#### **Highlight of the Issue**

VERY LARGE SCALE INTEGRATION FOR SMALLER CIRCUITS & DEVICES



Combined Issue (3<sup>rd</sup> & 4<sup>th</sup>) SLATE 2023

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 maketh a full man, conference a ready man, and writing an exact man," said Francis Bacon in his insightful essays centuries ago. Writing is one of the major communication skills conveying our thoughts in a structured and refined way. What sets good writing apart from speech is style, and precision. This is something we hone by reading texts of different nature, and polish it through consistent practice. The essential skill of composing coherent and compelling pieces of writing, however, seems to be vanishing by the day in students' writing. Thanks to Covid-19, and the new online education system it immediately gave way to a generation of students now who lack the ability to discern common grammatical and spelling errors in their writing, let alone caring about other intricacies.

The situation, however, should have been opposite. The likelihood to compose good writing increases in an undisturbed, quiet environment. Covid-19 allowed us that quiet time. Apart from plenty of leisure to lay our hands on different texts to observe and pick up style, we also got time to compose thoughtful pieces on various topics. Moreover, adverse times have always been observed to bring out the best in humans. The long, depressing time, however, seems to have failed to impress upon the majority of youth the importance of preserving and furthering their writing competence. The results show in their exam answers and assignments, which evidently lack structure, diction and taste.

If we analyse more closely, frequent engagement with texting over smart phones is also largely responsible for this decadence. The texting language is observed to leave widespread, telltale impressions in writings today. All this hints at the lack of patience and care in the posterity as well.

Good writing skill is the essence of the advancement of mankind. A degradation is, thus, least expected here. As aptly pointed out by the famous American writer and journalist, Joan Didion, writing our thoughts down can give us a clear picture of our thinking. Moreover, students will need this basic life skill all through their career. It is high time, thus, we realized our neglect, and started prioritizing this art.

This combined issue brings to you sundry happenings at the institute for a diverse reading experience.

Please read and post us your comments.

Priyambada Pal ppal@silicon.ac.in

# **EDUCATING US** The Tech World

There is more technology to cope with to become as competent as other developed countries. Here are some developing technologies and devices that are still being researched upon and in trend and can be useful in the near future.

#### **Automated Vehicles**

It is a vehicle that is capable of sensing its environment and involvement. It's also known as self-driving cars that can operate without human intervention. This vehicle is a combination of advanced technology such as sensors, cameras, GPS, artificial intelligence algorithms, smart parking using 360-degree cameras using ultrasonic sensors, and LIDAR (Light Detection and Ranging). Waymo was the first to offer robo taxi rides in Japan, followed by Cruise in San Francisco in 2023. Automated vehicles were developed through an experiment known as the Automated Driver Assistance System (ADAS) since the 1920s in Japan's Tsukuba Mechanical Engineering Laboratory. The first semi-automated cars were developed in 1977. Sensors play an important role in this world of automated vehicles. As we all know, these devices or instruments, which detect real-world phenomena such as light, temperature, pressure, and motion, can be further utilized in various ways. Some applications of sensors are in the automotive industry, consumer electronics, robotics, environment monitoring, healthcare, security systems, and many more. This improving technology in the near future will make the lives of people in industries and in any working sector more convenient.

#### **E20 Fuel Engines**

India was the first to develop this technology. E20 fuel is a blend of 20 percent anhydrous ethanol



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and 80 percent gasoline, and ethanol is made from or obtained from crops such as corn and sugarcane. Many governments around the world offer incentives and subsidies to use ethanol blends to lessen the use of petrol that impacts the environment in a harmful way and reduce the dependence on imported oil, providing energy security. For now, E20 fuel stations are limited but are installed in many countries across the world.

#### **AI Revolution**

As we all know, AI is evolving, or we can say that this developing technology is being used by almost everyone across the world, and if this keeps on evolving, it can help AI innovations, climate modeling, education, etc. Recently, Odisha adopted the AI anchor for TV news, which is a great achievement. However, AI can conceivably threaten humanity unless its capabilities are harnessed.

