Silicon University

Vol. XXIIV | Issue – 2 | Apr. - Jun. 2025

SLATE

Silicon Language for Arts Technology & Education

Our Vision: To become a center of excellence in the fields of technical education & research and create responsible citizens

From the Editor's Desk...

Reading literature, irrespective of the language it is written in, benefits us in more ways than one. Literature has been an ancient and powerful form of self-expression which weaves the writer's power of observation and imagination with their linguistic command that takes the reader closer to life.

While reading texts of literary value, the reader has the opportunity to see and understand the world through the more insightful eyes of the writer. It is naïve to assume that literature is read for the sake of entertainment alone. Great literature is capable of honing both creative and critical sensibilities in the reader. This is so because literary works engage with human emotions, actions, behavior and opinion. While getting deeply involved with the reading process, we form critical opinions on Shylock's avarice and cruelty, Othello's jealousy; we sympathize with the woes of Cordelia and grow indignant with the injustices meted out to Julius Caesar.

Literature in its best form reflects the society and captures the cultural nuances of a specific time, be it the time of revolution depicted in Dickens's novel or the post-war crisis which found its way to Eliot's modernist works. We get glimpses of the time, changes in the world order, human ideals and behavior and their impact on the language.

Above all, mastering a good diction is probably the most undeniable benefit of reading literature (of course, the informed reader knows which one to pick up for use). The more we engage with good literature, the more we refine our linguistic capabilities, both in writing and speech.

There is not a single aspect of literature that does not benefit humanity. Its role is especially paramount for those who study and work in highly technical, scientific, or engineering fields, as it helps them stay connected to others around.

Dr. Priyambada Pal
Dept. of BSH

EDUCATING US
India's Masterstroke: The Geopolitics

India's remarkable evolution as a nation defies conventional expectations. From economic resilience to political stability, its dynamic growth has astounded the world. With a heritage steeped in history, culture, and tradition, India has always stood as a beacon of wisdom and endurance. Yet, it is the country's forward-looking vision and strategic geopolitical stance that truly set it apart on the global stage.

India's emergence as a recognized political force began with its independence in 1947, marking the dawn of a new era. The foundation of its foreign policy was laid by visionaries like Prime Minister Jawaharlal Nehru, who championed non-alignment during a time of heightened global tensions. Over the decades, India has adapted to shifting geopolitical landscapes, with modern leaders embracing strategic alliances and global partnerships. Each diplomatic milestone reflects the nation's intellectual depth and continuous progress, demonstrating an unwavering commitment to growth and influence.

In global affairs, India plays a pivotal role, contributing to both regional and international dialogues. As a key member of BRICS and the host of the 18th G20 Summit, the country commands attention and respect, reinforcing its presence in the Indo-Pacific region. With strong diplomatic ties to influential nations like the United States and Japan, India has carved out a unique position—balancing relationships with both Russia and America while maintaining its strategic autonomy.
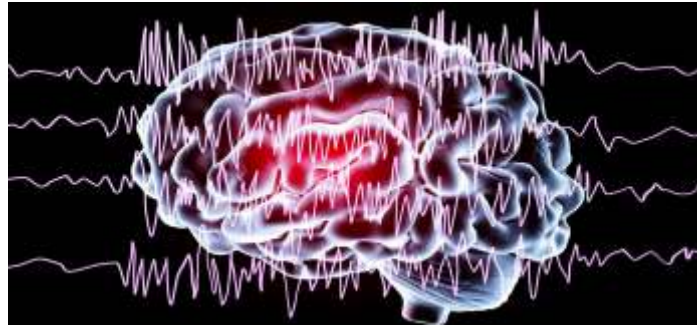
Beyond politics, India's economic transformation has been fueled by technological innovation, a highly skilled workforce, and competitive labor costs, making it an attractive destination for industries worldwide. India has the 4th largest GDP in the world as of 2025, recently surpassing Japan. These advancements have propelled economic growth, improving living standards across the nation. Though still developing, India is no longer a fragile entity in the global economy—it stands firm, driven by ambition and a determination to shape the future on its own terms.

As former Indian President Dr. A.P.J. Abdul Kalam once said, "Dreams are not what you see in sleep, they are the things that do not let you sleep." India's journey is a testament to this philosophy—a relentless pursuit of excellence, a dream realized through perseverance, and a future defined by its own aspirations.

Satasha Samanwita Pradhan
2nd Sem, ECE

HEALTH WATCH
EPILEPSY : Understanding the Storm Within

Epilepsy, commonly referred to as "fits" or seizures , is a neurological disorder characterized by sudden , recurrent episodes of abnormal electrical activity in the brain. These disturbances can be mild, like staring blankly for a few seconds, or more severe, like shaking and losing consciousness. Thus making epilepsy a complex and often misunderstood condition.

