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## ENGLISH SECTION

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### **ENGLISH SECTION**

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## LIBRARY USAGE ANALYSIS

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Central Library, CIT Kokrajhar



**Introduction:** I am Biswajit Paul, a Library Information Assistant and an LIS professional presenting an analysis paper on Library Usage for One (01) Year (01<sup>st</sup> February 2023 to 31<sup>st</sup> January 2024). I am confident that this paper will be the first-ever analysis paper that is going to be published publicly.

Central Library, CIT Kokrajhar is a technically developed Library where 70% of the functions are involved technically with the help of WEB 3.0, SOUL 2.0, and RFID technology. Every transaction of the system is recorded digitally. Therefore, analysing of a periodic usage report shows the real outcome of the development.

Below, a working module of the sections and analysis are discussed. I believe that this analysis study will show you the real usage of the library.

### Technology/Platform Using in the Library



RFID



SOCIAL MEDIA



Website/Portal



GOVT PROJECTS



SELF REPOSITORY



SUBSCRIBED

### Which technology/platform is used in which function of the library?

Library Functions	RFID	SOUL 2.0	SOCIAL MEDIA	WEBSITE	GOVT PROJE CTS	SELF REPOSI TORY	SUBSCRIBED PLATFORM	3 <sup>rd</sup> PART Y APPS
<i>Budget</i>		✓						✓
<i>Acquisition</i>		✓						✓
<i>Circulation</i>	✓	✓						
<i>Cataloguing</i>		✓		✓				
<i>Attendance</i>	✓							
<i>Membership</i>	✓	✓		✓				
<i>Repository Management</i>	✓	✓		✓	✓	✓	✓	✓
<i>Communication</i>			✓	✓				✓
<i>*CAS</i>			✓	✓				

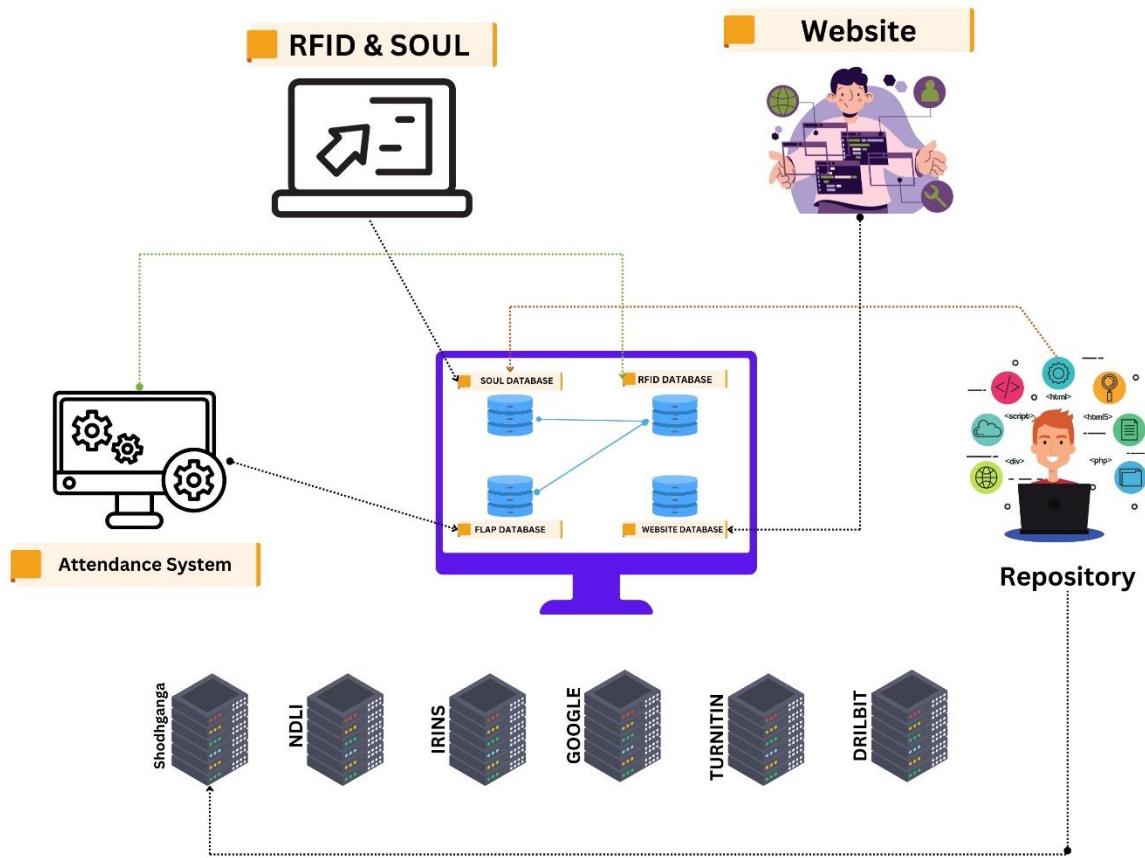


<i>Data Store</i>	✓	✓		✓	✓	✓		
<i>Fee/Transactions</i>		✓		✓				
<i>Printing Service</i>								✓
<i>Plagiarism</i>				✓	✓		✓	✓
<i>Security</i>	✓	✓		✓		✓		✓

\*CAS: Customer Awareness Programme.

## Library System Architecture

Let us see the architecture diagram which describes the connections among the different systems of the library. All the modules define their different role and play different roles to fulfil the main objectives of the library.



## Analysis and findings:

### Different Platforms, Functions and Usage Statistics:

- RFID & SOUL 2.0**

SOUL 2.0 implemented by INFLIBNET is a Library Management System (LMS) tool that provides a number of solutions for a Library like Budget, Acquisition, Cataloguing, Opac, Membership, Repository Management, and Circulation. SOUL 2.0 was installed

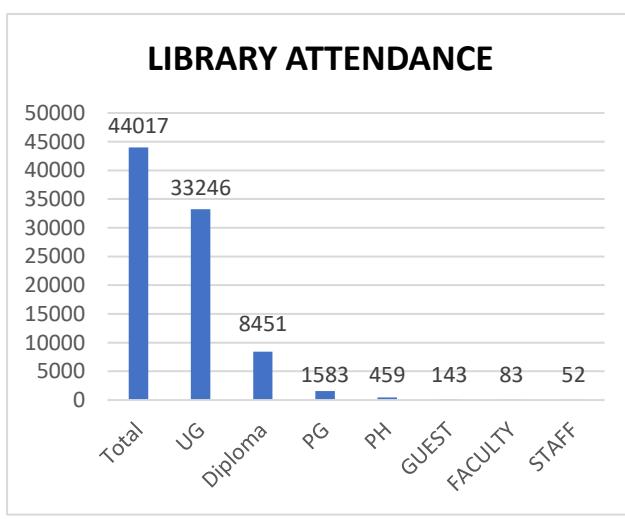


in the year of 2013. To be said SOUL 2.0 is the main heart of the library which stores and accumulates data on its database.

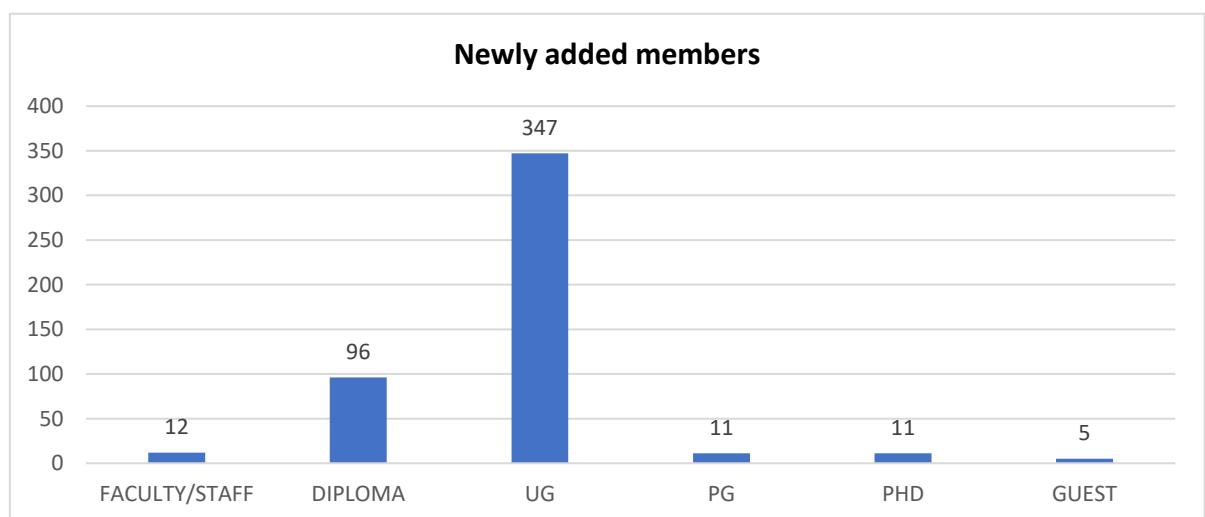
RFID is a technology used in Library Systems to track and monitor print resources like books, magazines, theses, reports, etc. RFID helps in easy asset tracking of the books, easy issue-return, and easy monitoring of the books. Due to use of the RFID, books cannot be easily lost, are Not required to stand in a queue for circulation, and Easy smart card system. It has several benefits in library systems.

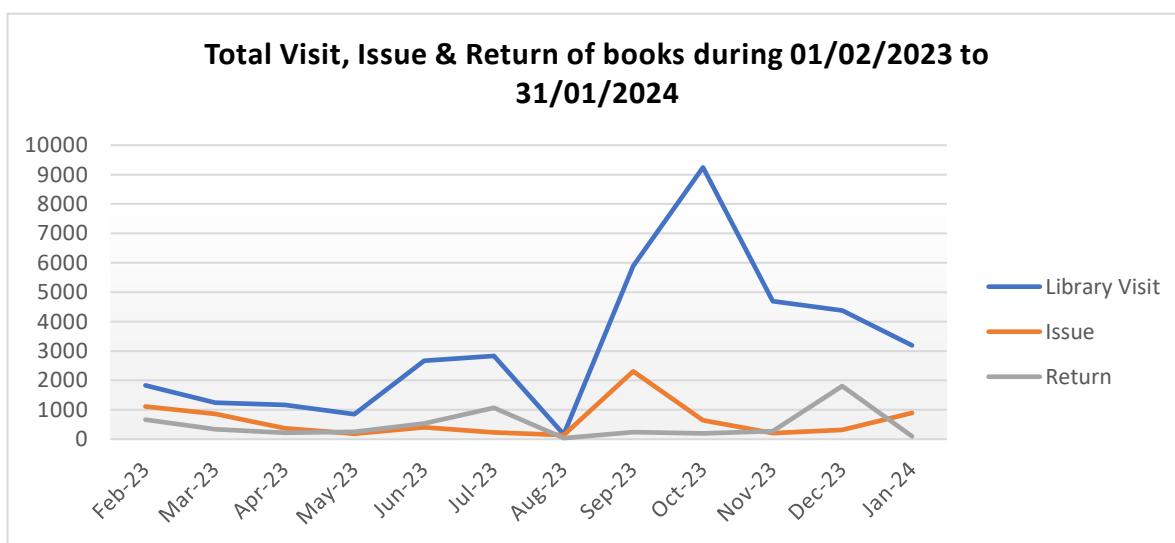
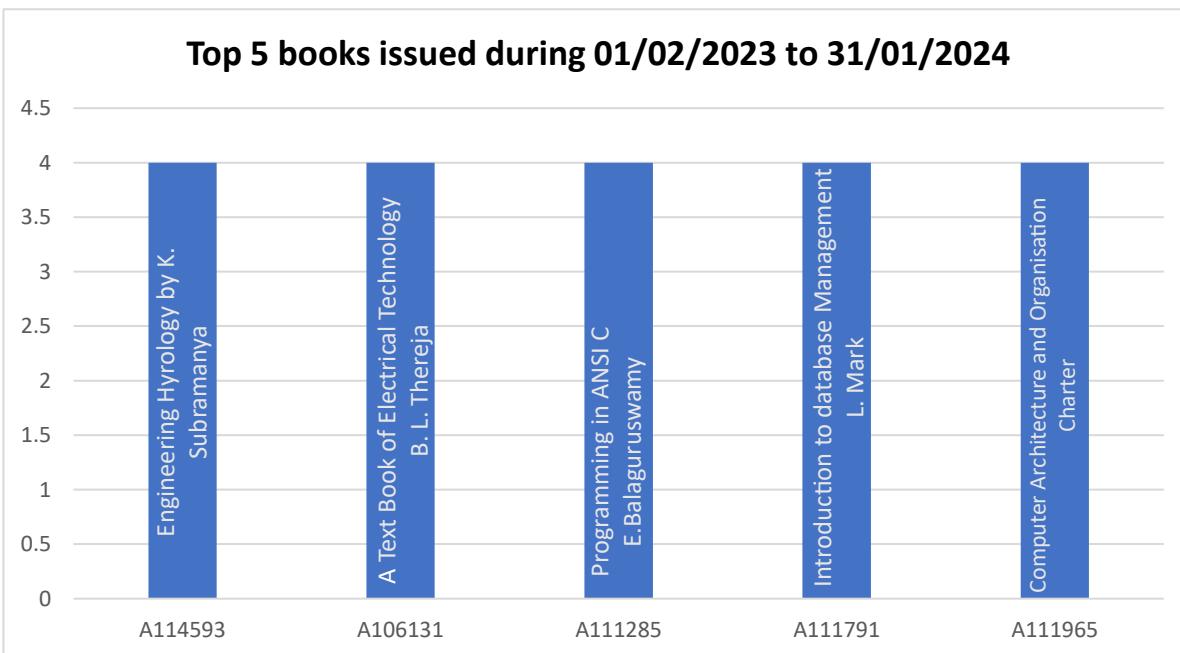
Central Library also installed a Flap barrier gate to track daily usage of the library. Every user is issued a RFID-enabled smart card. This card helps us to get entry-exit in the library. Generally, this attendance system is handy for a library to get the real users of the library.

