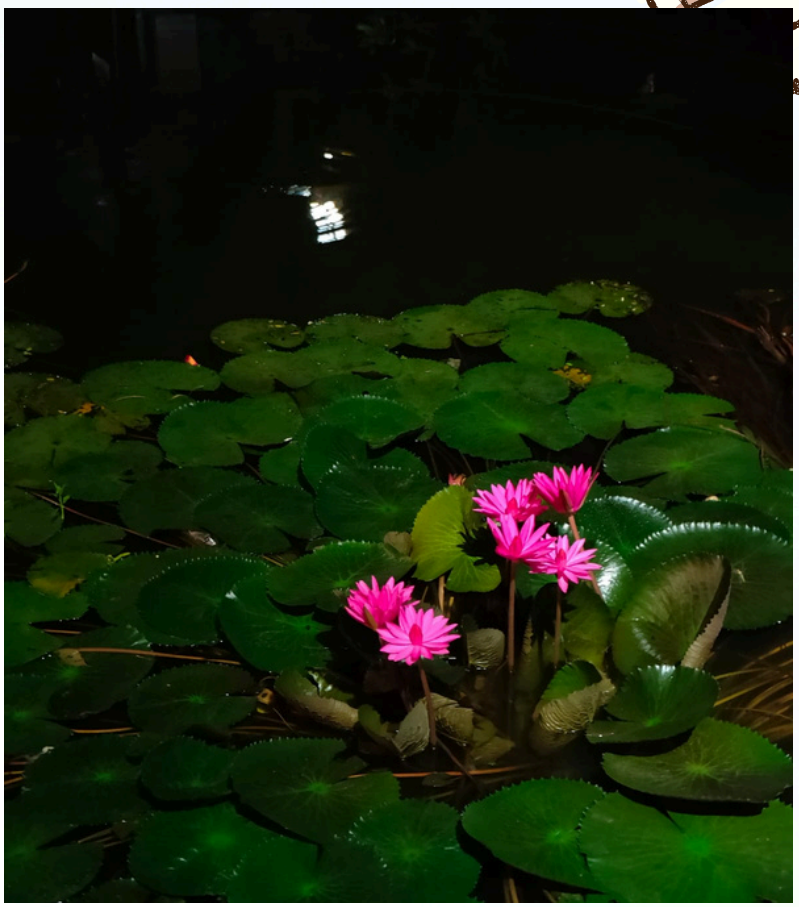
(3RD YEAR)

ARJYADEEP MAL
(3RD YEAR)



ISHITA PAUL
(3RD YEAR)

AVRAJIT MUKHERJEE
(3RD YEAR)



AKASH KUMAR
(2ND YEAR)

RANIT PRAMANICK

(2ND YEAR)

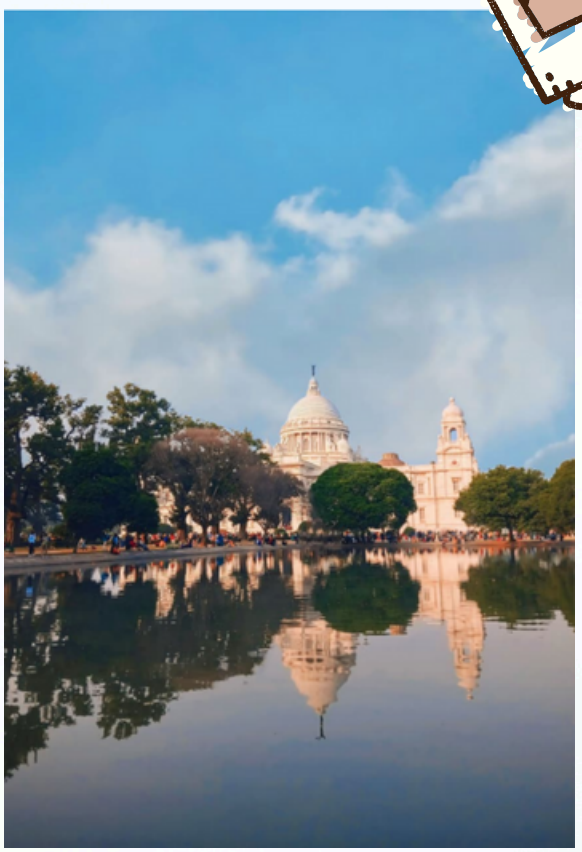
AVRAJIT MUKHERJEE

(3RD YEAR)

BISHAL DAS GUPTA

(3RD YEAR)