Normally, the brain operates by transmitting electrical signals through a network of nerve cells. However, in epilepsy, these signals become disrupted, triggering bursts of abnormal activity that result in seizures. These seizures may occur in a specific part of the brain (known as focal seizures) or spread throughout the entire brain (referred to as generalized seizures).

Epilepsy may be hereditary or happen due to a head injury. Infections like meningitis or encephalitis can also lead to it. Other causes include brain tumors, strokes or problem in brain development.

However, in many cases, the exact cause remains unknown such a condition is know as idiopathic epilepsy.

Implications and Risks:

- Memory and Mood Problems: Having seizures again and again can make it harder to remember things, focus, or stay calm. This can lead to stress, sadness, or anxiety.
- Safety Issues: Seizures can happen without warning, which makes some activities like driving, swimming, or working with machines dangerous.
- Feeling Left out: People with epilepsy may face unfair treatment or feel left out because others don't understand the condition well.

Dealing with Epilepsy :

- Medication : Anti- epileptic drugs (AEDs) helps to control seizures in 70-80% of people.
- Lifestyle Adjustments : Adequate sleep, stress management, and avoidance of triggers are critical.
- Support Systems : Support networks, including counseling, community organizations, and educational campaigns, play a vital role in empowering individuals and fostering a more accepting society by reducing stigma.

Epilepsy is not a limitation but a Challenge that can be navigated with understanding, support and resilience.

Priyanka Rath
6th Sem, CST

FOOD FOR THOUGHT
Living for Ourselves vs. Living for Approval

We live in a world which is driven by social validation, where likes, comments, views and opinions shape our choices, our relationship with people, our social standard but one question lingers: "Do we live for ourselves, or do we live to be approved by others?"

From the very childhood, we're "programmed" to seek approval, first from parents, then teachers, friends, and eventually society. Good grades, trendy clothes, prestigious careers and many more of our pursuits are influenced by expectations of others. But at what cost? When does the desire for acceptance overshadow our true desires? When does fitting in become more important than staying true to ourselves?

The Double-Edged Sword of Approval

Yes...! Seeking approval can be motivating, even rewarding at times. But when our self-worth depends on others approval and opinions, there is a risk of losing our true self. We suppress passions to fit in, chase goals we don't truly want, and measure success by applause rather than fulfillment. The fear of judgment keeps us from taking risks, speaking our minds, or embracing our quirks and accepting the way we are.

The Freedom of Authenticity

Living for ourselves doesn't mean disregarding others; it means prioritizing our values, dream, peace and happiness. It's about wearing what we love, studying what we find meaningful, and pursuing paths that resonate with our purpose... even if they defy expectations. One should know that true confidence doesn't come from universal approval but self-acceptance.

Striking a Balance

We're social beings so connection matters. But there's a difference between healthy relationships and dependency on validation. The healthiest mindset?

"Your views are appreciated, but how I decide to live my life is a matter of personal choice. It's natural that not every person is going to resonate with my journey, and that's fine with me".

Final Thought

At the end of every day, through every success and failure, in moments of doubt and certainty... the only constant companion you'll ever have is yourself, the only person you answer to is yourself. It's not about who agreed with your opinions or who liked you. It's about whether you stayed true to what matters to you.

As time goes on, you won't measure your life by how often you fit in or play it safe. You'll remember the chances you took, the moments you stood your ground, and the times you choose honesty over ease. The world forgets those who followed the script, but it remembers those who showed up as their real selves in this world.

So, follow your values. Let your scars be the proof that you had the courage to give it a try. Surely, the applause will fade, but the weight of dreams you never chased lasts much longer than you imagine.

This is your life, not a performance, not a rehearsal. Live it like it matters – because it does.

Mohammed Zuhayer Labeeb
2nd Sem, ECE

MY CYBERSPACE
Cyber Resilience in Supply Chain Management

As per World Economic Forum's (WEF) report with Accenture, 'Global Cybersecurity Outlook 2025,' 54% of large organisations have identified supply chain management issues as the biggest challenge to achieving cyber resilience. There exist huge vulnerabilities in global supply chains. The increasing complexity, invisibility, undefined geographical barriers have made them lucrative targets for Cyber criminals. The risks extend to direct partners, third party providers and the entire eco-system.

The major roadblock is a lack of visibility across diverse third party partners/suppliers. Different industries have different security requirements and inconsistent standards. The level of complexity is compounded by the use of different open source and AI tools. Though at a very nascent stage, but still certain reasons can be well attributed to the lack of resilience.

