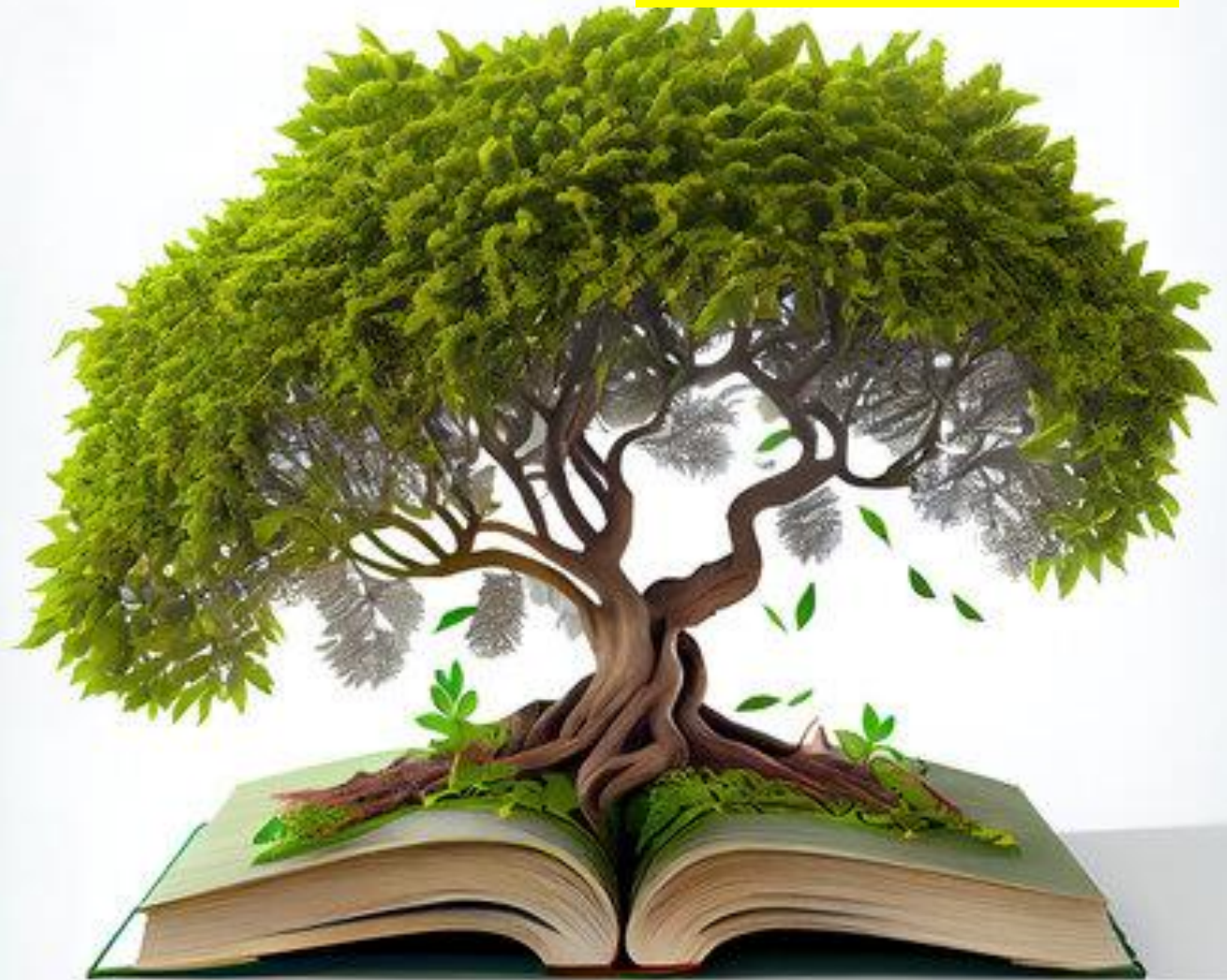




THE HORIZON

E-Magazine

Academic Year 2023-24



Department of Electronics and Department of English

Lalit Chandra Bharali College, Guwahati -11

MESSAGE



From the Principal's Desk

I am pleased to announce that the issue of the digital magazine is going to be published by the Electronics Department in collaboration with the English Department. In today's world it has been witnessed that every sector has embraced digital approaches leading to a significant rise in online activities. This shift gives exposure to the digital platforms and the rise of various social media platforms plays a key role in the ongoing digital movement.

Digitalization in the education sector began many years ago, and its role has significantly expanded following the implementation of the National Education Policy (NEP) 2020. Online education is rapidly becoming an integral part of the academic system, with parallel development of online programs gaining popularity. The use of digital platforms in higher education has become indispensable, with institutions increasingly relying on them for various activities. From admissions to examinations, most processes are now conducted online. Office automation and digital filing systems have also undergone a significant transformation. Computer and Information Technology have emerged as popular fields of study across all levels of education. Our college has been a pioneer in computer education, and the Electronics Department stands out as a unique program under Gauhati University.

Digital and online magazines are now occupying a significant share in the publishing industry. In this context, the joint effort by the Electronics and English Departments to publish a digital magazine is really praiseworthy. The Internal Quality Assurance Cell of the College is also going to publish the second edition of the annual Newsletter. The Debate and Quiz Club of the College has also published the first edition of its new digital magazine. Such efforts will definitely help the student fraternity and raise the quality level of this College. I do hope other Departments, Cells and Clubs will also join hands in the digital movement.

Dr. Amarendra Kalita

Principal, Lalit Chandra Bharali College, Guwahati -11

Editor's Message



I am delighted to welcome everyone to the second edition of "*The Horizon*" an annual e-magazine of the Electronics Department. The English Department, this time, has joined us, and we are collaborating to provide our young students with a digital platform on which they can express their thoughts freely and confidently through their writings. Additionally, this magazine also serves as a stage for showcasing the laurels that the students have brought to the college.

I wish to express my sincere thanks to the Hon'ble Principal Sir for giving us the opportunity to continue the journey of "*The Horizon*" and also to highlight the accomplishments and endeavours of the two departments.

I am also thankful to my colleagues and dear students for their support and insightful articles. I hope that this e-magazine will always be a source of inspiration for students to contribute their writing in the years to come.

All of you have a happy reading!

With warm regards

Dr. Monalisha Goswami

Editor, The Horizon

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Dr. Kakalee Das

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Dr. Monalisha Goswami

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and Dr. Kakali Kalita

Students Members

Karishma Das, Parag Kumar Das, Anannya Roy, Anish Ali

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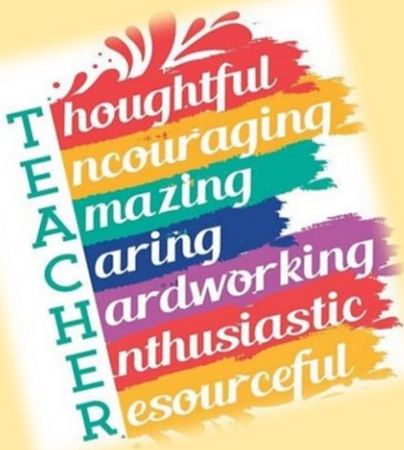
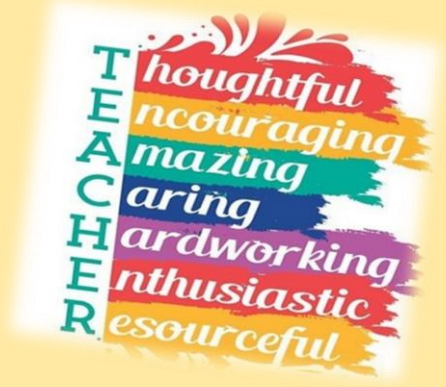
Faculties of the Departments.....



Dr. Mitamoni Sarma, HoD, Electronics



Dr. Livee Dutta, HoD, English



Dr. Kakali Kalita, Electronics



Dr. Priti Das, English



Dr. Monalisha Goswami, Electronics



Dr. Kakalee Das, English

Glimpse of the Electronics Department.....



Wall Magazine (Electronics Department) inaugurated by Hon'ble Principle Sir



Third Prize in the competition.....



Assessment conducted by the Judges.....



2nd Prize in Speech Competition on Librarian's Day

OUR PRIDE.....



Ms. Karishma Das
B.Sc 3rd Year, Electronics Honours

2nd Prize in Slogan & Poster making Competition organised by Red Ribbon Club, L.C.B College



College life is a collection of happy memories.



College Week 2023-24

- * Poem Recitation Competition - 1st Prize
- * Speech Competition- 2nd Prize.
- * English Singing Competition- 3rd Prize



College life is a collection of happy memories.



Success Stories.....

