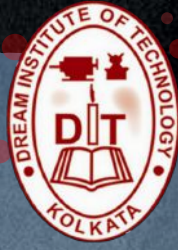


DREAM INSTITUTE OF TECHNOLOGY



TECH NOWZ

MAGAZINE

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Dream Institute of Technology aspires to build a strong technical foundation for new age engineering students. We impart skill-based industry driven knowledge over and above university defined curriculum. This will help to develop the broad technical outlook required for students to survive in this competitive market. We always encourage collaboration between students and faculties, reciprocity and cooperation among students, active learning, prompt feedback and experiential learning beyond classroom. Dream Institute of Technology imparts effective learning skills that helps student to accurately remember information learnt, recall them at the right point of time and utilize them effectively in a wide variety of situations. We encourage students to attend their classes in the college regularly, so that they can build up the habit of attending the workplaces punctually. Besides knowledge, discipline is very much essential for every individual to succeed professionally. At Dream Institute of Technology, discipline is maintained on a priority basis within the college campus. Every student in our institute is made to understand that there can be no short-cut to success. I feel privileged to be apart of this institution and hope to fuel the intellectual energies of all our students with the support of dedicated faculty members of our institute.



PRINCIPAL'S MESSAGE



PROF. (DR.) DIPANKAR SARKAR

India is a fast emerging destination for cutting-edge research & development. In the year 2020 India will be in need of large talent pool not only in information technology but also in other fields like nanotechnology, agricultural science, manufacturing etc. Our students must be equipped to meet these upcoming challenges “Dream Institute of Technology” has become one of the leading engineering institution in West Bengal as well as in India. Within a short span of time the institute has created a niche for itself by providing lucrative career opportunities with esteemed recruiters like TCS, Capgemini, Infosys, Reliance, Accenture, Wipro- spectra mind, Satyam Computers, Cognizant, etc. We have well-equipped computer labs, central computer center and departmental labs to equip students as quality engineers not only in the core sectors but also in the field of software engineering. Dream Institute of Technology, a state-of-the-art engineering institute provides well-equipped workshops and advanced learning resources. From a modest beginning in July 2006, Dream Institute of Technology has made a pledge to create the ideal environment for young, fresh, talents to realize and optimize their potentials. We facilitate students to develop a symbiotic relationship between the community, society, and the institution. We are at work in unison to ensure a tremendous value-addition among our students during their four years’ of stay with us. At the same time, we are also confident to ensure that the alumni of our college always feel proud of their institution of choice in the days ahead of us.



Dr. Dipankar Sarkar
Dream Institute Of Technology

Principal Excellence Award - 2024 (Eastern Zone)
Contribution to
EduSkills Center of Excellence(COE)

CONVENOR'S MESSAGE



MR. SAYAK SARKAR

With great pride and heartfelt joy, I welcome you to the latest edition of our e-magazine. This publication is not merely a compilation of pages, but a living, breathing canvas of ideas, insights, and imagination brought to life by our incredible contributors. It stands as a powerful reminder of what we can achieve when creativity, collaboration, and commitment converge.

This edition is a celebration of diverse voices—a mosaic of stories, reflections, achievements, and aspirations. In these pages, you'll find thought-provoking articles, evocative poetry, innovative ideas, and inspiring journeys that echo the spirit and energy of our vibrant community. Each piece reflects not just talent, but also the courage to express, to challenge the norm, and to explore new horizons.

Behind the scenes, a dedicated team has worked tirelessly to shape this issue into what you see today. I extend my sincere appreciation to our editorial team for their relentless efforts, to the contributors for sharing their unique voices, and to all the mentors who have guided us with their wisdom. Your collective enthusiasm has transformed this vision into reality.

In a world where information is abundant, but reflection is rare, this magazine aims to offer both. It is our humble attempt to create a space where curiosity is nurtured, expression is valued, and connections are fostered across disciplines and perspectives.

As you journey through the pages of this magazine, I invite you to pause, ponder, and participate. Let the words, images, and ideas inspire you to create, contribute, and continue the conversation.

Thank you for being a part of this experience.

PROUD TO BE AN INDIAN



Being proud to be Indian encompasses a multitude of aspects that make the nation unique and admirable. From its rich cultural heritage and traditions to its resilience and diversity, India stands as a symbol of unity amidst diversity. Its contributions to science, technology, arts, and literature are celebrated worldwide. Additionally, India's commitment to democracy, secularism, and social progress reflects its values of inclusivity and equality. Embracing these qualities fosters a sense of national pride and solidarity among its citizens, reinforcing the notion that being Indian is a source of honor and distinction.

India's recent achievements, such as the successful Chandrayaan-3 mission, the historic Gaganyaan project, its record-breaking performances at the 2024 Paris Olympics, and its continued rise as one of the world's fastest-growing economies, symbolize the nation's remarkable progress and potential on the global stage. These accomplishments instill a sense of pride and inspiration among its people, reflecting India's unwavering spirit and ambition.

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ARTICLES



THE SUNSHINE IN MY COURTYARD

(A NOVELLA WITHOUT A PLOT)

PROLOGUE

**-Uttiya Sarkar
Asst. Prof. BSHU**

It has been long since two volumes of my collections of Poems had been published in 2012 and 2013 and in 2015 I had published a book on entrepreneurship. I had been searching for a plot for over a year I had just been thinking to write down something worthwhile. I had been thinking about plots but could not conclude which one to write. One plot was just as good as the other, as I assumed. The confusion continued, along with my physical disturbances, trifles at the job place and domestic hurdles. I am still a bachelor but my mind is no longer a virgin. It has already blossomed by the care and nurture of a sweet lady who occupies my heart and mind solely. The confusion had continued so long that I finally decided to start my pen and then only give a proper plot. I thought it would be easier for me to write spontaneously the thoughts coming to my mind, so that as the thoughts will rift, the idea will start taking shape same as a potter shapes the clay. So this short novella is neither a fiction nor a novel, nor a poem- it's obvious, nor a drama; rather it is an expression of a running mind. I am not sure how much the readers will enjoy when finally the work will get published!

Though it is September, yet it is still raining. It has been raining for the past few days like the deep Monsoons. I love the rains. I had loved the rains in the mountains when I had been in Nepal, at an early age. I had loved the rains in my youth and even in my adolescence when I had started fascinating into the youthful dreams of future, which remain unfulfilled till now. I love the rains till date, though now I am grown up. Accessing the outside for basic needs becomes a hurdle in the rains. As well, I feel uncomfortable in my heart as my heart is far away from me for these few days. Now the rain becomes unbearable. Durga Puja is at hand, a week afterwards, so even if the rain beats down still the roads and markets are crowded. People flock to continue their Puja marketing. The enthusiasm of the people remains unbeaten, by the rain. I have no desire for marketing, nor do I love to wear new clothes fashionably. I rather sit down to write my thoughts. Sometimes people call me unsocial. I hate being commented like this for I had always been with people when in their needs. I hope the rain stops in a day or two, for my sweetheart who is at least a couple of hundred kilometers from me, hates rain as much as I like it. Though I feel that the rains are sweet but she is sweeter to me.

Silent rains in the nights are amazing. Usually when it rains, mother serves food early and we all go to bed. Our town has a peculiar tradition of power-cuts, whenever there is rain. With the rain come the insects. Of course, the house to which we have recently shifted do not leak, (as it used to do in our earlier house), but the sound of rain on a corrugated roof in the ground floor next to my balcony deafens any other sound. Even loud talks in the room become inaudible. All four members of my family sit according to their choices and wait for the food to be served. Once dinner is complete everyone welcomes bed unlike a normal day when everyone sticks to the television. I have a habit of sitting idle and deep thinking on rainy evenings. Of course there is no particular thing about what I think. There are certain things which I do not want to think and they make me afraid. Yet there are things, which I fantasize musing. At night during rains, I hear frogs croaking. I love their sounds. I mentally encourage them to croak-louder and louder, so much louder that no one could sleep. It thunders. But these thunders are not fearful. Rather I enjoy! Their sounds become more concerned. The songs of the frogs too go unending.

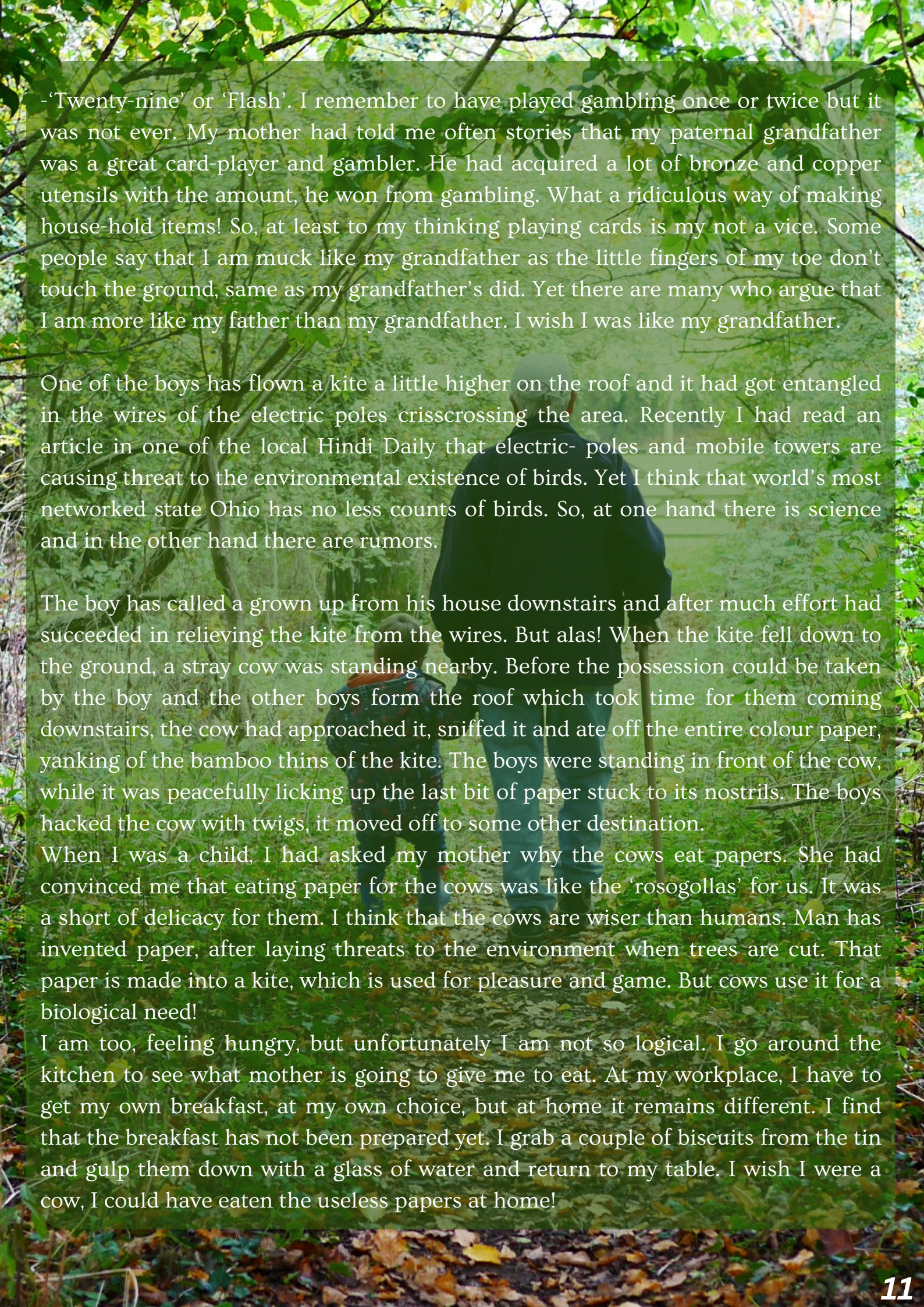
It has stopped raining for few hours. It's a full moon night. There are low clouds, dark and heavy. But the moon is visible a little. The clouds do float past the moon. It looks like a pack of wolves running past a silver plate. Usually I stare out at the sky from my bed and then I go to sleep, still feeling a little cold from the rain that starts afresh again in the night. I pull my sheet over my body, make cozy for myself and go to sleep again.

The sun has come out today. It's a bright sunny morning. It is my holiday for the Puja Vacation and only yesterday I had come home from my workplace. I had been busy all through the week with tons of work. Today I had been sleeping till late. Rather I was not sleeping. I was just lying awake with my eyes closed. I like to remain like this for I like to think and dream. Am I schizophrenic? No it's just idling. I console myself. It is fantasy to have absurd dreams to enjoy when you are awake, but lying and create dreams of your choice in your own mind, and the enjoy seeing them!

Twice, mother had called me to get up. I need to give a sweet morning text to my sweet heart before I leave my bed. I have to do it secretly. If mother sees she will raise a hue for the whole day. I am grown-up, thirty four and still a bachelor with a job! It's high time I can have some one special in my life. Of course, my family wants me to get married, but remain reluctant for any intimacy with any kind of women. I can never understand why mothers are so possessive about their sons, whether it is before or after the marriage of their sons. God knows how many houses holds break-up or couples separate due to the possessiveness of the mothers towards their sons.