Smaller organisations that are part of the supply chain rarely meet the required security standards due to lack of resources and fund. Limited visibility due to lack of compliance to Cyber regulations by less regulated industries. Vulnerabilities introduced by open source AI adoption by third party vendors/suppliers and trade barriers due to geopolitical tensions can cause serious problems. Disrupt the seamless operations of global Supply Chains causing delays, shortages and escalated vulnerabilities. Extreme dependence on critical service providers like cloud providers may amplify the risk. Convergence of IoT components have increased the attack surface.

The following measures could be taken to develop a resilient supply chain infrastructure: Enabling real time visibility across interconnected systems, exploring weak links in the chain, & enforcement of consistent security policies across their supplier networks. Align Cyber security with business objectives in order to ensure adequate budget and resource allocation. Last but not least, board level support, regulatory penalties, enforcement agencies are imperative to ensure a secure Supply Chain management infrastructure.

Dr. Sushree Samita Rout
Associate Professor, CSE Dept.

IN CONVERSATION WITH …
Dr. Saroj Rout

Dr. Saroj Rout, Additional Professor, EE Department, heads the VLSI Lab at Silicon University, Odisha. Professor Rout is instrumental in designing the VLSI course for B.Tech. students which will be offered from the Academic session 2025-26. In this interview with Esha Agarwal (4th Sem, CST), he reflects on embedded systems and preparing students for tech-driven careers.

Esha: Welcome to the interview, Sir. Could you briefly explain what VLSI is and its importance in electronics engineering to our readers?

Dr. Rout: Very Large Scale Integration (VLSI) represents a specialized branch of electronics focused on the design of circuits for microchips, commonly referred to as integrated circuit (IC) design. In contemporary technologies, microchips are pervasively present, encompassing applications from consumer products to military apparatus. Regardless of the technological field, such as mobile phones, televisions, computers, automotive systems, medical equipment, and satellites, these devices incorporate numerous microchips to execute complex operations. Consequently, VLSI or IC design has emerged as an essential domain within the electronics sector.

Esha: What was the motivation to offer the VLSI program specifically for B.Tech. students?

Dr. Rout: Since 2014, Silicon University has excelled in VLSI, initially led by India's then-top semiconductor entity, Sankalp Semiconductor, now part of HCL Tech. Our course has been refined continually to ensure industry preparedness among students. We have engaged in four System on Chip (SoC) projects, all yielding fully functional chips, involving collaborations with semiconductor start-ups from Boston, USA, and the Netherlands. Over the past five years, we have solidified an alliance with Sevya Multimedia, a semiconductor services company, enhancing VLSI expertise. This partnership has facilitated the training and placement of over 100 students and 200 recruits from various colleges into premier semiconductor firms. VLSI is a key strategic area for India, aiming to expand its skilled workforce, indicating an impending rise in demand for VLSI professionals. Given our established VLSI expertise, recent university status, and the surging need for semiconductor talent, we naturally launched the B.Tech. program in Electronics Engineering with a focus on VLSI Design and Technology.

Esha: What gaps in current engineering education does your program aims to fill?

Dr. Rout: The critical factor in becoming a

proficient VLSI engineer lies not merely in the content gap but in emphasizing specific concepts and subjects. The initial two years comprise the most pivotal foundational courses for engineering at large; however, for VLSI, particular focus is placed on subjects such as Engineering Physics, Circuit Theory, Basic Electronics, Digital Electronics, and programming languages like Python and Tcl. In contrast, the third and fourth years introduce program-specific courses, including CMOS IC, Analog VLSI, IC Fabrication, among others. It is imperative to highlight that the pedagogy of teaching supersedes the mere content itself. Silicon distinguishes itself in this regard due to our decade-long experience fostering direct interactions with the industry. Our courses are meticulously designed to convey the fundamental concepts that equip our students to endure the rigorous demands of VLSI professions.

Esha: How is this program different from traditional university courses in VLSI?

Dr. Saroj: As previously indicated, our course distinguishes itself not only through its content but also in the manner it is delivered to students.

We advocate strongly for project-based learning and implement this pedagogical approach in courses with a strong emphasis on engineering, particularly in circuit design. It is imperative that students develop problem-solving abilities through their engineering expertise, a competence often insufficiently emphasized in conventional coursework. This approach is informed by our collaborative experiences with the industry, setting our course apart from traditional VLSI courses which are generally more focused on rote learning.

Esha: If you had one message that you would like to send to the students, what would it be?