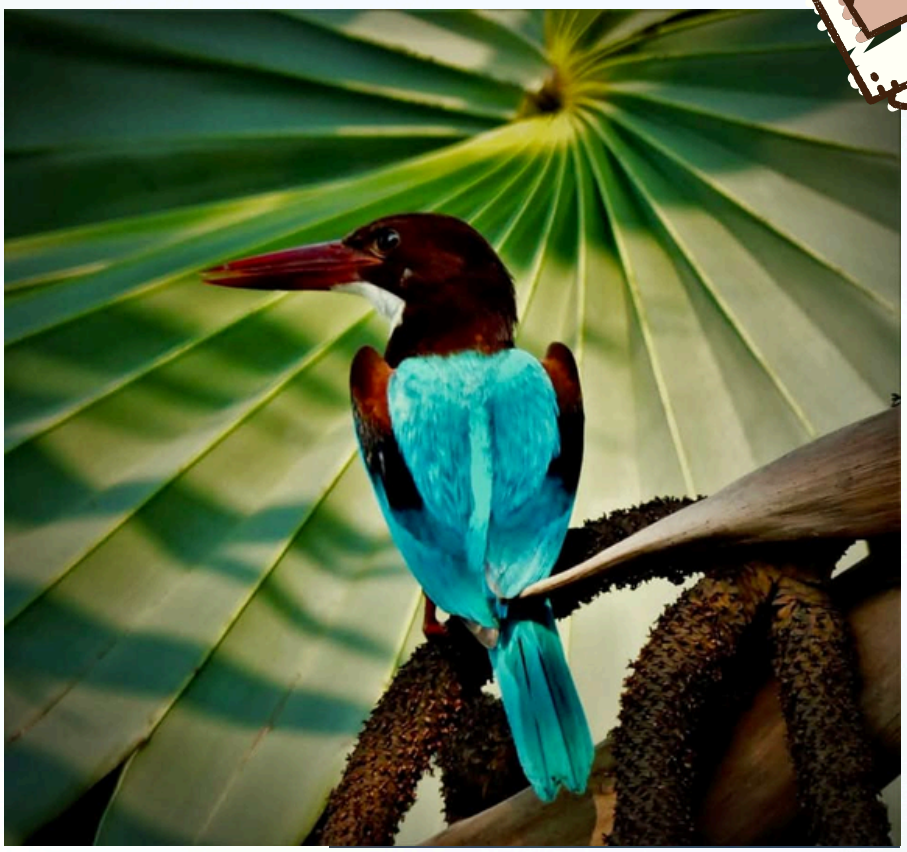
SOUMYADEEP DAS MONDAL
(2ND YEAR)



RANIT PRAMANICK
(2ND YEAR)

SUSMIT KHANRAH

(2ND YEAR)



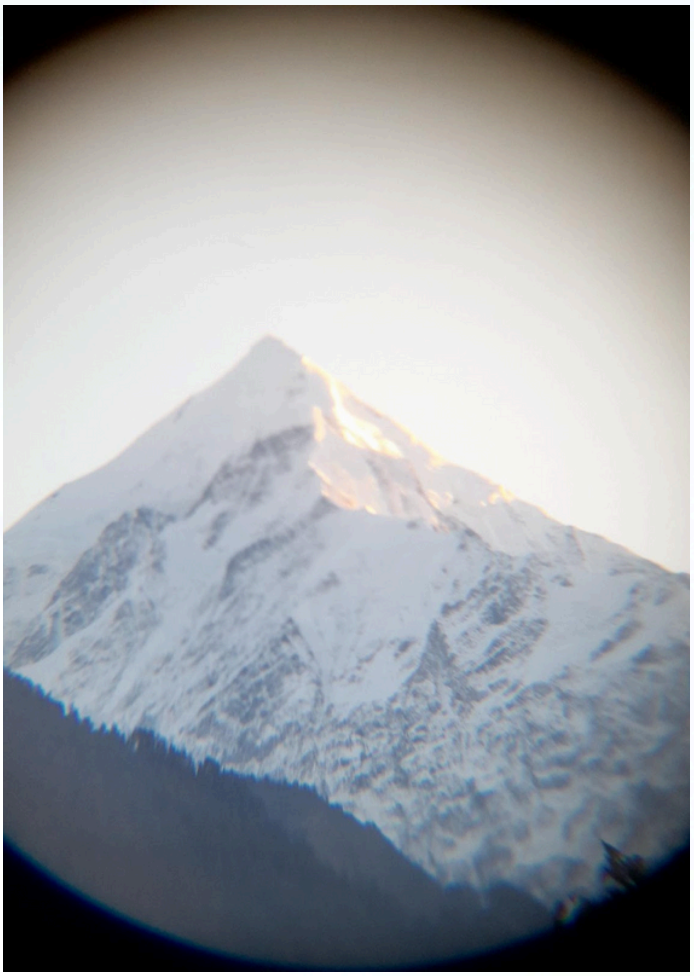
BIDISHA SINHA

(2ND YEAR)