**\*\* During analysis, date considered as 01<sup>st</sup> February 2023 to 31<sup>st</sup> January 2024 (One Year)**



Top 3 users	
	<b>Barnil Das</b> 202202031031, BTech, ECE <b>Total entry: 309</b>
	<b>Antaripa Das</b> 202002012073, BTech, CE <b>Total entry: 287</b>
	<b>Rinima Kalita</b> 202002012074, BTech, CE <b>Total entry: 279</b>



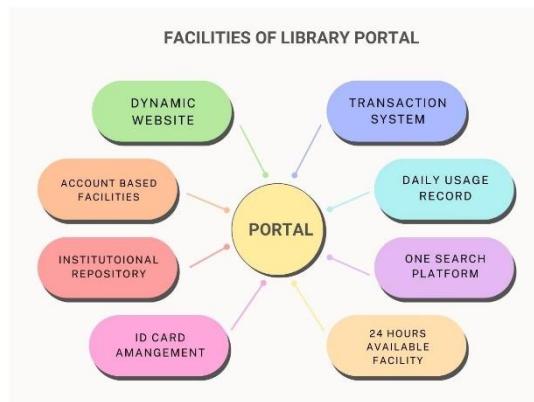




- **Library portal and Repository Management System**

A library portal is a customized portal of a complete package of multiple functions starting from dynamic websites to day-to-day activity database management systems. The library provides the following functionalities:

The analysis of the portal is done with the help of a Google console report. Due to security reasons, the financial part is not included in this analysis.



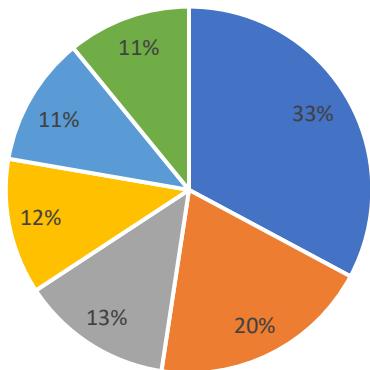
#### Total site view:





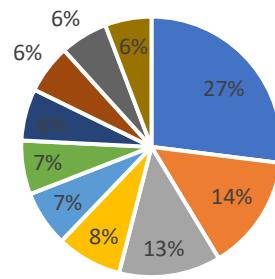
## Top 6 queries to search CIT Kokrajhar library

- cit library
- cit previous year question paper
- cit kokrajhar previous year question paper
- laser security system project report pdf
- citk library
- cit kokrajhar library

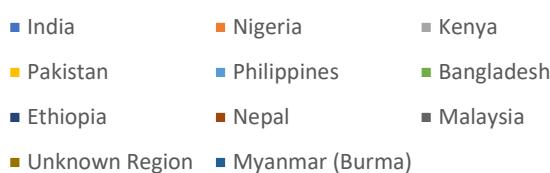


## Top 10 page search

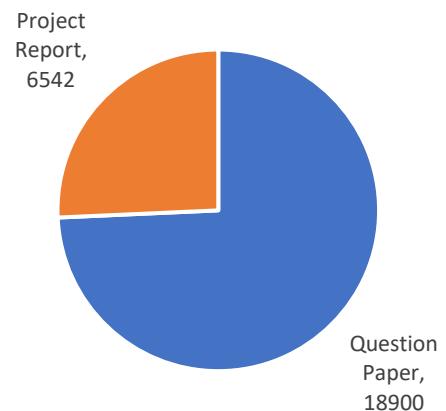
- http://centrallibrary.cit.ac.in/QuestionPaper
- ANALYSIS AND DESIGN OF R.C.C. OVERHEAD TANK
- http://centrallibrary.cit.ac.in/
- Smart Traffic Management System using Internet of Things (IoT)
- Automatic Water Level Controller using 555 Timer
- Laser Security System
- Automatic Door Opening Closing System using PIR Sensor
- Smart street light system
- Touchless door bell
- HEARTBEAT SENSOR USING ARDUINO



## Top 10 countries seach librray website



## Repository download



### • Usage of Plagiarism Software

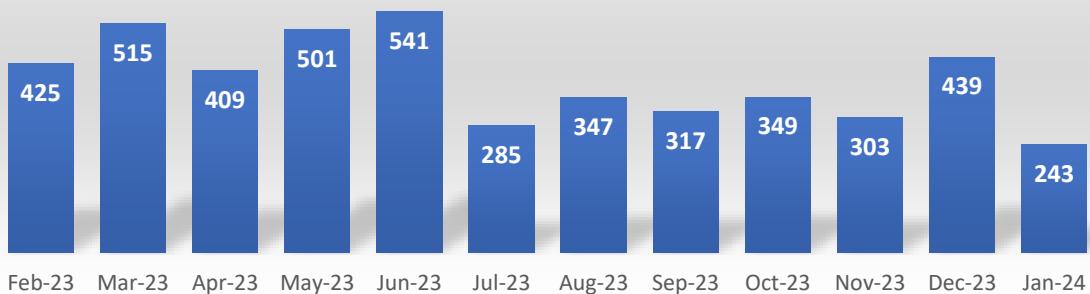
Total users: 123

Software using: Turnitin.

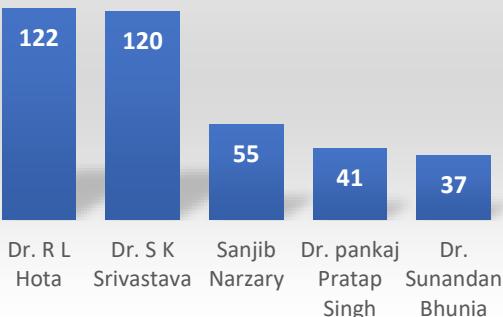
The duration during the analysis of the report: 01/02/2023 to 31/01/2024



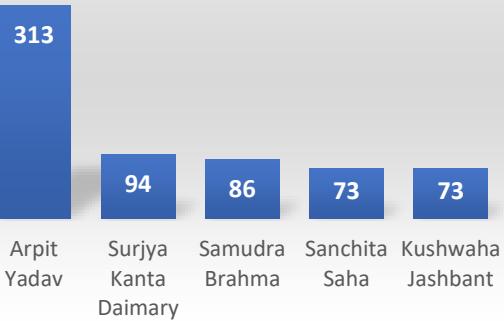
## Monthwise submitted documents for plagiarism



### Top 5 users from faculty



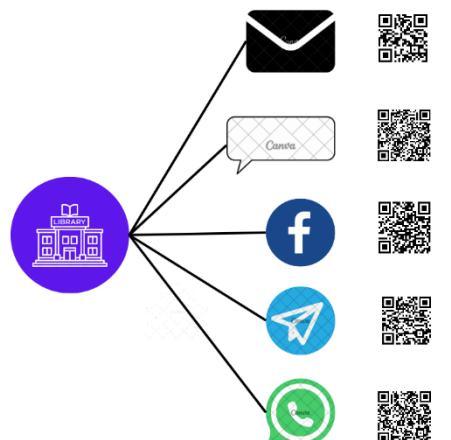
### Top 5 users from Scholar



Besides these, Central Library is using social media platforms for customer awareness services through different social media as given in figure.

**Conclusion:** Through the analysis, I have worked with 3 different databases with a volume of more than 20-130 GB each, and records of the last 10 years. After analysing the usage statistics, it is clear that the facilities of the central library are generating a great positive outcome. Also, it would not be my mistake if I mentioned that the library can be considered as one of the best libraries in Assam from the perspective of its infrastructure, facilities, digitization, resources, and the activeness of the working staff. There are very few libraries that can be able to generate such a huge level of outcome statistics.

*“At last, I would like to convey my heartiest thanks to all readers for sparing your valuable time.”*





## Motherhood

**Dr. Tanushree Nayak**  
**Assistant Professor**  
**Department of Humanities and Social Sciences**



Motherhood is a delicate feeling. It is a moment of enlightenment and maturity. After becoming mother, one doesn't remain individual. One spontaneously connects to the child. Thinking for oneself becomes diluted. It is not just the 'I' one focuses on. The focus shifts to 'us'. The creation revolves round 'motherhood'. It is a universal feeling that passes across diverse cultures. History, myths, and legends are replete with examples of ideal motherhood. Each and every individual is a mother, consciously or unconsciously. Although motherhood largely belongs to a female, it also belongs to a male. Literally, it is only a female who gives birth to a child and attains motherhood. But, if loosely applied, a male also can be a mother with proper attitude of service and sacrifice. So, a mother remains dormant in each and every individual more or less. It is to be brought to light or cognizance only. Motherhood, as such, becomes expansive and deep-rooted, not just with mankind, but also with all the creatures of this creation. Beasts also are in no way less than the humans. Birds also are the epitome of service, patience and happiness.

We may not see a mother every time, definitely we may see a motherly touch somewhere that leads to a beautiful self-expression. One who is motherly takes greater pleasure in giving than receiving. One has that status when he/she has suffered a lot in life. The boundary of 'we' and the 'other' becomes hazy. One ceases to be possessive. One starts enjoying everything. One just cannot know when he/she starts loving everything. Unknowingly it enters the inner being. One becomes calm and quiet within. One becomes receptive and speechless. So, divinity is the other name of motherhood. Giving birth to a child is just the beginning. Nourishing the child well is the ultimate goal. Hence, each and every individual is a mother, although differently.

A teacher is a responsible mother in the sense that he/she gives birth to a student with educational values. A teacher not just informs, gives knowledge, but also wisdom. Ultimately, it is the teacher who makes the society in which the student lives. Education, no doubt, comes as a package, but its effect is long-lasting. With teaching one gets proper orientation. Some of the teachings of my teachers are really memorable. I explore the associated values more and more as time passes by. When I was a student, I understood whatever a teacher used to teach with regard to the text. But my understanding of the teacher's experience through the text was minimal. Those now become prominent as I've been experiencing life more and more. My intention is just to speak about the love and dedication of teachers only. In fact, people of each and every profession ought to extend their service with similar attitude and spirit. I've mellowed as an individual more than before. I've realized what, in fact, attachment is. Now I've opened up and have started moving towards detachment. When I speak about detachment, it is not in negative sense. In reality, one has to be both attached as well as detached in life. To focus on others and love them, one has to be detached up to certain extent from the near and dear ones.

Most important fact is that as long as a mother would be taking care of the children, the latter will never understand its value. One understands when the mother ceases to take care, although it never happens.



Our society has a poor realization of the mother's contribution. Life is meaningful as long as everyone imbibes the virtue of a mother. If this doesn't happen our existence itself fails.

It is not just the biological feeling that works in a mother. She goes beyond that in service and nourishment. If everything goes well on this planet, it is because of the motherly feeling of a few. If everyone ignites this feeling in himself or herself, golden age will not be far from us.





## Karmayogi

**Dr. Avik Mukherjee**  
**Associate Professor**  
**Department of Food Engineering and Technology**



It is a story of a day in the life of the great poet, composer, artiste, and philosopher – Rabindranath Tagore. We get to know about this day from an essay entitled “Rabindra Sangamay” written by Shri Satish Chandra Chattopadhyay.

It was a hot summer day in Gaya in the year 1914, a year after Rabindranath received the Nobel prize. The poet happened to be in the Gaya rail station, accompanied by Shri Prabhat Kumar Mukhopadhyay, another accomplished short-story writer from Bengal. Shri Satish Chandra Chattopadhyay came to meet Rabindranath in the station and wanted to arrange a nice tour for the poet to “Barabar” hills, famous for its “Barabar” caves, where Buddhist monks used to meditate during Maurya dynasty (322 – 185 BC). Rabindranath agreed to visit the caves and mentioned that he needed to be back in Gaya station by 6 in the evening, as he had a railway booking for his return. The historical Barabara caves are near Bela railway station, which was a few rail stations from Gaya. Shri Chattopadhyay entrusted a local priest to make the necessary arrangements for the trip to ensure that the first Indian Nobel laureate enjoyed a relaxing, enriching tour of the caves. The priest promised that he would arrange everything in time i.e., they would start in the early morning from Gaya, and reach Bela station, where he would have palkis arranged for going up the hill. After visiting the caves, the priest promised a sumptuous meal for the poet and his two writer friends, and then they would return to Gaya by early afternoon.

As planned, Rabindranath, his two writer friends, and the organizer priest hopped onto the train, and Tagore immediately settled in with his pen and paper and started writing. They reached Bela station at around 7 am. But there was no palki. After a lot of hue and cry, they got the news that a palki was on the way. After waiting for two long hours, the palki arrived, and received generous scolding for forcing the poet to wait in the station waiting room for so long. When Tagore’s writer friends went back to the waiting room to inform him that the palki had arrived, he was still writing. The priest started boasting that there were no more worries, as he had arranged tents on the hills in front of the caves with elaborate foods and drinks, so that the poet and his friends can relax and replenish, after touring the caves. He requested Tagore’s two writer friends to accompany him in palki, while he would return to Gaya to make arrangements for the poet’s return. The palki took three long hours to reach the Barabar caves up in the hills, and Tagore and his friends found that there was no tent, no food, not even any arrangement for drinking water! Tagore kept writing sitting in the palki, while his writer friends were looking at each other trying to figure out – what’s next? After a while, they saw a bullock cart carrying tent materials, food materials, drinking water and cooking utensils, and the person driving the cart informed that the cook was coming, and would start cooking after reaching the caves. It was already close to 2 pm, and Tagore refused to wait any longer, as he had to return to Gaya to avail the train booking at 6 in the evening. The poet and his two friends couldn’t tour the caves, didn’t even have anything to eat or drink, and they requested the palki bearers to return back to Bela station. They refused, as they were too tired from the trip up the hill and said that they need food and drink to replenish their energy to carry the palki all the way back. Somehow,



some Sattu (milled chana and Bengal gram) could be arranged from nearby villages for the bearers, and they started on their 3-hour long journey back. Rabindranath kept on writing the whole journey as usual, and upon reaching Bela station, they found out that the organizer priest was so ashamed due to his poor arrangements that he was nowhere to be found. On their way back to Gaya, Tagore's writer friends were extremely tired, exhausted, had terrible headaches, and found that Rabindranath was still writing in the train.

Upon arriving at their destination, Tagore's friends were determined to find that priest, who was supposed to organize this trip without a hassle and were eager to teach him the lesson of his lifetime. But Rabindranath stopped them and said that the shame and humiliation the priest had suffered was punishment enough. Shri Satish Chandra Chattopadhyay started elaborating apologizing to the great poet, but Tagore said he had a wonderful trip, and could finish five poems during the day. Both the Tagore's friends requested to take a glance at his five creations and found that they were mostly based on the philosophical theme that our life is a beautiful journey that almighty has blessed us with.

A karma yogi, a true professional, never complaints. No matter how challenging the surrounding circumstances are, a karma yogi continues to enjoy life by dedicating his / her entire being, entire sole into his / her work. That is our Rabindranath – a devoted yogi of life-long karma till his last breath.