Form outside the window of my room, I can see the bamboo thickets next to a pond, which has dried up and the surrounding residents use it as a sanitary landfill. The long dark green leaves of the bamboo glitters in the rain. Some are young bamboo and some are old. The old ones are pale green and the young ones are deep green. At night when the power goes off, I gaze at the bamboo thickets and a shiver goes down my spine. I feel the ghastly surge in the deep shadows of the gaps of the leaves.

At the end of the pond there are many two-storied houses where the roofs are open. In one of the roofs four or five children have gathered for kite flying. Though the wind is weak due to the recent rain, yet the boys have been trying hard for a fair rise of their kites. My maternal uncle was a good kite-flyer in his locality. He had tried his best to teach me the basics of flying a kite. I was a vain boy. I never indulged in any kind of game only apart from 'Hide and Seek', and 'Ludo'. Once I remember to have been inducted into the school football team by our sports teacher. I was only a week in the field with the boys. The only thing that had occurred to me was that I was always running after the ball and the other boys, yet never for a second had the ball at my foot! It was even more embarrassing that even then I was injured more than twice with lots of bruises in the knees and legs. At another time I had tried my skills at playing badminton with my classmates in the afternoons, after the school. The only thing I remember to have done was to pick up the cork and hit and miss when the hit was returned. At another time, I marveled at teens playing caroms. For once I had tried but soon realized that I had a bad aim and gave-up that too eventually. Finally in my adolescent and adulthood, I choose playing cards. In our society playing cards is a vice, hence my talent never improved. Bu sometimes even today when I get suitable partners, I do play, -'

A person wearing a cap and a child are standing in a forest, looking at a body of water. The person is holding a long stick. The ground is covered with fallen leaves.

-‘Twenty-nine’ or ‘Flash’. I remember to have played gambling once or twice but it was not ever. My mother had told me often stories that my paternal grandfather was a great card-player and gambler. He had acquired a lot of bronze and copper utensils with the amount, he won from gambling. What a ridiculous way of making house-hold items! So, at least to my thinking playing cards is my not a vice. Some people say that I am muck like my grandfather as the little fingers of my toe don’t touch the ground, same as my grandfather’s did. Yet there are many who argue that I am more like my father than my grandfather. I wish I was like my grandfather.

One of the boys has flown a kite a little higher on the roof and it had got entangled in the wires of the electric poles crisscrossing the area. Recently I had read an article in one of the local Hindi Daily that electric- poles and mobile towers are causing threat to the environmental existence of birds. Yet I think that world’s most networked state Ohio has no less counts of birds. So, at one hand there is science and in the other hand there are rumors.

The boy has called a grown up from his house downstairs and after much effort had succeeded in relieving the kite from the wires. But alas! When the kite fell down to the ground, a stray cow was standing nearby. Before the possession could be taken by the boy and the other boys form the roof which took time for them coming downstairs, the cow had approached it, sniffed it and ate off the entire colour paper, yanking of the bamboo thins of the kite. The boys were standing in front of the cow, while it was peacefully licking up the last bit of paper stuck to its nostrils. The boys hacked the cow with twigs, it moved off to some other destination.

When I was a child, I had asked my mother why the cows eat papers. She had convinced me that eating paper for the cows was like the ‘rosogollas’ for us. It was a short of delicacy for them. I think that the cows are wiser than humans. Man has invented paper, after laying threats to the environment when trees are cut. That paper is made into a kite, which is used for pleasure and game. But cows use it for a biological need!

I am too, feeling hungry, but unfortunately I am not so logical. I go around the kitchen to see what mother is going to give me to eat. At my workplace, I have to get my own breakfast, at my own choice, but at home it remains different. I find that the breakfast has not been prepared yet. I grab a couple of biscuits from the tin and gulp them down with a glass of water and return to my table. I wish I were a cow, I could have eaten the useless papers at home!

The milkman has rung the door-bell, and I move to go to the door, mother was already there. It is a regular tradition on the part of the milkman to dilute the milk by water and the same on the part of my mother to start a long argument insisting that he need to deliver pure milk from the next day. The door is shut. Both of them knows very well that the transaction was not over and will continue. It is a mutual war!

Early morning a Hindi newspaper comes home. I never like seeing a newspaper especially the Hindi ones. There are papers of political news of local politicians most of which are exaggerated. My father is a politician, so he consumes each and every corner of the paper. Bacon has said, "Some books are to be tasted some to be chewed and very few to be swallowed and digested". I wish he would have rather said- "All newspapers are to be swallowed and digested by politicians".

My cell phone rang with an unknown number. I received the call. The caller wanted someone unknown, who was not me. I hung up. It was a wrong number. This is one of the worst side effects of having a cell phone. Very often someone rings up your number and asks for someone else. I am a common man, an ordinary face in the crowd. I imagine whatever happens with the celebrities. Possibly they would be flooded by wrong calls. Another worse thing about a cell phone is this telemarketing now a day. Usually and very often a STD numbers calls up and asks for the selling up of a bank-loan, or insurance or even a job. Recently there was in the news that one of these telemarketing people have once called up the Central Finance Minister offering him a bank loan, and another company had called up a Noble Laureate offering him an insurance agent's job.

Some years back I had been an insurance agent for a private company. I wondered that insurance though being a basic need; people remain reluctant to paying a premium. Now I am in a salary and have to invest in insurance to save the taxable amount of my salary. I now realize myself the cause of my failure as an insurance agent. In fact any insurance says indirectly "Live Poor, Die Rich!!"

Two lizards are looking down at me from the ceiling. I wonder how they hang upside down. Won't they find it funny to see all people below? Do lizards laugh? I have never heard them doing so. Sometimes I hear them clicking their tongues. My grandmother used to say that if we say something ironically true, the lizards click their tongues to certify it. I wonder till date. Do they understand all what we say? I wish the police keep lizards in the interrogation rooms to detect the lies. They must be reliable. Most efficient lie detectors!

I have to catch an early morning train, and go to another place at an hour's distance. I have put alarm in my cell phone. Long before the cell phone rings, I wake up every now and then hoping that the alarm might have rung. Eventually when actually the alarm rings I find it difficult to get up instantly and continue sleeping for a few extended minutes. Those are the most precious moments of sleep. More precious than the sleep of whole night! Finally I get up with a jerk when I find that further delay will not make me up to the time of the train. It is still dark outside. Thanks to the Electric Department that power is available.

Everyone else is asleep in the house. I am like a ghost in the house, doing things, getting ready but silently. It is nostalgic to remember that how much I longed in my childhood at the excitement of getting up early to catch a train for traveling. When my parents had put me in good clothes, I remember my mother or father usually pressing my both chins and combing my hair in a fixed pattern with a row at the left side. I hated it. I waited impatiently to get it over soon. What was the use of combing the hair, I had thought the. My teacher had shown me the photo of a great scientist named Einstein, who appeared that he didn't comb at all. Hope his parents were liberal enough to have left him uncombed.

The platform is overcrowded. The local train is to come on time with a delay of ten minutes. For the Railways, a delay of five -ten minutes can be considered as right-time. When the train comes, everyone rushes to it madly. I get a space enough for standing only. To top up the difficulties, Hawkers ply continuously. Every time they pass, I have to adjust space make room for them to move on. A few Hawkers are patent to this morning train. The seller of sweetened buns is one of them. As a child, and even now sometimes I hope eating those buns which have a sweet cream in the middle. Earlier those buns used to be big with a lot of cream in the center. Now they have become smaller and the cream is less. Whenever the Hawker turns up, I have a childish longing in my heart to have one of those buns, but I avoid, assuming people around me will be either calling me uncivilized or a hungry glutton. Someday, when the train will be less crowded, I shall perhaps buy more than one, put them in a bag and eat them at leisure sitting in a lonely place, with no one to look at me. But in this busy life neither the train ever has few passengers, nor do I myself do the have the leisure to sit and have to sweetened buns.

I bath many times a day for most part of the year. Yet in winter I hate bathing the most even if hot water is given to me. Mother calls my bathing -Bird-bathing. It is just getting wet. I first wet my hair, slowly and keep on thinking about many things over more than minutes. Then as soon as I realize that I have waited long enough, I quickly pour two or three mugs of water over my body, and hastily mop it up with a towel. It is getting hotter in a couple of hours when I will get back home; I need to have a so called Baird-bath. I had a small job at the station of my destination. It took only few minutes. I took the return train. It was more crowded. A beggar approaches me for a coin. I hand him one. He blesses me. My heart feels satisfied. There was news in a local train few weeks back that a beggar in a platform had left a legacy of lakhs in an account in a bank for his daughter, who too was a beggar on the same platform. Is begging a hobby or a need? I ask myself-Unanswered.

The sun has moved to the solstice. The festive mood of the season is apparently visible. In fact with the each passing day, the sun is getting mellow and sweeter. Certain dryness has set on the skin, indicating the approaching winter. While the town is busy, shopping for the Puja, a wasp is busy making its nest in the corner of the verandah. For the past few days I had seen it hovering in my room, searching for a suitable place to nest. From today morning, I am seeing it bringing balls of soft clay locked in its legs and cementing the nest, like a skilled potter shaping the bottle of the nest. When I was a child, I had once broken the nest of a wasp only to find lots of wriggling creatures in side. I might have intended to break more out of curiosity. Fortunately, my unfortunate luck couldn't find any more. Now as I live in a rented flat and have dreams to own my home before I get married to my sweetheart, I value the making of a house and have no intentions to break the nest of the wasp just out of curiosity.

Its noon. The earth rests. The sun is not too hot, that the heat needs to be beaten down. Rather people sleep from the alcoholic effect of the rice eaten at lunch. This is the Rice-sleep. Most of the dogs are lying stray on the streets, in the corners, and under the shades of the tress. They are naughty dogs! All through the night they shout, quarrel and bark like naughty children at play, and disturb sleep and silence of the night. During the day, they get tired, so they do sleep. It is their way of life.

I hope that the rains won't come again. I love the rains as I have said earlier but there are many who now do not deserve it. Untimely rain will spoil the ready to be harvested crops. It will also spoil the festive mood of the people who had been making preparations for it with lots of enthusiasms for the past days. Of course a drizzle can be welcome but not more than that. The winter is approaching and the frogs have gone to a long sleep so we need not bother about them, and wish for rains.

Man has progressed. Science has developed. There have been inventions. We have invented fastest vehicles and rockets. But the joy of either walking or cycling remains excelled. Of all Man's greatest inventions I think, the cycle has been the most remarkable one. A noiseless vehicle, without any consumption of fuel, hence pollution free, that adds a just a little speed to walking distances. If a rocket, an airplane, or a train or bus, or a car meets with an accident there is no chances of survival but if a cycle breaks down only a few recoverable injuries would occur, unless it happens in one of the busy streets in a town.

The most beautiful thing about a cycle is its sweet tinkling bell unlike those of buses and trains that pains the ears.

My joys know no bounds when I ride a bicycle. I had owned one in my school days and it was with me for a decade as one of my regular companion. Generally it made convenient for me to reach school and tutorials on time. But at other times, I just rode it on, and on! It was a simple escape for me from my pensive mind in those days. I rode it leisurely in the paths among the paddy fields, with the stalks of rising paddy from the rest of the world. After a certain distance, I would choose a place in the open, on the outskirts of my village, sit down or lie on the green grass, staring at the blue afternoon sky with white clouds slowly floating. This mesmerized me for a while. When the sun dropped to the western sky, I would pick up my cycle and rapidly paddle back home.

I remember that early on winter mornings when it was deep, dark and chill outside, and many in comfortable cozy beds would lie wrapped in deep sleep snugly, then a lot of sound was heard in the streets regularly at fixed hours. As my bed was near to the window opening to the road, so one day my curiosity led me to open the window and see what was happening outside. In the dark, I made out that many tribal girls, their ages ranging from ten to thirty perhaps were carrying bundles of green grass on their heads to be sold-off in the town. These mornings were terribly cold but they were out. Some of the girls were just married, some were of such age where they need to be in school, while some were old enough, who had patiently borne this for years and had accepted this as their way of life.

I was young then. I remember to have read Wordsworth's "Solitary Reaper", in our textbook. But these girls had neither sung such beautiful songs, nor had any poet written famous poems on them. The thing that amazed me the most that in spite of the cold and the load, they were happy, smiling and cracking jokes to each other on the way. Usually they returned when it was late in the morning and by then people had already had their breakfast.

Sundays and Wednesdays are Village-market days in our town. Each town has it own date. The Village market is quite a place of commotion. Buyers and sellers flock from the nearby villages. Either they sell or they buy or both. Most of the products are local. The goods ranges from vegetable, clothes, utensils, to even domestic items like pots, brooms, even yeast. Most of these goods are cheap.

As a child, I had fantasized these Village Markets. I remember to have bought one day a toy specs from a hawker which had a blue frame and green glasses. Everyone of my age envied in my village. All along the boys of my age flocked along with me admiring my new possession. Everything appeared green, even if it was dry grass! Unfortunately soon in the near future I had to put on real specs with white glass but power.

It is amazing that nearly all of us spend their childhood and adolescence in a hurry. Everyone wants to grow up quickly, to do something, to achieve something, to become that 'Someone'. Yet when our childhood is over we miss it very much, for the rest of our life. The thought nearly becomes regret. This is human nature and this is what we call "Life ".