First class holders in B.Sc (Electronics Honours) Final Examination

"Congratulations on your remarkable achievement! Your dedication, hard work, and passion have paved the way for a bright future. Keep reaching for the stars!"



2023 BATCH

Himanshu Barman (Topper)



Sangita Goswami



Bishal Kalita

2024 BATCH



Surajit Sarma

TIME

Time is a river, flowing fast,
A stream of moments that never last,



We chase its current, unaware,
It slips through fingers, light as air.
Yet in its wake, we learn to see,
The beauty in its mystery,
For every second, every day,
Time teaches us to find our way.

HIMANJIT SARMA

**B. Sc 2nd Semester
(Electronics Minor)**

The Royal Heritage of Beltola: Uncovering the History of Beltola

Beltola is a large and significant area located within

Guwahati city. Historically, it was a separate settlement, distinct from Guwahati itself. The centre of this area was the traditional Beltola Bazar—a humble hut that evolved into a vibrant market. This market, over time, became the lifeline of the area.

Up until the 1970s, Beltola and Guwahati were considered adjacent and separate places. Slowly, this boundary disappeared, and now Beltola stands as an integral part of Guwahati. The Beltola Mauza office, Rani Bagan, Sankar Netralaya, and the famous heritage Beltola Market are all located in this zone.

Earlier, until the 1980s, the market was held only once a week on Sundays. With time, the market began to sit twice weekly—on Sundays and Thursdays—while the stalls remain open throughout the day. According to local oral traditions, the market was visited by numerous tribal and non-tribal communities including the Garos, Khasis, Jaintias, Lalungs, Karbis, Rabhas, Nepalis, and Manipuris. People from other parts of Guwahati also came to trade and connect. The Khasis and Jaintias from the Meghalaya lowland areas like Barnihat were frequent visitors. The Lalung Kachari and Karbi communities came from the Mayang region, located east of present-day Mayong. The Dimasa Cacharis belonged to the Dimoria region. The Beltola market became a cultural meeting ground, where goods, stories, and relationships were exchanged. For many, this market was central to life—socially, economically, and emotionally.

Historically, Beltola was a Raj Mauza, a principality with defined borders. It touched the Rani Market in the west and bordered the Mayong and Dimoria principalities in the east. The northern boundary was demarcated at Bhangagarh Road. The area expanded and developed under the leadership of the then Raja Amrit Narayan, who faced disputes with the British regarding tribute and tax collection. These tensions played a role in defining the geographical extent and autonomy of Beltola.

Among the most remarkable rulers was Raja Chandra Narayan, who frequently travelled to Calcutta for his elephant trade—a prosperous business of that time. During one such trip, he married Giribala Devi of the Pala family, and from this union came two children. His younger son, Rajendra Narayan Dev, later succeeded him as the Raja of Beltola. Raja Chandra Narayan was not only a ruler but a wise and enterprising businessman. He had a sharp vision for development but, unfortunately, his life was cut short. Nevertheless, his impact on Beltola's commercial and political history is memorable.

DR. INDRANI CHOUDHURY
Department of History

A significant moment came in 1903, when the Delhi Durbar was organised to celebrate the coronation of King Emperor Edward VII. Princes and kings from across the Indian subcontinent were invited. Raja Chandra Narayan was among them, highlighting Beltola's prestige during colonial times.

Beyond his royal duties, he also played an important role in humanitarian initiatives, particularly during times of crisis and distress. His leadership during relief efforts was commendable and remembered by the people of the region. Today, the royal legacy of Beltola may not be prominently visible to the casual observer, but its deep cultural, economic, and political roots continue to live on in its bustling market, its oral traditions, and the pride of its people. The region tells a tale of resilience, leadership, diversity, and connection—a true symbol of Assam's layered heritage.

References

1. Barua, B. (2001). Historical Evolution of Guwahati and Beltola. Assam Historical Society.
2. Bose, S. (2005). The Socio-Cultural History of the Khasi and Jaintia Tribes. North East India Press.
3. Choudhury, P. (2010). Economic and Cultural Influence of Tribal Markets in Assam. *Journal of Regional Development Studies*, 12(3), 45-59.
4. Gupta, R. (2014). Colonialism and the Raj Mauza System in Assam. Cambridge University Press.
5. Goswami, S. (2009). The Role of Markets in North East India: The Case of Beltola. *Journal of North East Asian Studies*, 22(2), 134-142.
6. Singh, A. (1998). Raja Chandra Narayan and the Political Landscape of Assam in the Colonial Era. Guwahati University Press.
7. Local Oral Traditions. (2023). Interviews conducted with residents and historians of Beltola, Assam.
8. Beltola Heritage Documentation Project (2021). Cultural Roots of Beltola: From Raj Mauza to Modern Guwahati. Assam Archives.

Importance of Attitude in life

Attitude is an important word in the English language. The dictionary meaning of attitude is “a settled way of thinking/ feeling or behaving about something”. William James of Harvard University said, “The greatest discovery of my generation is that human beings can alter their lives by altering their attitudes of mind”. The foundation of success regardless of our chosen fields is our attitude. Attitude is such an important and critical factor in success that we should examine our attitude towards life and ask how our attitude will affect our goals. It is our attitude which is inside of us and to make us go up or down.

The factors that mainly determine our attitude formation are environment, experience and education. The environment we got positive or negative depends upon home, school, work, media, cultural back-ground, religious back-ground, traditions and beliefs, social environment, political environment etc. In a positive environment, the working efficiency of people goes up and in a negative environment it goes down. Our behavior with various people changes according to our experiences with them. If we have a positive experience with a person, a positive attitude is build up towards him and conversely negative attitude build up. Again, here education refers to both formal and informal education. Education should give us not only information, but also knowledge and wisdom. Knowledge converts to wisdom and it is the wisdom which converts into success. Education ought to teach us not only how to make living, but also how to live. People with positive attitudes have

certain personality traits. They are caring, confident, patient and humble. They have high expectations of themselves and others. They anticipate positive outcomes. There are many benefits of having a positive attitude. Some of them are – it helps us to develop a pleasing personality. It energizes and increases the enjoyment of our life. It inspires others around us and help to become a contributing member of society and an asset to the country.

DR. MITAMONI SARMA

HoD, Electronics

Life is an obstacle course and we become our biggest obstacle by having a negative attitude. Negative attitude leads to bitterness, purposeless life, ill health and high stress levels for us and for others around us too. Negative attitudes create an unpleasant environment everywhere. It makes our life restricted and success limited. Sometimes though we become aware of our negative attitude, we find it difficult to change ourselves. The reason is human nature generally restricts change and change is uncomfortable for us. Change can often be stressful, regardless of its positive and negative effects. Sometimes we get so comfortable with our negativity that even when the change is for the better, we don't want to accept it. We stay with the negative. Negative attitude makes the enjoyment of our life limited. People with negative attitudes have a hard time keeping not only their friendships and jobs, but also their relationships with others.

(With the help of YOU CAN WIN by Shiv Khera)

Glimpse of the English Department.....



Educational Tour



Pre-Rongali Bihu Celebration



Cultural Rally, College Week



With Mr. L.C.B (From English Department)



Departmental Freshers



College life is a collection of happy memories.



Students participated in the 9th Brahmaputra Valley Film Festival



Capturing some joyous moments in a college program

With the invited singer.....



Creating Awareness in the adopted

In an inaugural program organised by Govt. of Assam

First class holders in B.A (English Honours) Final Examination

2024 BATCH





Dr. Diba Boroah, Associate Professor and HoD, English

Retired from her service on 30/09/2024



Farewell is Painful.....

College life is a collection of happy memories.

Seminar Presentation by the students of the English Department



A talk delivered by Dr. Kakali Dutta, Associate Professor, Nalbari College



A Woman's Heart

We are women strong and free,
Our hearts beating with dignity
We deserve to live without fear's
chains,
Our safety is guaranteed, like
summer's rains.
Our steps should be light, our paths
clear,
No shadows of doubt, no tears to fear.
We should walk with pride, our heads
held high,
Our voices heard our spirits spry.
We are women, we have the right,
To live peacefully, day and night,
No violence, no fear, no pain,
Just respect, love, and safety's gain.
Let us stand together, hand in hand,
And demand our rights in this land.
We will rise above, we will be strong,
And our safety will be our happy song.