## Electronic nose-an effective tool for monitoring of biomethanation process

Dr. Subhajit Ray  
 Associate Professor  
 Department of Food Engineering and Technology



Development of an electronic nose technology to serve as a specific monitoring tool for anaerobic digestion process is a field of recent research interest. Electronic noses are intelligent instruments that are able to classify and quantify different gas/odors. The integration of a small form factor computer inside the electronic nose can effectively utilized for sensing odorous gases. This concept allows us to easily provide remote connectivity, large data storage and complex signal processing. The evolution of this technology will permit distributed sensing with applications to environmental waste management specifically in solid agro processing wastes. Proposed instrument allows incoming connections for remote control of bad odors in landfill sites. Generally, agro processing wastes are feeded in a typical anaerobic digester coupled with vacuum degassifier unit. Different kinds of bacterias viz. hydrolytic, homoacetogenic, acetogenic and methanogenic etc. are involved in bio methanation process i.e for the formation of biogas. Monitoring and analysis of biogas in anaerobic digestor unit will be carried out by electronic nose arrangement. Moreover, electronic nose is able to detect the impact of organic load variations, overload situations and the different feeding substrates induced distinct responses.

### Special features of electronic nose

In the domain of artificial olfaction, the so-called "electronic nose" or "e-nose" is a biologically inspired system composed of a few non-specific gas sensors. The sensors employed in electronic noses are non-specific. It means that they are not selective to a given chemical compound, but sensible to nearly all compounds, and slightly more to one chemical family, such as organic solvents, fatty acids, sulphurous gases, etc. In this way, the responses of the sensors produce patterns characteristic of each chemical mixture presented to the sensor array. By presenting many different chemicals to the sensor array, a database of patterns or signatures is built up. This database is used to train the pattern recognition system that in turn allows recognizing compound among the odors stored in the memory. The e-nose principle can be applied in detection and monitoring of any gaseous mixture, even if this mixture doesn't smell. The practical application of electronic noses is that gases of interest are part of complex background, such as biogas. For these reasons, the e-nose technology is thought to have high potential for fermentation and biogas processes monitoring.

### Anaerobic digestion Strategy

Anaerobic digestion, or the decomposition of organic matter by bacteria in the absence of oxygen, occurs naturally in liquid manure systems. The lack of oxygen and abundance of organic matter in liquid manure provide the proper conditions for anaerobic bacteria to survive.



Unfortunately, uncontrolled anaerobic decomposition can cause the foul Odors sometimes associated with liquid manure storage and spreading. However, controlled anaerobic decomposition not only can reduce the odors in liquid manure systems, but also can turn odorous compounds and organic matter into energy. The effluent remaining after controlled anaerobic decomposition, equal in volume to the influent material, is liquefied, low in odor, and rich in nutrients. This digested material is biologically stable and will resist further breakdown and odor production when stored under normal conditions. Anaerobic bacteria transform manure and other organic material into biogas and a liquefied effluent during the three stages of biogas production. In the liquefaction stage, liquefying bacteria convert insoluble, fibrous materials such as carbohydrates, fats and proteins into soluble substances. However, some fibrous material cannot be liquefied and can accumulate in the digester or can pass-through the digester intact. Water and other inorganic material also can accumulate in the digester or pass through the digester unchanged. Undigested materials make up the low-odor, liquefied effluent. Most of the liquefied, soluble compounds are converted to biogas by the acid- and methane-forming bacteria during steps 2 and 3 of biogas production. In the second stage of anaerobic digestion, acid-forming bacteria convert the soluble organic matter into volatile acids—the organic acids that can cause odor production from stored liquid manure. Finally, methane forming bacteria convert those volatile acids into biogas—gas composed of about 60 percent methane, 40 percent carbon dioxide, and trace amounts of water vapor, hydrogen sulfide, and ammonia. Not all volatile acids and soluble organic compounds are converted to biogas; some become part of the effluent. Methane-forming bacteria are more sensitive to their environment than acid-forming bacteria. Acid-forming bacteria can survive under a wide range of conditions while methane-forming bacteria are more demanding under the conditions typical of liquid manure storages, more acid-forming bacteria can survive than methane forming bacteria. Therefore, acids are formed and are not converted to biogas. This excess of volatile acids can result in a putrid odor. In a controlled, optimum environment, methane-forming bacteria survive and convert most of the odor-producing volatile acids into biogas. Conditions that encourage activity of both acid- and methane-forming bacteria include:

- (i) An oxygen-free environment
- (ii) A relatively constant temperature of about 95°F
- (iii) A pH between 6.6 and 7.6
- (iv) A consistent supply of organic matter for feeding purpose

### **Anaerobic digester**

An anaerobic digester is a sealed, heated tank which provides a suitable environment for naturally occurring anaerobic bacteria to grow, multiply, and convert manure to biogas and a low-odor effluent. Typical digesters have been insulated, squat, silo-like structures or in-ground rectangular or round concrete tanks. Rigid or flexible covers have been used. They are designed to hold about 20 days of solid agro-processing waste and a small supply of biogas. Manure, added daily to the digester, remains inside for about 20 days, the retention time, before flowing to the storage facility or spreader. Because there is no volume reduction with anaerobic digestion. Anaerobic digestion is simply a continuation of the animal's digestive system—a process to turn manure into energy and effluent, just like an animal turns feed into energy and manure.



## Conclusions

The electronic nose is able to detect overload situations of the biogas process in small digesters using simple substrates such as sucrose and maize oil. The e-nose response was slightly influenced by the substrate composition, but the response was strongly influenced by the organic load and the resulting process imbalances. In fact, reactor substrates, which are highly complex in agricultural plants could interfere on the capacity of the e-nose to detect disturbances of anaerobic digestion process. E-nose appeared to be more efficient than the monitoring of methane content in the biogas or of the digestate pH to detect or predict organic overload. Focusing on the gas phase of anaerobic reactors should provide simple monitoring tools while avoiding difficult sampling from highly heterogeneous sludge. Moreover, sampling preparation required due to high solid content in the liquid phase of anaerobic reactors, like filtration, acidification, centrifugation could be avoided-nose system could be adapted for online or at-line monitoring of the biogas process and thus for early detection and warning of process disturbances. Further work should focus on the use of the e-nose technology in more realistic conditions while comparing e-nose signals to process variables such as pH, alkalinity, volatile fatty acids concentration, biogas production and content and addressing the reproducibility and repeatability problems inherent to the e-nose system. In conclusion, artificial olfaction technology seems very promising in early detection of process imbalances in the domain of anaerobic digestion and could generate robust, simple, user-friendly-noses tools to facilitate the management of farm biogas plants.

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## INDIAN TEA “Chai”: The Universal Beverage

Abhijit Das  
Asst. Professor  
Department of Food Processing Technology



### A brief history of Tea “chai”

Chai is a traditional beverage enjoyed in South Asian countries for centuries. It has various tastes, spices, and fragrances. The mixtures used to make it vary in different places. Each drink has significance for the person enjoying it. It is a symbol of hospitality. "Chai" means "tea" in Hindi. The term originated from the Chinese word "cha." Infusions made with tea and spices are called chai. Chai recipes differ among communities and homes. Chai started as a spiced potion 5,000 years ago. It did not include Camellia Sinensis tea initially. But in the 1800s, when the British started tea-growing in India, sugar, tea leaves, and milk were added.

### How tea was first grown in India

Scottish explorer Robert Bruce discovered tea bushes in the upper Brahmaputra Valley, which were grown by the Singhpho tribe. Bruce and his brother learned about this from an Assam nobleman named Maniram Dewan. Dewan was the first Indian to cultivate tea in Assam on private land. After careful examination, it was determined that the plants were a variation of the Chinese tea plant, and they were named Camellia sinesis var Assamica Kitamura.

### Commercialization of tea in India

In 1847, Darjeeling, India, started a tea plant nursery. In 1850, Darjeeling's Tukvar Tea Estate became the first commercial plantation. The tea market in India has grown since then. There are currently many tea gardens in Assam, the Nilgiris, and Darjeeling. To ensure authenticity, the Tea Act of 1953 required verification of Darjeeling, Assam, and Nilgiri tea. The names can be registered under the Geographical Indications of Goods Act 1999.

### A Timeline of Tea in India:

Here is a timeline of the rich and captivating history of tea in India:

- **1823:** The British East India Company introduces tea cultivation in Assam, a northeastern state in India.
- **1839:** Tea cultivation begins in Darjeeling, a hilly district in West Bengal.
- **1856:** The first commercial tea plantation is established in Darjeeling by the British.
- **1870s:** Indian tea starts to gain popularity in Europe and America, leading to a rise in demand and production.
- **1881:** The Indian Tea Association is established to promote and regulate the tea industry in India.
- **1914-1918:** World War I leads to a decline in tea production due to labor shortages and transportation disruptions.
- **1947:** India gains independence from British rule, and the tea industry is taken over by the Indian government.



- **1954:** The Indian Tea Control Board is established to oversee the tea industry and maintain quality standards.
- **1950s-1960s:** The government encourages the expansion of tea cultivation to other parts of India, including the Nilgiri Hills in Tamil Nadu and the Dooars region in West Bengal.
- **1970s-1980s:** India becomes a major exporter of tea, with the Soviet Union being the biggest buyer.
- **1990s-2000s:** The tea industry faces challenges such as rising labor costs, competition from other countries, and changes in consumer preferences.
- **Present day:** India is the second-largest tea producer globally, with a significant impact on the economy and culture.

### **Tea varieties in India:**

India is known for producing a wide variety of high-quality teas, each with its own unique flavor profile and characteristics. Some of the most popular types of Indian teas include:

1. **Darjeeling Tea** - Darjeeling tea, from West Bengal, is famous for its floral aroma and spiciness. It produces four main types of tea using the Orthodox method. Black tea is the most common, with a distinct flavor. Green tea is made by steaming or pan-frying to prevent oxidation. Oolong tea is semi-oxidized and has a complex flavor. White tea is made from young leaves and buds and has a delicate flavor.
2. **Assam Tea** - Assam tea is a black tea known for its bold flavor and strong brew. It is grown in the Assam region of Northeast India, which is the largest tea-growing region in the world. Assam tea is often used as a base for popular blends and can be enjoyed hot or iced.
3. **Nilgiri Tea** - Nilgiri tea, which is grown in Tamil Nadu's Nilgiri highlands, is renowned for its fruity, floral scent and vivid, fragrant liquor. The chilly environment and high altitude of this area are well-known for providing the perfect growing conditions for tea plants. It is frequently added to tea blends to enhance their complexity and flavour depth. It can be either hot or cold on its own and is renowned for being a revitalising and refreshing beverage
4. **Kangra Tea** - Grown in the Kangra district of Himachal Pradesh, Kangra tea is known for its subtle, earthy flavor and floral aroma. This region is known for its high altitude and cool climate, which create ideal growing conditions for tea plants. Kangra produces both black and green tea. Kangra green tea is known for its delicate, floral flavor and aroma. It is enjoyed on its own, either hot or iced, and is often used in tea blends to add a touch of floral sweetness and complexity and is highly regarded by tea lovers around the world.
5. **Munnar Tea** - Grown in Munnar, Kerala, Munnar tea is known for its color and flavor. Munnar tea is a black tea with a bold flavor and amber color. Munnar tea is high-quality and used in popular tea blends. Munnar tea can be enjoyed hot or cold and provides an invigorating start to the day.



6. **Sikkim Tea** - Grown in the Sikkim region of Northeast India, Sikkim tea is known for its light, floral aroma and delicate, fruity flavor. Sikkim Tea can be produced as both black tea and green tea, depending on how it is processed. It is lighter, more delicate flavor with a fresh, vegetal taste.

## ACTIVE INGREDIENTS IN TEA AND ITS BENEFITS:

Tea is a Source Of

- Caffeine (traditional teas, not herbal)
- Polyphenols
  - Flavonols – myricetin, quercetin, kaempferol
  - Theaflavins – formed when black tea leaves are oxidized.
  - Catechins – found in green tea; epigallocatechin-3 gallate (EGCG) is the main form.

Most traditional teas do not contain a significant amount of nutrients but are rich in polyphenols. These are plant chemicals that give teas their distinct flavour and aroma and may have health-promoting properties.

### Benefits of black tea:

The *Camellia sinensis* plant, which yields green tea, is the source of leaves required to manufacture black tea. But black tea gets its deeper colour and richer flavour because of fermentation and drying. When you do make yourself a cup of black tea, the flavonoids in it help to maintain a healthy immune system. But drinking black tea alone won't provide you with all its health benefits. For minor wounds, scratches, and bruises, it can be heated, cooled, and then used to ease pain and minimise swelling. Additionally, a black tea bath might reduce inflammation brought on by skin rashes.

### Benefits of Green tea:

Green tea originated in China, where the leaves are heated by pan-firing or roasting, while steaming is the most common method in Japan. Owing to its high flavonoid concentration, green tea reduces blood clotting and bad cholesterol, which is good for the heart. Studies have shown that this specific type of tea can also lower blood pressure, triglycerides, and total cholesterol. Additional research suggest that green tea may have an impact on malignancies of the breast, liver, colon, and prostate. This tea variety has also been shown to have anti-inflammatory properties, keeping your skin fresh and glowing. Matcha, a kind of green tea, has become more and more well-known lately. Compared to regular green tea, matcha boasts a lot more antioxidants because it's the only kind where the leaves are consumed. Some have even proposed that ten cups of normal green tea are equal to one cup of matcha.

### Benefits of Oolong tea:

One of the key components of oolong tea is L-theanine, an amino acid that reduces anxiety while increasing alertness and concentration. Researchers discovered that l-theanine can help prevent cognitive diseases such as Alzheimer's and Parkinson's Furthermore, oolong tea has a large amount of polyphenols, which have been demonstrated to reduce inflammation, lowering type 2 diabetes risk and stop the growth of cancer.

**Tea to Avoid:**

Although most teas are healthy for you, you might wish to avoid the following types:

- Detox teas designed for trendy diets that promise rapid weight loss. These teas frequently contain laxatives, which are bad for your health.
- Exotic drinks and tea lattes from your go-to chain store. Even though some of these beverages—like a green tea latte—might seem healthful, they are laden with sugar.
- Trendy bubble teas with little to no nutritional benefit and a tonne of added sugar, calories, and carbohydrates.
- Herbal teas that could cause allergic reactions. Many herbal teas contain various fruit, herb, spice, and floral varieties, to which some people may be allergic. Always read the ingredients on the package if you have allergies.



## Two Number Systems of Grandmother (Short Story)

Dr. Sahalad Borgoyary  
HOD, Dept. of Mathematics



Two groups of people are preoccupied with their lives. One group is working very hard to achieve its goals. Their voices are not audible. They are consistently working both day and night. Faces show that there is a lot of tension. Some people in the group are happily riding vehicles, eating good foods in restaurants, etc.; their faces show that they have no tension. Their voices are also not audible. Still, both parties are continuing their jobs. Sudden news came that there would be a war between the two countries. It is also not clear who is going to participate in the war.