Dr. Rout: There is no substitute for hard work and 100 percent commitment to learning. Hard work is what gets the job done and the commitment to learning helps you grow. Again, no substitute for it. When students are exposed to the real world and have to solve real-world problems, these two qualities will take them a long way in their career be it industry, higher studies or any other field.

Esha: Thank you so much sir for sparing your valuable time.

IN CONVERSATION WITH ...
Sneha Sruti Sahu

Success rarely arrives overnight – it's shaped by purpose, creativity, and persistence. Sneha Sruti Sahu, recipient of the Women's Achiever Award in the university, exemplifies this through her remarkable journey. In an interview with Rajannya Kundu, 2nd Semester, CSE, Sneha shares the passion that fuels her work, the obstacles she's faced, and the values that drive her continual pursuit of excellence.

Rajannya: What is the true essence of being a 'woman achiever' to you, beyond this title?

Sneha: I am taking the example of my mother, who as a teacher, parent, and wife, her journey – from my pre-school days onward – has shown me what true balance looks like. She taught me when to stand firm, and when to stay calm. That graceful balance is what truly sets someone apart.

Rajannya: You have been acknowledged for your achievements – but could you describe a moment of self-doubt that became one of your lessons?

Sneha: I tend to over think, often revisiting moments to ask if I could've done better. One that truly stayed with me was XIM MUN 2025, my first time as a chairperson. Despite the excitement, I hit a breaking point and self-doubt crept in. But looking back, I see how that moment had shaped my growth.

Rajannya: As a woman in your field, did you ever face gender-based bias or stereotypes? How did you respond to those situations?

Sneha: Despite our modern thinking, body shaming still persists. I've been the only woman in many entrepreneurship contests, facing comments like "She can't win," as if talent had a gender. They hurt more than I expected, but I turned that pain into motivation – working through the night to prove myself. When I finally stepped on stage to claim my victory, the roar of applause felt like the sweetest vindication.

Rajannya: What message would you like to give to the students of our college, especially young women who aspire to walk on the same path as you?

Sneha: None of us is perfect, but the greatest gift we can give ourselves is self-awareness. We're our own best judge and mentor, reflecting deeply on where we need to grow.

STUDENTS' CORNER

The Little Wanderer

A tiny squirrel, so soft, so small,
Sniffs a flower by the garden wall.
No rush, no race, no greedy plan,
Just joy beneath the skies he ran.

He twitches his nose, then takes a pause,
Finds magic in the simplest cause
A scent, a breeze, a leaf that fell.
His world's a calm, enchanted spell.

While we chase stars and titles high.
He finds his heaven, near the sky.
Through fleeting dreams and silent strife
He simply lives, and calls it life.

Pratishya Priyadarshni
6th Sem. EEE

The Way I am

The pain has slowly shaped my soul
A hundred tries and still the same toll.
Accept or flee, the choice is thin,
But neither stills the storm within.
I never asked for this cruel weight,
This ache was never meant for my fate.
Yet sorrow's tide has pulled me deep,
And darker waves still wait to creep.

I wonder if I'm strong enough,
To bear the blows, to rise above.
Days drift slow, the nights stretch long,
The past I dreamed...but dreams were ...wrong.

Oh, how sweet the hours when I sleep,
No wounds to nurse, no vows to keep.
Slumber softens, soothes the pain,
Though sometimes nightmares rise again.
Even though am alive, am not breathing,
Even though am awake, am not living,
Even though I try, am not winning,
Is this the prize for all this yearning?

If this is living, let me fade,
And never leave this dream's sweet shade.
Mohammed Zuhayer Labeeb
2nd Sem., ECE

Whispers of the Sunset

Standing beneath the blue sky, still and wide,
I let the silence wrap around me.
No rush, no noise, just me,

and the quiet of the world breathing.

The clouds move like slow thoughts,
wandering with no clear destination,
and for once,
I don't feel the need to chase anything.

The sun is setting
not in a grand but in a fiery way
just slipping away softly,
like someone who doesn't want to be missed.

And somehow, in this stillness,
my chest doesn't feel so tight.
I feel okay.
Not happy, not sad, just real and live.

Ananya Das
2nd Sem, CSE

Let's See

Lying there In a sacred place with intricate souls
having heavy hearts and shallow minds,

I wondered my purpose of existence there
and I thought I was fine.
Until I stood for eternity, seeking serenity,
A question came to mind:
"did I break the jinxed curse or did it break me?".
whatever the case might be, I'll still try to keep
The tranquility in me.
Catastrophizing in the deep sea-
let's see if I drown or flee.
How can i fly when the sky has cursed me for
broken wings caused by some unfamiliar red
wars; Hoping for shooting stars to grant my
wishes afar; like dreams born in the aftermath of
war.
I'll open my doors for every downfall in every
afterlife.
After all and every downfall, there's a rise,
A phoenix reborn, a new sunrise.