My grandfather loved fishing. Rather stealing fish from other's ponds. I loved accompanying him. In the mornings he would often prepare his fishing rod, then he would dig up earthworms from a marshy area near the tube-well, put them in a small rusted thrown away coconut-oil can and off he went to steal fish in broad daylight! I usually followed him. He used to choose a quiet place beside the pond and lay the bait. The job required patience which I lacked. I was always a busy boy and hated sitting beside him unless any fish showed up. My excitement propounded only when he hooked a fish and that was all. In the intervals of the next fish, I traced dragon flies along the banks and the bushes nearby. I searched for a dragon fly and then silently tracked it from one tip of grass to its next escape. Suddenly I pinched its wings with my index finger and the thumb. Then got hold of it. It desperately fluttered for freedom. But as the wings were in my grip so freedom was not possible. When we returned home, I would tie its body with a light thread hanging down and then let it fly once again. It became my flying kite. I was unable to feel the pain I had caused to it.

We had two pets at home. One was our dog and another parrot. The dog was named "Tony", by my father. The parrot was simply called "Mithu". Tony was bred next door to our house. He came from humble village parents. But he was all white like a snow and was admirable in the community of dogs, even our neighbours. Mithu was captured from her mother's nest on one of the high branches of the massive banyan tree in front of our house by my youngest uncle. After lunch or dinner either mother or father or any one of us would give some food in the small cup in the cage of Mithu, while simultaneously give a call to Tony to have his food.

It turned out that a few years later when Tony was poisoned by someone, he died. Father dug a deep grave for him and buried him. But whenever Mithu ever after was given food, she shouted out to call Tony, in the same manner we used to call. May be it was the bondage between them, or she might have missed Tony as a companion. I often used to tell her "Sweetheart, have your own food. Do not call for someone who is no more". Still after all birds and animals too have so deep feelings.

The Saraswati Puja is one of the most popular festivals among teens. Many committees erect Pandals, collect contributions and do the Puja. The evidence owns with a big loudspeaker blaring film songs. Yet there are clubs where they organize competitions on the eve. The Matri Asram committee is also one of them in our locality. In my final year of schooling, I had become a member of that club. Apart from the Puja, there was a function to be held in the evening. There would be record dances and singing. I decided to try out a song. The entire afternoon, I laboured at rehearsing the song at the back of the Pandal. I have no good voice, no knowledge of tunes and beats. Yet no one pointed out my weaknesses or helped to prevent me from the incoming disaster. The programme started at the appointed time in the evening. There were one or two record dances and then singing. I was perhaps the last on the list. Then my name was announced by the anchor. I got up to the stage. It was my first stage performance. Finally I took the microphone and started singing. I had pronounced the first line when the power went out. There was complete darkness. There was confusion. There was a loud noise from the audience. In the confusion it was long before the audience dispersed and I left the stage. Then the lights came back. It was already in the audience. But when the lights came, I found it hard to face the audience in the harsh light. Everyone was looking at me. The situation was so embarrassing that I had to leave the place and probably that was my last appearance on the stage for the next ten years. Until very now I hated stage after that incident. It became a nightmare for me. I realized what it was felt when people on the stage are welcomed with tomatoes or rotten eggs.

EPILOGUE

I remember that when I was a teenager, I used to spend most of the time in the courtyard. The sun shone at fixed hours in the courtyard. I had started wearing watches a few years earlier. But then I knew the time in averages by looking at the shadow of the sunshine in my courtyard. Our earlier home in the village had a thatch of clay slates baked in furrows. The walls were of sun-baked clay. At the end of the courtyard was the thrashing-ground. After the paddy harvest, every year the place was washed with clay-mixed cow dung. I had spent the splendid hours of my life sitting on a rope cot in the courtyard. It was then that thoughts had come to me. Though my linguistic skills were poor, but my thoughts were unique most of which I had been unable to pen-down then. I envy my own past thoughts now as a writer. I longed to be a writer. A writer who would write to express himself which he cannot do by the power of his voice. A writer who would be known to the world by his writings rather than his face and identity. But I never had the clue that for the decade, I would not be able to write a single poem or piece. I regret at saying this. I had kept myself long enough away from the thing that I had loved the most. Of course it had happened to me more than once that I had sat with pen and paper but had not been able to create a few lines. My thoughts had distracted far away.

I had seen places. I had seen people. I had witnessed great vents. How come it was then that I couldn't write up anything? Whenever I saw stacks of books by authors in the stalls, I envied. I asked myself that whether I can be one of them. Was my fate designed for a destiny that would ever make me an author?

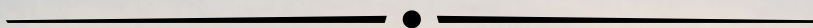
Every time, the answer I had heard from the core of my heart was affirmative. So, I had kept moving on. I had gathered as much as possible. Though I couldn't write anything worthwhile, my thoughts continued to mature. Humble things became important to me. For the last one year, I had observed the growth of a small neem tree near the railway station when

I usually get home from the platform. Earlier its branches were weak. Its leaves were light green. Recently I had seen its leaves turning deep green, its branches growing hard. Moreover it has risen in its height and had also topped me. I had observed all this but it had never occurred to me that it was growing up. A few days ago, I concentrated on the growth of the tree and its height. I also tried to recall what it was a few months earlier. Of course, every regular passerby that path might have seen it but how many of them had bothered to notice and feel the growth same as the tree itself. Then I realized that it was a writer's eye to notice the growth. Therein I had failed all these years!

It is morning. I remember that the mornings have ever been a source of joy to me. The sky is still red. The sun is yellow rather orange and low. The rays are touching the cool earth. I creep out of my bed and stare at the sun. Then I turn around and have my glance at the whole earth. There is silence all around. Birds have already moved out of their nests. For the far a temple hymn seems to fill the air with its nostalgic thrill. This is still not a holiday. I have to get ready. I have to go to work. But here I pause a little. Can't I stop for a while and write this beauty of time in my own lines? Haven't I longed my whole life till now for such moments and such thoughts? Then where is the time to give words to such thoughts. For all these years, I have listened to the whole world. I had listened to my family, my friends, my love, my duty. It was only that I had not listened to the call of my heart, the call of my conscience, the call of my destiny- what I had always wanted to do the most- Write!

I pick my cell phone, give a call to one of my colleagues that I am unwell today and need a leave for a day. Then I hang-up the phone, a bit relaxed. Hastily I take some rough papers and a pen. Then I sit down and stare through the window towards the rising sun. I get lost to my olden days. I start writing down my thoughts.

I choose a name for the thoughts- "The Sunshine in My Courtyard".



Education is not just about acquiring knowledge—it is the foundation for building a more prosperous, equitable, and just society. It is a powerful tool that empowers individuals, drives economic growth, and creates opportunities for social and cultural advancement.

1. Empowering Individuals

Education provides individuals with the skills and knowledge needed to pursue their goals and aspirations. It allows people to understand the world around them, develop critical thinking, and improve their problem-solving abilities. When people are educated, they are better equipped to make informed decisions, contribute meaningfully to their communities, and advocate for their rights.

2. Economic Growth and Development

An educated population is essential for economic development. It equips individuals with the skills needed for jobs in various industries, from technology to healthcare. Countries with higher literacy rates and better educational systems tend to have stronger economies. By investing in education, nations can cultivate a workforce that drives innovation, productivity, and sustainable growth.

3. Promoting Social Equality

Education plays a crucial role in reducing social inequality. By ensuring access to education for all, regardless of gender, race, or socioeconomic background, societies can break the cycle of poverty and promote equality. Educated individuals are more likely to have access to better job opportunities, healthcare, and housing, thus leading to a more just and fair society.

4. Building a Peaceful and Harmonious World

Nelson Mandela recognized that education is the key to addressing conflicts and fostering peace. By teaching tolerance, empathy, and respect for diversity, education helps reduce violence, racism, and prejudice. It promotes understanding among different cultures and backgrounds, paving the way for peaceful coexistence and collaboration.

5. Fostering Sustainable Development

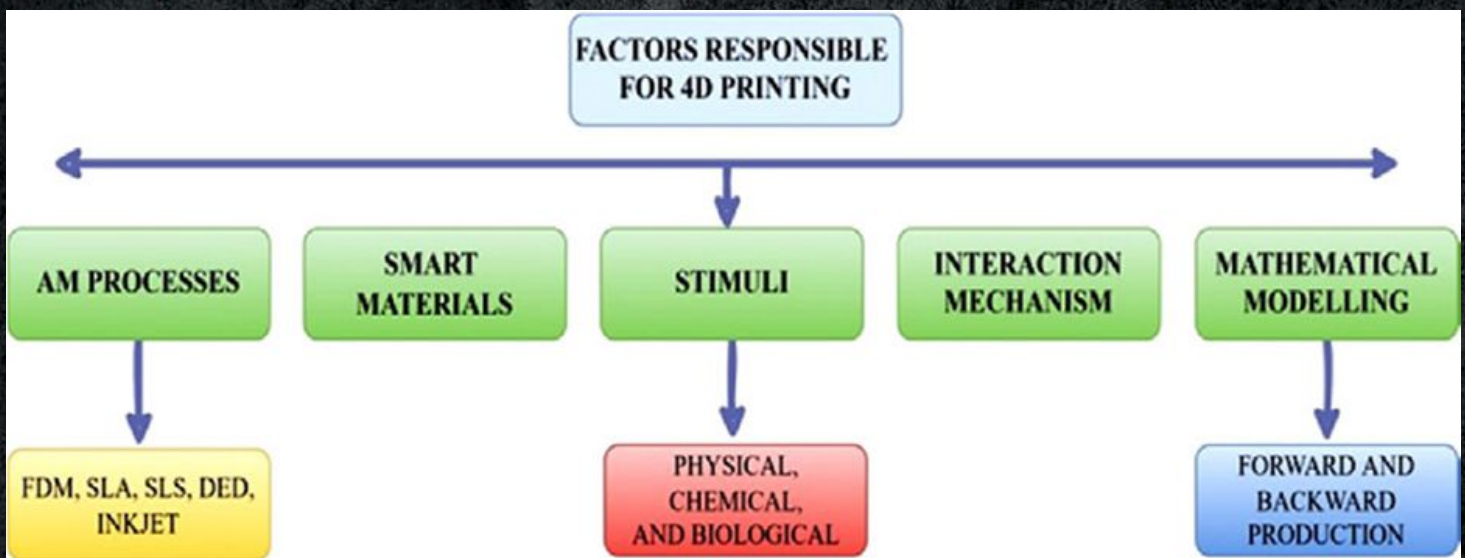
In today's rapidly changing world, education is crucial for promoting sustainability. It helps individuals understand environmental challenges, the importance of preserving natural resources, and the need for responsible consumption. By educating future generations about the importance of sustainability, we can ensure a healthier planet for years to come.

THE SHAPE OF THE FUTURE:

EXPLORING 4D PRINTING TECHNOLOGY

–Dr. Abhijit Bhowmik
HOD, ME DEPT.

In the dynamic world of technology, 4D printing has emerged as a transformative evolution of additive manufacturing (AM). By incorporating time as a fourth dimension, 4D printing introduces the ability for structures to change shape, properties, or functionality after fabrication, responding to environmental stimuli. This leap opens up ground breaking applications across industries like healthcare, aerospace, and soft robotics. Let's delve into how 4D printing is redefining innovation and its implications for the future. 3D printing has been a game-changer, enabling the production of intricate designs with unprecedented precision. However, 4D printing takes it further by utilizing "smart materials." These materials, such as shape-memory alloys and hydrogels, respond to stimuli like heat, light, moisture, or magnetic fields to morph into new configurations. This ability to self-adapt has far-reaching implications for engineering, medicine, and beyond. The term "4D printing" was introduced in 2013 during a TED Talk by Skylar Tibbits. Since then, it has captured the imagination of researchers and industries alike. Unlike static 3D-printed objects, 4D-printed structures have the ability to evolve, repair, or optimize themselves over time.



• Revolutionary Applications

One of the most promising applications of 4D printing is in biomedicine. Soft robotics, designed using smart materials, can mimic the delicate functions of human tissues. For instance, 4D-printed heart valves or brain implants precisely adapt to the body's unique anatomy, minimizing invasive procedures and improving patient outcomes. Additionally, these soft robots have the potential for minimally invasive surgeries, delivering treatments with pinpoint accuracy in challenging environments.

The aerospace industry stands to gain significantly from 4D printing. Lightweight, adaptive components that adjust to temperature or pressure changes can enhance performance while reducing costs. Imagine spacecraft that can self-repair damage from micrometeoroids or adapt their aerodynamic properties for optimal efficiency during missions.