The groups of people who were tense from the beginning are now in a strong mood as they have arranged enough sophisticated weapons for the war. It was a sunny day. A big sound is occurring over the sky. It seems like the thundering sound of the rainy season. But it is not thundering. It is the sound of a missile from the opposing party. The big light has been defused by the groups in the sky. So, the missile has not fallen to earth. Because of that, no casualties occurred. The war has been continuing for a long time. Still, I see the group of happy people enjoying themselves, as before. Suddenly, celebration music was entering my ears. I look around and see that nobody is around. It is early in the morning and there is just me in the empty room, not a group of people. I came to understand that I was sleeping, and all the facts were in my dream. The sound entering my ear was also not a real sound. It has gone somewhere.

I've woken up now. No people, no war, no fear. However, my dream from earlier still exists. I try to remember that the people who were very busy might be the responsible people of that country, and those who were enjoying themselves are the ordinary citizens of the country. My mind asks itself who is the happiest among the two groups. Moreover, I ask whether happiness is more important in life than responsibility. Only a few people were serious during this time. Whether serious groups of people were enjoying themselves after winning the war? So many queries come to mind. Those scenarios advise me to find the real facts.

Happiness is something that really makes you happy. There are various ways to grab it. But the real happiness is that it should not make you happy alone; it should be able to make others happy as well. Therefore, happiness can be found in two ways. Making happiness with your own success and getting happiness from others' success. It may be achieved through good and bad ways. In the Mahabharata, Ravana was temporarily happy by abducting Sita from the Dandaka Forest, which made Prabhu Ram and their family members unhappy. This is a bad way of achieving happiness and is not good for us. On the other side, a poor person getting IAS in the UPSC exam is a mother's dream and is a good way to achieve happiness. He has started a new journey of his life in order to promote his economic condition, life status, etc. Therefore, we should control our bad wills to get permanent happiness. This happiness is achieved through hard work. So, we need to do hard work to achieve permanent happiness.

Beyond that, there is another happiness for the common people. This was what I could see for my grandmother. Her popular name was Mere (Full name is Mereswari). When I was a child, I saw her happiness with the use of two number systems. These numbers were used by her to deal with personal economics. The bulk quantity of things that are more than 40kg was



measured with the besi se, besi nwi, etc. number system. Besi se means 4 mon, which is equal to 160 kg. And the five times more than 160 kg is measured by Kuri. So, their units are much faster than the present kg unit system. In that way, bulk quantities were dealt with and maintained by her. She was happy with the return of paddy by the person who borrowed it from her one year ago.

There were two modes of interest in the system. One is Dera sut, and the other is Sowa sut. Dera sut means a person has to return a multiplication factor of 1.5 times after one year against the borrowing paddy. Sowa sut means a person has to return a multiplication factor of 1.25 times after six months against the borrowed paddy. She had always had a target to achieve the return of the Kuri amount of paddy from the borrowers. Once they achieve the goal, they become so happy. It was really interesting to learn about number systems from an illiterate person. Those people who borrowed the paddy also returned it happily in due time. Because, with the aid of borrowed paddy, they could also go through the year without experiencing a food shortage.

Pieces of small quantities were measured by the number system Jokaise, Jokainwi, etc. Jokaise means four pieces. I observed that she used it primarily for counting animals, eggs, and chickens as well as for preparing emao (rice beer catalysis). etc. This unit is four times faster than the current natural number system. Her use of jokai to measure the emaos was exceptional.

On those days, you may usually find saori, or community works, in our area. Major works are Nangal jangkra (the last day of paddy cultivation in the summer), Kashiduha (the last day of winter paddy harvesting) and preparing dry firewood in advance for cooking. With the help of the community people, they used to store enough dry firewood before the rainy season began. Beyond that, we have festivals like Domasi, Bwisagu, etc. Workers and festival attendees had a special demand from the family for rice beer. My grandmother had a unique role in making rice beer. She was appreciated by all the villagers. She had specifically focused on getting it ready for those uses. Those rice beers were completely prepared by herself. Because there was a superstition that certain individuals don't make high-quality rice beer, in particular, some people may perceive it as having a sour taste. Initially, grandmother prepared emao using fruits such as dongfang rakeb, pineapple, banana leaves, jackfruits, lwkwna leaves, bish roots, and so on. Her goal was to produce eight to ten tanks of rice beer within a year. This was really helpful for the hard-working people. Most of the time, male workers had a demand for rice beer from the house owner. But they use it carefully. The reason that grandmother prepares eight to ten jokai emao at a time is to have enough emao for the entire year. The emao were all extremely nice in size, with comparable golden white colours, and one jokai is enough to catalyst one tank of rice beer. It was just amazing.

She was also well-known for preparing the traditional curries like Onla (made from grinding rice) and Narji (dried jute leaf). None of the family members could compare to her in quality. She had a good art of making those curries. She used to prepare karwi (base) using a coconut fruit bowl. Karwi is prepared from stems, leaves, mustard seed pods, bananas, black dal, etc. In parallel, she would boil water to make onla, sometimes adding bamboo shoots, other times banana flower stems, potatoes, tomatoes, etc. When it reaches a particular temperature, she adds more food, occasionally vegetarian and other times not, according on the demands of the workers and their families. She was able to determine whether or not the addition of karwi had contributed enough to give the curry a high-quality flavour by smelling and seeing its colour. The cooking process is finished when it begins to turn a faint yellow or reddish hue. You will realise that the curry is truly remarkable if you taste it. This kind of curry is frequently made for both family and community events. Similarly, her narji curry-making is also very exceptional. That's because both the workers and the guests desire her cook. Sometimes, she



would teach young family members and employees how to make certain curries flawlessly. It was incredible. Green recollections those are. She seems to be with us still. Thus, the mind abruptly stopped talking. However, no! She has left this planet behind! I had my breakfast ready at that moment.



## Nurturing Atomic Habits: Engineers Paving the Path to India's Development

Rupam Medhi  
CIT alumni, 2014-18  
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Namaste CITians! As engineers, we are the architects of innovation, the creators of solutions, and the driving force behind progress. In the pursuit of making India a developed nation, let us delve into the power of atomic habits in our personal lives – those tiny, consistent actions that can lead to monumental change.

Inspired by the words of our very own Dr. APJ Abdul Kalam, the "People's President" and an eminent scientist, "Dream, dream, dream. Dreams transform into thoughts and thoughts result in action." It is through conscious actions that we, as engineers, can contribute significantly to the development of our beloved nation.

As one of our esteemed alumni aptly remarked, "Fight where you have to, defend where you need to!" This battle cry encapsulates the spirit of resilience and determination needed to overcome challenges. In the realm of atomic habits, let us draw inspiration from this call to action, shaping habits that reflect our commitment to fighting for progress and defending our values.

Scientific thinking, a cornerstone of engineering, guides us in analysing, experimenting, and iterating toward optimal solutions. Let us apply this scientific mindset to our habits. By consistently experimenting with and refining our daily routines, we can fine-tune our lives for maximum efficiency, embodying the essence of scientific thinking in our quest for personal and societal betterment.

Connecting with the roots, a sentiment often overlooked holds the key to fostering cultural pride and innovation. Our rich heritage and traditions offer a wellspring of inspiration. Embracing this connection, engineers can infuse their habits with the ethos of 'Swadeshi,' supporting local products and initiatives, and contributing to the nation's development from a foundation deeply rooted in cultural values.

In the spirit of 'Chalta Hai,' let us redefine it as a commitment to sustainable progress. Let us not settle for mediocrity but instead, strive for continuous improvement. By embracing the 'Chalta Hai' spirit in our habits, we can ensure that our progress is not just rapid but also enduring.

In the collaborative spirit of 'Yogdan,' let us recognize the power of teamwork. Engineers thrive in collaboration, and by fostering strong collaborative habits, we can collectively address societal challenges. Through initiatives that promote knowledge sharing and community development, we can make a lasting impact.



In conclusion, as engineers, we have the responsibility and the capability to shape the future of India. By cultivating atomic habits rooted in our cultural ethos, scientific thinking, and a connection with our roots, we can contribute to the realization of our nation's potential. Let us remember the words of Sir M. Visvesvaraya, a pioneering engineer, "Work with courage and confidence, success is sure to come." Through our collective efforts, let us engineer a brighter, developed future for India i.e. Bharat. Jai Hind!



## The Potential of Lab-Grown Meat Technology to Cultivate the Future

Hemanta Deka  
F.E.T Dept (M.Tech 2<sup>nd</sup> year)



In the not-so-distant future, the landscape of meat production is undergoing a revolutionary transformation, and at the heart of this change lies the groundbreaking technology of lab-grown meat, also known as cultured or cell-based meat. This innovative approach represents a paradigm shift that has the potential to redefine our relationship with food, addressing pressing concerns related to sustainability, environmental conservation, and ethical considerations. The core of lab-grown meat technology lies in cellular agriculture, a process that stands in stark contrast to traditional animal farming. Instead of raising and slaughtering animals, lab-grown meat is produced by cultivating animal cells in a controlled environment. The journey begins with a small biopsy of animal muscle tissue, from which cells are isolated and then nurtured in a bioreactor. Over time, these cells multiply and differentiate, eventually forming muscle tissue that is virtually indistinguishable from conventionally harvested meat.

One of the primary promises of lab-grown meat technology is its potential to address the environmental challenges associated with traditional meat production. Conventional livestock farming is a resource-intensive practice, demanding vast amounts of land, water, and feed. In contrast, cultivating meat in a controlled environment significantly reduces the environmental footprint. Research suggests that lab-grown meat could require up to 95% less land, 90% less water, and generate up to 87% fewer greenhouse gas emissions compared to traditional meat production. This shift toward sustainability aligns with the growing awareness of the impact of industrial livestock farming on deforestation, water scarcity, and climate change. Lab-grown meat emerges as a promising solution to mitigate these environmental concerns while meeting the increasing global demand for protein.

Beyond environmental sustainability, lab-grown meat also addresses ethical considerations that have become a focal point of public discourse. Concerns about animal welfare, coupled with the environmental impact, have led many consumers to seek alternatives that align with their values. Lab-grown meat presents a humane approach, as it eliminates the need for raising and slaughtering animals on a massive scale. By producing meat directly from cells, this technology offers a path to reducing the suffering of animals while satisfying the demand for meat products. Additionally, the controlled environment of lab-grown meat production minimizes the use of antibiotics and hormones, contributing to a cleaner and safer food supply.

However, the promise of lab-grown meat is not without its challenges. The production process is currently expensive and scaling it to compete with traditional meat prices remains a hurdle. Despite these challenges, on-going research and advancements in biotechnology are steadily driving down costs, making lab-grown meat more accessible to a broader consumer base. Another critical factor influencing the widespread adoption of lab-grown meat is consumer acceptance. Familiarizing the public with the benefits of this technology, dispelling myths, and emphasizing its positive impact on the environment and animal welfare are essential steps in paving the way for acceptance.

As the technology matures, a growing number of companies are entering the lab-grown meat market, reflecting the increasing interest and investment in this field. Start-ups and established



players alike are investing in research and development to enhance production efficiency and bring down costs. The race is on to introduce a variety of lab-grown meat products, from burgers to steaks, into the mainstream market. Governments and regulatory bodies are also grappling with the task of developing frameworks to oversee this nascent industry. Striking a balance between encouraging innovation and ensuring consumer safety will be crucial in determining the trajectory of lab-grown meat's market penetration.

In conclusion, cultivating the future through lab-grown meat technology holds the promise of a more sustainable, ethical, and environmentally friendly approach to meat production. While challenges persist, the progress made in recent years suggests that the era of lab-grown meat is not a distant fantasy but a tangible reality on the horizon. As consumer awareness grows and technology continues to advance, the shift towards a more sustainable and humane meat industry appears inevitable. Lab-grown meat stands poised to be a transformative force, offering a glimpse into a future where the boundaries between traditional agriculture and cutting-edge technology blur, and the choices we make on our plates contribute to a more harmonious relationship with the planet and its inhabitants.



## Addiction to Technology in today's world

Sheil Pathare

C.S. E Dept (B. Tech 3<sup>rd</sup> year)



In today's world, it's easy to get hooked on technology. From smartphones to social media, technology is everywhere we look. It's become such a big part of our lives that sometimes we don't even realize how much we rely on it. This addiction to technology is a growing concern, especially among college students like us. Think about it how many times a day do you check your phone? Whether it's to scroll through Instagram, send a quick text, or check the latest news, our phones are constantly within arm's reach. It's like we're attached to them, unable to disconnect even for a moment. Social media plays a big role in this addiction. Platforms like Facebook, Instagram, Snapchat, and Twitter are designed to keep us coming back for more. They use algorithms that show us content we're interested in, making it hard to resist the urge to keep scrolling. We find ourselves spending hours on these apps, mindlessly scrolling through our feeds, comparing ourselves to others, and seeking validation through likes and comments. But it's not just social media our addiction to technology extends to other aspects of our lives too. We use technology for everything from studying and researching to entertainment and communication. We rely on it so much that we've forgotten how to do things the old-fashioned way. For college students, technology addiction can have serious consequences. It affects our ability to focus and concentrate, making it harder to study and retain information. We find ourselves procrastinating more, putting off assignments and deadlines until the last minute. Our grades suffer, and we struggle to keep up with our coursework. But it's not just our academic lives that are impacted our mental and physical health are at stake too. Spending too much time on screens can lead to eye strain, headaches, and disrupted sleep patterns. It can also contribute to feelings of loneliness, depression, and anxiety, as we compare ourselves to others and constantly seek validation online.

So, what can we do to break free from our addiction to technology?

The first step is awareness recognizing that we have a problem and acknowledging the negative impact it's having on our lives. Once we've done that, we can start taking concrete steps to reduce our reliance on technology. One way to do this is by setting boundaries for us. This could mean limiting the amount of time we spend on our phones each day or setting specific times when we'll be offline like during meals or before bed. We can also try deleting apps that we find particularly addictive or turning off notifications to minimize distractions. It's also important to find alternative ways to spend our time. Instead of mindlessly scrolling through social media, we can pick up a book, go for a walk, or spend time with friends and family. We can also explore new hobbies and interests that don't involve screens like painting, hiking, or playing music. Breaking free from our addiction to technology won't be easy it'll take time and effort. But the benefits are worth it. By reducing our reliance on screens, we can improve our focus and concentration, boost our mental and physical health, and reclaim control over our lives. So, let's put down our phones, log off social media, and start living in the real world again. Our future selves will thank us for it.