ARPITA DAS

BCA 2nd Semester

পৰিস্কাৰ-পৰিচ্ছন্নতাৰেহে গঢ়িব পাৰোঁ আমাৰ সপোনৰ ভাৰত

প্ৰকৃতিৰ অকৃপণ বৰ্ণ বিন্যাসৰ সমাহাৰেৰে পৰিপুষ্ট বিশ্বৰ অন্যতম দেশ হ'ল ভাৰতবৰ্ষ। সভ্যতা-সংস্কৃতিৰ অন্তৰালত নিহিত হৈ থকা স্বচ্ছতাৰ মূৰ্ত প্ৰতিকৈ ঈশ্বৰৰ প্ৰতি বিশ্বাস আৰু আস্থাৰ মনোভাৱক পূৰ্ণতা প্ৰদান কৰে। এফালে যদি গঙ্গাত স্নান কৰি মানুহে পৱিত্ৰ হৈছে, আনফালে সম্পূৰ্ণ পৰিস্কাৰ-পৰিচ্ছন্নতাৰে দেৱ-দেৱীলৈ অৰ্ঘ্য আগ বঢ়াইছে। ভাৰতীয় দৰ্শনৰ আলোকপাত কৰিবলৈ গ'লে পৰিস্কাৰ-পৰিচ্ছন্নতাৰ বিষয়ে দ্বীধাহীন ভাৱে ক'ব পাৰি যে পৰিস্কাৰ-পৰিচ্ছন্নতাৰ ক্ষেত্ৰত আমাৰ পূৰ্বপুৰুষসকল যথেষ্ট শৃঙ্খলাবদ্ধ আৰু মনোযোগী আছিল। ঋষিমুনিসকলে দৈনিক সূৰ্যোদয়ৰ আগেয়ে উঠি স্নান কৰি ঈশ্বৰৰ পূজাত ব্ৰতী হৈছিল আৰু তাৰ পিছতহে আহাৰ গ্ৰহণ কৰিছিল। ভাৰতীয় বোৱাৰীসকলে ৰাতিপুৱা শুই উঠিয়েই বাঢ়নীৰে চোতালখন পৰিস্কাৰ কৰিবলৈ লয়, বাহী বাচন পৰিস্কাৰ কৰি লৈ স্নান কৰি ঈশ্বৰক প্ৰাৰ্থনা জনায় আৰম্ভ কৰে দৈনিক কাৰ্যসূচীৰ অন্যান্য বিষয়।

সমাগত পৰিস্থিতিয়ে সমগ্ৰ বিশ্বৰ লগতে ভাৰতবৰ্ষৰ জনসাধাৰণকো পৰিস্কাৰ-পৰিচ্ছন্ন হৈ থকাৰ বাবে আহ্বান জনাইছে। কিয়নো, ক'ৰোণা ভাইৰাছৰ মহামাৰী ৰূপে বিশ্বৰ সকলো প্ৰান্তকে মকৰাজালৰ দৰে চানি ধৰিছে আৰু পৰিস্কাৰ-পৰিচ্ছন্নতাৰ লগতে

শৃঙ্খলাবদ্ধ হোৱাৰ বাবেও সমগ্ৰ মানৱ জাতিক বাধ্য কৰাইছে। যিহেতু আধুনিক পৰিস্থিতি সাপেক্ষে ভাৰতবৰ্ষ এখন উন্নয়নশীল দেশৰ শাৰীতে নিবিষ্ট হৈ আছে য'ত আজিও অধিকাংশ লোক ঋতুগত খেতিৰ ওপৰত নিৰ্ভৰশীল আৰু বৰ্ধিত হাৰত দৰিদ্ৰ সীমা ৰেখাৰ তলৰ বাসিন্দাই এই দেশতে বাস কৰি আছে। তেনে এক পৰিপ্ৰেক্ষিতত পৰিস্কাৰ-পৰিচ্ছন্নতাৰ অভূতপূৰ্ব ভূমিকা আছে।



২০১৪ চনৰ ২ অক্টোবৰৰপৰা দেশৰ প্ৰধানমন্ত্ৰী নৰেন্দ্ৰ মোদীয়ে আৰম্ভ কৰা "স্বচ্ছ ভাৰত অভিযানে" ভাৰতবৰ্ষৰ প্ৰত্যেক জনসাধাৰণকে পৰিস্কাৰ-পৰিচ্ছন্ন হৈ থকাৰ বাবে অনুপ্ৰেৰণা যোগাইছিল। ভাৰতবৰ্ষ প্ৰাকৃতিক দিশৰপৰা পৃথিৱীৰ বহুতো দেশৰ তুলনাত চহকী আৰু সৌন্দৰ্যৰে ভৰপূৰ দেশ, কিন্তু একাংশ জনতাই এই সুন্দৰতাক স্নান কৰি জধে-মধে, য'তে-ত'তে জাৱৰৰ দ'মৰ সৃষ্টি কৰে। যাৰ ফলস্বৰূপে, নলা-নৰ্দমা, নৈ-বিল, হ্ৰদ ইত্যাদি জাৱৰেৰে ভৰি পৰে আৰু ইয়াৰ ফলত নতুন নতুন বেমাৰৰ বীজাণুৰ সৃষ্টিয়ে মানুহক আতংকিত কৰে। বৰ্তমান

পৰিস্থিতিত ক'ৰোণা ভাইৰাছৰ বাবেও মানৱ জাতিৰ জীৱন-মৰণৰ সন্ধিক্ষণ চলি থকা পৰিলক্ষিত হয়। বিশ্ব স্বাস্থ্য সংস্থাৰ নিৰ্দেশ মৰ্মে জনসাধাৰণে সামাজিক দূৰত্ব বজাই ৰখা আৰু পৰিস্কাৰ-পৰিচ্ছন্ন হৈ থকাটো অতিকৈ জৰুৰী।

বিশ্বৰ দ্বিতীয় জনবহুল দেশ ভাৰতবৰ্ষৰ ক্ষেত্ৰত পৰিস্কাৰ-পৰিচ্ছন্নতাৰে নাথাকিলে ক'ৰোণা ভাইৰাছৰ শিকলি বৰ্দ্ধিত হাৰত বিয়পি পৰিব আৰু ই এটা সময়ত কাল ৰূপে থিয় দিব। বৰ্তমান দৈনিক যথেষ্ট পৰিমাণে ক'ৰোণা ভাইৰাছৰ কৱলত পৰা লোকৰ সংখ্যা বৃদ্ধি পাইছে। স্বাস্থ্য কৰ্মী আৰু প্ৰশাসন ব্যৱস্থাই যৎপৰোনাস্তি প্ৰচেষ্টা আগ বঢ়াই আহিছে যদিও একাংশ জনসাধাৰণৰ অমনোযোগিতা, ধৰ্মান্ধতা, গোড়ামী, অথবা চঞ্চলা প্ৰবৃত্তিৰ বাবে ভাৰতবৰ্ষটো বিশ্বৰ অন্য প্ৰান্তৰ দৰে বৰ্দ্ধিত হাৰত ক'ৰোণা আক্ৰান্ত লোকৰ সংখ্যা বৃদ্ধি পাবলৈ ধৰিছে।

পৰিস্কাৰ-পৰিচ্ছন্নতাৰ সৈতে ভাৰতৰ অৰ্থনৈতিক ,ঔদ্যোগিক, সামাজিক আদি বিভিন্ন দিশ জড়িত হৈ আছে। জাপানীজ এনকেফেলাইটিছ, মেলেৰিয়া আদি ৰোগ স্থিৰ হৈ থকা ঘৰৰ ওচৰৰ পানীত কিছুমান নিৰ্দিষ্ট প্ৰজাতিৰ ম'হে বংশ বৃদ্ধি কৰাৰ ফলত হয়। ঠিক তেনেদৰে, আমাৰ পৰিৱেশত দূষিত বায়ু মিহলি হোৱাৰ ফলত কৰ্কট ৰোগীৰ সংখ্যাও দিনক দিনে বৃদ্ধি পাবলৈ লৈছে আৰু বহুত লোকে প্ৰাণো হেৰুৱাইছে। দেশৰ অৰ্থনৈতিক, ঔদ্যোগিক আৰু সামাজিক ক্ষেত্ৰত

মানৱ সম্পদ হেৰুওৱাৰ বাবদ যথেষ্ট ক্ষতি সাধন হয়। যদিহে আমাৰ পৰিৱেশ পৰিস্কাৰ-পৰিচ্ছন্ন হৈ থাকে তেতিয়াহ'লে এনেধৰণৰ ধ্বংসাত্মক দিশৰ পৰা আমি হাত সাৰিব পাৰিম।

KARISHMA DAS
B.Sc 6th Semester
(Electronics Honours)