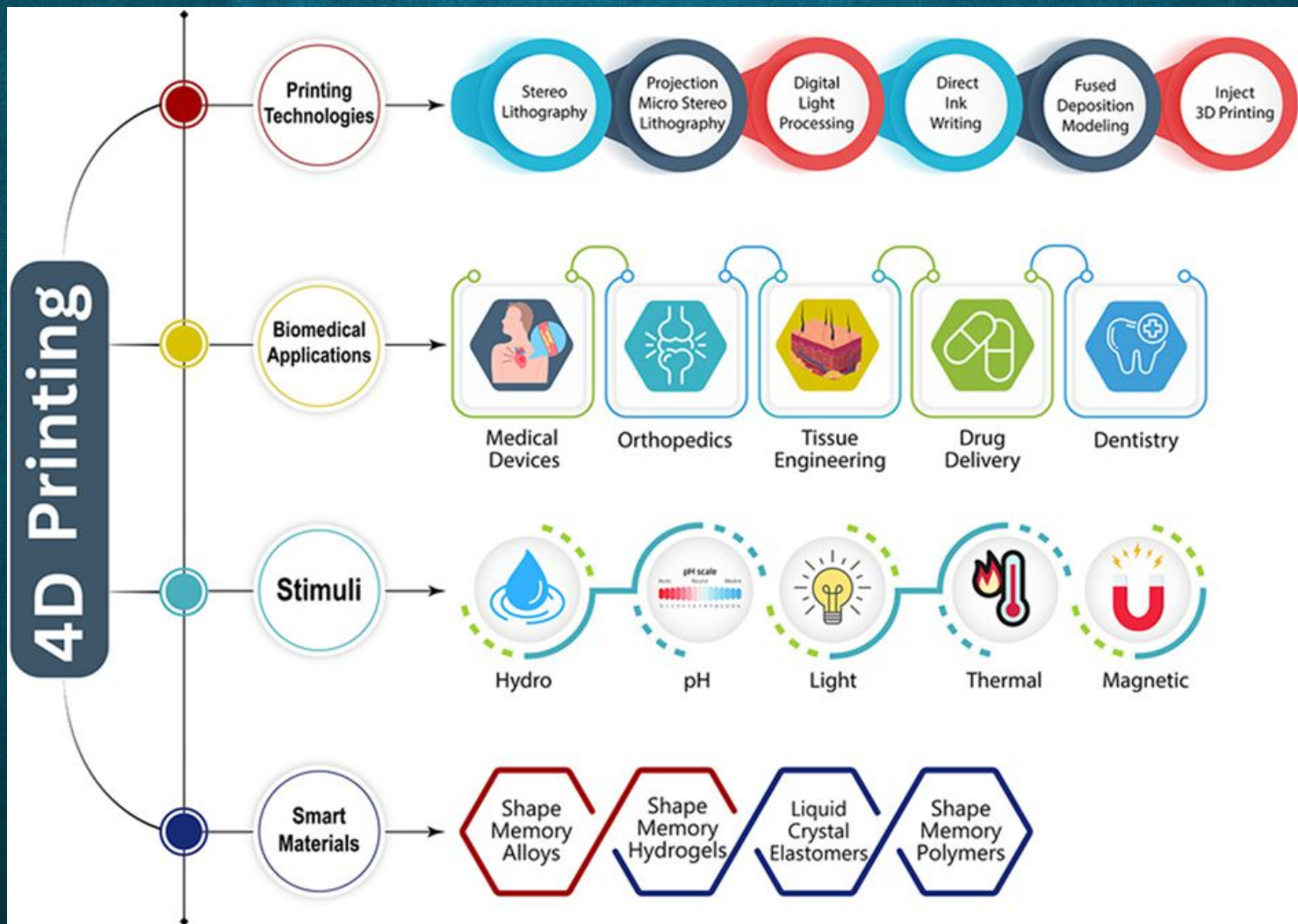
On a smaller scale, consumer products can also benefit. From self-folding furniture to clothing that adjusts to body temperature, the versatility of 4D printing introduces opportunities for customization and sustainability.

- **Challenges on the Horizon**

While the potential of 4D printing is vast, the field is not without obstacles. Key challenges include the limited availability of compatible printers, high costs, and the need for advanced software to simulate complex morphing behaviours. Moreover, questions around the long-term durability and environmental impact of these smart materials remain open for exploration.

- **The Future of Fabrication**

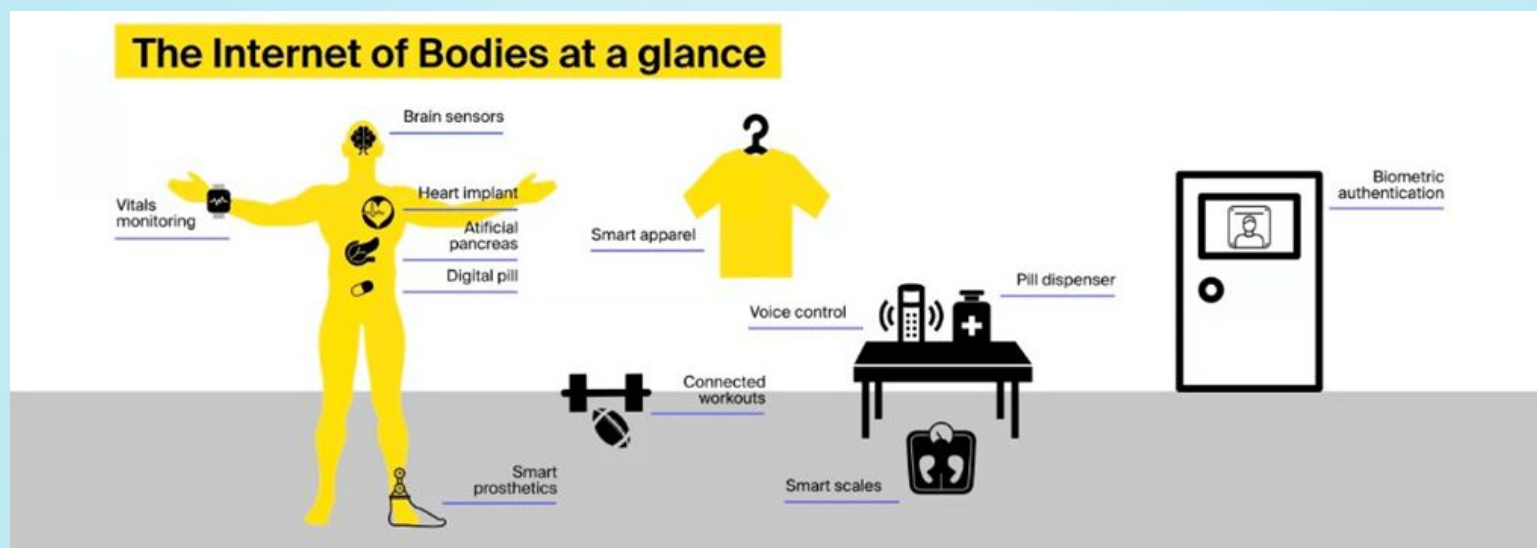
Despite its challenges, 4D printing is set to revolutionize how we think about manufacturing. By blending cutting-edge materials science with digital precision, it has the potential to make structures more efficient, adaptive, and sustainable. As research accelerates, we may soon witness applications that were once the realm of science fiction become part of everyday reality. Whether in healthcare, robotics, or aerospace, 4D printing underscores humanity's drive to innovate and adapt. As this technology matures, it promises not only to reshape industries but also to redefine what's possible in design and manufacturing.



THE FUTURE OF INTERNET OF BODIES

–Mr. Sushovan Roy
Asst. Professor, EE DEPT.

There has been a steady increase in recent years of the 'Internet of Things' (IoT) into the 'Internet of Bodies' (IoB). Recent developments in sensor technology, AI, connectivity and materials science are making possible the progressive connection of the human body to software and hardware that can monitor or alter its function. The Internet of Bodies has the potential to transform a number of different areas of endeavour, from healthcare and sporting achievement to productivity and cognitive performance. The Internet of Bodies proposes the most intrusive possible use of digital technologies. In some cultures, and for some users, these applications may cross a line of social or cultural acceptability.



The Internet of Bodies (IoB) incorporates a wide variety of technologies and devices that can be used to collect data on and alter aspects of the human body. These technologies present a wide range of potential of commercial opportunities and could have a transformative potential in healthcare, in the workplace, in insurance and throughout our daily lives. The phrase 'the internet of bodies' covers three types of devices like First generation 'body-external' devices such as wearables or smart clothes, second generation 'body-internal' devices such as digital pills or artificial pancreases & Third generation 'body-melded' technologies, which blend human and machine to augment human potential. It is generally agreed that IoB devices collect data about the body; contain software and/or computing capability; and can communicate with the internet or an internet-connected device. In the coming years a number of convergent technical developments will make IoB devices more powerful. These include: enhanced chip technology, expanding data storage, and processing capabilities; 'frictionless' sensors that are smaller, more accurate, and non-invasive; improved connectivity, including through the roll-out of 5G; and rapid advances in AI technologies which will improve analysis and decision-making. So, The Internet of Bodies (IoB) is an ecosystem of internet connected devices that monitor the human body and collect personal biometric data. Despite its potential to offer revolutionized medical treatments, improved physical performance, convenience, and even fun, the Internet of Bodies is still an inconsistently regulated space that poses cybersecurity and other risks.

The implications for different sectors include:

In healthcare, they could drive improvement in the quality of medical knowledge and interventions, while enabling more personalized and preventative care, creating new markets and reducing burdens on health services in the process.

In the workplace, they could be used to improve productivity and support employee wellbeing, with the potential to enhance individuals' performance in future.

For the insurance industry, loB technologies should improve risk and liability assessments, create new scope for monitoring and nudging customer behaviours and create space for innovative new business models

However, loB technologies also come with significant risks. These include unprecedented challenges to privacy ,the possibility of physical harm to users and the potential that their use will deepen social inequalities. They also raise questions about individual autonomy, as control over bodies and behaviours is increasingly handed over to algorithms and the organizations that develop them.

Some examples of loB devices are,

Wearable Health Trackers

CONSUMER DEVICE
WEARABLE

Bracelets, watches, rings, and smartphone apps that track steps, heart rate, sleep patterns, and other physical data, such as how much alcohol the wearer consumed.

These devices operate by using advanced accelerometers and other sensors that can translate movement into digital measurements.

Many devices also offer data analytics and displays to provide detailed information in accessible forms.



Attention Monitors

CONSUMER DEVICE
WEARABLE

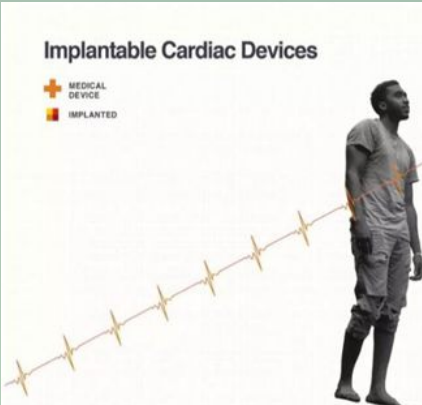
Glasses that use brain activity and eye movements to track attention. They are designed to be used in schools or while driving and provide audio or haptic feedback when they sense the user is inattentive.



Implantable Cardiac Devices

MEDICAL DEVICE
IMPLANTED

Never cardiac pacemakers, implantable cardioverter defibrillators, and ventricular assist devices can provide real-time and continuous information regarding a patient's cardiac fluctuations and enable remote device management to automate technical checks, such as battery status, lead impedance, and sensing or pacing thresholds.



Ingestible Digital Pills

MEDICAL DEVICE
IMPLANTED

In 2017, the FDA approved the first digital pill: aripiprazole tablets with an ingestible sensor embedded in the pill that records that the medication was taken. The system works by sending a message from the pill's sensor to a wearable patch that transmits the information to a mobile app so that patients can track the ingestion of the medication on their smartphones.

Patients can also permit their caregivers and physician to access the information through a web-based portal. Other ingestible digital pills are now available, including oral oncology drugs with a digital sensor to track adherence, dosing, and patient activity levels to develop better dosing regimens for chemotherapies.



Brain-Computer Interfaces

MEDICAL DEVICE
IMPLANTED

BCIs use electrodes that connect signals from the brain to a computer. They may be either implanted in the brain or noninvasive (wearable or attached to the skull).

BCIs under development aim to read and type entire words directly from the brain, or control prosthetic limbs from the mind.



POWER ELECTRONICS APPLICATIONS IN ELECTRIC VEHICLES

-Mr. Sayak Sarkar
Asst. Professor, EE DEPT.

Power electronics are used in electric vehicles (EVs) to control and process electrical energy, which is essential for making EVs more efficient and reducing emissions. Here are some applications of power electronics in EVs:

CHARGING : [1, 2, 3]

Power electronics convert AC voltage from the mains to DC voltage for charging the battery.

MOTOR CONTROL :

Power electronics regulate the amount and frequency of electrical current to the motor, which controls the motor's speed and torque.

LOW-VOLTAGE SYSTEMS :

Power electronics use DC/DC converters to reduce the voltage from the battery to power low-voltage systems like heated seats, mirrors, and climate control.

ENERGY MANAGEMENT :

Power electronics control the flow of energy in both directions, depending on the usage. For example, regenerated energy can be sent back to the utility.

Some components of power electronics include inverters, DC/DC converters, and chargers. Wide band gap(WBG) semiconductors are more efficient and can withstand higher temperatures than silicon components.

Generative AI is experimental

[1] <https://www.energy.gov/eere/vehicles/power-electronics-research-and-development>

[2] <https://cprijournal.in/index.php/pr/article/download/205/192/189>

[3] <https://www.monolithicpower.com/en/learning/mpscholar/power-electronics/special-topics/power-electronic-for-electric-vehicles>

[4] <https://www.exro.com/industry-insights/ev-power-electronics-explained>

[5] <https://www.electropages.com/blog/2024/06/power-electronics-evs>

Power electronics play a crucial role in electric vehicles (EVs) by managing and controlling the flow of electrical energy between various components. Here are key applications of power electronics in EVs:

1. BATTERY MANAGEMENT SYSTEM (BMS)

- Manages charging and discharging of the battery.
- Ensures battery safety, longevity, and efficiency.