## Harmony in Contrast

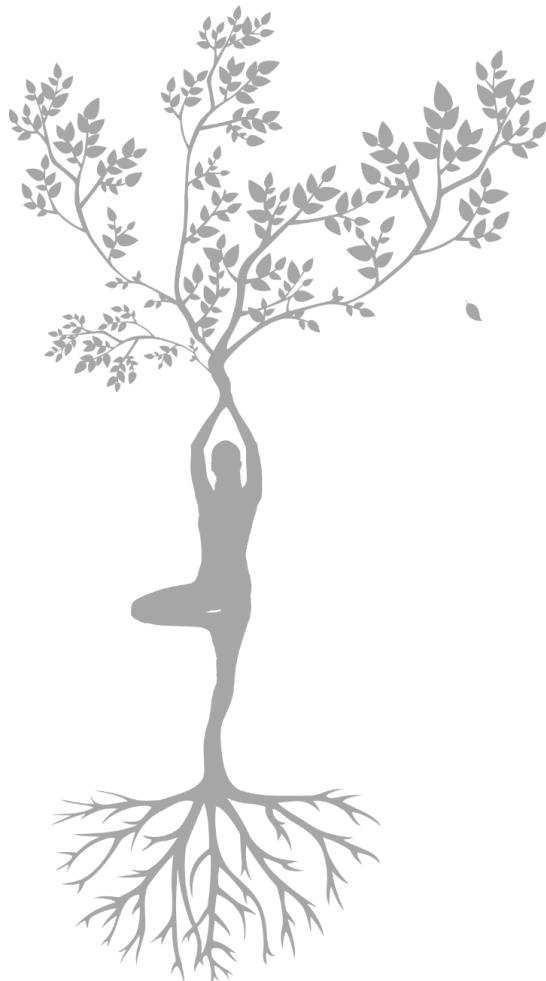
Dhritiraj Das  
C.S.E Dept (B.Tech 2<sup>nd</sup> year)



In the tapestry of existence, where shades entwine,  
Black and white, in a dance divine.  
Contrasting whispers, like night's soft call,  
Blend in harmony, one and all.

Ebony strokes upon a canvas wide,  
Tell stories deep, where secrets hide.  
Each brush, a tale in silence sung,  
In the grayscale symphony, hearts are strung.

In this balance, a melody unfolds,  
Where opposites merge, in stories untold.  
For within the embrace of dark and light,  
Lies the magic of life, burning bright.





## The last dance

Pankaj Deka

M.C.D Dept (B.Des 2<sup>nd</sup> year)



Beep..... beep.....beep, the alarm rung at 6.00 am. Vivek woke up to feel the warmth of soft sunlight in his face through his bedroom window. This feeling is the best part of the day for him nowadays. He came down from the bed and his eyes caught the glimpse of that photo, his dear wife Aakriti's photo. She was definitely the best part of his black and white life. She was the first person to understand who he was underneath. But all of these were brutally taken away from him on that cursed day. He and Aakriti were about to go to a dance that evening. He came home early and kept imagining how beautiful his wife will look in that gorgeous new dress he bought for her. It was getting dark, but there was no sight of her. He kept calling her but there was no response. He was waiting anxiously but then suddenly his phone rung. He almost jumped and turned his phone up. But to disappoint him there was an unknown number. He received the call and said, "Hello who's this?" then the person on the other end said something to him and he kept listening. Not even a single word came from his mouth. He froze up like a statue. At that moment he found his entire world shattered into millions of pieces. Aakriti's car was crushed by a truck.

The sound of the electric kettle brought Vivek back to reality. He wiped his tears, had breakfast and got ready for office. He kissed Aakriti's photo and put it back on the table. Then he locked the apartment's door and sighed, because the same never-ending boring day is about to begin. In the office he did all of his work just like a machine and this process repeated again and again till the end of the day.

The sun is setting slowly. Vivek got off from the bus and started walking towards his home. He was very exhausted. All he wanted to do then was take a shower and rest. He was passing through an alley. Suddenly he heard a sound. It sounded like some metal object. He looked around and saw something that looked like a small robot. It was dumped on a dustbin, probably abandoned by its owner. He turned around and was ready to walk but he heard a powering up sound. His mind became more curious, and he decided to take the robot home.

After arriving at home, he first cleaned up the robot and placed it besides the wall. Then he took a shower and came straight to bed for rest. He kept looking at the robot from the bed and surprisingly all of his and Aakriti's good times were flashing in his mind. He wondered why. After a while the robot powered up again and moved a bit. A bright light came straight from the eyes of the robot, so bright that it almost blinded Vivek. When the light became dim, he opened his eyes. But then what he saw before his eyes shocked him. He felt like a lightning strike passed right through his body. He couldn't believe his own eyes. His beautiful wife Aakriti whom he lost five years ago was standing in front of him. She was wearing that dress he bought for her especially for the dance. It was a projection of her created by the light before, but she felt so real. He kept looking at her as if it was the first time, he saw her. Vivek couldn't say anything. He didn't know whether to smile or cry. His legs automatically moved towards her. When he got close to Aakriti, she put her hands forward. He looked at her face and did the same. She was smiling. He felt a sense of warmth in his heart by looking at her smile. His life



was filled with colour once again. As soon as his hands touched hers, a song was played by the robot. Right then she started moving her body and he started following her lead. Her moves were so fluid that she looked like an angel. Vivek couldn't take his eyes off of her. It was just like the day he fell in love with her. His body kept moving on its own. He couldn't believe that he was dancing with Aakriti. He couldn't tell it was reality or some kind of dream. But the only thing that he knew was that this right here is the best moment of his entire life. They kept dancing around the entire room. Then slowly the music stopped and their movements too. Vivek was tired from the dance, so he started taking deep breaths. Then suddenly he noticed the brightness of the light is decreasing slowly. He looked at Aakriti and saw that she was also disappearing slowly. He kept looking at her till the last moment as she vanished into the darkness. He smiled. Though tears were coming out of his eyes, he smiled for the first time in five years. After her projection vanished, he looked at the robot and it turned off. He slowly walked towards it and pressed the power button. But nothing happened. He sighed deeply and looked up. He closed his eyes and promised to his dear wife Aakriti that he will remember and cherish this precious moment forever. He will be happy again. Then he opened his eyes and moved his lips. The only words that came from his mouth were, "Thank you".



## The Winter Night

Maharsa Brahma  
E.C. E Dept (B.Tech 2<sup>nd</sup> year)



My bare feet touch the gentle dew of the winter night.  
The foggy mists arise like a growing cloud and  
Surround me with its gentle touch.

The sun slowly drops down.  
The dusk silently rises up.  
The nightfall soon comes.  
Covers the earth in its arms.

Then I see the moon slowly come up in the sky,  
Smiling at me shining bright and high.

Being my guiding star,  
The dazzling light holds my hands.  
Runs along with me through the fields.  
Splashing the water streams.

Playing hide and seek  
The winter calmness binds us together.

I feel the cold breeze pass through my cheeks,  
The icy snowflakes fall through my hair.

Staring at each other, dancing for a while  
I in the field, and she in the sky  
Suddenly the clouds laugh at us.  
And says, "Enough!"

The beautiful field suddenly disappears.  
And the moon hid somewhere.  
Then as I open my eyes  
I see the bright light of the dawn.  
With a smiling face, I just say to myself.  
"It was just a dream."



## Childhood memories

Raj Kalita  
I.E Dept (B. Tech 2<sup>nd</sup> year)



In fields of gold and skies so blue,  
Childhood memories, fresh and true.  
Barefoot adventures, laughter's reign,  
In sunlit days, devoid of pain.

Treehouse dreams and secret caves,  
Whispers shared among the waves.  
Innocent smiles, eyes bright with glee,  
Each moment etched in memory.

Skipping stones and chasing light,  
Underneath the stars of night.  
Simple joys, a treasure trove,  
In childhood's embrace, we rove.

Years may pass, yet fondly we hold,  
The tales of yore, in hearts of gold.  
For in those memories, evergreen,  
Our childhood's magic, forever seen.





## Embracing the Realm of Possibility

Hironya Narzary  
C.S. E Dept (B.Tech 2<sup>nd</sup> year)



When life brings you low  
And you feel the weight,  
When voices of doubt  
Threaten to dictate.

When tears blur your sight  
But you yearn to strive,  
When dreams seem distant  
Yet you're still alive.

As others may falter  
And doubt takes its toll,  
In the realm of possibility  
Lies life's true role.

It's where journeys commence.  
And old paths amend,  
In the realm of possibility  
Where beginnings find end.





## End of the Year

Mayuri Bayan  
C.S. E Dept (B. Tech 1<sup>st</sup> year)



A breeze of cold chills.  
Flames turning as a source of heat.  
Canopy of fog covered the fields.  
Swelter of blankets, all taken out.  
10 am feels like good morning.

A war between sleep and money.  
Droplets of well acts like bullets.  
Holidays for shoe wearers.  
Mission of surviving for the homeless ones.  
An unanticipated darkness covers the town.





## The importance of Art in our lives

Nayanjyoti Daimary  
C.S.E Dept ( B.Tech 2<sup>nd</sup> year)



Have you ever wondered what the world would be without music, movies, dance, literature, and poetry? I believe it would not be a world worth living for.

Earth without art is just Eh.....

Well, I do believe medicine, law, business, engineering, and politics are noble pursuits necessary for sustaining life. But poetry, beauty, romance, love, these are what we stay alive for. Isn't it?

I love art because I'm involved in creating it, I make music which is one of the art forms of arranging sounds in time to produce a composition through the elements of melody, harmony, rhythm, and timbre. And oh! don't ask me how much I love making music, I love it with all my life and will continue to love it for the rest of my life.

I would love to encourage anyone out there to go find their passion, it could be anything, dancing, singing, poetry, painting, architecture, or it could be just designing a t-shirt or modelling a lump of clay.

People today are worried about AI taking over jobs, which might be true to an extent. The recent years have witnessed the increase in use of AI due to its efficiency and easy to use nature. While AI offers benefits such as increased productivity and cost savings for businesses, its widespread adoption raises concerns about unemployment and the need for reskilling workers to adapt to the evolving job market dominated by AI-driven technologies. But I doubt, it might be the case when it comes to creating art. While AI can replicate patterns and create algorithmically, it lacks the depth of human connection and the ability to imbue art with meaning, soul, and the complexity of human existence. Art is a reflection of humanity's diverse perspectives, cultural influences, and individual experiences, which AI struggles to comprehend. Moreover, the process of creating art involves spontaneity, intuition, and personal interpretation, qualities that elude AI's algorithmic capabilities.

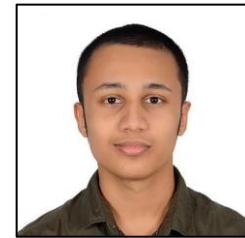
I also want to mention how today's generation seems to be neglecting all these artistic pursuits because they get so involved in chasing materialistic things. While it is true that we might need to be a part of the rat race to sustain in life. In fact I do engineering too to make a living out of it later, but I have never forgotten art nor how to make music amidst the busy schedules and academic challenges of a student's life, I manage to carve out time and give it into my art and believe me the joy and satisfaction achieved from creating art can't be compared to any other feelings in this world. The joy of creating art is an unparalleled experience that transcends boundaries and enriches the soul. It is a journey of self-expression, discovery, and liberation that ignites the imagination and sparks boundless creativity. With each stroke of the brush, each note played, or each word penned, there is a sense of exhilaration and freedom that envelops the artist.

In the end, we all are human beings, and everyone has their world of interests, you should do what you truly love. After all, people who do art are often called artists, so wouldn't you love to have an artist's name tag with you?



## Soliloquy in Silence

Krishna Sharma  
C.S.E Dept ( B.Tech 3<sup>rd</sup> year)



In the halls, I roam alone,  
Amidst the crowd, a silent undertone.  
Loneliness, an unseen companion by my side,  
In the midst of chatter, where emotions hide.

Words cascade in an endless stream,  
Yet, the unspoken forms a quiet dream.  
Silent whispers linger in the air,  
Echoed feelings, heavy to bear.

Comforting others with words I ache to hear,  
Expressions lost, time's haze drawing near.  
A language unheard, yet deeply known,  
In the silence, emotions are sown.

Within echoes and shadows, a soliloquy takes flight,  
A symphony of solitude, embracing the night.  
In quiet corridors where emotions unfold,  
I navigate the labyrinth of my soul.





## Life

Raj Kumar Rabha

C.E Dept (B.Tech 2<sup>nd</sup> year)



Life is like  
 A jigsaw puzzle,  
 Full of tension, hardships, and downfalls.  
 Life is like  
 A journey to an unknown place  
 In trying to achieve success, we get confused.  
 While making a decision.  
 But in another sense  
 Life is also a beautiful gift from God,  
 Full of enjoyment and happiness,  
 By not being lazy, by working hard,  
 I am sure success will come running to us.  
 So, isn't life.  
 a blessing to us?  
 In this life  
 Let's remember a few words-  
 "Enjoying every moment of life is LIFE."





## The Art of Dying: Embracing Mortality

Banajit Boro  
C.S.E Dept ( B.Tech 3<sup>rd</sup> year)



Experiencing the loss of a loved one is an inevitable aspect of the human journey, a profound moment that challenges us to our core. My personal voyage through grief commenced at the tender age of twelve when my father passed away unexpectedly. In the midst of grappling with his departure, I found myself confronting the complexities of death and seeking meaning amidst the overwhelming pain. Through my own encounters, I came to understand that the process of dying transcends mere physicality; it encompasses the journey of grieving, discovering solace, and ultimately embracing the enduring memories.

The initial shock of my father's passing left me in a state of disarray, struggling to comprehend the permanence of his absence. As a child, death had been an abstract notion, suddenly thrust into reality. The pain was raw, and I felt consumed by a sense of loss that seemed insurmountable. During those initial days, the embrace of family and friends provided a semblance of comfort and support, serving as a poignant reminder that I was not alone in my grief. Their presence acted as a beacon of hope amidst the darkness, illustrating the healing power of shared sorrow.

As time progressed, I embarked on a journey of navigating the intricate web of grief, learning to confront my emotions rather than suppress them. I allowed myself to experience the full spectrum of feelings - from anger and sadness to fleeting moments of acceptance. Each emotion served as a stroke upon the canvas of my grief, contributing to the intricate tapestry of my healing process. Through avenues such as journaling and creative expression, I discovered a cathartic outlet for my emotions, enabling me to navigate my father's death on my own terms.

One of the most poignant revelations I encountered was the significance of cherishing memories and honoring the legacy of those we have lost. In the years following my father's passing, I found solace in revisiting old photographs, listening to his favorite music, and recounting cherished memories with loved ones. These rituals served as a form of homage, keeping my father's spirit alive in my heart, and reminding me of the profound impact he had on my life.

Amidst the haze of grief, I unearthed unexpected moments of beauty and grace that emerged from the darkness. I discovered solace in the natural world, finding comfort in the gentle rhythm of the seasons and the timeless cycle of life and death. Observing the sunrise or listening to the sound of rain became meditative practices that aided me in finding peace amidst the storm of my emotions. In these moments of tranquillity, I felt a profound connection to something greater than myself, a reminder that life is both delicate and infinitely precious.