> Shabana Akhtar 3rd Sem, EEE



# **HEALTH WATCH** Salt Reduction for Better Health



Reducing salt intake is vital for preventing and controlling high blood pressure, which is linked to various serious health issues. To achieve optimal health, consider these steps:

- Reduce salt intake: Eating less salt is fundamental. High salt intake is associated with hypertension, and numerous studies have shown its harmful effects.
- Maintain a Healthy Weight: Losing excess weight can help lower blood pressure and reduce the risk of health problems, including heart disease and diabetes.
- Eat More Fruits and Vegetables: Incorporate more into your diet. They are rich in nutrients and protect against hypertension and other diseases.
- 4) Include low-fat dairy: These can be beneficial as they provide calcium and support heart health.
- 5) Regular Exercise: Make exercise part of your routine. It helps maintain a healthy weight and reduces the risk of hypertension and other chronic diseases.

These steps collectively reduce the risk of major diseases, including heart attacks, strokes, diabetes,

osteoporosis, and common cancers. High salt consumption is linked to hypertension. To protect those at risk, a general recommendation is important, similar to reducing dietary cholesterol and saturated fat to lower heart disease rates. Setting sodium limits can encourage manufacturers to reduce salt in processed foods. Processed foods are a significant source of dietary sodium, contributing to various health issues. Reduce the consumption of heavily salted foods like chips, sausages, and soy sauce. Read labels to choose lower-sodium products. In addition to reducing salt intake, increase consumption of fruits, vegetables, and low-fat dairy. These foods provide essential nutrients like potassium and calcium, helping protect against hypertension and diseases. Salt reduction doesn't mean eliminating salt entirely. Find a healthy balance that lets you enjoy natural flavors and explore alternative seasonings. By following these guidelines, you can take proactive steps toward better health, reducing your risk of hypertension and associated health problems.

> Anshuman Mishra 5th Sem, EEE

## **FOOD FOR THOUGHT** Sugar: Sweet Poison!



Does your food contain sugar? How much sugar do you typically consume? Do you maintain a record of those? I asked these points to my friend, who responded that not all the food we consume has sugar, and how do we keep a track of how much sugar we consume? Everyone, regardless of age, consumes sugar because, after all, who doesn't like sweet things? Although the methods of consumption may differ, we all have a tendency to occasionally consume sugar, which is why we feel that occasionally consuming sugar is okay. However, we can think of natural sweeteners instead as they promote general health since they digest slowly and give the body consistent energy. On the contrary, added sugar, which is the substance that causes many dangerous ailments, is found in soft drinks, canned meals, etc. Since they don't contain any nutrients and are bad for our entire system, they should be avoided as much as possible. Now the question arises: how much sugar is too much? According to some studies, we consume at least 18 to 20 tablespoons of sugar daily, while the WHO recommends that we consume no more than 10 teaspoons (or 50 grams) of sugar every day. Adults typically consume 1 or 2 teaspoons of sugar in each cup of coffee or tea; however, this is only the visible sugar. What about the sugar that is hidden from our view? All of the

sugar added to soft drinks, protein bars, protein shakes, fruit juices, etc.-what about them? So how precisely does sugar or other sweet substances impact our health? Many beverage businesses are now offering zero-sugar or diet coke, leading us to believe that we can now enjoy our favorite beverage because it is now sugar-free. But have you ever wondered how these businesses manage to provide us with the same flavor and sweetness without using any sugar? The answer to that is chemical or artificial sweetener. Aspartame, neotame, and other commonly used chemicals are artificial sweeteners that cause obesity and erode tooth enamel. It is also harming our mental health due to the dopamine that sweets release and the fact that we eventually lose control of our willpower to guit eating sweets, which results in binge eating, overeating, eating past our capacity, and eventually leading to addiction to sugary or sweet foods. How do we stop then? Take the amount of sugar that your body needs, because everything in moderation is excellent for your health. Stop buying a lot of bottled, canned, and soft drinks. Always monitor your blood sugar levels and switch to healthier sugar substitutes.

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Pratishya Priyadarshni

3rd Sem, EEE



### **MENTAL HEALTH:** The Art of Self - Love

Acceptance and validation might sound like very normal terms, but how normal is it?

We live in a society where we are constantly judged by others. We often question our choices based on societal standards and expectations, to an extent where we need others' approval on almost every aspect of our lives. We tend to do many things, undergo huge transformations just for that one thing. But in the journey, we lose our own selves.

This need for acceptance and validation from others is adversely affecting the mental health of many. It leads to loss of self-esteem and self-worth, forces to sacrifice our values to fit in, fear of rejection, experiencing disappointment and hurt. Unconditional and non-judgmental acceptance is a need everyone seeks from others.