2. DC-DC CONVERTERS

- Converts high-voltage battery output to lower voltages for auxiliary systems (e.g., lighting, infotainment).
- Provides stable voltage regulation.

3. INVERTERS

- Converts DC from the battery to AC for electric motors.
- Controls motor speed and torque through pulse-width modulation (PWM).

4. ONBOARD CHARGERS

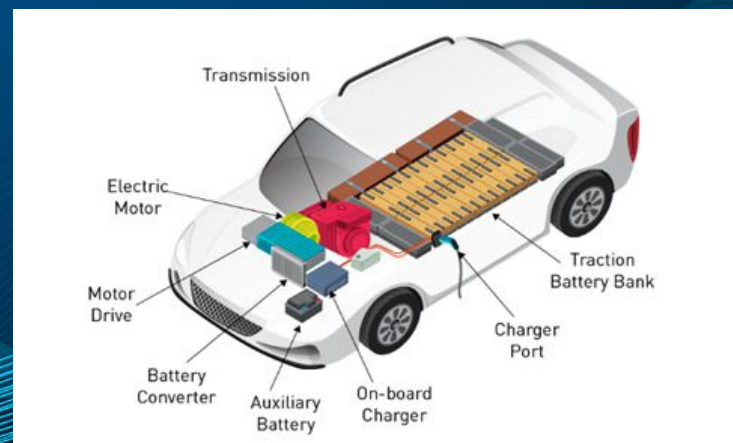
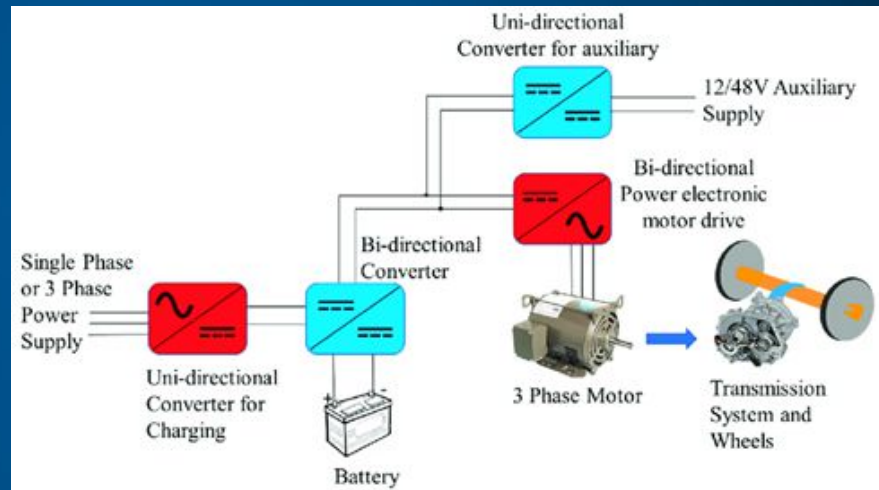
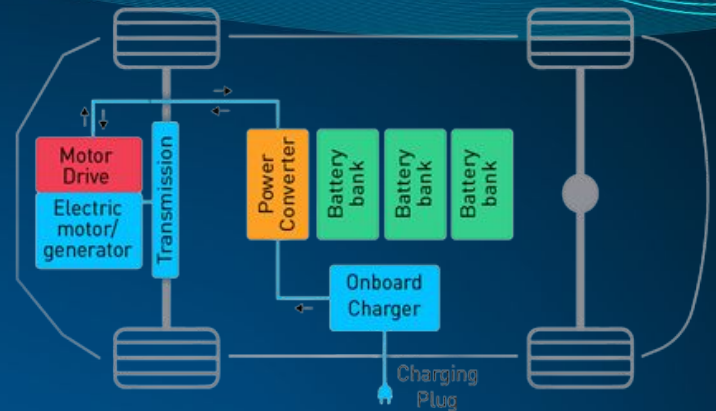
- Converts AC from the grid to DC for battery charging.
- Manages charging profiles to optimize battery life.

5. ELECTRIC DRIVE SYSTEM

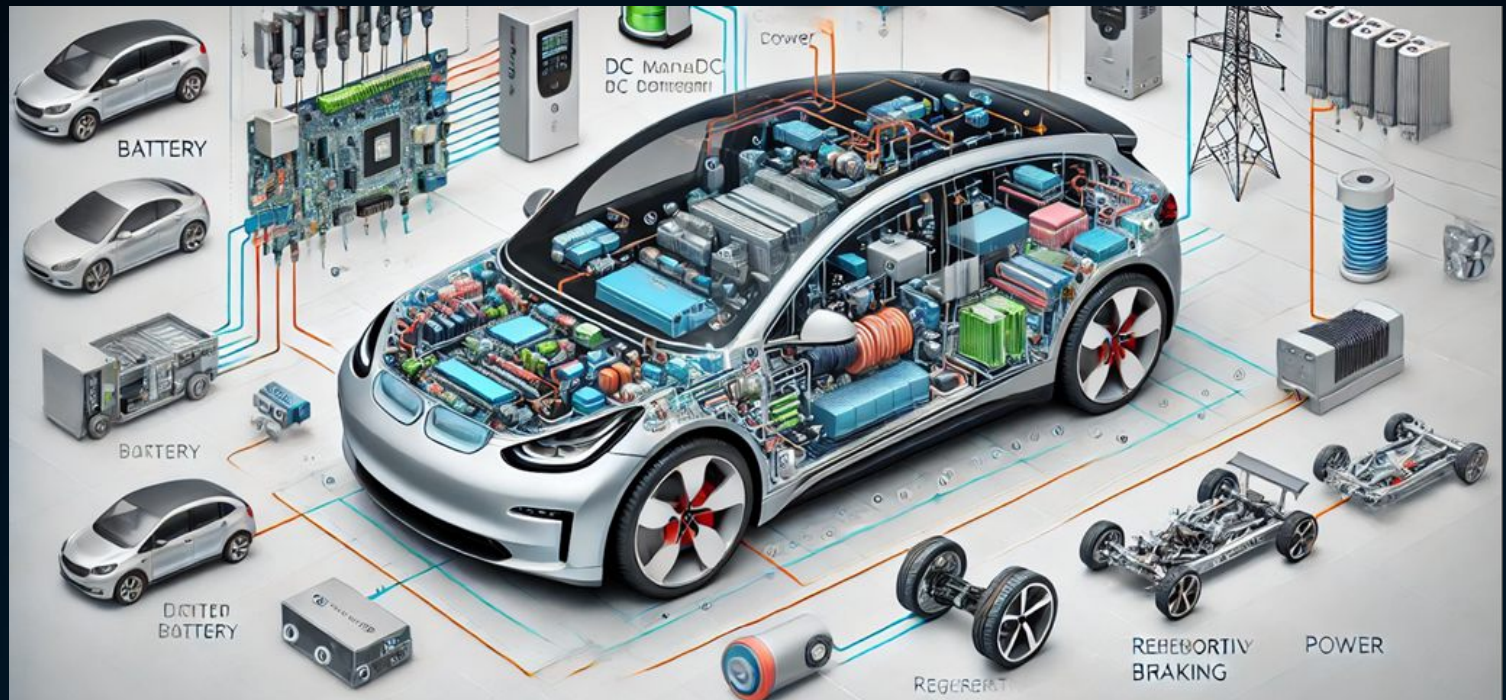
- Comprises motor controllers and inverters.
- Manages power delivery to electric motors for propulsion.

6. REGENERATIVE BRAKING SYSTEM

- Converts kinetic energy during braking into electrical energy.
- Recharges the battery, improving efficiency.



Let me create a detailed illustrative diagram of these power electronics applications in EVs.



Definitions of the key parts of an EV are as follows:

Charging port or vehicle inlet: It is a connector present on the electric vehicle to allow it to be connected to an external source of electricity for charging.

Power electronic converter: A power electronic converter is made of high-power fast-acting semiconductor devices, which act as high-speed switches. Different switching states alter the input voltage and current through the use of capacitive and inductive elements. The result is an output voltage and current, which is at a different level to the input.

On-board charger: It is an AC-to-DC power electronic converter (often referred to as a rectifier) that takes the incoming AC electricity supplied via the charge port and converts it to DC power for charging the traction battery. Using the battery management system, it regulates the battery characteristics such as voltage, current, temperature, and state of charge.

Traction battery pack: It is a high voltage battery used to store energy in the electric car and provide power for use by the electric traction motor.

Battery power converter: It is a DC-to-DC power electronic converter that converts the voltage of the traction battery pack to the higher-voltage of the DC-bus used for power exchange with the traction motor.

Motor drive: It is a DC-to-AC (often referred to as inverter or the variable frequency drive) or at times a DC-to-DC power electronic converter, used to convert power from the high voltage DC bus to AC (or at times DC) power for the operation of motor. The converter is bidirectional for operating in both driving and regenerative braking mode.

Traction electric motor/generator: It is the main propulsion device in an electric car that converts electrical energy from the traction battery to mechanical energy for rotating the wheels. It also generates electricity by extracting energy from the rotating wheels while braking, and transferring that energy back to the traction battery pack.

Transmission: For an electric car, usually a single gear transmission with differential is used to transfer mechanical power from the traction motor to drive the wheels.

Power electronics controller: This unit controls the flow of electrical power in the different power electronic converters in the electric car.

Battery (auxiliary): In an electric drive vehicle, the auxiliary battery provides electricity to start the car before the traction battery is engaged and is also used to power the vehicle accessories.

Case Studies: Implementations and Innovations in EV Power Electronics

In this section, we explore the real-world implementations and cutting-edge innovations in the field of power electronics for electric vehicles (EVs) through a series of case studies.

Case Study 1: Tesla Model S

As a leader in the electric vehicle industry, Tesla has made significant strides in leveraging power electronics to enhance the performance and efficiency of its vehicles. A key aspect of Tesla's power electronics design is the integrated drive unit, which combines an electric motor, power electronic inverter, and gearbox into a single compact module.

Tesla's inverter employs silicon carbide (SiC) power semiconductors. Unlike traditional silicon devices, SiC devices offer lower losses, higher thermal conductivity, and the ability to operate at high frequencies, translating into smaller, lighter, and more efficient systems. Using SiC power semiconductors in the Model S and Model 3 inverters is a game-changer in terms of increasing efficiency, reducing charging time, and extending range.

Case Study 2: Porsche Taycan

The Porsche Taycan, a high-performance electric vehicle, represents another milestone in power electronics. Porsche uses a two-speed transmission on the rear axle, a rare feature in the EV world, which allows for superior acceleration and a high top speed. The control of this two-speed gearbox is heavily reliant on power electronics.

Furthermore, Porsche's Taycan became the first production EV to use an 800V system instead of the more common 400V system. This innovation doubles the voltage and allows for faster charging and less heat generation. Power electronics, such as DC-DC converters and inverters, had to be carefully designed to handle this high voltage level, ensuring safety and reliability while minimizing losses.

Case Study 3: Wireless EV Charging with WiTricity

WiTricity, a tech company, offers an innovative application of power electronics in the form of wireless charging for electric vehicles. Using resonant inductive coupling, a principle based on Faraday's law of induction, power can be transmitted wirelessly from a charging pad on the ground to a receiver on the vehicle. Power electronics are vital in tuning the resonance between the transmitter and receiver and controlling the power transfer.

This technology offers the convenience of cable-free charging and has the potential to be embedded in public infrastructure for seamless charging as the vehicle is parked or even while in motion.

The Need for Artificial Intelligence in Predicting Soil Behavior for Geotechnical Applications

–Mr. Rishav Singh
Asst. Professor, CE DEPT

Geotechnical engineering faces the ongoing challenge of accurately predicting soil behavior under diverse environmental and load conditions. Soil properties, influenced by factors like mineral composition, moisture content, and stress history, exhibit complex, nonlinear characteristics. Traditional methods, relying on empirical formulas and laboratory testing, are time-consuming, costly, and often limited by incomplete data. This case study explores the increasing role of Artificial Intelligence (AI) in addressing these challenges. AI, using advanced algorithms and machine learning, offers a more efficient and precise approach to predicting soil behavior. The study delves into AI applications in geotechnical engineering, their benefits, limitations, and future potential.



Artificial Intelligence (AI) has emerged as a powerful tool in geotechnical engineering, offering data-driven solutions to predict soil behavior. By analyzing large datasets, AI systems can uncover hidden patterns and correlations that traditional approaches might miss. This case study investigates the application of AI in predicting soil

behavior, focusing on its , necessity, advantages, current limitation and potential impact on geotechnical practices.

The Challenges in Predicting Soil Behavior:

1. Complexity and Variability:

Soil behavior is highly nonlinear and affected by numerous intrinsic and extrinsic factors, including stress-strain relationships, permeability, and plasticity. Variations in soil properties across different locations make it difficult to generalize findings from specific case studies or experiments

2. Limitations of Traditional Methods:

Traditional empirical models, based on historical data and assumptions, often fail to account for the vast range of variables influencing soil behavior. Numerical simulations, such as finite element methods, are dependent on accurate input parameters, which are difficult to ascertain. Laboratory tests, although reliable, are time-intensive and may not fully capture in-situ conditions.