Perhaps the most transformative aspect of my journey through grief was the realization that death does not mark an end but rather signifies a new beginning. While my father's physical presence may have departed, his love and guidance continue to shape my life in profound ways. I carry his legacy within me through the values he imparted, the lessons he taught, and the memories we shared. In this sense, his spirit remains ever-present, a guiding light that illuminates my path forward.



Through my experiences with loss, I have come to comprehend that the art of dying is not about evading or escaping death but rather about embracing it as an integral facet of the human experience. It is about discovering beauty amidst sorrow, strength amidst adversity, and meaning within enduring memories. Though the pain of loss may linger, it is through our journey through grief that we unearth the resilience of the human spirit and the transformative power of love.

In the eloquent words of Albert Camus, "In the depth of winter, I finally learned that within me there lay an invincible summer." Confronting our mortality and navigating the labyrinth of grief unveils an inner resilience that transcends the transient nature of existence. The art of dying extends beyond bidding farewell to loved ones or grappling with the specter of death; it encompasses embracing life's impermanence with courage and grace. As we honor the memories of those we have lost and forge ahead on our individual paths, may we find solace in the eternal summer that resides within us - a beacon of hope amidst the winter of our sorrow.



## Rajgir: Unveiling the Significance of an Ancient Gem

UTPAL KUMAR  
E.C.E Dept ( B.Tech 2<sup>nd</sup> year)



Nestled amidst the scenic landscape of Bihar, India, lies Rajgir – a town that echoes with the whispers of antiquity and cultural richness. As we delve into the pages of history, the importance of Rajgir unfurls, revealing a tapestry woven with threads of spirituality, governance, and historical significance.

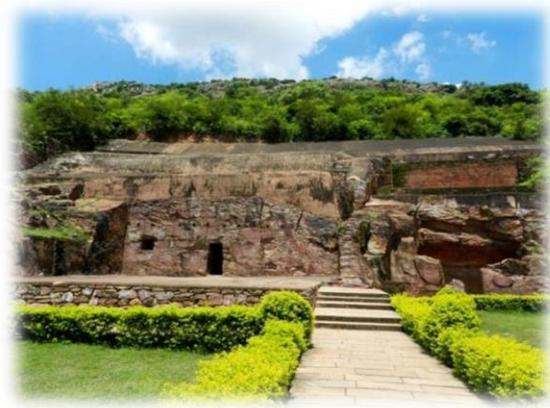
**Spiritual Epicenter:** Rajgir holds a paramount place in the spiritual heritage of India. It was at Gridhakuta, or Vulture's Peak, in Rajgir, that Lord Buddha delivered some of his most profound teachings, including the renowned Lotus Sutra. The serene atmosphere of the hills surrounding Rajgir adds a spiritual aura to the town, attracting pilgrims and seekers from around the world.





## Ancient Capital and Governance:

Rajgir served as the first capital of the Magadha Empire during the reign of King Bimbisara. The strategic location, surrounded by hills and forts, provided a natural defense against external invasions. The city's historical importance is underscored by its mention in ancient texts, recounting tales of political alliances, wars, and the establishment of an early form of governance.



**Historical Hotspot:** The echoes of Rajgir's historical significance reverberate through the ages. The town witnessed the First Buddhist Council shortly after Buddha's nirvana, where disciples gathered to codify his teachings. The cyclopean walls of Rajgir, built during the Mauryan period, stand as silent sentinels to the bygone era, reflecting the architectural prowess of ancient India.

**Health and Healing:** Rajgir is renowned for its hot springs, believed to have therapeutic properties. The Brahmakund and Saptadhara are among the prominent hot springs that attract visitors seeking not only physical rejuvenation but also a spiritual retreat. The juxtaposition of natural beauty and medicinal properties has made Rajgir a destination for those seeking holistic well-being.

**Cultural Melting Pot:** Rajgir's cultural significance is not confined to a single chapter in history. The town has been a melting pot of various cultures, with influences from Hindu, Buddhist, and Jain traditions. The ancient relics, temples, and monasteries that dot the landscape of Rajgir are testament to the coexistence of diverse cultural elements.

## Modern Relevance:

As we navigate the 21st century, Rajgir continues to be a relevant and vibrant center. The International Convention Centre, established in Rajgir, has hosted numerous conferences and events, attracting attention from across the globe. This modern facet of Rajgir complements its historical charm, positioning it as a bridge between tradition and contemporary progress.





## HOME

Pooja Priya Brahma  
C.E Dept (B. Tech 2<sup>nd</sup> year)



A home is a place of peace. It is not defined by location or structure. It is not defined by location or structure. Anyone can be a home. Our mother is a home, our friend is a home and even any unknown place, where we find happiness is a home. CITK (Central Institute of Technology Kokrajhar) is like a home to me. I have my friends who make me happy. I am also able to do the things that I like and even the Professors are amazing!

Every place can make us feel like home. When we make someone feel welcomed, then we feel warm and nice. A good person will never make us feel bad and instead will try to reciprocate our warmth. So, I can say that every good person is a home. Every place, a coffee shop, a restaurant, a person that makes us feel safe and sound is a home. It is the beauty of a person highlighted more when sprinkled with kindness and care. Even, a person with glittery dress would seem dull if that person got a foul soul. A person is called a real human being when he/she always follow the path of truth. That person can be called a home.

I would like to share my own experience in this Institute. There were many people whom I thought were home to me. Many friends who are now just someone whom I know and many people, whom I thought were close to me. But now they are just those faces that I had memories with. Looking into the bright side, there are people whom I adore, and they also return it back to me, just like a gift. These are the people whom I consider as home. In this world of give and take, the exchange of love and care which gives us happiness is the most beautiful thing that I have ever experienced. I have a good friend of mine who is the truest to me and I can consider her as home too. There are also places that brings joy to my heart and edibles too. All those places that bring me peace, I consider them home. Knowingly or unknowingly, we are always looking for home. That is the sole reason of peace when we find a good person.





## CHANGE YOUR SELF

“Only I can change my life. No one can do it for me.”

George Basumatary  
C.S.E Dept (Diploma 2<sup>nd</sup> year)



The eagle has the longest lifespan of its species. It can live up to 70 years, but to reach this age the eagle must make a hard decision in its 40's. Its long and flexible talons can no longer grab prey which serves as food. Its long and sharp beak becomes bent. Its old- aged and heavy wings due to their thick feathers, becomes stuck to its chest and make it difficult to fly. Then, the eagle is left with two options: die or go through a painful process of change. The change process takes about five months.

The eagle flies to mountain top and sits on its nest. There the eagle rubs its beak against a rock until it plucks it out. After plucking it out, the eagle will wait for a new beak to grow back and then it will start plucking out its talons. When new talons grow back, the eagle starts plucking its old-aged feathers. And after 150 days or five months, the eagle takes its famous flight of rebirth and lives for 30 more years.

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CHANGE IS IMPORTANT IN ORGANISATIONS TO ALLOW EMPLOYEES TO LEARN NEW SKILLS, EXPLORE NEW OPPORTUNITIES AND EXERCISE THEIR CREATIVITY IN WAYS THAT ULTIMATELY BENEFIT THE ORGANISATION THROUGH NEW IDEAS AND INCREASED COMMITMENT. CHANGE IS GROWTH OPPORTUNITIES. CHANGE IS GOOD BECAUSE YOU HAVE THE OPPORTUNITY TO EMBRACE NEW EXPERIENCES. PEOPLE USUALLY AVOID CHANGES AND PREFER TO STAY IN THEIR COMFORT ZONE.



## Brajawali, The Divine Language

Prince Hazarika  
C.S.E Dept ( B.Tech 3<sup>rd</sup> year)



Brajawali (ବ୍ରଜାରଳୀ Brôzawôli), the divine language was gifted by Mahapurus Srimanta Sankaradeva (1449 – 1568) and Mahapurus Sri Sri Madhabdeva (1489 --1596) which is used in the devotional and religious aspects in “Ek-Saran-Nam-Dharma”. Started as a language for some of his compositions (Borgeets and Ankia Naats) the language not only stood the test of time, but also acted as a language that unified the masses from many kingdoms of that time. Over the centuries Brajawali was preserved and nurtured by his fans, followers and Sattras (monasteries). And to listen to it now is a dynamic experience, of being a part of this beautiful language. We understand, similar languages were used in the Vaishnavite contexts in Orissa and Bengal too (but unfortunately extinct now).

Sankaradeva's creation- the Brajawali language! So, what did Guru Sankaradeva do differently? Besides being extremely talented with languages particularly Sanskrit, he was renowned for being able to translate even the "emotions"! He based his "Brajawali"- on Maithili to which Assamese and Hindi were sprinkled. Understandably, it was and still is easily understood, by the people of Assam, Bengal, Orissa, Bihar and also most of Hindi speaking regions.

The beauty of Brajawali created by Sankaradeva is that despite it being easily understood by the masses it still carries the flavor of "Brajbhasa", the language of Lord Krishna's Braj (now extinct but thankfully), beautifully captured in his creations and compositions.... leaving behind the hallmark of Sankaradeva: of composing.... that touches our emotions over the ages!!

Literary work in Brajawali language - Ankia Nat, Zumura, Borgeet, Bhatima, Totaya, Namghusa, Srimatbhawagat, Kirtan, Dasam, Harichandra- Upakhyan, Bhakti-pradip, Ajamilopakhyan etc were written in Brajawali language.





## Love Yourself

Bijoya Roy  
C.S.E Dept ( B.Tech 3<sup>rd</sup> year)



The girl with smiles and curves,  
She knew her thoughts were blur to others, blurs.

She made herself the beauty of her story,  
Not affected by others wee.

Yes, it was a difficult journey and yet on-going,  
There is only self-love that needs the knowing.

Fat, chubby, healthy were words used to deter,  
She smiled knowing that curves to her.

And that beautiful girl wants, to tell us about how she feels-

In quiet moments, seek your own embrace,  
Whisper to yourself, a kind solace to trace.

Pause, breathe deeply, let self-love unfold,  
In simple acts, let your worth be told.

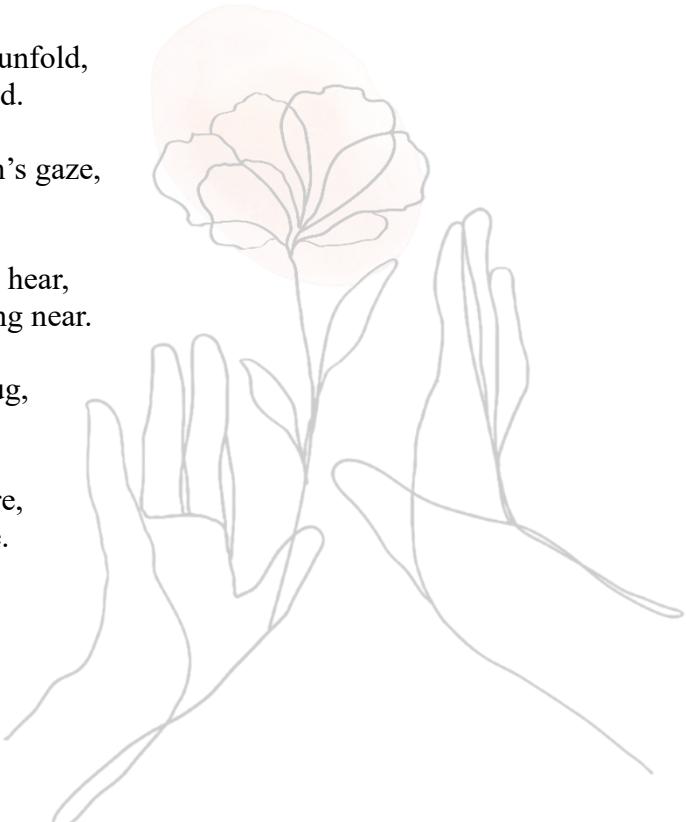
Write a love letter to your reflection's gaze,  
Celebrate flaws, in myriad ways.

Dance freely to music only you can hear,  
Feel the rhythm of self-love, drawing near.

Wrap yourself in warmth, a cozy hug,  
Sip tea slowly, as self-love snug.

Plant a seed, watch it grow with care,  
See mirrored growth within, so rare.

Take a walk, under the gentle sun,  
Let each step echo, "I am the one",  
"I am the one",  
"I am the one."





## My Home

Jitu Boro  
C.S.E Dept ( B.Tech 3<sup>rd</sup> year)



I wish I could carry my home everywhere.  
With me, Wrapped in a cloth,  
Made of a small steel tiffin box,  
In my hands,  
Close to my heart,  
I carry my home with me.

The print on the cloth has the colours of that memories I carry.  
The woven threads of it are the breaths I took in my home.  
The tiffin is made of the bonds I made in my home.  
And inside,  
When you open it,  
There are the colours and smells of the moments I have spent here.  
Warm, cozy, tastes of the feelings I have felt.

It sizzles with the distant sounds of our giggles,  
Me and my core people.  
One spoon of it,  
And you will feel,  
How beautifully we have created,  
my home over the years.  
One spoon of it,  
And you'll feel at home.  
My home,  
Our home.

I carry my home everywhere with me.  
Wrapped in a cloth,  
A small steel tiffin box.





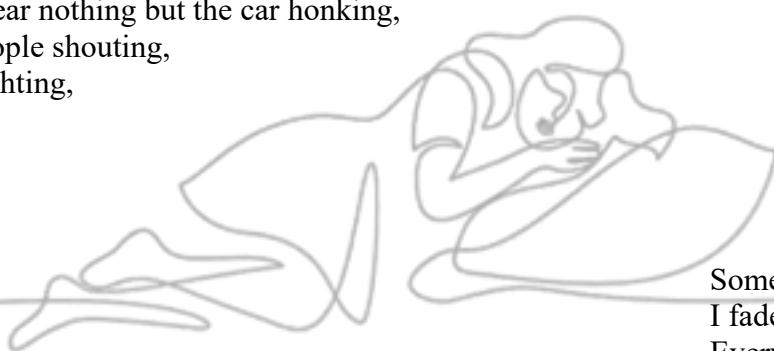
## It feels like I'm in a dream, wide awake.

Anand Mahato  
C.S.E Dept (B.Tech 3<sup>rd</sup> year)



Everything fades.  
The noise, the vision, the smell. Everything.  
And I'm in my head.  
My head feels like a dream.  
A dream I have been having since a very long time.  
Sometimes it's beautiful, sometimes ugly.  
And I fade.

The sound in my head is a mixture of children.  
Playing at a distance,  
I hear birds and wind.  
The vision is colourful,  
blue, pink, yellow and red.  
The smell is a mixture of flower field,  
sand, cotton candy, rain and the clouds!  
And I fade.  
Sometimes,  
When my head is ugly,  
I see nothing but the tall concrete wall,  
A lot of people walking, clamouring,  
Running after me,  
Chasing.  
I hear nothing but the car honking,  
People shouting,  
Fighting,



Crying,  
Ragging.  
I smell nothing but the stench of my  
thoughts dying away,  
Nothing but my identity melting,  
And I fade.