Krishnamayee Pathy
5th Sem. ECE

Warrior's Call

The war was dense
My lungs were bleeding freedom
Breaths meant nothing more than a vessel
My only weapon was confidence
As soft as a fine paper.
They managed to tear that down
But they forgot,
a broken glass can cut veins
A broken fate can change days
A broken string can tie stronger
And a shattered paper can silence voices.
My limbs were tired
But my soul was ripped

I'll avenge her death
I'll avenge her tears
My only weapon was my voice
They managed to silence me
But they forgot,
Silent wind screams terror
Silent waves drowns heads
Silent trees, shelters lives
And Silent voices have the highest pitch
My dreams are caged
Their wings are golden
I'll break those metal doors
I'll let them fly again
My only weapon was hope
They managed to kill it
But they forgot
A dead hope brings no fear
A dead rose has dry tears
A dead flower, won't die again
And a dead human would never fear the death.

Satasha Samanwita Pradhan
2nd Sem, ECE

The Feel of Fail

This afternoon, I barely breathe
Ricocheting thoughts, Deep wails seethe,
A sudden thunder elapses my wonder for escape
I'm tied to the perilous wind, grasped by nape,
A hither and thither surges to brink,
Something for sure, impels to sink,
I give in, unstable, aimlessly shuttered,
It pains, as if entrails are callously cluttered,
I shy away from every beg for mercy,
Vacillating, if I even deserve this courtesy,
Failure, a huge word, entraps my vision,

Uneased of the soul's enervating elision,
Do I just keep blaming my past and
consequences followed?
Or Do I erode in the present's callow?
Time has been messing my brain and brawn,
I do not understand "the ending's beautiful
dawn",
This whirlwind of unprecedented chaos devours
my impotence,
I'm aware, I try but I'm consumed of utter
indolence,
I seek with emphatic despair, a ray of hope,
There's no other way, with dearth, I could cope.

Aradhana Dash
6th Sem, CEN

ALUMNUS SPEAKS
Aditya Patnaik

Aditya Patnaik, an alumnus of the 2018 batch, completed his bachelor's degree in Computer Science Engineering from Silicon University, Odisha. He has shown exceptional proficiency in digital design.

He began his professional journey at the Boston Consulting Group (BCG) as a Junior Specialist, where he focused on designing and developing microsites and internal office pages. Currently, Aditya works at CitiusTech as a Senior Executive in the Digital Experience Solution practice, concentrating on creating user-centric digital solutions within the healthcare domain.

He has experience in various fields, including consulting, insurance, sustainability, and healthcare. When we asked him how he adapted his design thinking approach to tackle complex problems in each area, as well as how his domain knowledge influences his creative process, he provided insightful responses.

He emphasized that in adapting design thinking across various domains, the core principles remain as understanding the user and creating solutions to real problems.

In healthcare, building trust through approachable designs is the key, while in sustainability, simplifying complex concepts is essential. He believes designs should "ask questions, tell stories, and build an ecosystem" for meaningful, user-centric solutions.

As he progressed from content manager to Senior Executive at CitiusTech, he cultivated a mindset and skill set that effectively balances business goals with user needs. I leverage these skills to deliver empathetic and accessible solutions that resonate with our users.

He stressed upon aligning business goals with user needs, emphasizing understanding users' frustrations and expectations and advocates for a custom approach to design that aligns with business objectives, highlighting the importance of active listening for creating effective solutions. In fast-paced projects where time for user research is limited, he prioritizes essential design principles to ensure that his solutions not only meet real user needs but also align seamlessly with business objectives.

When asked about several industry-standard tools and frameworks that are indispensable for creating scalable and consistent UI/UX designs, to which he explained that he used Figma for its collaborative interface design capabilities. He also noted the Adobe Suite as particularly effective for more complex visual projects. He advised his juniors to "Stay curious and keep their hunger for learning alive."