1. Data Scarcity and Uncertainty

Geotechnical data collection is costly and time-consuming, leading to limited datasets for analysis. Measurement errors and sampling biases further complicate predictions.

AI in Geotechnical Engineering: An Overview

Artificial Intelligence encompasses various techniques, including machine learning (ML), neural networks (NN), genetic algorithms (GA), and fuzzy logic, which help address the challenges of predicting soil behavior. Key AI approaches in geotechnical engineering include:

1. **Machine Learning Models** : Algorithms like Support Vector Machines (SVM), Random Forests (RF), and Gradient Boosting Machines (GBM) are widely used for soil classification and property prediction.
2. **Artificial Neural Networks (ANNs)**: ANNs mimic human brain functionality to identify nonlinear relationships in complex datasets. They are effective for problems involving multivariate inputs, such as soil strength prediction.
3. **Genetic Algorithms (GA)**: GAs optimize solutions for complex problems by mimicking evolutionary processes, particularly in parameter optimization for geotechnical models.
4. **Fuzzy Logic**: Fuzzy logic systems help address uncertainties in soil behavior predictions by reasoning through imprecise data.

Applications of AI in Predicting Soil Behavior

1. **Soil Classification**: AI models classify soils based on parameters like grain size, Atterberg limits, and specific gravity, significantly improving the accuracy of classifications. Techniques like SVM and RF have achieved high success in Unified Soil Classification System (USCS).
2. **Predicting Soil Strength and Settlement**: AI models accurately predict soil strength parameters such as cohesion and angle of internal friction. They also enhance settlement predictions for foundations and embankments by processing large datasets from past case studies.
3. **Liquefaction Potential Assessment**: AI models assess the potential for soil liquefaction during seismic events, using parameters like cyclic stress ratio and pore water pressure. For example, ANNs can predict liquefaction susceptibility with lower false-positive rates.
4. **Slope Stability Analysis**: Machine learning models predict slope failure probabilities based on factors such as soil strength, geometry, and rainfall. Random Forests and Gradient Boosting Machines have proven effective in identifying critical factors behind landslides.
5. **Soil Permeability Prediction**: AI techniques estimate soil permeability by correlating properties like porosity and particle size distribution. This is vital for drainage system design and groundwater flow evaluation.

Case Studies Highlighting AI's Impact

AI in Foundation DesignIn urban development projects, ANNs were employed to predict the bearing capacity of soils for shallow foundations. This approach reduced the need for extensive testing and provided accurate capacity estimates in real-time.

Landslide Prediction in Mountainous TerrainUsing Random Forest models, a regional government analyzed topographical and meteorological data to create real-time landslide risk maps.

3. Optimization of Soil Improvement Techniques: AI algorithms optimized soil stabilization by selecting effective admixtures and compaction methods tailored to specific site conditions.

Advantages of Using AI in Predicting Soil Behavior

- 1. Accuracy and Reliability :** AI models provide more accurate predictions compared to traditional methods, with the ability to continuously learn and improve.
- 2. Time and Cost Efficiency:** AI reduces both the time and cost associated with soil behavior predictions through automated data analysis.
- 3. Integration of Diverse Data Sources:** AI systems can integrate laboratory, field, and remote sensing data, providing a more comprehensive view of soil behavior.
- 4. Real-Time Predictions:** AI models enable real-time monitoring and predictions, crucial for dynamic environments like construction sites.
- 5. Enhanced Decision-Making:** Data-driven insights assist engineers in making better decisions, reducing risks, and improving safety.

Limitations and Challenges

- 1. Data Quality and Availability:** AI models depend on high-quality datasets, and poor or biased data can lead to inaccurate predictions.
- 2. Interpretability:** Some AI models are “black boxes,” making it difficult to interpret their decision-making process.
- 3. Overfitting Risks:** AI models can overfit to training data, leading to poor generalization on new data.
- 4. Need for Expertise:** Developing AI models requires expertise in both geotechnical engineering and data science.
- 5. Ethical and Legal Considerations:** AI-based decisions in safety-critical applications raise ethical and legal concerns.

Conclusion

Artificial Intelligence is transforming the field of geotechnical engineering by providing more accurate, efficient, and innovative methods for predicting soil behavior. Despite some challenges such as data quality and interpretability, AI holds immense potential to revolutionize soil classification, strength prediction, and more. The continued integration of AI with traditional geotechnical practices promises to improve the reliability of predictions, enhancing infrastructure development in a sustainable and resilient manner.

THE SQUEEZED MIDDLE: HOW INDIA'S TAX SYSTEM IS HURTING THE MIDDLE CLASS IN 2025

Mr. Arijit Ghoshal
CSE , 3rd year

As the Indian economy continues to grow and develop, the middle class has emerged as a significant driver of consumption and economic activity. However, despite their growing importance, the middle class in India is facing significant challenges, particularly when it comes to the tax system. In this article, we will explore how the Indian tax system is affecting the middle class in 2025 and why urgent reforms are needed to address their concerns.

-The Middle Class Conundrum:

The middle class in India is a diverse group, comprising individuals and families with incomes ranging from ₹5 lakhs to ₹50 lakhs per annum. They are the backbone of the Indian economy, driving consumption, savings, and investment. However, despite their importance, the middle class is facing significant challenges, particularly when it comes to taxation.

-Taxation Burden:

The Indian tax system is complex and multi-layered, with multiple taxes and levies imposed on individuals and businesses. For the middle class, the taxation burden is particularly severe. Here are some of the key taxes and levies that affect the middle class:

-Income Tax:

The middle class is taxed on their income, with tax rates ranging from 5% to 30%. However, the tax slabs are narrow, and the tax rates are high, resulting in a significant tax burden.

- Goods and Services Tax (GST):

GST is a consumption-based tax levied on goods and services. While GST has simplified the tax system, it has also led to higher prices for many essential items, affecting the middle class disproportionately.

- Other Taxes and Levies:

In addition to income tax and GST, the middle class also pays other taxes and levies, such as property tax and municipal taxes.

-Impact on the Middle Class:

The taxation burden on the middle class has significant implications for their financial well-being. Here are some of the key impacts:



– Reduced Savings:

The high taxation burden and increased cost of living reduce the savings of the middle class, making it difficult for them to achieve their long-term financial goals.

– Reduced Investment:

The high taxation burden and reduced savings also reduce the investment capacity of the middle class, affecting their ability to create wealth and achieve financial security.

Reforms Needed:

To address the concerns of the middle class, urgent reforms are needed in the Indian tax system. Here are some of the key reforms that are required:

– Rationalization of Tax Slabs:

The tax slabs need to be rationalized to reduce the taxation burden on the middle class. This can be done by increasing the tax exemption limit and reducing the tax rates.

– Simplification of Tax Laws:

The tax laws need to be simplified to reduce complexity and compliance costs. This can be done by reducing the number of tax laws and regulations and introducing a single, unified tax code.

– Reduction in GST Rates:

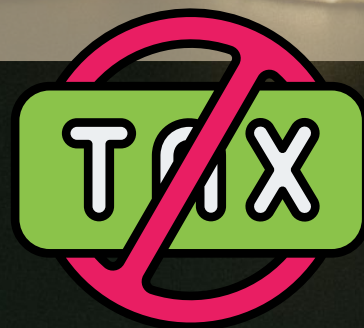
The GST rates need to be reduced to reduce the cost of living for the middle class. This can be done by reducing the GST rates on essential items and increasing the tax exemption limit.

– Increase in Tax Exemption Limit:

The tax exemption limit needs to be increased to reduce the taxation burden on the middle class. This can be done by increasing the tax exemption limit to ₹5 lakhs or more.

Conclusion

The middle class in India is facing significant challenges due to the taxation burden. The high taxation burden, increased cost of living, and reduced savings and investment capacity are affecting their financial well-being and ability to achieve their long-term financial goals. Urgent reforms are needed in the Indian tax system to address the concerns of the middle class. By rationalizing tax slabs, simplifying tax laws, reducing GST rates, and increasing the tax exemption limit, the government can reduce the taxation burden on the middle class and promote economic growth and development..



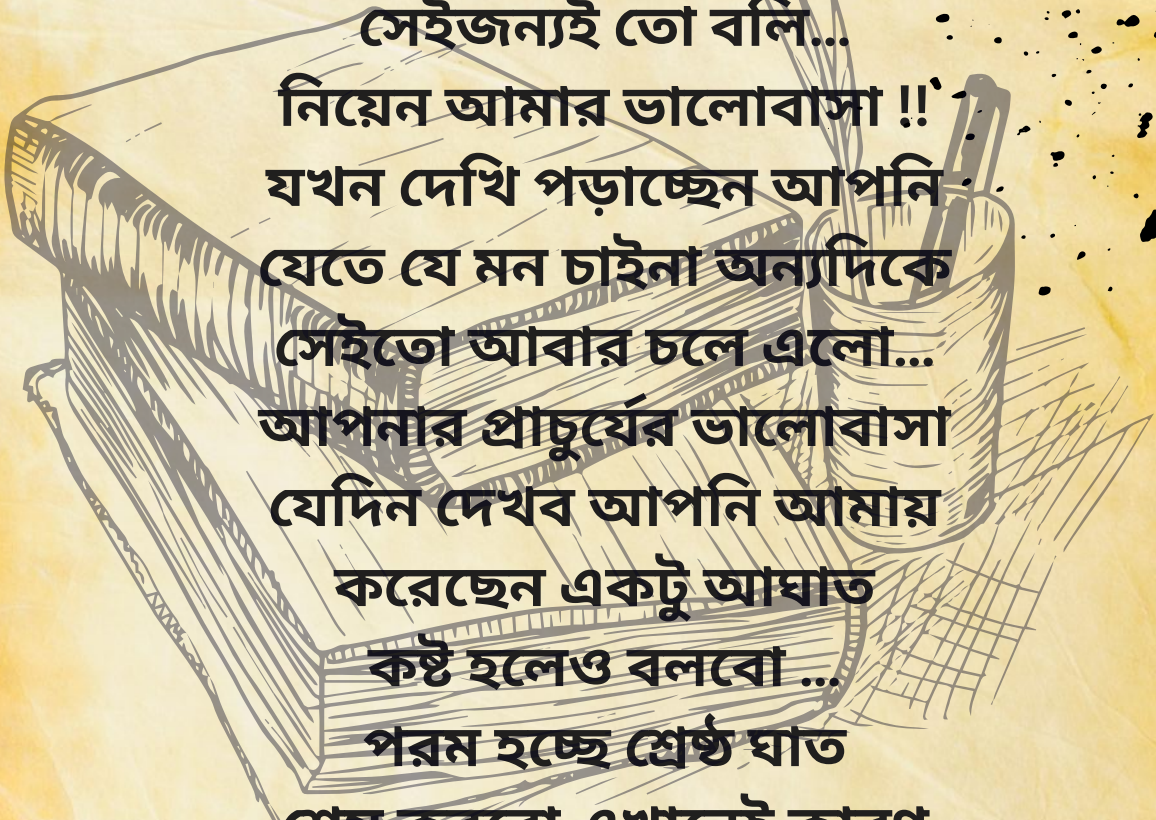
POEMS

কবিতা



প্রিয় শিক্ষকের জন্মদিন

আপনার এই জন্মদিনে
জানাই আমি শুভেচ্ছা
তারই সঙ্গে দেবো আমি
মন ভরা ভালোবাসা...
আপনি যদি না থাকতেন
মিটতো না পড়ার আশা...
সেইজন্যই তো বলি...
নিয়েন আমার ভালোবাসা !!
যখন দেখি পড়াচ্ছেন আপনি
যেতে যে মন চাইনা অন্যদিকে
সেইতো আবার চলে এলো...
আপনার প্রাচুর্যের ভালোবাসা
যেদিন দেখব আপনি আমায়
করেছেন একটু আঘাত
কষ্ট হলেও বলবো ...
পরম হচ্ছে শ্রেষ্ঠ ঘাত
শেষ করবো এখানেই কারণ
আরো আছে আপনার ক্লাস ...
পড়তে লাগলে তো শেষ হয় না
আমার মনের মধ্যে লেখা পঁচা !