Some tips to overcome need for approval:

- $\triangleright$  Create awareness
- $\triangleright$  Celebrate your success/achievements
- ▷ Enjoy your own company
- $\triangleright$  Use positive affirmations

Instead of seeking affirmation from others, why not cultivate it within ourselves? We can build a strong foundation of self-confidence by practising self-love.

Self-love is having an appreciation, affinity and positive regard for yourself. That includes accepting yourself as you are, prioritizing your needs and setting healthy boundaries. It boosts physical as well as mental well-being. There are many ways of practising self-love but before that one has to believe in these tenets:

- $\triangleright$  Love your body
- ▷ Accept your personality
- $\triangleright$  Respect yourself as you are

'Let's break the cycle of external validation and acceptance and embrace Self-love'

**Ms. Ritu Chowhan** Counselling Psychologist, SIT-Bhubaneswar

## MY CYBERSPACE ChatGPT & Cyber Security



Drone-jacking refers to the concept of unmanned aerial vehicles(drones) being hijacked by criminals. There has been a paradigm shift in how drones are being put to use. From surveillance, monitoring to delivery of packages, it is being used by media, photographers, law enforcement agencies, film crew and logistic companies. Companies like Amazon and UPS have started trials for delivery using drones. Insurance companies are trying to gather evidence for insurance claims as well. Dominos released a teaser of its "Domicopter' for pizza delivery.

But with drone jacking criminals can use them for malicious purposes like stealing delivery packages & footage taken on-board, intercepting surveillance data, knocking out surveillance cameras and many more. Hackers are engineering drones to hack & take control over other drones in wifi distance to create an army of Zombie Drones.

Criminals may either capture the Drone itself or its supporting software that may result in physical damage, injury and data misuse. Drones are easier to hack because of open ports, lack of encryption, and easy setup. Loss of Data privacy will lead to myriad of safety concerns for businesses and authorities. There have been claims about Drone-Jacking tool kits being traded in the Dark web.

Though incorporating drones might be an attractive business proposition for the mentioned industries, it would be wise on their part to evaluate the risks and the regulations available to protect them in case of any mis-happenings.

**Dr. Sushree Samita Rout** Associate Professor, CSE Dept.

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This edition of SLATE interviews Dr. Pratap Kumar Rath, cofounder and secretary of Open Learning System, championing child rights, and chairperson of the Odisha Rationalist Society. He shares his insights and his vision for an enlightened



future in detail with Aradhana Dash of CEN 3rd Sem.

**Aradhana:** In the context of human resource development, how do you see the role of psychology in enhancing student well-being and productivity?

**Pratap:** Human resources means converting our knowledge into an advantage. It all starts with a child. A person is born curious. It is our duty to promote this particular department and encourage their curiosity. Curiosity, along with creativity and self-confidence, make human resources important. In a world of Google and AI, waiting for students or kids to extract the information isn't a solution. All it takes is being their friend, boosting their confidence, inspiring them, and saying, "Hey, you can do it!", when they need it. Without this being the case, human resource development later on, when the person has a job, may turn into a myth.

**Aradhana:** What are some initiatives we, as students, can take to foster the development of a scientific temper?

**Pratap:** Scientific temper, a necessity for humans, is the unwillingness to accept anything without evidence or a proposed theory. We need to look for rational explanations of the events taking place in the world. Article 51A [h] in our Constitution

### IN CONVERSATION WITH ... Dr. Pratap Kumar Rath

mandates us to promote humanism, scientific temper, spirit of inquiry, and reform. These rights of every citizen are free. Following the traces of the Constitution, which is superior to any rule in the classroom, is my suggestion.

Aradhana: In the post-COVID scenario, a lot of students are afraid of jobs, interviews, or placements. How do we deal with it?

Pratap: Dynamism is the hallmark of life. There's going to be pros and cons to any situation. This sudden fear instilled should not stop one. Not succeeding in an employment offer right now could be an opportunity to open your own company and build a start-up or to reflect on yourself. Getting into an engineering college comes with a load of stress engendered by expectations. But experiencing a nemesis while keeping up with them should impel oneself to look back and check the cause of the failure. The three very famous names-Bill Gates, Steve Jobs, and Mark Zuckerberg-all of them were dropouts, but they are powerful in the IT industry now. They changed the world because they didn't give up. So, believe in yourself. According to Article 51A [j], every Indian citizen should strive for excellence. And so should you, the students of this institute.