Sometimes in my head,  
There's nothing.  
A void.  
A blank space.  
Nothing to hear,  
Nothing to see,  
Nothing to smell.  
I fade.

Sometimes beautiful, sometimes ugly.  
I fade,  
Everytime.  
And nothing makes sense.



## Narrowing path

Tandeep Das  
C.S.E Dept (B.Tech 3<sup>rd</sup> year)



The light seems to be disappearing away.  
As he walks, deep within the narrow path.

Not knowing, what lies ahead.

Not knowing, where will he stop.

Not knowing, how will he attend the darkness within.

Not knowing whether, will he find a way out,  
or even will he see another light again,  
penetrating his senses, making him alive again.

With the slowly fading light away,  
as he walks, deep within the narrowing path.



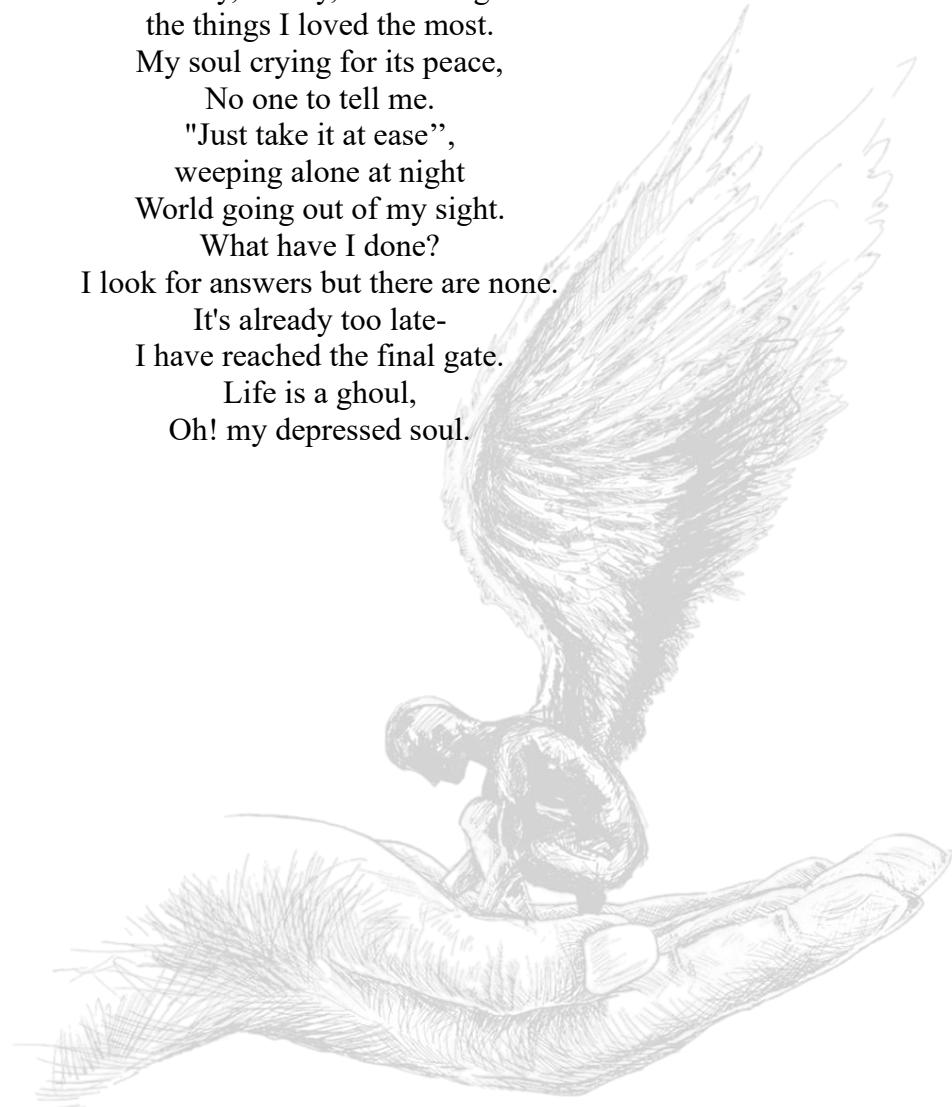


## Depressed soul

Harshit Nirola  
C.S.E Dept (B.Tech 2<sup>nd</sup> year)



My depressed soul,  
life is a ghoul.  
Death gives me a kiss,  
I am falling into deep abyss.  
Where can I find-  
The happiness that I have longed for.  
I have realized.  
It was just a dream.  
My happiness wasn't there anymore.  
The cheerful feeling of youth-  
Where have you gone?  
Slowly, slowly, I am losing.  
the things I loved the most.  
My soul crying for its peace,  
No one to tell me.  
"Just take it at ease",  
weeping alone at night  
World going out of my sight.  
What have I done?  
I look for answers but there are none.  
It's already too late-  
I have reached the final gate.  
Life is a ghoul,  
Oh! my depressed soul.





## Engineering Students

Aminur Rahman  
E.C.E Dept (B.Tech 2nd year)



Before the sun even peeks,  
they awaken, and peace at night is forsaken,  
Such is the life, a constant chase,  
of the engineering student's race.  
Designs, calculations, experiments galore,  
their daily routine to explore,  
Decisions, ventures, a creative fire,  
and dreams of the future's spire.  
With gleaming eyes, they solve problems tough,  
under the oil lamp's glow, their pen strokes rough.  
To open the technology's celestial gate, they've sworn,  
For the betterment of mankind,  
production's horn they'll adorn.  
Sleepless nights, weary frame, but hope held tight,  
With dreams tucked in their hearts,  
they march onward into the light.  
These are they, the engineering students bold,  
builders of the future's mold,  
Carrying the torch of hope's bright flame,  
creators of a world, brand new, untamed.



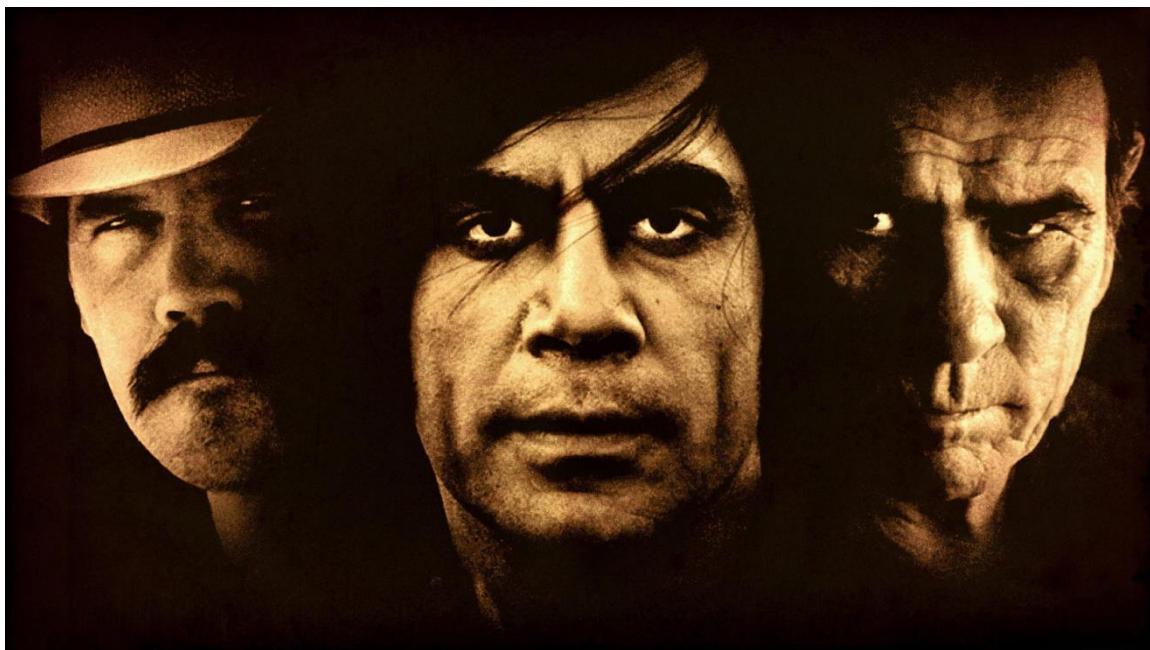


## NO COUNTRY FOR OLD MEN- MOVIE REVIEW

Mridul Roy  
I.E Dept (2<sup>nd</sup> year)



Directed by the Coen Brothers, this film remains one of the greatest pieces of art to grace cinema, standing as a timeless testament to its enduring impact and artistic brilliance. The narrative of the plot on the literal level is the cat-and-mouse game between Llewelyn Moss, a Vietnam War veteran who stumbles upon a drug deal gone wrong in the desert while on a hunting trip, and Anton Chigurh, a sociopathic ruthless hitman tasked with retrieving the missing briefcase of money at any cost. Caught in the exchange is Sheriff Ed Tom Bell, a law enforcement officer investigating the whole picture.



This movie is about the lack of order/justice perceivable in the universe and how it is filled with chaos and anarchy. The movie is constantly making stark the disconnect between our intentions and the randomness of existence, which deals out reward and punishment randomly as a coin flip. The movie profoundly combines thrill, drama, excitement, violence, tension, and everything you could ask for in a Coen Brothers movie. Javier Bardem's role as Anton Chigurh couldn't be more perfect. In no way do I mean to describe him as the protagonist in this movie but his performance as a sinister and cold killer devoid of any morality, remorse, and compassion, almost numb to any kind of pain is certainly one of the best portrayals of the century. You could pick out any random frame from the movie that involves Sheriff Bell and you could take a look at his face of how tormented he was with the task of stopping someone greater than force itself. That's how much of a menace was Chigurh. The sheriff(s) couldn't make sense of the crimes, because they were committed by an amoral psychopath and a crazed money thief as opposed to the classic binary good vs evil cowboy-robbers dynamic previously.



Anton Chigurh is meant to represent the unassailable cruelty and violence that Sheriff Bell sees in the world now after he retired from his law enforcement job as we speak. The reality is that Chigurh is of the world, but cruelty and violence have always existed in some way. As Woody Harrelson's character says in the film; "He's a psychopath killer, but so what? There's plenty of them around". He's not supernatural or some new breed of criminal mastermind.

This review would be futile if we did not discuss about the "coin scene". I cannot recall someone who has watched this movie not talking about the "coin scene". What makes it so great is how a simple, subtle small talk between a customer and a gas station owner could turn out into a game of life and death. Something you would expect out of a Wild West film. The scene also emphasizes the concept of "destiny", of how the coin has been traveling for 20 years to get here. Chigurh leaves the store with a gruesome look on his face stating he could come back later. However, let's not delve deeper into this or it could lead to "spoilers".

You are going to have to give it to Llewelyn Moss for evading Anton for so long. I feel like after one point, he admires Llewelyn for not being scared of him. However, Moss's courage is what catches up to him later in the film. That's the irony of the universe. Sometimes it is best to leave it that way.

Another important theme of the movie we discuss is how we always look back on older times as if they were simpler and more innocent, but in reality, there are always bad men willing to do horrible things just because. As we follow Sheriff Bell we see a growing existential fatigue. The violence he follows begins to take a major toll on him, to age him as the years pass by. And the root of the problem is that Bell can't make sense of what he is witnessing, not anymore. He retires from his job as a Sheriff, becomes the "old man" and begins to ponder how the country is no longer recognizable to him, grappling with his own morality and guilt. If you want to make it more sense out of the movie, the quote "the wages of sin is death" describes it perfectly in every way possible



## THE BODOLAND ACCORD

Dilton  
C.E Dept (2<sup>nd</sup> year)



The Bodo's are an ethno-linguistic community native to the Brahmaputra Valley in Assam state of India. In the mid-1980s, Bodo politicians, alleging discrimination against Bodo's in Assam, intensified their campaign for the creation of Bodo-majority Bodoland. While majority of the Bodo's envisaged Bodoland as an autonomous territory or state within India, a small section demanded complete sovereignty. NDFB was formed by secessionist Bodo's on 3 October 1986 as the Bodo Security Force (BdSF), under the leadership of Ranjan Daimary, in Odla Khasibari village (near Udalguri).

On January 27, 2020 Govt. of India has signed a tripartite agreement with the representatives of the banned National Democratic Front of Bodoland (NDFB) organisation and Government of Assam at the Ministry of Home Affairs (MHA). The pact was signed to boost peace in the Northeastern state of Assam. The agreement would fulfil political and economic demands besides safeguarding the language and culture of the Bodo community people.

**Agreement signing:** The agreement was signed by Assam Chief Minister Sarbananda Sonowal, four factions of the NDFB, All Bodo Students' Union (ABSU), Joint Secretary of Home Ministry Satyendra Garg and Assam Chief Secretary Kumar Sanjay Krishna in presence of Union Minister of Home Affairs (MOHA) Shri Amit Shah.

### Tripartite agreement with NDFB:

**Assistance:** Over 1500 armed cadres will abjure violence and join the mainstream. A Special Development Package Rs. 1500 crores for over 3 years will be given by the Govt. to undertake specific projects for the development of Bodo areas.

A commission under Section 14 of the Sixth Schedule to the Constitution of India will be set up. The commission will work in recommending inclusion or exclusion of tribal population residing in villages adjoining the Bodoland Territorial Area Districts (BTAD) areas.

**Commission representatives:** In this commission, apart from State government representatives will also be from ABSU and BTC. The recommendation will be submitted within 6 months from the date of notification.

The All-Bodo Students' Union (ABSU), which has been spearheading a movement for a separate Bodoland state also signed the accord.



Welfare council: The Assam govt will establish a Bodo-Kachari Welfare Council and will also notify Bodo language as an official language in the state. A separate directorate for Bodo medium schools will also be established.

Similar agreement: Similar to the tripartite agreement, a pact named Bru-Reang agreement was signed on January 16, 2020 to end the humanitarian crisis in the states of Meghalaya and Tripura by bringing the armed cadres in Assam and 88 armed National Liberation Front of Tripura (NLFT) cadres in Tripura to bring them to the mainstream.

NDFB is an armed separatist outfit which seeks to obtain a sovereign Bodoland for the Bodo people. This is the 3rd bodo accord signed in the last 27 years.

1st accord: The 1st was signed in 1993 leading to creation of Bodoland Autonomous Council with limited political powers.

2nd accord: The second accord was signed in 2003 with the Bodo Liberation Tigers (BLT) militant group leading to formation of Bodoland Territorial Council (BTC), this pact lead to formation of 4 districts Kokrajhar, Chirang, Baksa & Udalguri) in Assam to the BTC.