Krishnamayee Pathy
4th Sem. ECE

BOOK REVIEW
Unforgettable Reign of Virtue: A Story Retold

Book: The Palace of Illusions
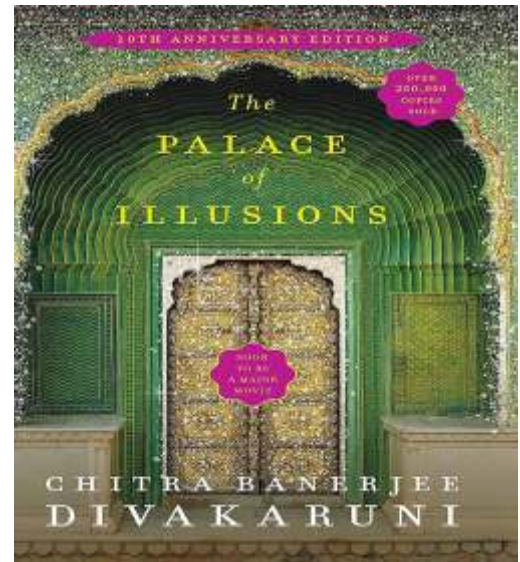Author: Chitra Banerjee Divakaruni
Genres: Novel, Historical Fiction
Language: English
Originally published: 2008

It's a story where heroes gamble away kingdoms, villains speak uncomfortable truths, and gods manipulate mortals like pieces on a cosmic chessboard. In this epic tale, dharma is rarely clear, virtue is often weaponized, and the line between right and wrong is not just blurred, it's rewritten. The real war isn't just fought on the battlefield, but in hearts poisoned by pride and past lives still casting shadows. The Dice Was Loaded Long Before the Game Began!!

Chitra Banerjee Divakaruni's The Palace of Illusions is a breathtaking mythological retelling of the Mahabharata, one of India's most enduring epics, but this time, through the sharp, haunting, and unapologetically human voice of Draupadi. This book feels more realistic as it throws light on a female perspective on those patriarchal times. Here she isn't a character, but a story. A Story of ambition, fate, duty, questions and her powerful friendship with Krishna.

At the heart of everything stands the Palace of Illusions – a magical, shimmering creation of the illusionist Maya, representing both Draupadi's greatest triumph and her deepest misfortune. It is as splendid as it is deceptive, the palace becomes a symbol of everything she builds, and everything she loses. What gives this novel its intense appeal is its profound emotional depth and daring narrative decisions. Here, She is proud, vulnerable, defiant, and flawed but utterly unforgettable.

Divakaruni's writing is rich and evocative, pulling you into an ancient world while speaking directly to modern sensibilities. She questions patriarchy, power, and destiny without ever losing the soul of the original epic.

This book goes beyond mere retelling—it offers a strong sense of reassurance, showing that what truly matters isn't just how one feels, but the courage to acknowledge and embrace those emotions. It's a testament to those women, who burn, who rise, and still have the courage to dream. A masterpiece you'll carry long after the final page.

Rashika Das
4th Sem. EEE

TRAVEL DIARY
Standing still with the Sand: Konark Eco Retreat

Life often feels like an endless loop of responsibilities and deadlines, pushing us to seek a moment of escape—a chance to breathe and reconnect with the essence of existence beyond the mundane. That search led us to the Konark Eco Retreat, an initiative by the Odisha government, promising tranquility.

As we neared the destination, the rhythmic roar of the sea grew louder. Stepping out of the car, I was welcomed by a dazzling view of sunlight shimmering across the water. Rows of white tents stood proudly just a few meters from the shore, offering shelter to those seeking solace. An electric vehicle carried us and our luggage to our tent.

After freshening up, we proceeded to the dining area, where a variety of cuisines catered to the diverse palates of the retreat's guests. Later, we ventured to the beach, a designated space reserved exclusively for resort visitors. The absence of crowds enhanced its real charm. Walking barefoot on the warm sand felt liberating, though we remained cautious of the jellyfish washed ashore—one careless step could have turned an idyllic retreat into an unfortunate memory.

By 6:30 in the evening, a cultural program unfolded. Energetic young performers, likely between 16 and 20 years old, took the stage with captivating dance routines. Under the guidance of a professional, a group of children executed breathtaking stunts that left the audience awestruck. No one dared to leave their seat. A musical performance followed, drawing couples onto the floor as they swayed to the singer's mesmerizing voice. The night concluded with photographs, dinner, and a quiet retreat into our tents.

Rising early the next morning, I was eager to witness the magnificent sight of the sun emerging from the sea—a moment often referred to as sunrise. Standing there, I marveled at how the sea, capable of such roaring power, could also embody serenity.

Although I don't drink tea, watching others savor their morning cups with loved ones was heartwarming. Some engaged in deep conversation, appreciating the beauty before them, while others embraced the tranquility in silence. Workers created custom sand art upon request—perhaps messages of love or unspoken confessions.

Soon, everyone would return to the rush of their lives, and I would too. Yet, for that brief interlude, time seemed to stand still. Sometimes, it takes something as simple as the sand and the sun to remind us of life's profound beauty.