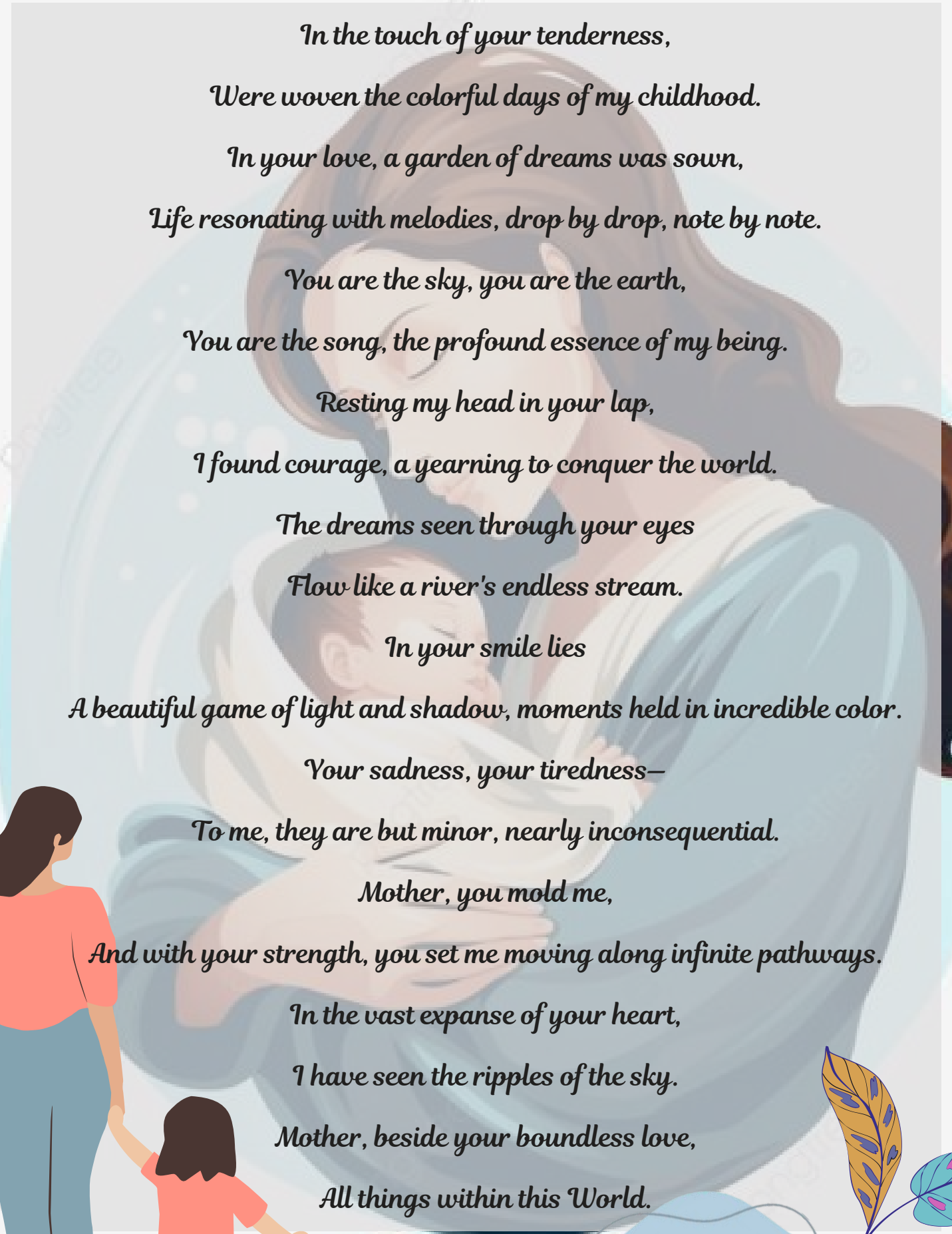
~ Parambrata Saha
1st year, CSE Dept.

বন্ধু

দেখেছি তাকে অনেক দিন পরে,
সে আমার প্রিয় বন্ধু
তাকে দেখলাম অনেক দিন পরে
চিনতে পারল না, চলে গেল...!
দাঁড়িয়ে থাকলাম পথের বীরে
আমিও কিছুক্ষন পর চলে এলাম,
ভাবিনী তার সাথে আবার দেখা হবে।
থাক....., সে না চিনতে পারলেও
আমি তো পেয়েছি তাকে চিনতে।
এই নিয়েই বসে রইলাম, ভাবলাম!
আবার কবে দেখা হবে?
বন্ধু ছিল আমার প্রানের অন্তর।
জানিনা....!
কবে হয়ে গেল সে দেশান্তর।
মনের মাঝখানে তাকে শুধু আটকে রেখেছি, বাস্তবে সে কিন্তু নেই
আমার কাছে।
বোধ হয়গেছে ভুলে।
আমি তো আর যায়নি তাকে ভুলে.....!
সে যেমন আমায় ভুলে গেছে এই ফাঁকে।
আমি জানতাম বন্ধু মানে,
কখনোই যায় না ছেড়ে,
কিন্তু
এ আমায় ফেলে গেল এক ফাঁকা সমুদ্রের পাড়ে।
খুবই অদ্ভুত এই পৃথিবী
এরকমটা হবে কখনোই আবার,
কিন্তু বন্ধু আমার; আমার কাছে
এখনো প্রিয় আছে।

~ Debnath Jana
1st Year, CSE Dept.

Mother: The Infinite Embrace of Love



In the touch of your tenderness,
Were woven the colorful days of my childhood.
In your love, a garden of dreams was sown,
Life resonating with melodies, drop by drop, note by note.
You are the sky, you are the earth,
You are the song, the profound essence of my being.
Resting my head in your lap,
I found courage, a yearning to conquer the world.
The dreams seen through your eyes
Flow like a river's endless stream.
In your smile lies
A beautiful game of light and shadow, moments held in incredible color.
Your sadness, your tiredness—
To me, they are but minor, nearly inconsequential.
Mother, you mold me,
And with your strength, you set me moving along infinite pathways.
In the vast expanse of your heart,
I have seen the ripples of the sky.
Mother, beside your boundless love,
All things within this World.



~ Sanchita Roy
1st Year, CSE Dept.

DREAM INSTITUTE OF TECHNOLOGY

TECH
NOW MAGAZINE **Z**

PhotoGrapHs



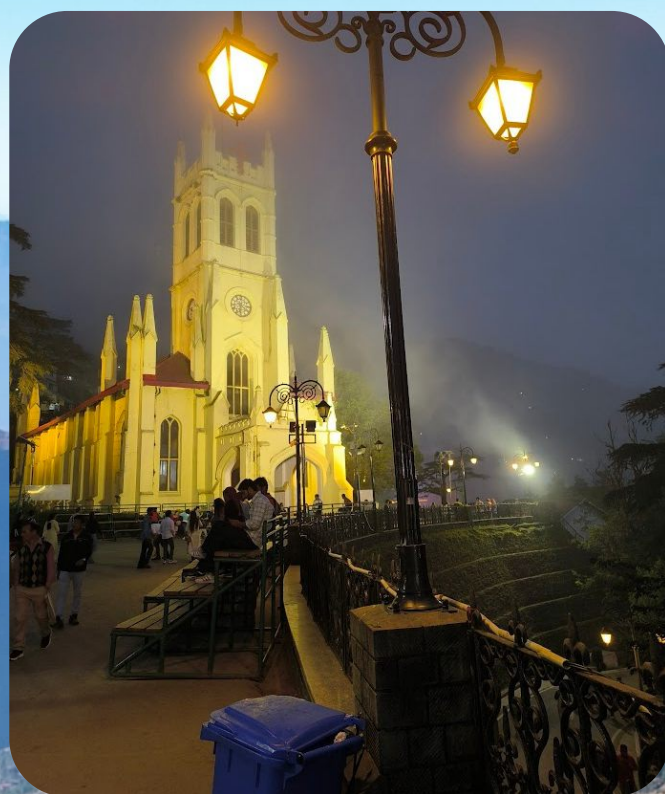
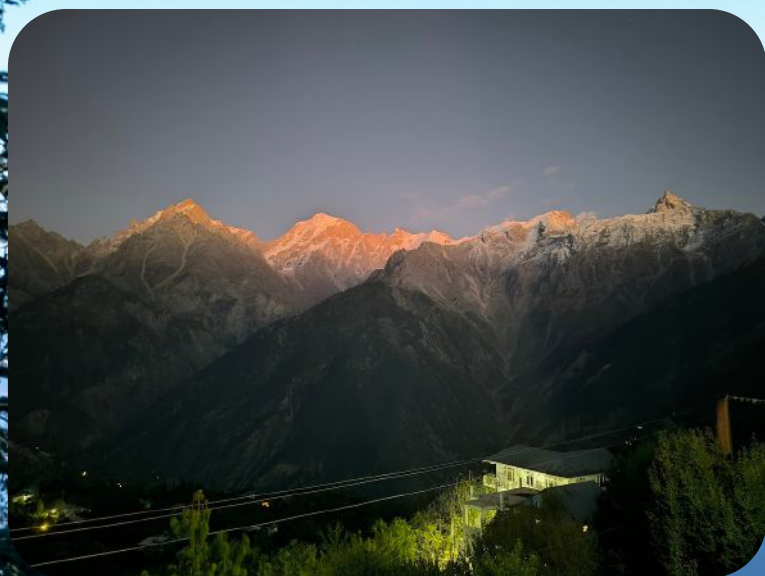
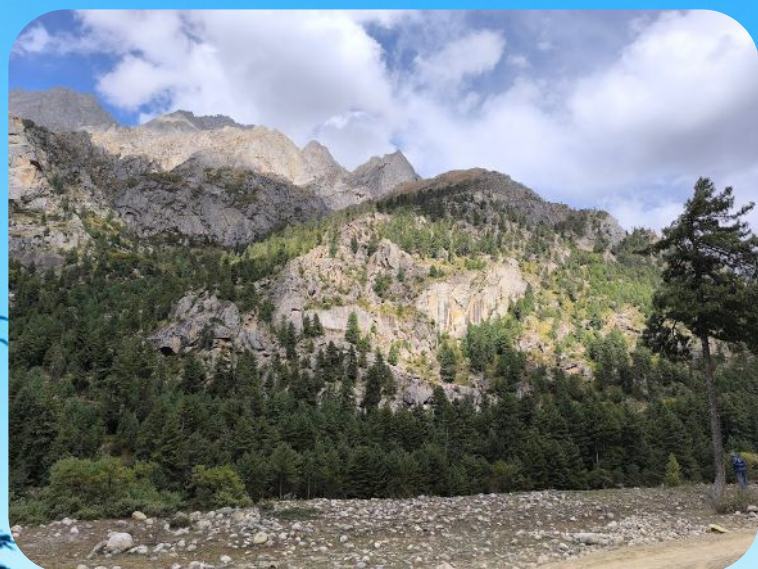
EVERY PHOTO HOLDS IT OWN STORY



Mr. Sayak Sarkar

Asst. Professor , EE Department

MOUNTAINS, CITYSCAPES, ARCHITECTURE, AND NATURE IN STUNNING VIEWS.



Scenic views capturing landscapes and vibrant skies.



MR. ADITYA RAJ
2ND YEAR, CSE DEPT.



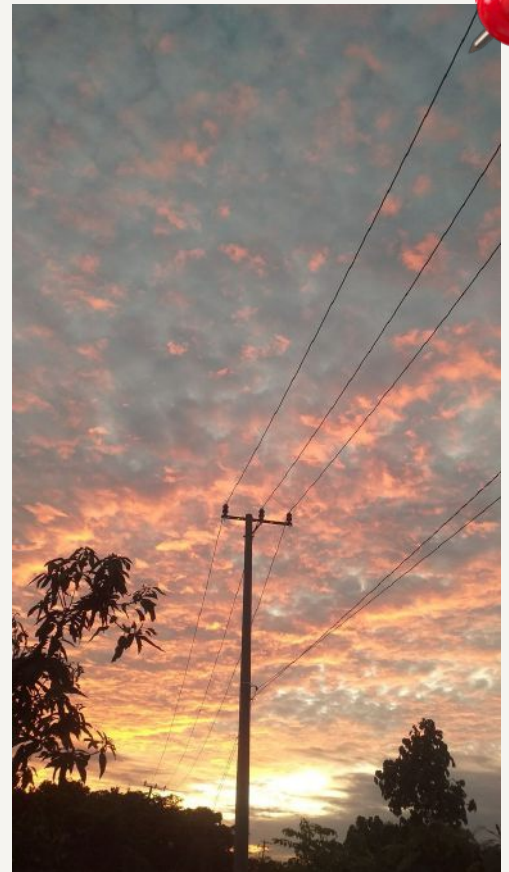
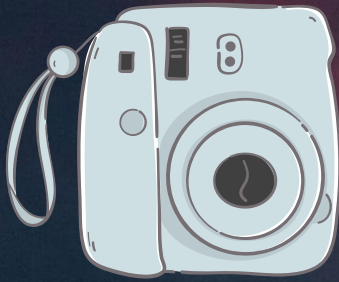
PHOTOGRAPHS

📍 JAMSEDHPUR

MS. AKRITI LAL

2ND YEAR

CSE DEPARTMENT



Symphony of calmness.



A beautiful sunset sky with vibrant clouds and utility poles.



NAME- Mr. Gourab Samanta
DEPT-CSE
1ST YEAR



Howrah Bridge in Kolkata is a cantilever bridge over the Hooghly River, opened in 1943. Made of riveted steel without bolts, it was designed by Rendel, Palmer and Tritton with Sir Ralph Freeman and built by Braithwaite, Burn & Jessop.

DREAM INSTITUTE OF TECHNOLOGY

ARTWORKS

PAINTING

DRAWING

SKETCH



Mr. Pritam Paul, CSE 1st YEAR



"Radiance of Peace"

A serene depiction of Lord Buddha, radiating calm and wisdom, with vibrant hues and blooming lotuses symbolizing enlightenment and spiritual awakening.