AKASH KUMAR
(2ND YEAR)

SOUMYA ADHIKARI
(2ND YEAR)

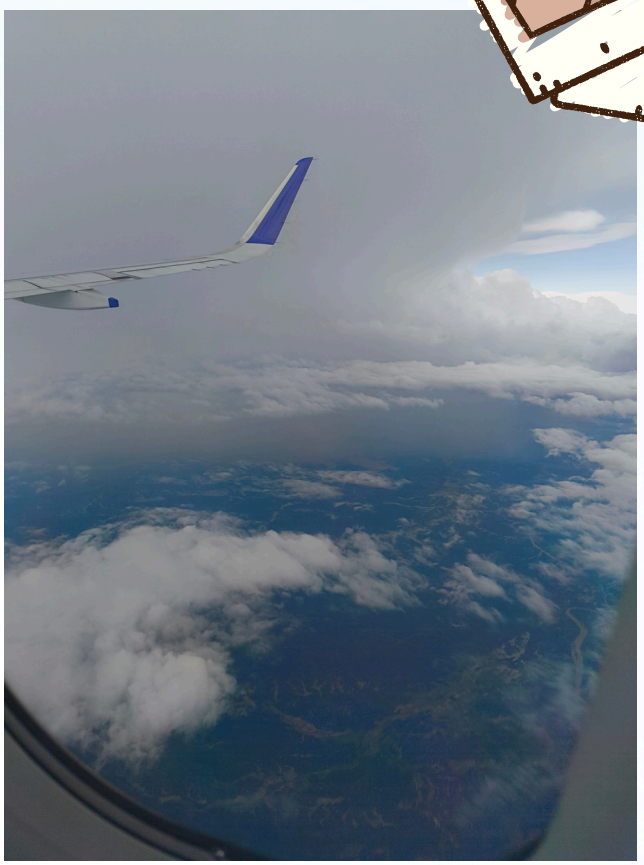
MOYINAAK DUTTA
(2ND YEAR)



VEDANT THAKUR
(3RD YEAR)