Sarbani Devaprita
2nd Sem. CSE

INDIAN START-UP SCENE
INNOVEST- A Leading Company In Second-home Ownership

Entrepreneurship is a driving force behind innovation and economic growth, and today we come forth to witness the journey of Innovest that serves as a compelling example of how visionary leadership can transform industries. Founded by Chirag Gupta and Saksham Singhal, Innovest is redefining second-home ownership in India that offer luxurious retreats in scenic locations such as Goa, Sindhudurg, Ayodhya, Kanchidhaam, and Sariska. The company provides a comprehensive, innovative solution that seamlessly integrates land development, real estate planning, and hospitality management to create unparalleled living experiences.

With a core philosophy centered around crafting lifescapes, Innovest goes beyond traditional real estate investments by designing environments that enhance the well-being of people and promote relaxation. Each property reflects a commitment to quality, sustainability, and luxury, ensuring that homeowners enjoy not just a residence, but an experience tailored to modern lifestyles.

As part of its ambitious expansion, Innovest has announced a Rs. 2000 crore investment into its second-home concept, further solidifying its market position. This strategic investment highlights the company's dedication to developing sustainable and high-quality retreats that offer a balance of comfort, exclusivity, and natural serenity. Additionally, Innovest provides rental management options for everyone, allowing homeowners to generate passive income while ensuring their properties remain well-maintained.

For aspiring entrepreneurs, Innovest's success underscores the importance of vision, resilience, and execution. Gupta and Singhal identified an emerging demand for curated second-home experiences and positioned their company to meet this need with precision, creativity, and strategic planning that others failed to exploit. Their approach reflects key entrepreneurial principles—identifying opportunities, solving real-world challenges, and delivering value through innovation.

Entrepreneurship is not solely about launching businesses; it is about driving change, shaping industries, and creating meaningful experiences. Innovest stands as a testament to how unwavering dedication to quality, insightful investment, and forward-thinking innovation can pave the way for lasting success. Aspiring entrepreneurs, particularly students and young professionals, can draw inspiration from this journey, realizing that with the right mindset and persistence, groundbreaking ideas can evolve into enterprises that leave a lasting imprint.

As Steve Jobs once said, "Innovation distinguishes between a leader and a follower." The true essence of entrepreneurship is to take bold steps, embrace challenges, and shape a future that redefines possibilities.

Esha Agarwal
4th Sem, CST.

PROFILE OF AN INSTITUTE
Indian Institute of Science (IISc), Bangalore

"Discover, Innovate, Transform, Lead"

A legacy of academic excellence and holistic development, the Indian Institute of Science (IISc) in Bangalore has stood as a beacon of scientific and technological excellence since its establishment on 27th May 1909. Often referred to as the "Tata Institute" due to the vision of Jamsetji Nusserwanji Tata, it is regarded as the pinnacle on the pyramid of scientific research and advanced education in India. In essence, IISc Bangalore stands as a testament to India's scientific prowess and intellectual ambition.

A Glimpse into IISc Bangalore

Situated in the southern heartland of India and stretching across 440 acres, the Indian Institute of Science, Bangalore stands as the pinnacle of academic excellence in the nation. From its humble beginnings with just two departments and 21 students, the Institute now houses more than 45 departments, centres, and units that come under six divisions. Tucked within its lush greenery, IISc Bangalore nurtures over 110 species of woody plants, blending the exotic with the indigenous. Its tree-lined roads bear the names of their dominant flora, while groundbreaking centres like SERC, CeNSE, and the Centre for Brain Research spotlight its global academic impact.

An institute rooted in research

IISc is a hub of cutting-edge research; from developing biocompatible nanofibers for smart scaffolds and innovative methods for targeted drug delivery to understanding climate change and devising strategies to combat diseases like HIV, its impact extends far beyond the campus walls. Over the years the institute has made pivotal contributions to defense technologies, aerospace, healthcare diagnostics, and AI-driven solutions. IISc has played a pivotal role in shaping India's research ecosystem, from supporting indigenous innovation to leading global scientific collaborations.

As India aims to emerge as a global innovation hub, IISc continues to lead the charge. Globally, IISc holds a strong position, consistently appearing among the top institutions in prestigious international rankings like QS World University Rankings and Times Higher Education (THE) World University Rankings. IISc Bangalore stays true to its mission—advancing the frontiers of science and empowering the nation through knowledge. With its spirit of innovation, education, and inspiration, it continues to shape the future of research and discovery.