পৰিস্কাৰ-পৰিচ্ছন্নতাই ষ্ট্ৰম্বৰ পৰায়নতাৰ মূল। বৰ্তমান পৰিস্থিতিৰ বাবে ভাৰতবৰ্ষ যথেষ্ট পৰিমাণে পৰিস্কাৰ হৈ পৰিছে। গংগা, যমুনা ,ব্ৰহ্মপুত্ৰৰ জলৰাশি ফটফটীয়া হৈ পৰিছে; সাগৰৰ পানীত ডলফিনৰ মুক্ত বিচৰণ ঘটিছে; কল-কাৰখানা, গাড়ী-মটৰৰ ধোঁৱাপৰা পৰিৱেশ মুক্ত হোৱা বাবে কুলি-কেতেকী আৰু অন্যান্য পৰিভ্ৰমী চৰাইৰ মাতত জীপাল হৈ পৰিছে ভাৰতবৰ্ষৰ আকাশ; কাছই মুক্ত মনে বালিত কণী পাৰি পোৱালি জগাবলৈ মনোবল বৃদ্ধি কৰিছে; এইবোৰ সম্ভৱ হৈছে একমাত্ৰ পৰিস্কাৰ-পৰিচ্ছন্ন প্ৰকৃতিৰ শোভাৰ বাবে যিয়ে জৈৱ বৈচিত্ৰতা আৰু পৰিস্থিতি তন্ত্ৰৰ ভাৰসাম্যতা বজাই ৰাখিবলৈ সক্ষম হৈছে। এনেদৰে আমি সপোনৰ ভাৰত নিৰ্মান কৰাৰ বাবে অগ্ৰসৰ হ'ব পাৰিম।

পৰিস্কাৰ-পৰিচ্ছন্নতা বুলিলে অকল মানৱ জাতি পৰিস্কাৰ হৈ থকাটোকে নুবুজায়। মানুহৰ সৈতে সংযুক্ত প্ৰত্যেকটি প্ৰাকৃতিক অথবা মানৱ সৃষ্ট উপাদানকো পৰিস্কাৰ-পৰিচ্ছন্নকৈ আৰু

সংৰক্ষিত কৰি ৰখাটো নিত্যান্তই প্ৰয়োজনীয়। বিশেষকৈ ভাৰতৰ চহৰ-মহানগৰৰ পৰিৱেশ তুলনামূলকভাৱে গাঁৱতকৈ কম স্বাস্থ্যকৰ। শব্দ প্ৰদূষণ, বায়ু প্ৰদূষণ, পানী প্ৰদূষণ ইত্যাদি নগৰ-মহানগৰত হৈ যথেষ্ট পৰিমাণে হয়। ইয়াৰ বিভিন্ন কাৰণ আছে-

- গছ-গছনি কাটি নগৰীকৰণৰ বাবে সেই ঠাই ব্যৱহাৰ কৰা।
- হাজাৰ হাজাৰ গাড়ী-মটৰ, কল-কাৰখানাৰ পৰা ওলোৱা ধোঁৱা আৰু কোলাহল।
- নলা-নৰ্দমাৰ পানী নদী সমূহলৈ প্ৰবাহিত হোৱা।
- কৃত্ৰিম বানপানী।
- য'তে-ত'তে দোকান-পোহাৰ স্থাপন কৰা।
- জাৱৰ-যোথৰ য'তে-ত'তে পেলোৱা ইত্যাদি।

এনেদৰে পৰিৱেশ প্ৰদূষণ হয়। ভাৰতবৰ্ষৰ কেন্দ্ৰীয় আৰু ৰাজ্যিক চৰকাৰসমূহে বিভিন্ন ধৰণৰ ব্যৱস্থা গ্ৰহণ কৰা স্বত্বেও একাংশ নিকৃষ্ট মানসিকতাৰ মানুহৰ বাবে কৰ্মবোৰ সম্পূৰ্ণ হৈও অসম্পূৰ্ণ হৈ ৰয়।

পৰিস্কাৰ-পৰিষ্কলিতাই ভাৰতবৰ্ষক যথেষ্ট পৰিমাণে আগুৱাই লৈ যাবলৈ সক্ষম হ'ব। যিহেতু, ভাৰতবৰ্ষ বিভিন্নধৰণৰ ঐতিহাসিক মঠ-মন্দিৰ, কলা-কৃষ্টি, প্ৰাকৃতিক সৌন্দৰ্যৰে ভৰপূৰ পৰ্যটকৰ বাবে আকৰ্ষিত ঠাই, গতিকে, ভাৰতবৰ্ষৰ প্ৰত্যেক ঠাইক পৰিস্কাৰ-

পৰিষ্কলিত কৰি ৰখাটো আমাৰ প্ৰত্যেকৰে কৰ্তব্য। তেতিয়া, দেশ অৰ্থনৈতিকভাৱে যথেষ্ট লাভান্বিত হ'ব।

ভাৰতীয় প্ৰাচীনতম পৰম্পৰা অনুসৰি পৰিস্কাৰ-পৰিষ্কলিতাৰ লগতে যোগাভ্যাস, আয়ুৰ্বেদিক চিকিৎসা আদিৰো ওত-প্ৰোত সম্পৰ্ক আছে। আমাৰ নিজ মাটিতে বিভিন্ন প্ৰজাতিৰ উদ্ভিদ আছে যিবোৰ ঔষধি গুণেৰে ভৰপূৰ হৈ আছে। গতিকে, আমাৰ ওচৰে-পাজৰে থকা ঔষধিক গুণ সম্পন্ন উদ্ভিদসমূহৰ লগতে অন্যান্য উদ্ভিদ সমূহৰো যল্ল লোৱাটো নিত্যান্তই প্ৰয়োজন, তেহে বিশুদ্ধ বায়ু প্ৰবাহিত হ'ব আৰু পৰিৱেশ পৰিস্কাৰ হৈ থাকিব। এনেদৰে, আমাৰ সপোনৰ ভাৰতে বাস্তৱতাৰ দ্বিগ্বীজয়ী যাত্ৰাৰ বাবে উৰ্ধমুখী হ'ব আৰু এদিন বিশ্ব গুৰুৰ আসন শুৱনি কৰিবলৈ সক্ষম হ'ব।

The Truth of the World

Have faith in God cause Only God can save you

Only God can love you unconditionally
Unlike God

The selfish world will not show you mercy
when the leaders want power

They will kill us one by one

Into hundreds, thousands, millions....

Just for their ego & power.

When it'll be the war time

There will be no constitution,

No police, no army

No court and no justice,

Could be your friend

You have to push yourself

To stand by on your own.

Your life will be valued

Only when you're dead;

On the headlines like

As of thousands corpse along.

The humanity you believe will be selfish
on that day.

The leaders will sit in their chair;

And they will see innocent people dying.

They will only care about their luxury and
power

It is not you who they care.

Stop believing in their lies,

Don't listen to their fake promises,

Just accept it that you are helpless.

Only God can save you

They will be burnt down in hell

Those who let innocent people die for
power

These corrupted people are not man, They
are not even real man,

Who kill women and children in the war.

God will definitely punish them.

Tell them to come into the battlefield,

Fight for their dignity unless they have it.

These cowards can only hide in the bush

Or in the veil of their cowardness...

God is the only one.

Who can give you power to conquer

Any hurdles in the world;

Unless you are not one of the cowards...