RITABRATA MAJUMDAR

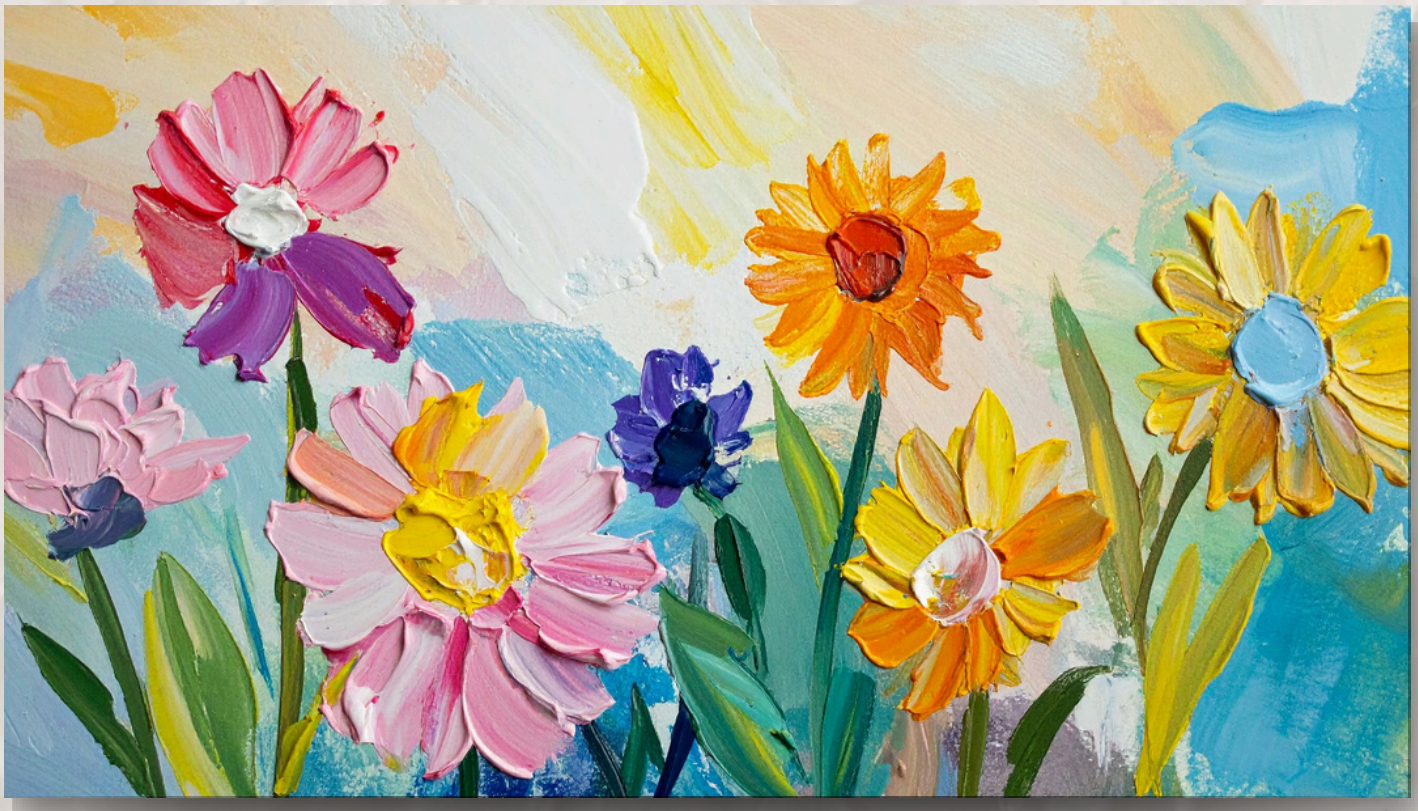
(2ND YEAR)



RITTIKA BASAK

(3RD YEAR)