Priyambada Dash
2nd Sem, CSE

EARTH MATTERS
Anthropogenic Effects on Precipitation & IMD

The images illustrate the extremes of weather, largely shaped by human activities that alter precipitation patterns in India. Major anthropogenic drivers include:

- Urban Heat Islands (UHIs): Cities trap heat and moisture, increasing but making rainfall erratic.

- Deforestation and Land Use Change: Reduced evapotranspiration disrupts rainfall, notably in the Western Ghats and the Northeast.

- Air Pollution and Aerosols: Aerosols delay rainfall by modifying cloud formation, but cause intense rain when built-up moisture is released.

- Irrigation Feedback: Large-scale irrigation in northern India raises atmospheric moisture, enhancing pre-monsoon showers and shifting rainfall distribution.

The India Meteorological Department (IMD) studied 30-year trends, revealing striking shifts. Goa and Meghalaya recorded the highest monsoon rainfall, while Tamil Nadu and Rajasthan saw the lowest. Declines in southwest monsoon rainfall in Uttar Pradesh, Bihar, and West Bengal threaten fertile regions, with similar decreases in Meghalaya, Nagaland, Arunachal Pradesh, and Himachal Pradesh. Conversely, heavy rainfall days rose in Gujarat, South-eastern Rajasthan, Northen Tamil Nadu, Northen Andhra Pradesh, Odisha, and few parts of Chhattisgarh, Madhya Pradesh, the Northeast, Konkan, Goa, and Uttarakhand, showing changing monsoon patterns and higher extreme weather risks.

To manage climate risks, IMD employs a multi-tiered forecasting system: long-range (monthly-seasonal) for agriculture and disaster planning, extended (weekly-monthly) for short-term planning, and short/medium-range (1–7 days) for daily forecasts. Nowcasting offers forecasts hours ahead, critical for storm or lightning alerts. IMD also issues color-coded warnings: green (no action), yellow (watch), orange (alert), and red (act) and updates through apps like MAUSAM, Meghdoot, Damini, and Rain Alarm.

Though restoring past rainfall patterns fully isn't possible, impacts can be reduced by integrating sustainable urban design, limiting deforestation, and restricting industrial spread in rural regions—making India's rainfall less erratic and more predictable.

(Content excerpted from Digital Sansad, Ministry of Earth Sciences)

Kumari Anamika
Assistant Professor, (BSH)

SEEING THE LIGHT:
Inside Silicon's FBG Sensor Lab

Machines, like humans, need senses to understand their surroundings—and sensors provide them that ability. Just as our skin feels heat or our eyes detect light, sensors help machines sense changes. While most use electricity, some use light. Fibre Bragg Grating (FBG) sensors, made from glass thinner than a human hair, reflect light differently when pressure or heat is applied. They are light enough to hide inside aircraft wings, tough enough for deep-sea use, and smart enough to measure strain, temperature, and pressure—all at once.

The FBG Sensor Lab at Silicon was established in 2018 under the Electronics Engineering Department. It is now a dynamic hub for optical sensing research. The lab accommodates thirty-five students and is supported technically by CSIR-CGCRI, Kolkata. Furthermore, it is well integrated into the curriculum through core courses like Transducers and Measurements (T&M).

Dr. Ambarish G. Mohapatra, Associate Professor and the visionary behind the FBG Sensor Lab, believes that hands-on projects, internships, and interdisciplinary learning are key to sparking research curiosity among students. The lab focuses on practical applications such as vibration sensing, crack prediction, and smart structural monitoring. Five Ph.D. scholars are currently engaged in FBG-based research, supported by advanced tools like the Ibsen I-MON Interrogation Monitor and Dense Light's SLED broadband source. So far, the team has published five Scopus-indexed journal papers, filed two patents, and secured Rs. 3 lakhs in research funding. Driven by Dr. Mohapatra's leadership, the lab continues to shape a new generation of engineers passionate about the future of light-based sensing technologies.

In every flicker of light, the FBG sensor reveals silent warnings—early signs of stress, strain, or failure. It drives innovation where light becomes the language of safety and reminds us that sometimes, the most powerful insights come not through sound—but through light.

Sweta Mohanty
Assistant Professor, (BSH)

SLATE
Silicon Language for Arts Technology & Education

Silicon University

Editorial Team
Dr. Jaideep Talukdar
Dr. Priyambada Pal
Ananya Roychoudhury

Members
Dr. Saroj Kanta Misra
Sweekruti Panda
Sweta Mohanty

Student Members
Aradhana Dash
Pratishya Priyadarshini
Esha Agarwal

Media Services
G. Madhusudan

Circulation
Sujit Kumar Jena