ANISH ALI

B.A 6th Semester

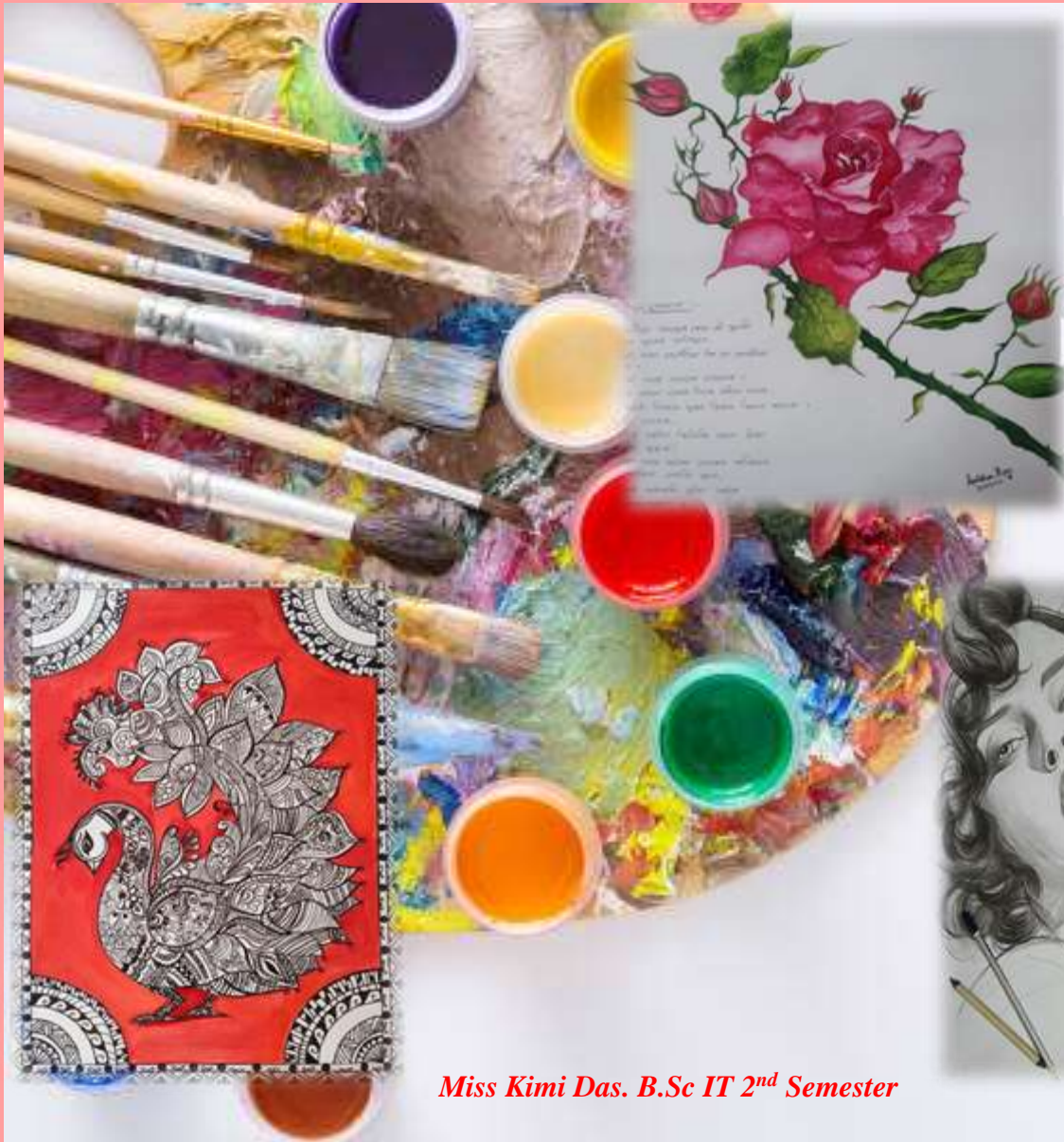
(English Honours)

Artworks of students.....



Miss Karishma Das. B.Sc 6th Semester (Electronics Honours)

Mr. Parag Kumar Das. B.Sc 2nd Year (Electronics Minor)



Miss Amisha Roy. BCA 2nd Semester



Mr. Jyotiraj Sarma. BCA 2nd Semester

Miss Kimi Das. B.Sc IT 2nd Semester

CYCLE OF RENEWAL

After rain, a rainbow spreads wide,
Colours glistening nowhere to hide,
In life's dark storms, when hope seems small,
There's beauty waiting after the fall.
Each night surrenders to down's embrace,
Casting light on every hidden trace,
Our sorrows may feel like endless night.
But Joy returns with morning's light.
Leaves drift down from branches high,
A silent dance, a gentle goodbye,
Yet buds emerge, so fresh, so green,
From every ending, life grows serene.
So hold on through the storm's fire play,
And trust in life's renewing way.
Four seasons change, and so will you,
After the darkness, skies turn blue.

ANANNYA ROY

B.A 2nd Semester

Beyond the Human: Exploring ‘Posthumanism’ and the future

Gone are the days when humanity reigned at the top of the evolutionary ladder. The traditional human centric approach to look at everything under the sun is dismantled. Now, emphasis is given on the nonhuman entities like the ecosystem, the animals, diverse species on the planet and its independent existence. This is where the concept of ‘Posthumanism’ comes in. It decenters the human subject and promotes new ethical frameworks for nonhuman entities that were previously not given any precedence. Imagine a world where the boundaries between human, machine, animal, and the environment dissolves! Posthumanism dares us to imagine a world where the future is not ruled by humans.

So far, human beings have exploited nature and given importance to technology, thereby depending totally upon it. But in the 21st century, the question is not how much we have evolved but how far can we evolve? Post- humanism makes us question our existence as humans and the future that awaits us.

Human beings are not lone heroes

The concept of an isolated and self-sufficient human is no longer persistent. In this context, a question arises-

Can a future be imagined where it isn’t all about humans?

A very strange yet necessary truth whispers here. Animals are now no longer a silent spectator. They are now a citizen in the multispecies world where there is a possibility that we might require to consult them and your needs while making environmental policies. This signifies that human can no longer be treated as the only living beings with rights. Where, once upon a time, animals were seen as resources, now from the posthumanism’s perspective, they are considered beings with intelligence and emotions. For example – in the posthuman ethics, a dolphin cannot be a tourists’ attraction. They are a part of the living world like humans and hence should be treated equally. Their habitats should not be treated as resources for the human beings but should be considered as their “homes”. Focus should not be given on making the animals learn our language, instead, we must learn to listen to theirs. Bio acoustics is across disciplinary field that helps to decode animal voices or sounds. From the posthuman perspective, reading your voice is given importance to produce a dialogue with them rather than dominating them.

DR. KAKALEE DAS

Department of English

Posthumanism in Literature

George Orwell’s seminal text *Animal Farm* (1945) is an example that fits into this context. Animals are not taken as a metaphor here, instead they are a subject. It is a political allegory that talks

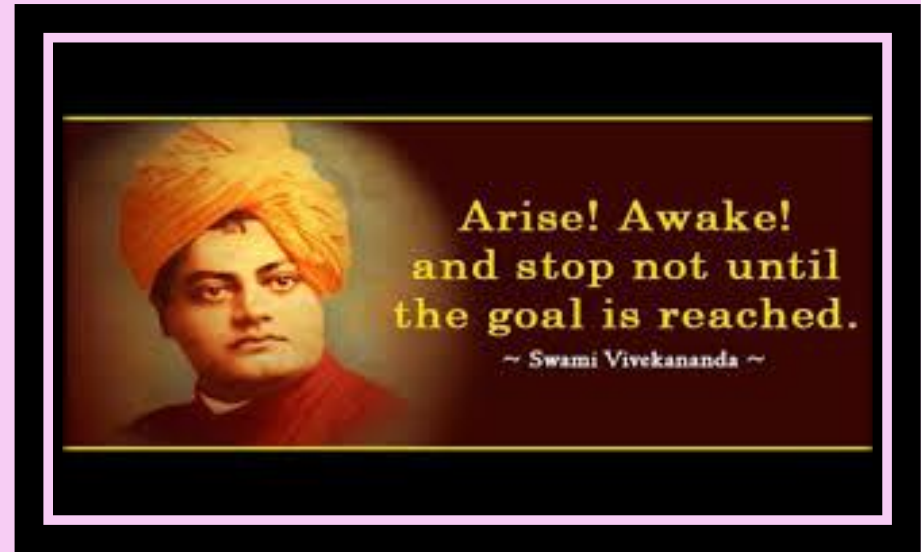
about the brutality of revolution and authoritarianism in the human world. Humans are decentered here on moral and political grounds. Showcasing the failure of human ideologies, the text meticulously recognizes the nonhuman agencies and their anticipatory vision. In the text, animal farm, the pigs rise to power and language becomes a weapon to mimicry that you are any of the humans. The posthuman approach aims to see a society which is not based on dominance of the human button, interspecies kinship.

A Message to the Readers

Dear readers,

*As we are racing into a world, where almost everything is changing too fast, posthumanism, offers to look in and around us through a distinct lens. It challenges us to step down from the position where we consider ourselves to be the Supreme Being. It urges us to listen to the ecosystem and create a balance to secure our future. The idea is not to erase human existence, but to remember that **“we are and were never alone”**. Post-humanism is inviting us to share our world with the ecosystem and listen to their voices, but the question remains-*

Are we ready to listen?



উৎকৰ্ণা

প্ৰতিলিপিৰ ভাঁজে ভাঁজে
আলোড়নৰ সমাহাৰ,
নিৰৱ উৎকৰ্ণাবোৰে
মাজনিশা সাৰপাই
আবিৰ সানে ভাৱনাৰ বিৰিখত।।

বিৰিখে বিৰিখে.....
লক্ষ্য আৰু সপোনৰ চিৎকাৰ,
এফালে গৈ সিফালে হেৰুৱাৰ শংকা,
যেন ফাগুন আৰু বসন্তৰ মাজত
পৰিধিৰ অৱকাশৰ প্ৰচেষ্টা।।

চিকমিক পানীৰ টোৰ জিলিকনিৰ
পৰিধিৰ সিপাৰৰ পৰিক্ৰমা অতিক্ৰম কৰি,
সিঁচি দিব শীতলতা মনৰ বাগিচাত,
বসন্তৰ আগমনত ফুলতকৈ কাঁইটেই শ্ৰেয়,
অপেক্ষাই যেন ৰুদ্ধ কৰিছেহি মনৰ দুৱাৰ,
প্ৰশ্ন হল দুৱাৰৰ নিচেই কাষত নে অদূৰত !