**Aradhana:** What would be your message to the readers of SLATE?

**Pratap:** Hey, my dear Indians. You're Indian because of your Constitution, which has a Preamble that contains an expression ensuring the dignity of individuals and your right to live with dignity. Dignity means to love yourself, accept your own personality and body, embrace yourself, and respect yourself as you are. You're unique and precious.



### IN CONVERSATION WITH ... Smrutiranjan Dalai

Smrutiranjan Dalai, our Alumnus from the 2019-2023 batch, CSE, is currently pursuing a Master's degree in Artificial Intelligence (AI) at the Indian Institute of Science (IISc). In this interview with Pratishya Priyadarshni, he shares his insights on various aspects of his academic journey, including his motivations for choosing AI, his experience at IISc, and their advice for aspiring students etc.

Smrutiranjan joined IISc on the 17<sup>th</sup> of July with excitement and anticipation. The first week was a whirlwind of exploration; soon, the coursework began. The workload was heavy, requiring late-night study sessions and extended library hours to complete challenging assignments. He came to see that IISc was not only a place of academic rigor but also an environment where dreams originated and friendships were developed.

On being asked about why he specifically chose AI, he replied that he was driven by two factors: strong maths skills and personal interest. His aptitude for mathematics provided a solid foundation for tackling the quantitative challenges of AI and he had a genuine curiosity and fascination with the potential of AI to revolutionize various aspects of our lives. He even mentioned the academic pressure at IISc, as it is renowned for its rigorous academic culture. While acknowledging the strain, he also underlined how crucial it is to develop productive study habits and build support systems through peer talks.

He shared some of his GATE strategies with us: He started preparing for GATE earlier. He gradually built a habit of studying for 4-5 hours daily. This consistency proved invaluable in maintaining focus and momentum throughout his preparation. He



combined video lectures with note-taking, which helped him process information effectively and retain it better.

Smrutiranjan advises GATE aspirants to have a solid grasp of mathematics, early and consistent preparation for GATE.

His message to the juniors is if you are preparing for competitive exams or off-campus interviews, start as early as possible so that there is no pressure before the exam. "Many of my friends started their GATE preparation late, but eventually gave up" is what Smrutiranjan says. So start early and be successful is what he shares with out readers.

## STUDENTS' CORNER

### Body Shaming: The Harmful Impacts of Unrealistic Beauty Standards

Body shaming is an issue in today's society, characterized by the negative judgments and criticism of individuals based on their physical appearance and the way they look. This behavior, often derived from societal expectations and further ignited by media and peer influences, has negative consequences for the mental and emotional well-being of an individual. In this essay, we will explore the causes and effects of body shaming and the importance of developing a more inclusive and accepting society. One of the primary causes of body shaming is the existence of unrealistic beauty standards. The Media, including magazines, television, and social platforms, often portray a narrow and unrealistic image of beauty that is unattainable for the vast majority of people. These unrealistic standards lead individuals to believe that their natural appearance is not enough, fostering feelings of insecurity and selfdoubt. This has given rise to comparison with peers, influencers on social media, and a hope for a perfect body structure. Body shaming manifests in various forms, from comments and criticisms to more derisive actions like cyberbullying. These behaviors can have severe consequences, resulting in low self-esteem, anxiety, depression, and even eating disorders. Young people, in particular, are vulnerable to the effects of body shaming, as they are at a stage of self-discovery and identity formation. The constant pressure to match unrealistic beauty ideals can hinder their development and cause long-lasting emotional scars. To combat body shaming, it is crucial to promote a culture of acceptance, inclusivity, and self-love. Education plays a vital role in raising



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awareness about the harmful effects of body shaming and the importance of celebrating diversity. Schools, families, and communities should teach individuals to embrace their unique qualities and challenge societal beauty norms. Media outlets and advertisers should also be responsible for portraving a more realistic and diverse representation of beauty. In conclusion, body shaming is a deeply ingrained issue that harms individuals and spreads negative stereotypes about beauty. The unrealistic beauty standards propagated by the media and peer pressure contribute to the existence of this issue. It is necessary that society take steps to fight body shaming and foster a more accepting and compassionate environment where all individuals, regardless of their appearance, can feel valued and respected. By doing so, we can work towards a world where self-worth is not determined by physical attributes but by the content of one's character and the beauty within.

> Akankhya Sahoo 5th Sem, CSE

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#### **Sapphire Lies**

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Dawn cracks, a shard through fractured mind, Craving whispers, tendrils coldly bind. No hunger pangs, not flesh that seeks its fill, But phantom thirst for visions, sharp and still.