3rd accord: After the BTR accord, the NDFB signed a peace treaty with government in 2020 and disbanded itself.

While disbanding, the NDFB (P) leader Gobinda Basumatary said "To find a solution to political, economic, social and cultural issues of Bodo people, the Bodo Security Force was formed in 1986. It was renamed as NDFB in 1994. Our fight has finally come to an end after 34 years of armed struggle within and outside the country... from Nepal, Bangladesh, Myanmar and Bhutan. We believe that the NDFB movement has been a successful one and so we are disbanding the group."



## My First Day in College A Tale of Discovery and Growth

Subash wary  
C.S.E Dept (B.Tech 3<sup>rd</sup> year)



Standing here having completed the admission process much like my fellow students I ponder what lies ahead. To those like me who have embarked on this journey, I extend a warm "Welcome to the Family" as a CITian. The inaugural day of college resembling a blank canvas awaiting the strokes of discovery is etched in my memory like the opening lines of a captivating novel. As I step onto the college grounds the air is charged with anticipation my heart pulsating with a mixture of excitement and nervousness. Accommodation was arranged with Mr. Paul a fellow from Upper Assam whose schooling took place in the picturesque city of Darjeeling in West Bengal. In our initial interactions, he imparts the intricacies of complex numbers and what the "i" stands for setting the stage for the academic challenges ahead.

The first day of class finds me quietly occupying a corner of the first bench in the classroom. Breaking the ice with the first conversation is Mr. Pandey a shy yet talkative individual hailing from the beautiful town of Naharlagun in Arunachal Pradesh to whom I consider a mathematics maestro in our class. Together, we sometimes delve into solving Trigonometry questions forging the beginning of camaraderie in an unfamiliar environment. Thoughts swirl in my mind about making friends and the nature of the faculty. Dreams of studying in an engineering college have materialized and as I navigate through the semester, I find myself embracing the challenges with the determination of a flowing river. Despite my introverted nature, I managed to form connections grateful for the guidance provided by seniors who remain steadfast in their support. I slowly came to understand and learn the concepts and the laws that govern all the things around us, such as how SHM works and how to find the frequency of an oscillation of a tuning fork. Another interesting thing I found was Organic Chemistry and how PVC is made of a long chain of vinyl chloride molecules. Also, calculating how the safe support of a beam works in a structural loading experiment or how to cut an iron rod and in the carpentry section to make a T-shape and also learn the functions of a jackhammer in the workshop. Thereafter, the list goes on and on.

Transitioning into the second year, I realize that engineering is vastly different from what I envisioned during my school days. It is a continual learning phase where information comes at a low cost but the experience is invaluable. Topics such as Robotics capture my attention. There was a guy who was quite fluent with all the instrumentation equipment and coding as well and made himself a basic robot that follows a black patch of line and plays Soccer and RoboWar. I found it very intriguing. I look up in the sky as they say to always look up into the heavens to find the purpose of life, sometimes when we don't see it inside us, and as I see as homo sapien sapiens that is us the modern human beings managed to harness only about 0.8 percent energy but which is a staggering 18 trillion watts per year from the Sun on Earth and still we are at ZERO in the Kardashev scale of all human civilization. This is where I think that there must be an intelligent life form around somewhere near the galaxy where it might have been able to harness the energy of its solar system and probably reached somewhere in Type 1 or 2 and or possibly reached and attained the Planck energy of a black hole. Why did I say that? It is because I did not know earlier that a guy could make himself a robot here on Earth, likewise, there could be an intergalactic guy somewhere in the corner of this universe building something



gigantic, maybe already done! Maybe they could already cure cancer caused by infectious viruses or could regenerate a broken limb. The possibility is limitless.

One day an enlightening industrial visit took place to IIT Guwahati which exposed us to cutting-edge technologies with workshops and seminars that were held before the emergence of COVID-19. During the coronavirus pandemic, everything changed from the way we learn things and interact to staying indoors and wearing masks to possibly avoiding physical contact which every one of us had experienced in our lifetime. As days progressed, I tried applying for training at OIL India Limited in Duliajan and got it. There I saw the intricacies of a real-world encounter with a cyber-attack, which underscores the critical nature of cybersecurity. The ransom demand of 196 bitcoins coupled with a ransomware virus in an email attachment serves as a stark reminder of the vulnerabilities in our interconnected world. A while ago they considered Oil as the great big thing in the industrial era, now it is data or big data as the new oil as the saying goes by. The other big thing is that Moore's Law which expects the doubling of the number of transistors in the CPU every 18–24 months now has some limits that Moore couldn't anticipate. This says loud about the uncertainties of the future.

Embarking on the exciting journey of creating computer programs, I love using Python and exploring how websites are built with HTML, CSS, and JavaScript. It's like using different tools to build something amazing! I've also been learning about the backend which is like the behind-the-scenes magic that makes websites work smoothly. I use Node.js and Express.js to do this and I connect everything to databases like PostgreSQL and MongoDB to become a full-stack developer. Recently, I've been discovering cool things with Amazon Web Services (AWS) a bit like learning new magic spells for computer projects. I'm also connecting different parts of projects using APIs making everything work together like a team. Being at the front of this digital adventure, my goal is to create new and exciting things with technology making a positive impact in the world of software development.

Internationally, in the field of interplanetary space exploration advancements with their propulsion systems, the marvels of SpaceX's rocket engine and Starship showcase the limitless possibilities in the field of aerospace. From its developmental stages to Amazon's Blue Origin's first human spaceflight and Virgin Galactic's successful human spaceflight test the world of innovation unfolds before us. In the realm of Artificial Intelligence giants like Google, Microsoft, Amazon and the company OpenAI strive to solve the challenges of hallucination in their Chatbots. This is because the AI models generate outputs that are not consistent with the learned patterns or are entirely fabricated. Nevertheless, it is a great success for humankind to take a step forward into the unknown of Artificial Intelligence. Despite the novelty a sense of apprehension lingers—the fear of the unknown of stepping out of comfort zones. Yet this vulnerability fuels our determination to persevere embracing the journey with open hearts and steadfast resolve.

A valuable piece of advice from one of our esteemed professors resonates deeply: "Negotiate Relationships" and "Establish Identity". The other wonderful motto that was shared with us by a wonderful professor that I would like to add here is "Yoga Karmesu Kaushalam" which is of IIT Kharagpur and translates to "Excellence in action is Yoga" which essentially implies that doing our work well is (true) yoga. These wisdoms serve as a compass that will guide me through the intricate landscape of life. As I express my gratitude, I eagerly anticipate the chapters that await confident that each page will reveal new dimensions of learning and personal evolution.



## Personality of an Engineer

Dipjyoti Saikia  
C.S.E Dept (B.Tech 3<sup>rd</sup> year)



### **What are personality traits?**

Personality traits are characteristics and qualities that help define you as a unique individual. They're often developed throughout life and may remain consistent across many situations and circumstances.

Engineers have diverse personalities and characteristics. Many personalities could make a good engineer, and the employers also look for the best fit for a team's needs. Many of the traits of a good engineer are the same as for any good employee, including communication, leadership skills, creativity, and honesty. Beyond those, there are several specific engineer personality traits that typically translate well into the job.

Some traits of successful engineers are:

#### **1. Analysis**

Engineers look at a device, plan or situation and identify significant points of interest. Being naturally analytical helps engineers collect the information they need to address challenges and decide on the best course of action as a project progresses.

#### **2. Creativity**

Being creative can help engineers think about things from new perspectives or make innovative changes when necessary. For example, if an engineer is working with a team that's designing a new tool and the supplier discontinues one of the building materials, the engineer may eliminate the need for the discontinued item and work with what's available.

#### **3.Curiosity**

Engineers are curious folk, like the child who takes apart a toaster to find out how it works. The innate curiosity of any high-quality engineer should drive them to figure out how to make something that works work even better. Curiosity may also encourage them to pursue professional development or continuing education to stay informed about the latest trends in their industry.

#### **4. Diligence**

Engineers are often hardworking. They may be proud of their work and serious about producing the best products or results to make the lives of their clients or users easier.

#### **5.Critical Thinking**

Engineering solutions must work in the real world, where complex variables compete. As a result, engineers need critical thinking skills, developed through experience and training, in order to solve open-ended problems that have no single right answer. Their job is to optimize a solution within the constraints, including time, money, material, and manufacturing capability, as presented by their employer.



## 6. Leadership

Even if they don't hold traditional managerial roles, many engineers have leadership qualities. For example, engineers may need to explain complex information to someone outside of their specialty area or help new team members learn specific details of a project proposal.

## 7. Observation

Engineers may be observant and notice minor details in a project proposal or process evaluation that others miss. Because they often think logically and may be good at following a process, they may notice when something is missing or makes little sense in its given context. This can be helpful when they are looking for solutions to challenges.

## 8. Reliability

Whether it's agreeing to examine a project plan or committing to meeting a deadline, a successful engineer knows that fulfilling their obligation in a timely manner can help further the project and help other team members be able to meet their own goals.

## 9. Effective communication

The engineering field can include technical language that may be complex for those outside the profession to understand. Engineers may consider developing their written and oral communication skills to explain complex topics in client reports, presentations and conversation.

## 10. Problem solving

Learning how to solve problems may be one of the most important engineering skills, especially in specialties like software and safety engineering. When problems arise throughout a project, engineers make modifications or changes to fix them. Developing a process to do this quickly can help save time throughout a project.

## 11. Teamwork

Though engineers often work independently, many of them are also part of larger project teams and corporations. Learning how to be courteous of other people's input and tactful in communication can help build a positive team culture and encourage collaboration.

## 12. Open mind & positive attitude

If engineers are to solve challenging technical problems, they should be imaginative and optimistic. It is this attitude that can enable them to be successful.



## The Beautiful Curse

Rajarshi Seal  
C.S.E Dept (B.Tech 4<sup>th</sup> year)



I wonder this mystery,  
this beautiful curse rain it is, mother earth's nurse.

I sit in my cabin, coffee in my hand.  
Smell of the wind, smell of the land Rain's harmony, the perfect Mozart.

Earth's masterpiece,  
it's beautiful art I wish it never ends,  
but wish's devil call.

Because destruction it creates,  
devil's biggest haul.

Town's being flooded, people drowning away.  
No safety now, so far as to say.

I wonder why it is.  
the flesh is so same.

It's something, something for the shame.  
Realized what it is, it is like a coin,  
two parallels, they never to join.

Sometimes I wonder if I switch the place.  
Can I face the problem? the problem that they face.  
I finished my coffee, paying respect to deserve.  
Praised my lord, lord who I serve.





## "Twilight Whispers: Love's Symphony"

Bhagyashree Nath  
CSE Dept. (B. Tech 4<sup>th</sup> year)



In the hush of twilight's tender kiss,  
Where whispers weave a soft abyss,  
There blooms a tale of love's pure art,  
In every beat, in every heart.

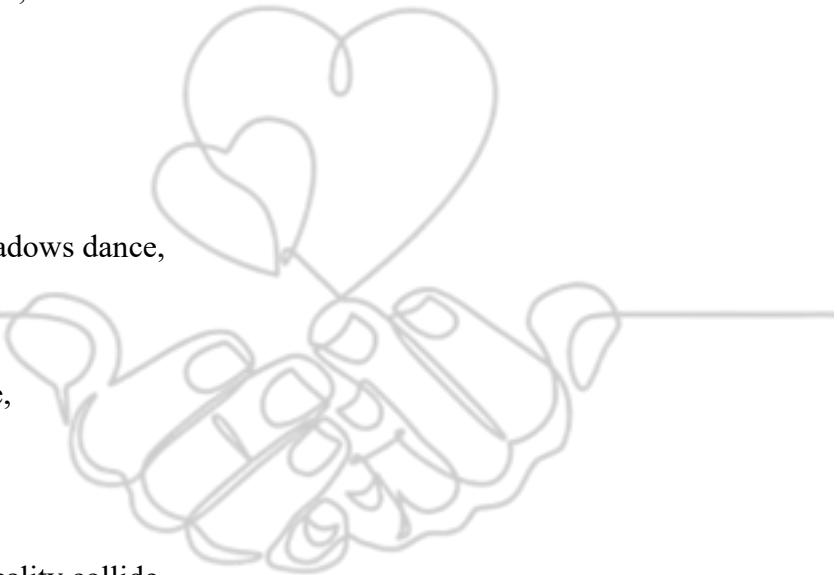
The sun's farewell, a fiery blaze,  
Sets skies aflame in golden haze,  
Where dreams take shape and fantasies play,  
In realms where night and day collide in sway.

Through labyrinthine paths of thought,  
Where echoes of the soul are caught,  
A symphony of life's grand score,  
In every note, forevermore.

The rivers flow, their secrets hold,  
In whispers ancient, yet untold,  
Through enchanted groves where shadows dance,  
In hidden realms of wild romance.

And in this mosaic of desire,  
Where every spark sets hearts on fire,  
We find the essence of our being,  
In every touch, in every seeing.

So let us wander, side by side,  
Through realms where dreams and reality collide,  
For in the journey, we shall find,  
The poetry that makes us truly entwined





## A Love Tale

Ravi Ranjan  
CE Dept. (B. Tech 4<sup>th</sup> year)



In a love tale, they both did meet,  
A hopeless romantic, a love so sweet.  
She wore her heart upon her sleeve,  
He is emotionally closed, hard to believe.

She saw the world in shades of love,  
He saw it through clouds, high above.  
She longed for whispers sweet and kind,  
He kept his feelings locked and confined.

They both danced in the shadows,  
She gave him all, while he kept a false vault.  
Her love was a river, deep and wide,  
His emotions, a desert, where love often dies.

She yearned for warmth, for love's embrace,  
He built a fortress, a distant space.  
Both wanted love, a connection so deep,  
But their love story, a secret they'd keep.

She dreamed of moonlight and stars up above,  
He wandered through shadows, withholding his love,  
Her heart was a canvas, painted with dreams,  
But he is a locked chest, where emotions hide in reams.

As time went on, their hearts grew heavily,  
She questioned herself, was she too needy?

He wondered if he should change his ways,  
But both were trapped in their own love maze.

As days turned to nights, and their love drifted apart,  
She wondered if she should mend her loving heart,  
He pondered if he could break down his walls,  
But their love was a paradox, with unanswered calls.

Who was wrong in this story, do you see?  
The girl who cared too much or the guy who couldn't be.

In matters of the heart, it's hard to assign blame,  
Sometimes love's a puzzle, where no one's the same.

In this story of yearning, where affection took flight,  
Who dear friends, do you think it wasn't right?  
So, I ask you, to ponder and reflect,  
In this tale of love, what do you suspect?

Was it their differences, or destiny's cruel song,  
That left them both in grief, so painfully wrong.