মোৰ বাকৰিৰ শীতল ছাঁত
এবাৰ ফুলি চোৱা,চৌদিশে সুবাস বিলাই,
মাদকতাৰে হৃদয় আপ্লুত কৰি।।
তৃষ্ণাতুৰ হৃদয়ৰ অৰ্ণ কৰ্ণ শুকাই
আকৌ পোৱা নোপোৱাৰ দুমোজাত,

সময়ৰ সোঁতত পোৱা নোপোৱাৰ
হিচাব অপৰিসীম,
দিয়াচলাইৰ বহিৰ অবিহনেই
বহি বিৰাজমান, মানৱ হৃদয়ত,
বেদনা আৰু ক্ষোভত।।

**DR. SURAJIT DEKA (Alumnus),
Assistant Professor, ECE
Department, G.U**

Impact of the Fourth Industrial Revolution on Life in Developing Countries like India

The Fourth Industrial Revolution changes the elements of innovation, security, privacy, and employment around the globe. It has major impacts on life in developing countries like India. On the one hand, opportunities for technological advancement and economic growth; on the other, inequality and job displacement create challenges that cannot be escaped.

Opportunities Presented by Fourth Industrial Revolution

Increased Productivity: The use of automation and advanced technologies can result in enhanced productivity by an estimated 5 to 8% over the next years.



Quality of Life: Technological developments allow for better access to healthcare, education, and transportation.

New Markets Created: New markets and jobs will be developed especially in the areas of e-commerce, renewable energy, and smart agriculture.

Impact on innovation: The 4th Industrial Revolution is the most innovative level, which is offered by technologies like AI, IoT, and block chain. India is emerging as a global hub for technology startups. With adequate funding and support for innovation-driven entrepreneurs, the government is promoting initiatives like 'Digital India' to upgrade the digital infrastructure and support research and development.

Key Disadvantages of the Fourth Industrial Revolution

Enhanced Inequality: Access to technology may not be found amongst the marginalized groups which would leave a digital divide. The gap between skilled and unskilled workers has increased leading to economic disparities.

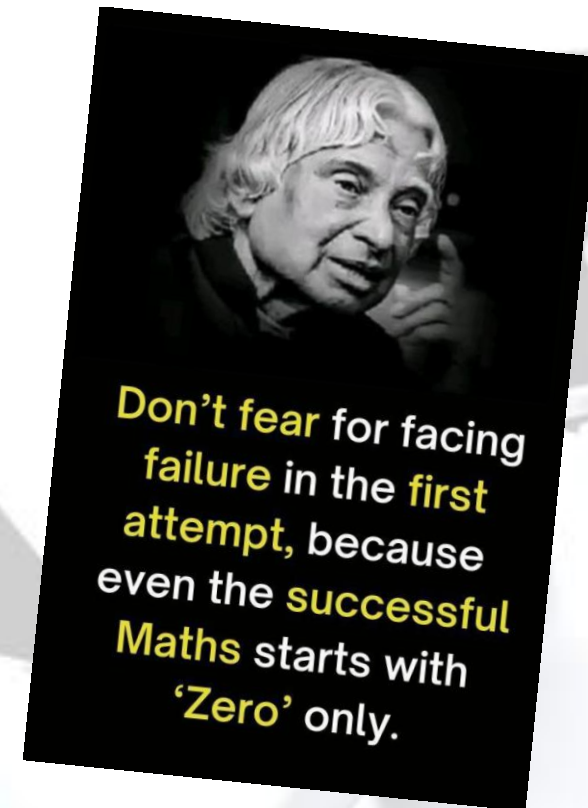
NIRMALI DAS
Alumna, Electronics

Job Displacement: Automation and Artificial Intelligence can eliminate traditional jobs, especially in sectors such as manufacturing and agriculture, thus increasing the unemployment rate.

Cyber security Risks: With the acceleration of the digital transformation era, cyber security has also become a major concern. This is especially true for developing countries like India. The high level of connectivity and reliance on digital platforms highlights their vulnerability to cyber threats. The rise of data-driven technology has raised serious privacy concerns. One of the main challenges for decision makers is balancing the needs of AI and humans using data.

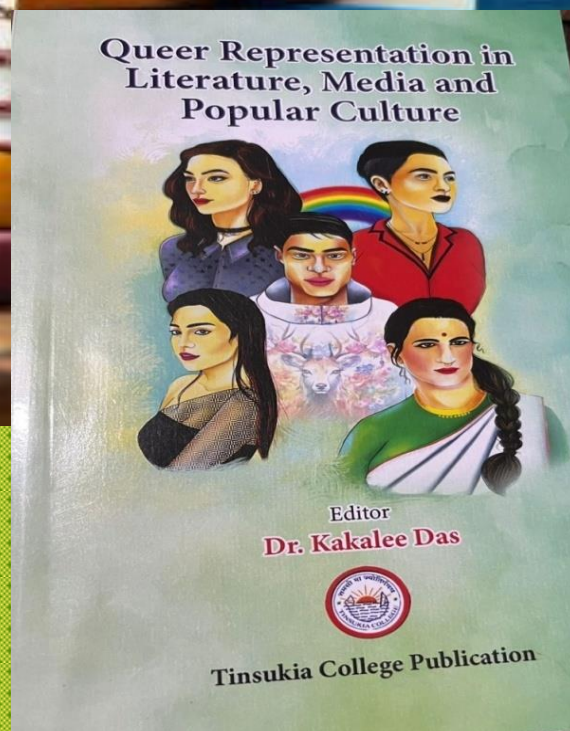
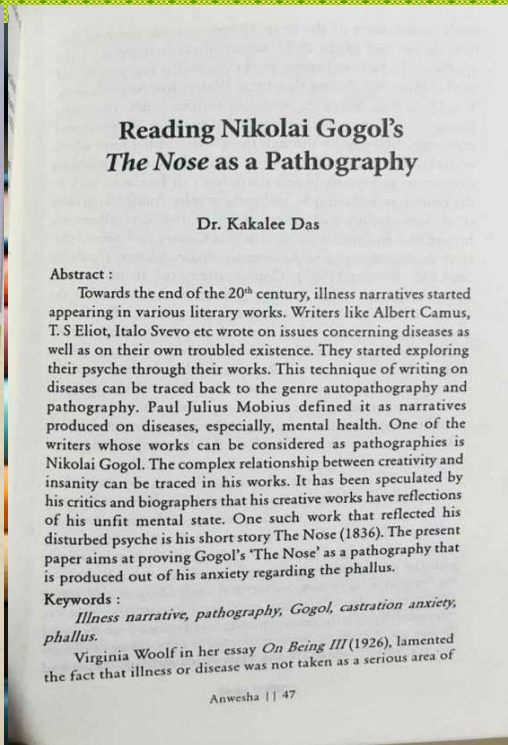
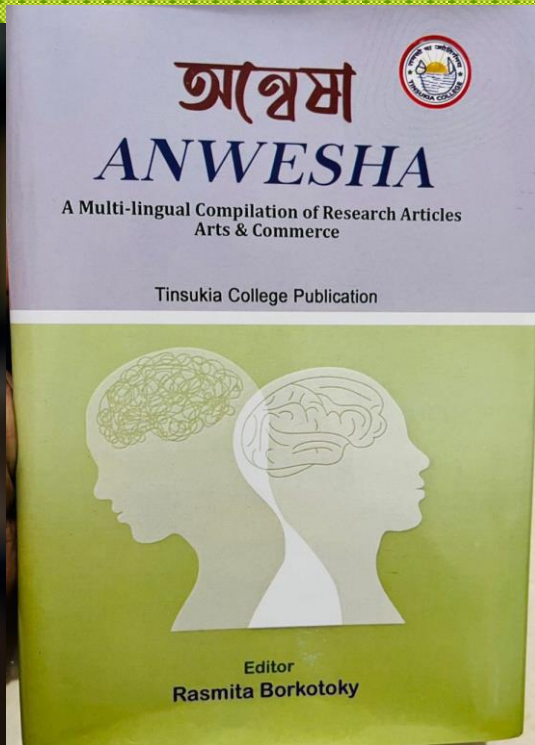
Conclusion

The Fourth Industrial Revolution is expected to bring about significant changes, but the challenges associated with it must be addressed so that the benefits are shared equitably. In this regard, developing countries like India need to focus on developing policies that are inclusive and promote digital literacy, access to technology, and ethical standards in the deployment of technology to mitigate the negative impacts of 4IR.