"Once you tasted," reason gently mocks, "A stolen glimpse through sanity's blind locks." A year? A decade? Time dissolves in haze, Where sun-kissed clouds dance in perpetual daze.

My world, a canvas spun from shattered dreams, Where dragons soar on whispered starlight streams. Each corner teems with secrets, whispered lies,

And laughter echoes in sapphire skies.

The whispers lure, a siren's honeyed call, "Here, solace waits, where shadows gently fall." Oh, cruelest gift, this beauty bittersweet, A gilded cage, a stolen paradise, complete.

But reality, a phantom at the door, Whispers of loved ones, faces lost of yore. Aching echoes of a life left bare, A hollow shell where laughter used to flare.

"Leave, just leave," the whispers hiss and plead, "This is your haven, where truth cannot bleed." But doubt ignites, a spark through tortured mind, Is this my solace, or am I the unkind?

The mirror taunts, a stranger stares back cold, Eyes glazed with secrets, stories yet untold.



Is this the monster they all softly fear? Or just a captive, lost in shadows here?

"Just snap awake," a distant voice implores, "Shatter the cage, break through these gilded doors."

But fear constricts, a serpent in my chest, What lies beyond? An emptiness unblessed?

One step, then two, a tremor in my soul, The whispers shriek, their grip begins to roll. But still I crawl, towards the fading light, To face the dawn, and win back my lost might.

The path is long, the scars will surely stay, But in the sunrise, hope begins to play. For even ghosts of beauty, however bright, Cannot compare to the sun's pure, honest light.

So I walk on, past whispers, doubts, and fears, My breath, a prayer, echoing through the years. For every sunrise, a promise yet untold, To chase the shadows, and reclaim my own.

> Sneha Sruti Sahu 5th Sem, CSE

### IN CONVERSATION WITH ... Ritish Mohanty

Sneha Shruti from 5th Sem. CSE interviewed the elected Secretary General of the Students Council, Ritish Mohanty. Ritish is a final year student in the department of ECE and he shares his experiences, vision and plans and execution of those in this interview.

**Sneha** - What was your vision when you opted for the position of Secretary General?

**Ritish** - I was a Student Council Representative for four years and was always ambitious to lead. As a council representative, I focused on amplifying student voices. After four years, I had an even broader vision. For me, this council offered an ideal platform to create a comprehensive and unified student community under a common umbrella.

**Sneha** - Given that this is your final year of engineering with a hectic schedule, how do you properly balance these commitments and council responsibilities?

**Ritish** - There are days when everything collides. Nevertheless, academics often has an upper hand in many instances, but what helps me to balance everything is prioritizing my tasks. The experiences, the lessons learned, the connections made, they all contribute to the grand engineering project.

**Sneha** - How do you handle challenges in the council?

**Ritish** - I'm always open to constructive criticism. With more than seventy members, this isn't an easy task to make everyone agree and bring them to a consensus. We must consider the approval and the disapproval too. Whenever a decision is made, I always implore the spectators to consider both sides of the argument, one from their side and another from my side. Sometimes, when everyone agrees to a common conclusion at the first attempt, it means that the decision could be either too improbable or too unrealistic. That is why I always welcome recommendations and questions and listen to their



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opinions and feedback before implementation, which always helps me act feasibly.

**Sneha** - You've often been praised for your fine, broad vision. Can you elaborate on how you execute plans?

**Ritish** - My broader vision stems from a simple principle: think big and connect the dots. Ultimately, my goal is to cultivate an environment where students are not merely passive participants but active co-creators who will be shaping the institute landscape over time. Ultimately, the finest vision is only as good as its execution, and that's where the groundwork, the attention to detail, truly comes into play.

**Sneha -** What's one core mark you hope to leave on the college and the students after you leave the council?

**Ritish** - As my term ends, I want to leave this community with a culture of proactive problemsolving. I envision a student body that is not only inclusive but also promotes an engaging culture in all their assignments in life. My message is: Don't wait for opportunities; create them. Don't just dream big; build big. Thank You.



## **ALUMNUS SPEAKS...**

**Debashish Sahoo** 2005 Graduating Batch

Debashish Sahoo, our alumnus from the 2001 – 2005 batch of Electrical and Telecommunication Engineering, is currently working for a boutique consulting company for clients in mid-cap companies in the US. In this interview with Pratishya Priyadarshni of the 2nd semester of EEE, he shares his experiences and accomplishments.