ART



SECTION

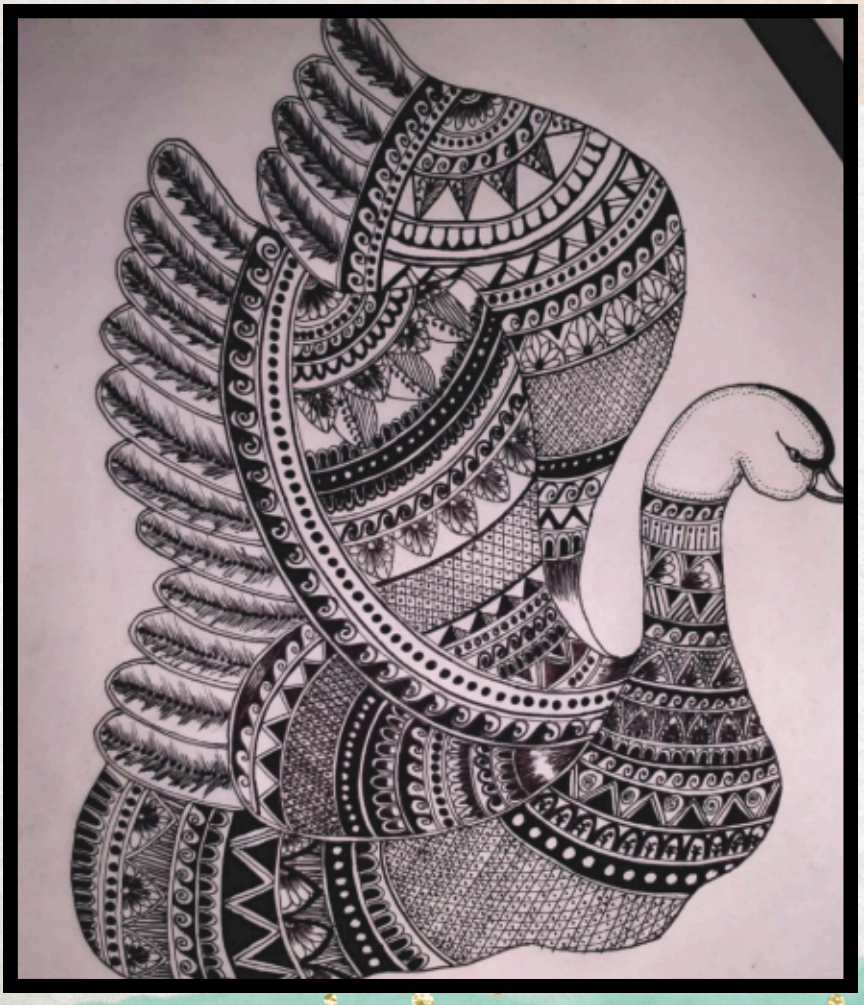
ARYAN RAJ
2ND YEAR

SOURADEEP MITRA
3RD YEAR

AVRAJIT MUKHERJEE
3RD YEAR

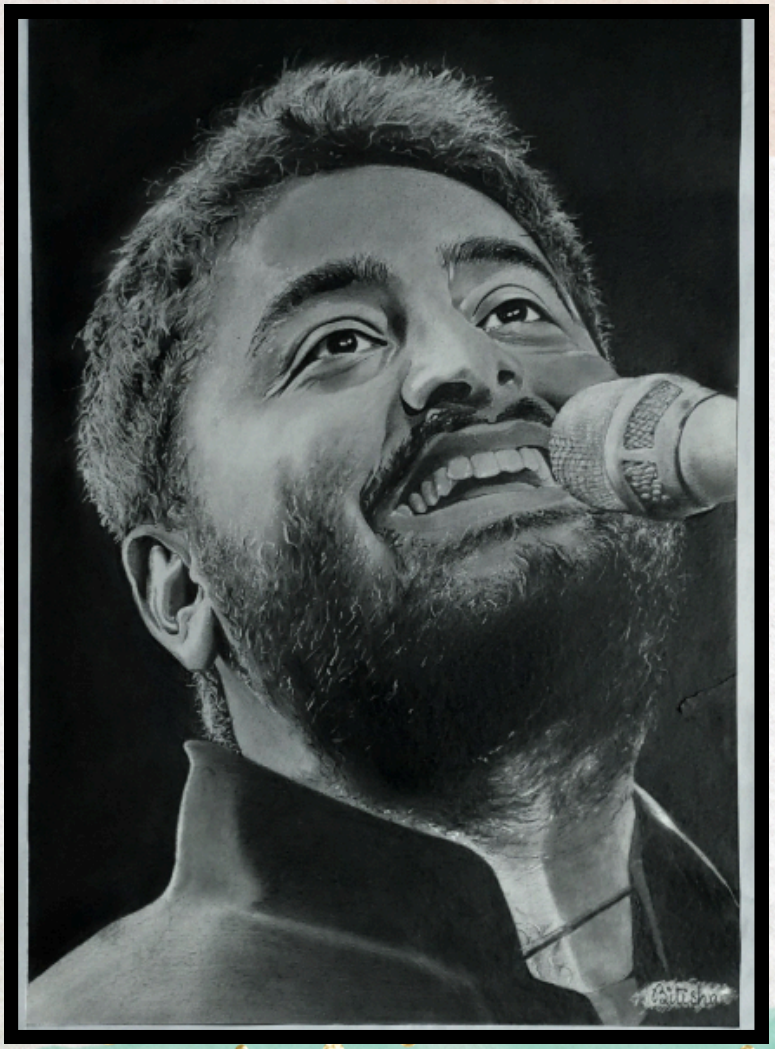
BITISHA SARKAR
2ND YEAR

SOURADEEP MITRA
3RD YEAR

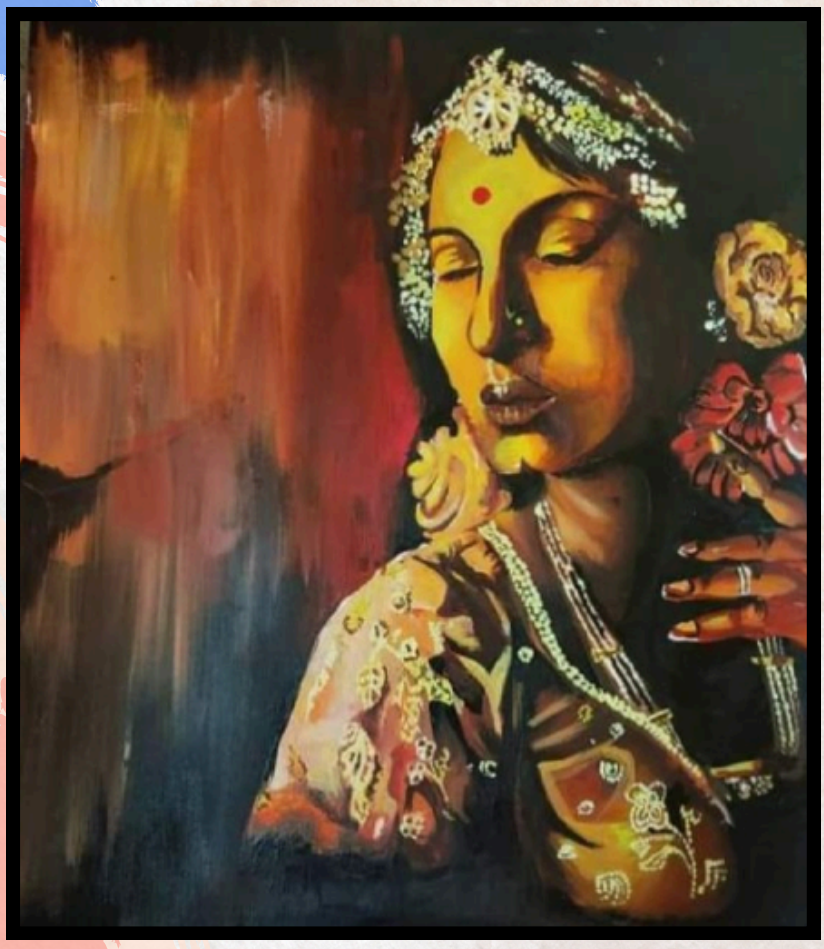


MOUMITA MANDAL
3RD YEAR

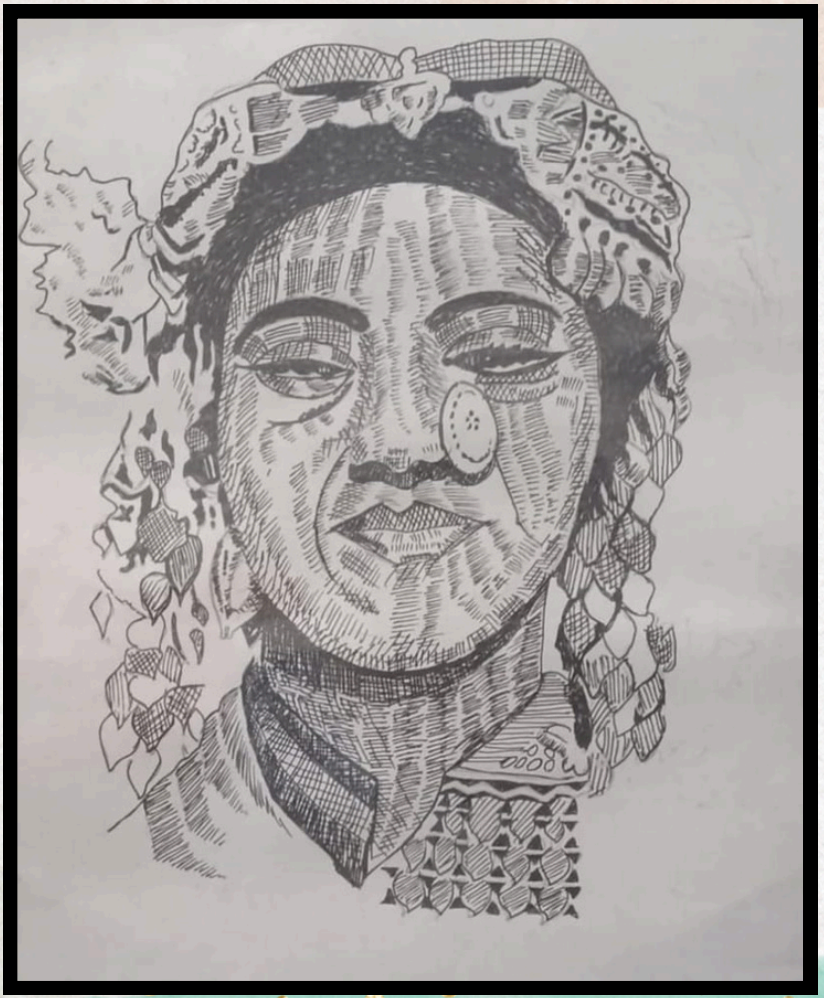
AKASH SAHA
2ND YEAR



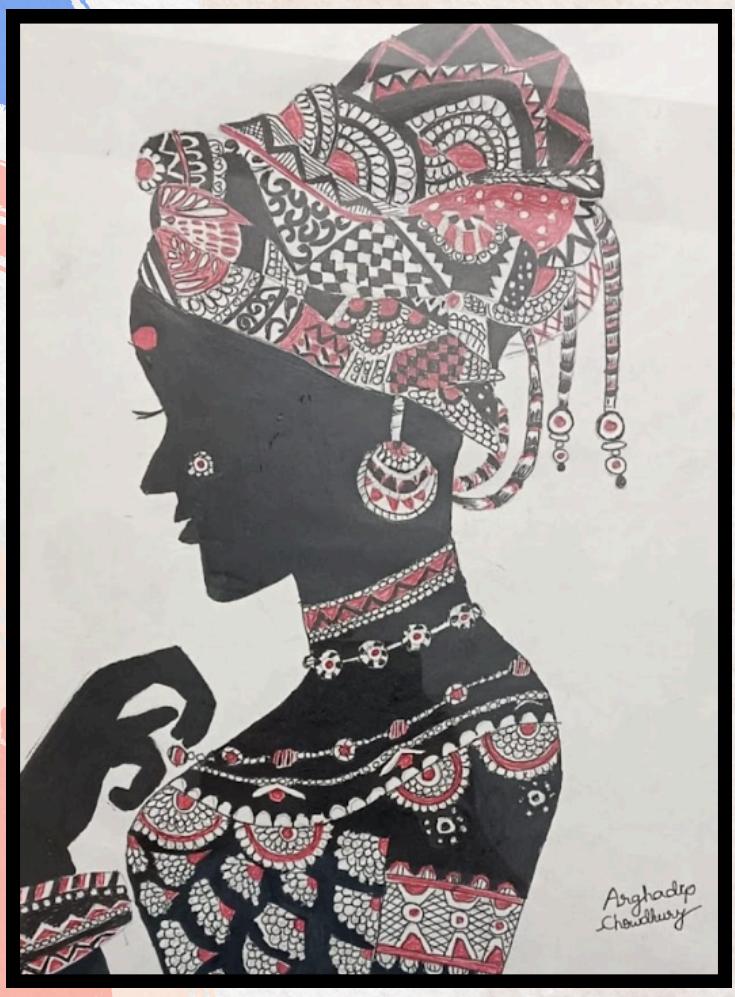
BITISHA SARKAR
2ND YEAR