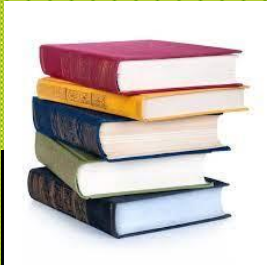


Achievements of faculties during 2023-2024.....

DR. KAKALEE DAS



DR. KAKALEE DAS



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Revisiting Colonial History: Investigating portrayal of the 'white women' in Rumer Godden's *Two Under the Indian Sun* and *Kingfishers Catch Fire*

Dr. Kakalee Das*

Abstract

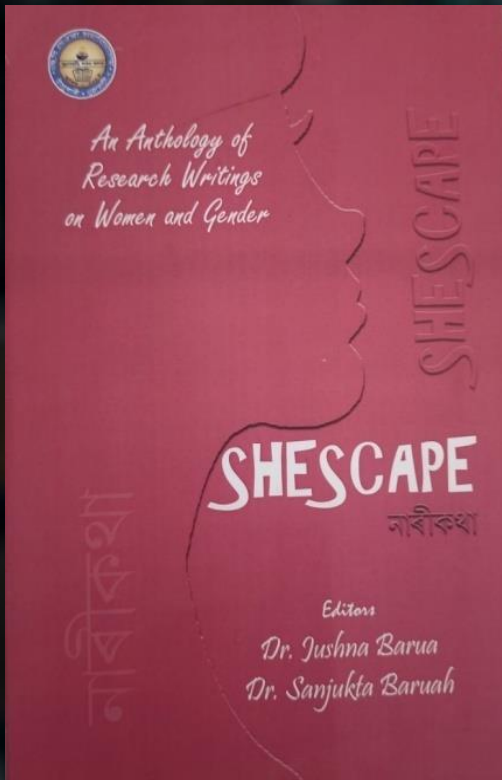
Literature has the power to subvert an established narrative and reconceptualize/recontextualize it. The author Susanne Baake in her text *Literature and Communities: Literature Reflects Communities* (2009) claims how writers take a stand for a cause that pertains to a specific community by producing literature that reflect their personal beliefs for the same. While colonial literature converses about the burden taken up by the white men, very few deal with the white women who left their homes behind for the empire's cause. These women can be categorised into a community who selflessly participated in the empire building, yet they remained clouded in the literature of the time. After doing an extensive literature review in the area, it was found that limited research has been done on the white women's community in India. The limited literature produced on them presented a very distorted image. The paper problematizes this negative depiction and attempts at questioning this literary representation of the white women in contemporary colonial narratives of the time. For the purpose, the paper will analysis the select texts – *Two Under the Indian Sun* (1966) and *Kingfishers Catch Fire* (1953) - of the British author Margaret Rumer Godden who was once a colonial woman and penned down her experiences in India.

Keywords: colonial narratives, literary depiction, false narratives, white women's community, Rumer Godden

In the text *Literature and Communities: Literature Reflects Communities* (2009), the author Susanne Baake claims how writers take a stand for a cause that pertains to a specific community by producing literature that reflect their personal beliefs for the same. Literature as such plays a pivotal role because it has the power to subvert certain narratives based on that community and reconceptualize/recontextualize it. The author Simone de Beauvoir in her seminal text *The Second Sex* (1949) questions the representation of the world that is under male domain since ages and how this representation has been considered as the absolute truth. These representations/narratives ceaselessly demeaned the narratives produced by women writers and questioned their authenticity regarding the same. History, for instance, has been under male domain and as such any literature produced is mostly androcentric. For instance, history of colonialism talks about the wreckages and havocs done by the colonisers on the colonised land. Again, colonial literature converses about the burden taken up by the white men for the nation's cause. The poem 'The White Man's Burden' (1899) by Rudyard Kipling reckons the institution of colonialism as a magnanimous institution and celebrates the white man who according to them took a burden for the empire's cause. This is evident in the lines-

Take up the White Man's burden—

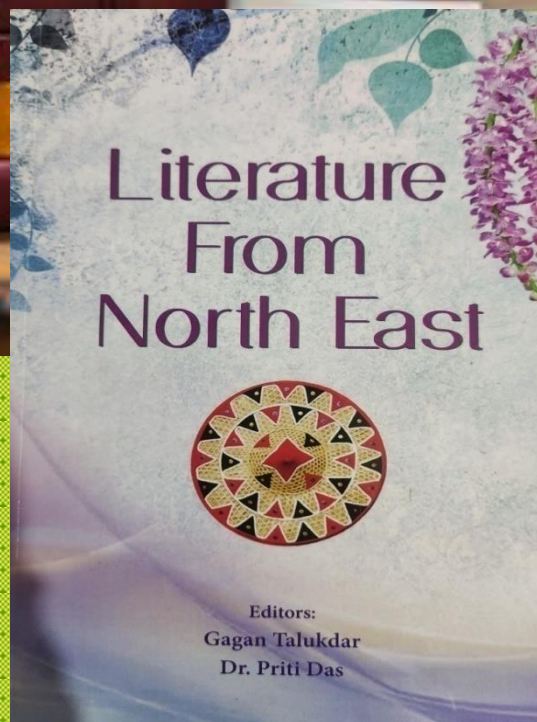
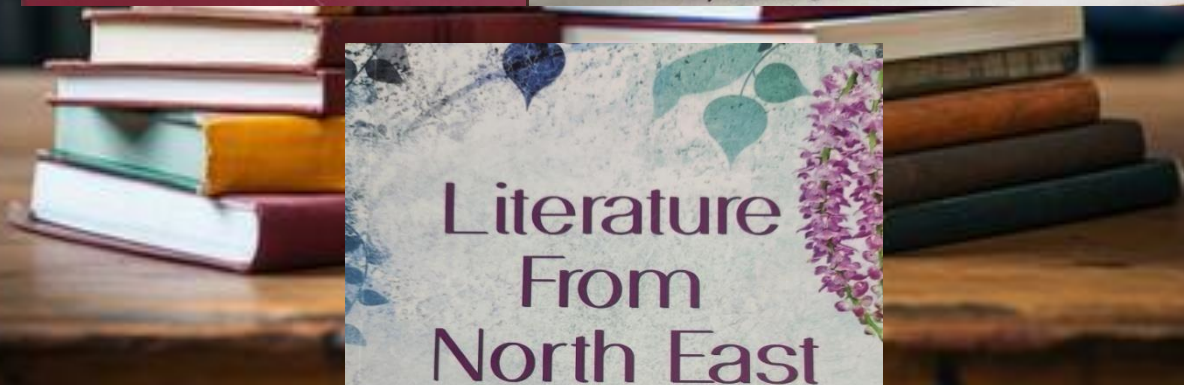
DR. PRITI DAS



**DEFYING SOCIAL ROLES IN
AMA ATA AIDOO'S
'THE GIRL WHO CAN'**

Dr. Priti Das

Since ancient times, women have been denied access to various sectors by patriarchal society. They have been conditioned to believe that their intrusion into these sectors is sinful and will incur the wrath of Gods. However, no reasons have been offered to justify such claims. It is the patriarchal society that decides when a female body is ripe for marriage and child bearing. Men, however, are free from such scrutiny. Further, commodification of women reduces her to an object of visual and sexual pleasure. Such attitudes are rampant especially in societies in under developed countries. The subjugation of women has been a major concern since it is only through the progress of both the sexes that a country can make considerable progress. However, in the African countries like Ghana, Botswana, Nigeria, Kenya, Congo etc., women's space has been limited to the confines of the house. Burdened with household responsibilities, women are at best child bearing machines. In patriarchal societies, men can engage in multiple marriages while the consent of women is considered unnecessary in choosing their life partners. Preferential treatment of boys over girls is common. In African communities, women are economically and socially dependent upon the male members of the household. Until she gives birth to a male child, women are not whole heartedly accepted by the male members in the African communities. In terms of getting proper nutrition and proper healthcare too, women have faced discrimination. In a family, they are the ones who have been taught that they have to sacrifice their own meal, if some male member from their family does not get enough food in their meal. On the



DR. KAKALI KALITA

সৃষ্টি অন্বেষ
 সাহিত্য-সংস্কৃতিক ত্রিভাঙ্গী আলোচনী
 পঞ্চম বর্ষ প্রথম সংখ্যা, জানুৱাৰী-মাৰ্চ, ২০২৪
 The Assamese Quarterly Literary & Cultural Magazine
 Srishti Anvesh Vol. 5 No. 1, January-March, 2024