"Grace in Every Hue"

A soulful portrayal of a traditional Bengali woman, her expressive eyes and vivid colors capturing the depth of emotion and cultural essence.



Mr. Daipayan Das
CSE Department
1st YEAR

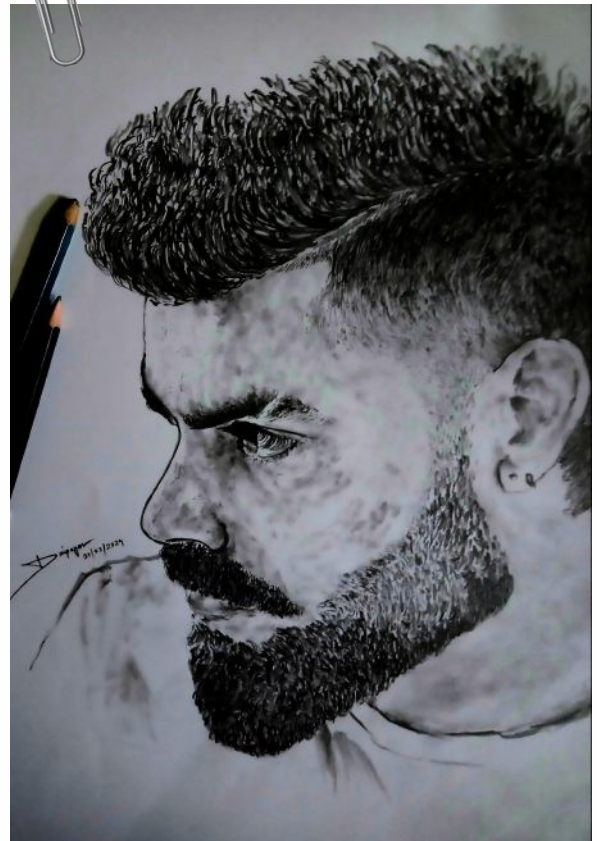


Tearful eye reveals deep emotion.

SKETCH



Sushant Singh Rajput
by Mr. Daipayan Das



Virat Kohli
by Mr. Daipayan Das



Chester Bennington
by Mr. Daipayan Das



Cillian Murphy(Thomas Shelby)
by Mr. Daipayan Das

PAINTING & DRAWING



A serene waterfall cascades into a tranquil pool, framed by vibrant cherry blossoms and moss-covered rocks.

Ms. Sneha Sardar
CSE, 1st YEAR

A graceful line art depiction of Lord Krishna exudes divine serenity and cultural elegance.

Ms. Aishwarya Banerjee
CSE, 1st YEAR



SKETCH



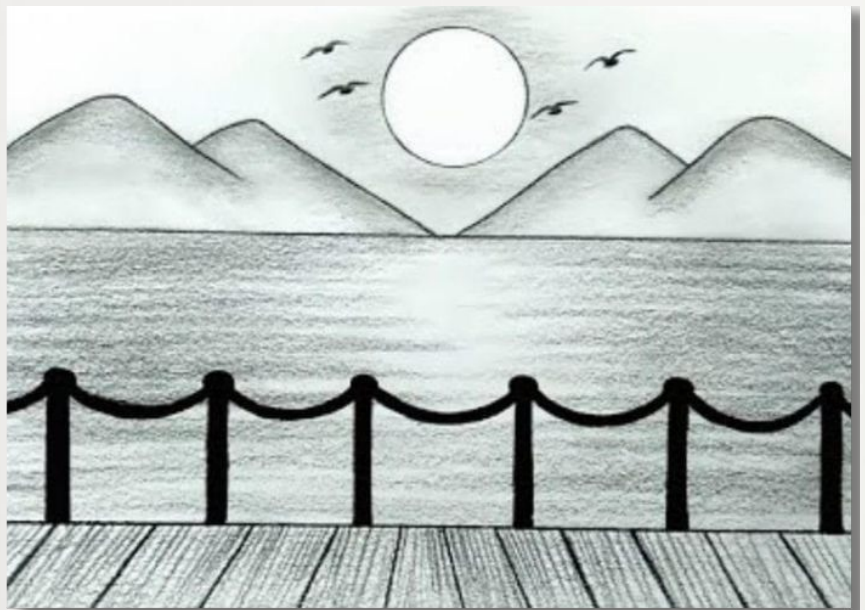
Blue eye dripping with emotion, mystery, sadness, and artistic depth.

**Ms. Ananya
Deshmukh
CSE , 2nd YEAR**



Sunset view with mountains, birds, calm water, and wooden deck. 🌅🌊

**Ms. Sanchita
Roy
CSE , 1st YEAR**



SKETCH

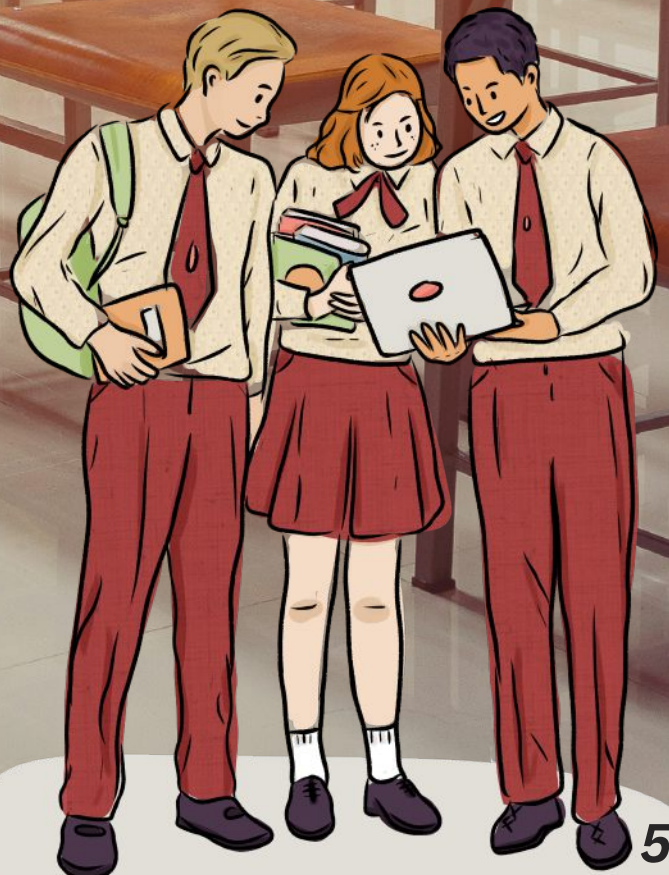
Ms. Rukshanda Khan, CSE 2nd YEAR



Graceful hand sketch with butterfly, stars, and dreamy elegance. ✨🦋



CLASS REPRESENTATIVES





ISHIKA SEN

2nd year



FARHAN KHAN



FALGUNI MONDAL

3rd year



ARIJIT GHOSHAL



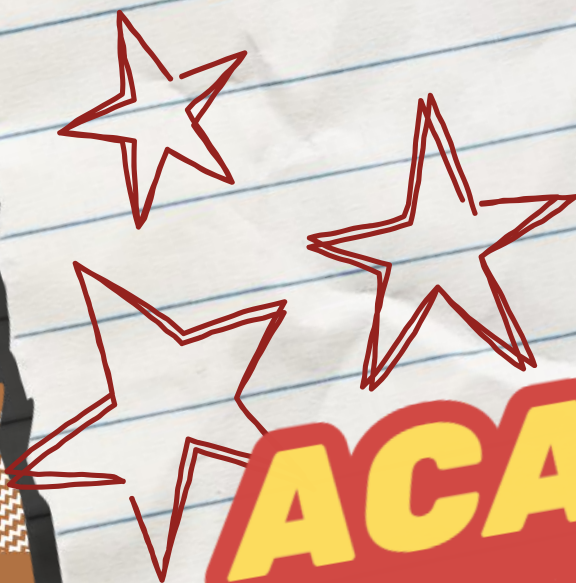
ANKITA PAL

4th year

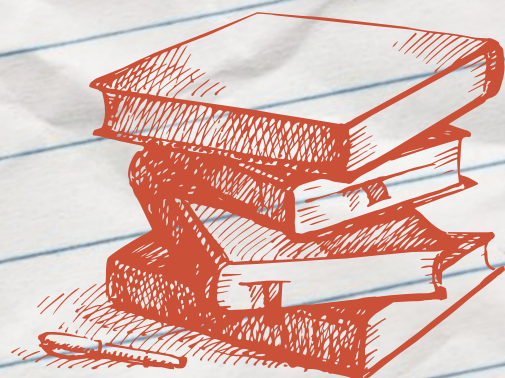


MOINAK CHATTERJEE

**DREAM INSTITUTE OF
TECHNOLOGY**



**ACADEMIC
TOPPERS**



1st Year

CSE Department



1st Year

ECE Department



2nd Year

1st



RUKSHANDA KHAN

2nd



ISHIKA SEN

3rd



FIZA MIRZA

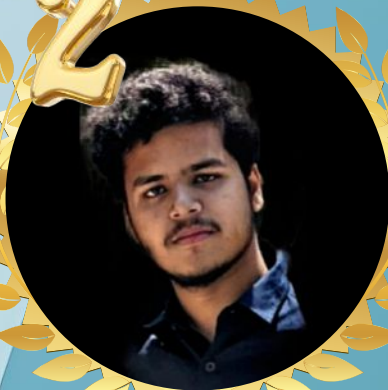
3rd Year

1st



FALGUNI MONDAL

2nd



ARIJIT GHOSHAL

3rd



SOHAM BAG

4th Year



1st



ANKITA PAL

2nd



JUI DEY

2nd



**MOINAK
CHATTERJEE**

3rd



ANKAN GHOSH

3rd



**NIKHAT
PARWEEN**

3rd



**RUDRASOM
SHEE**



2024-2025 Events



4 - 5
OCT

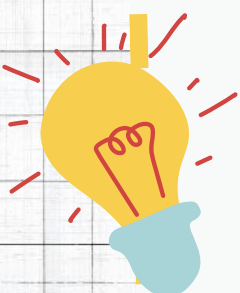
NIRMITI, 2024

22
NOV

FIT INDIA MOVMENT

21 - 1

TECHCAMP ON GOOGLE
ANDROID DEVELOPMENT



FEB-MAR

29

IGNITEX 1.0

JAN

04

KRIDA 2025

FEB

4-8

AI & SIGNAL PROCESSING
WORKSHOP

MAR

12

MERN STACK WORKSHOP

MAR

17 - 22

FACULTY TRAINING

MAR

NIRMITI Start up Conclave, RERF

Regent Education & Research Foundation Group of Institution presents "NIRMITI", 2024 START-UP CONCLAVE



FIT INDIA MOVEMENT



Android Development Certification Program

Eduskills Tech Camp on Google Android Developer hosted by Dream Institute of Technology



Dream Institute of Technology Shines at Ignitex 1.0

Students from 4th year participated in Ignitex 1.0 AI, a tech fest presented by International Management Institute Kolkata & bagged the 1st prize

RP - Sanjiv Goenka
Group
Growing Legacies

Ignitex 1.0

IMI
KOLKATA

WINNERS: INNOVATE X



Team Name- The Naturals

Participants: Moinak Chatterjee, Subhankar Ghosh, Champak Ray, Bittu Bera



KRIDA 2025

(ANNUAL SPORTS)



AI & Signal Processing Workshop

A Short-Term Training Program on 'In-depth understanding of how AI and ML are transforming the field of signal processing.'



FULL STACK DEVELOPMENT

One Day Workshop on Startup with FULL STACK DEVELOPMENT using MERN



FACULTY DEVELOPMENT PROGRAM

AICTE ATAL Eduskills Faculty Development Program on Microchip
Embedded Systems Developer.



VOTE OF THANKS



Ladies and Gentlemen,

As we draw the curtains on this vibrant journey of our college e-magazine, it is my privilege to extend our deepest gratitude to all those who made this endeavor a grand success.

First and foremost, I would like to express our heartfelt thanks to our Principal, for his unwavering support and encouragement. Your visionary guidance has been the cornerstone of this project.

A special thanks to our esteemed faculty members who contributed their valuable time and insights, enriching the content with their wisdom and expertise. Your contributions have been immensely valuable and inspiring.

To our editorial team, Mr. Sayak Sarkar and all the diligent editors, writers, and designers, your creativity and dedication have brought this e-magazine to life. Your hard work behind the scenes is truly commendable, and this success belongs to you.

We are also grateful to the technical team who ensured that our e-magazine was flawlessly executed and accessible to all. Your technical prowess and problem-solving skills were crucial in making this a seamless experience.

Our deepest appreciation goes to the contributors, both students and alumni, whose articles, stories, and artwork filled the pages with color, knowledge, and emotion. Your talents and voices have made this publication a rich tapestry of ideas and perspectives. To the readers, thank you for your enthusiastic reception and engagement. Your feedback and support have been our motivation, and we are committed to continuously improving and delivering content that resonates with you.

Last but not least, we extend our gratitude to everyone who supported this initiative in any capacity. Your belief in this project has been our driving force.

As we look forward to many more editions, let us continue to nurture this platform of creativity, expression, and learning. Thank you all once again for your invaluable contributions and support.

Warm regards,

Mr. Sayak Sarkar
Editor-in-Chief
Dream Institute of Technology

Thank You