SNEHA MUKHERJEE
4TH YEAR



ARGHADIP CHOWDHURY
3RD YEAR



ARGHADIP CHOWDHURY
3RD YEAR

SNEHA MUKHERJEE
4TH YEAR

KRITIKA KUMARI
2ND YEAR

MOUMITA MANDAL
3RD YEAR

Achievements

FOSFET - 15

SRIJANI MAJUMDER
3RD YEAR

Our team won First Prize in the Mod
el Presentation at the FOSET-15: Inter-University Engineering, Science &Technology Academy Meet 2025. Our project, "A Solar-Powered Automated Street Lighting System with High Efficiency", focused on creating a smart, sustainable lighting and energy conservation solution. My incredible teammates, (DARSHANI MUDULI, 3rd, A) and (ANUSHKA GHOSH,3rd,A).

IEEE R&R

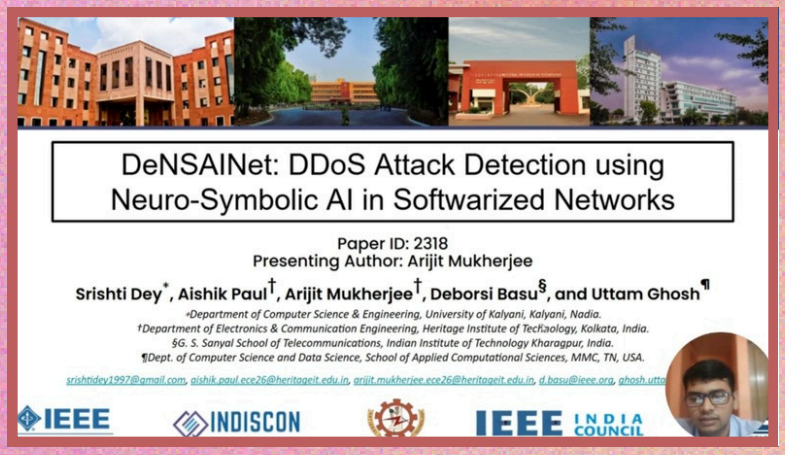
Souryajit Pal
3rd Year

My team A.A.R.A.S secured the 2nd runners up position at the R&R event organised by the IEEE Student branch of our Electronics and Communication,HITK