Debashish believed that majoring in Electrical and Telecommunication engineering would enable him to diversify his domain into both electrical and computer engineering. He had always been fascinated by overseas education because it allowed people to experience other forms of learning. After two years of working at Accenture post-Silicon, he choose Canada! specifically UBC (the University of British Columbia).

Debashish has a lot of achievements to share, but the two projects that stand out among them all are: the centralization of medical laboratory specimen testing across the Province of British Columbia during his tenure of 5 years—why it was special because it took 4 health authorities to come together and agree to a "common cause"; and implementing "Ship From Store" capabilities for Best Buy Canada—a key transformation initiative that allows it to compete with Amazon. In this case, they figured out a way to convert each store into mini-warehouses so they could increase order fulfilment rates for customers.

On being asked about the work culture in the Canada and its differences, Debashish replied that

he saw two major differences in the work culture. He said, "Time at work is very focused. You are at your desk 'working' from 9 am to 5 pm, with a 30minute break for lunch. After that, your personal time is completely yours, with no disturbance at all. Secondly, you are encouraged to choose your own path and are supported in that goal all the way through, so I see people here doing many things beyond their work out of sheer interest in that topic, which is why they excel. The system also supports it wholeheartedly."

When asked about career advice for pursuing academics at a foreign institute, Debashish replied, "I would say today India has a lot of opportunities across multiple sectors, than earlier years. If you are considering a career abroad, you need to first understand the "why" behind that interest. Once you are convinced, the next step is to accept that you have to really come out of your "comfort zone" and continue working towards that "why" with all your focus. For financial issues, you need to be prepared to look through "bursaries", "scholarships", "grants," etc. and also then look for other options.

Debashish's message to the students is: "Believe in yourself. Accept that you have to struggle for everything – nothing comes easy".

# VERY LARGE SCALE INTEGRATION FOR SMALLER CIRCUITS & DEVICES

The above title may come across as a paradox for people without a technical background, and rightly so.

Very Large Scale Integration (VLSI), is a disruptive technology that is at the heart of making highly efficient chips which enable our gadgets to be more compact, thereby improving their speed and power.

The term "disruptive innovation" was first coined by Clayton Christensen, a Professor at Harvard Business School in 1995 and was later popularized in his book The Innovator's Dilemma (1997). According to Christensen, technology can be disruptive if it significantly alters how industries, companies, and consumers operate.

VLSI has revolutionized the electronics industry by enabling the integration of millions, or even billions of transistors on a single chip thereby increasing connectivity, computational power, and functionality of the devices. This has led to numerous disruptive innovations, such as smart phones, IoT devices, and powerful computers. Thus, a large-scale integration came about to minimize size and maximize efficiency!

SiliconTech has leveraged the potential of VLSI technology through cutting-edge research, and visionary collaborations with leading institutions. Our Advanced VLSI Laboratory (AVL) is a Center of Excellence in CMOS integrated circuits and electronic system design. In 2020, AVL collaborated with IMEC, Belgium, and X-Fab, Germany, to successfully fabricate 2 microchips. Furthermore, AVL partnered with a semiconductor start-up in Boston to design mixed-signal IP blocks for a power management

Integrated Circuit (IC) in 2021.

Through a breakthrough, AVL became the launch lab for training Sevya Multimedia and STMicroelectronics employees in 2021. The first batch of 14 employees from Sevya Multimedia were trained by Prof. Saroj Rout and Prof. Santunu Sarangi. A year later, in 2022, 38 New College Graduates (NCGs) from 20 colleges were trained in three key VLSI domains following which, 15 NCGs were placed in Sevya Multimedia and 10 SiliconTech students were hired by six leading semiconductor companies. To further its objectives, SiliconTech launched a dedicated twoyear postgraduate program in VLSI (M.Sc. VLSI) this year.

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The growing demand for the semiconductor industry at present makes it an opportune moment for technical institutes to invest in VLSI education and research. The Government of India (Gol) actively promotes the VLSI industry through the Make-in-India campaign with two schemes: PLI (production-linked incentive) for manufacturing units and DLI (design-linked incentive) for semiconductor designs. PLI encourages production capacity while DLI supports semiconductor design activities including VLSI chips.

This is the era where designing the smallest chips will create the biggest impact in shaping our future. Therefore, as our students, researchers, and experts innovate on designing chips, it is not only circuits and chips but history that is being made.

> **Sweta Mohanty** Assistant Professor, (BSH)



# **Photo News**











# **Photo News**









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