IEEE INDISCON 2025

Arijit Mukherjee
4TH YEAR

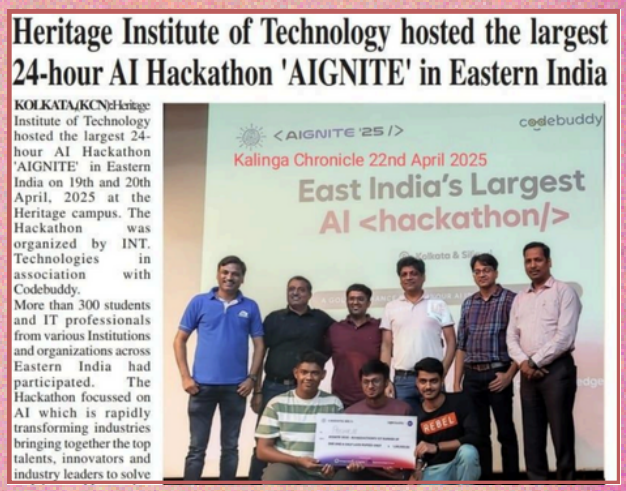
I, Arijit Mukherjee (4th Year, Section C), along with my co-authors Aishik Paul and Srishti Dey, under the valuable guidance of Deborsi Basu and Uttam Ghosh Sir, published our research paper titled “DeNSAINet: DDoS Attack Detection using Neuro-Symbolic AI in Softwarized Networks” in the flagship conference IEEE INDISCON 2025 held at NIT Rourkela.



AIGNITE'25

DIVYANSHU RAJ
4TH YEAR

Divyanshu Raj - 4th Year - ECE(B)
Priyanshu Pilaniwala - 4th Year - CSE(A)
Mohit Jena - 4th Year - CSE(A)
At Aignite'25 hackathon hosted jointly by Codebuddy Pvt Ltd. and Indus Net Technologies we secured 2nd position and was awarded a sum of ₹1,50,000.This hackathon was conducted on multiple venue the same day and we were the only team from Kolkata to get Podium Finish.



Heritage Institute of Technology hosted the largest 24-hour AI Hackathon 'AIGNITE' in Eastern India

KOLKATA/KCN:Heritage Institute of Technology hosted the largest 24-hour AI Hackathon 'AIGNITE' in Eastern India on 19th and 20th April, 2025 at the Heritage campus. The Hackathon was organized by INT. Technologies in association with Codebuddy.
More than 300 students and IT professionals from various Institutions and organizations across Eastern India had participated. The Hackathon focussed on AI which is rapidly transforming industries bringing together the top talents, innovators and industry leaders to solve

BENGAL E-SUMMIT

ANKUR KUMAR
2ND YEAR

1)Ankur Kumar , 2nd Year ECE Sec B
2)Suptotthita Mahapatra , 2nd Year ECE Sec B 3)Himanshu Kumar , 2nd Year CSBS
4)Piyush Kumar , 2nd Year CSBS

The Bengal eSummit 2025, organized by IEM x UEM, was a national platform celebrating entrepreneurship and business innovation. A key highlight was the business hackathon “This is Business”, where teams had just six hours to conceptualize and pitch a business idea on the spot.

Our team rose to the challenge, delivering a structured and innovative idea that impressed the judges. We proudly secured First Runners-Up, along with a cash prize. The experience was intense, exciting, and a valuable test of creativity, teamwork, and business acumen.

MEET THE TEAM

SENIOR EDITORIAL

DEBMALYA PAUL

PRANTIK KUNDU

DIPANJAN PAL

AISHI MUKHOPADHAYAY

JUNIOR EDITORIAL

AARSHI GANGULY

SOUMYA ADHIKARI

BIDISHA SINHA

DEBASHRITA DAS

SUPTOTTHITA MAHAPATRA

SHUBHAYU SINHA

SENIOR OUTWAVE

SANJANA GANGULY

BISHAL DAS GUPTA

ANIRBAN CHANDRA

SUPARNA BANERJEE

SHIVANGSHU SINGH

RISHAV NAG

JUNIOR OUTWAVE

KOUSTAV LAYEK

SRIJA BANERJEE

RISHITA BARANWAL

SUSMIT KHANRAH

KAUSHANI MANDAL

SNEHA JHA

DON’T FORGET TO FOLLOW US ON SOCIAL MEDIA!

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Thank You

SEND YOUR FEEDBACK : HERE