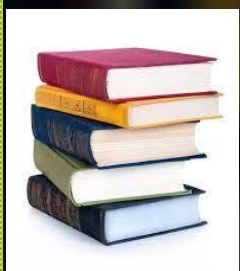
শুৱৰি আমাৰ গাওঁখনি অতি - জয়ানী আজুন আৰি হুচেইন
 কাইট - জয়নীশ গোস্বামী
 মা- লিপিকা কলিতা ঠোৱাৰী
 অলংকাৰ - শৰিমা গোস্বামী
 হৃদয়ৰ খিবিকীখন খুলি দিয়াজোন - পৰা বৰা দাস

কৃত্ৰিম বুদ্ধিমত্তা (Artificial Intelligence)
 - ড° কাকলি কলিতা

বৰ্তমান সময়ত আটাইতকৈ চৰ্চিত বিষয়বোৰৰ ভিতৰত অন্যতম হৈছে কৃত্ৰিম বুদ্ধিমত্তা। সৰ্বোদ্যম মাধ্যমেই হওক বা সামাজিক মাধ্যমেই হওক সকলোতে কেৱল কৃত্ৰিম বুদ্ধিমত্তা আৰু ইয়াৰ প্ৰভাৱ। বৰ্তমানৰ আধুনিক সমাজখনৰ প্ৰায় সকলো ক্ষেত্ৰতে কৃত্ৰিম বুদ্ধিমত্তাৰ প্ৰয়োগ কৰা হয়।

কম্পিউটাৰ প্ৰণালীৰ সহায়ত মেনিন বিলাকক মানুহৰ দৰে চিন্তা বা কাম কৰিবলৈ সক্ষম কৰি তোলাটোৱেই হৈছে কৃত্ৰিম বুদ্ধিমত্তা। John Mc Carthy (জন মেককাৰ্থি) ক কৃত্ৰিম বুদ্ধিমত্তাৰ জনক বুলি কোৱা হয়। দৈনন্দিন জীৱনৰ প্ৰায় সকলোবোৰ সমস্যাৰ সমাধানত কৃত্ৰিম বুদ্ধিমত্তাই সহায় কৰে। বিজ্ঞান আৰু প্ৰযুক্তিৰ বিকাশৰ লগে লগে বিভিন্ন ক্ষেত্ৰত কৃত্ৰিম বুদ্ধিমত্তাৰ প্ৰয়োগে ব্যৱহাৰিক আৰু ব্যবসায়িক প্ৰসাৰ লাভ কৰিবলৈ সক্ষম হৈছে। বৰ্তমান সময়ত Apple, Google, Tesla, Amazon আদি কৰ্পোৰেচনে কৃত্ৰিম বুদ্ধিমত্তাৰ প্ৰয়োগে নিজৰ ব্যবসায়িক ক্ষেত্ৰখন অধিক লাভজনক আৰু পাৰদৰ্শী কৰি তুলিছে। গাড়ী নিৰ্মাণকাৰী প্ৰতিষ্ঠান Tesla Company ৰ ড্ৰাইভাৰ বিহীন বাহনত এই প্ৰযুক্তি ব্যৱহাৰ হৈছে। বিত্ত প্ৰতিষ্ঠানসমূহে কৃত্ৰিম বুদ্ধিমত্তা প্ৰয়োগ কৰি বিভিন্নলোকৰ ব্যক্তিগত তথ্য সমূহ আহৰণ কৰে আৰু তেওঁলোকক বিত্ত সংক্ৰান্তীয় উপদেশ প্ৰেৰণ কৰে। এই প্ৰক্ৰিয়াই বিত্তীয় প্ৰতিষ্ঠানসমূহৰ উন্নয়ন আৰু বিকাশত যথেষ্ট অৰিহণা যোগাইছে। বৰ্তমান সময়ত অতিৰিক্ত জনপ্ৰিয় online shopping site সমূহে কৃত্ৰিম বুদ্ধিমত্তা প্ৰয়োগ কৰি গ্ৰাহকৰ পছন্দ সামগ্ৰীসমূহ সহজতে যোগান ধৰিবলৈ সক্ষম হৈছে। উদাহৰণ স্বৰূপে "Amazon" কৰ্পোৰেচনে দক্ষতা আৰু সুৰক্ষা বৃদ্ধি কৰণে "Security" নামৰ এক নতুন বৰটিক পদ্ধতি (Robotic System) ব্যৱহাৰ কৰিছে।

স্বাস্থ্যসেৱাৰ (Health Care) ক্ষেত্ৰখনতো কৃত্ৰিম বুদ্ধিমত্তাই যথেষ্ট অৱদান আগবঢ়াইছে। স্বাস্থ্যসেৱাৰ প্ৰতিষ্ঠান সমূহে কৃত্ৰিম বুদ্ধিমত্তা প্ৰয়োগ কৰি অতি শীঘ্ৰে ৰোগ নিৰ্ণয় কৰিবলৈ সক্ষম হৈছে। বৰ্তমান অস্ত্ৰোপচাৰ আৰু অগ্ন প্ৰতিষ্ঠাপন (Transplant) ত স্বয়ংক্ৰিয় ৰ'বট (Automated Robot) ব্যৱহাৰ কৰা হয়। যাৰ ফলত সফল অস্ত্ৰোপচাৰ হ'ব দিনে দিনে বাঢ়ি গৈছে আৰু বহুতো মানুহৰ জীৱন ৰক্ষা পৰিছে। বেডিঙলজিৰ ক্ষেত্ৰত কৃত্ৰিম বুদ্ধিমত্তা ব্যৱহাৰ কৰি MRI, X-Rays আৰু CT scan আদিত উপলব্ধ অণুৰূপিকতা চিনাক্ত কৰিব পাৰি। বৰ্তমান বহুভাৱত উপলব্ধ বিভিন্ন "Health Teachers" পিৰিডিক হাৰ্টপম্পন (Heart rate) বা অন্যান্য কানক্যৰ্য নিৰীক্ষণ কৰিব পাৰি আৰু সেইমতে তাৰ ব্যৱহাৰ ল'ব পাৰি। বৰ্তমান আমাৰ সমাজত ভয়াবহ ভাবে বিয়পি পৰা কোৱাৰিড



DR. MONALISHA GOSWAMI

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Featured Letter

A study on structural and optical properties of the synthesized PVP capped Zinc Oxide Nanoparticles

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ARTICLE INFO

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ABSTRACT

Zinc Oxide Nanoparticles, capped with a polymer, have been effectively synthesized using a chemical precipitation method at a relatively low reaction temperature of 60 °C. The present study examines the structural and optical properties of ZnO Nanoparticles (NPs) that have been synthesized and capped with different weight percentages of PVP (Polyvinyl Pyrrolidone). To investigate these properties, advanced analytical techniques including X-ray Diffraction (XRD), Field Emission Scanning Electron Microscopy (FE-SEM), Ultra Violet-Visible (UV-vis) absorption spectroscopy are employed. The XRD analysis reveals that the synthesized ZnO samples have a hexagonal wurtzite structure, regardless of adding capping agent. The Williamson-Hall (W-H) analysis, a commonly used method, estimates the strain present in synthesized materials. The SEM image depicts ZnO NPs that have a nearly spherical form and are seen to be agglomerated. The UV-vis absorption measurements demonstrate a phenomenon known as blue shift when compared to the absorption characteristic of bulk ZnO.

1. Introduction

The scientific world has shown a great deal of interest in Zinc Oxide (ZnO), an important II-VI semiconductor material, because of its advantageous features, which include a strong reaction binding energy (60 meV) as compared to GaN (26 meV) and ZnSe (20 meV), a direct and broad optical bandgap of 3.37 eV, non-toxicity, chemically and thermally stable, transparent to visible light etc [1,2]. Consequently, ZnO has emerged as a promising material for several applications, including gas sensors, UV light emitters, photo detectors, solar cell, photo catalysis etc [3-4]. Synthesis of various forms of ZnO structures such as nanoparticles, nanowires, nanoflowers etc [1,5,6] are extensively included in the literature. Although ZnO nanostructures are synthesized by using different methods such as hydrothermal, sol-gel [7], chemical vapor deposition [8], chemical precipitation [1] etc, the present work has selected the chemical precipitation method as it is more advantageous such as eco-friendly and uses inexpensive equipments, non-poisonous chemicals and low operating temperature [1]. However, the chemically synthesized NPs get agglomerated due to large surface area which in turn provides less stable and large size particles. As reported by Javed et al., the capping molecules have played a significant role in stabilizing the synthesized NPs by regulating their size. Consequently, it is important to cap the as-synthesized NPs with a surfactant such as Polyethylene Glycol (PEG), PVP etc. [9]. Yoganarayanan et al., synthesized ZnO NPs using PVP and Citric acid as multi-capping agents and concluded that a significant size confinement of ZnO nanostructure with the variation in concentrations of capping molecules [10]. Nguyen et al., successfully synthesized PVA capped ZnO NPs by the co-precipitation method and reported that the PVA affects the optical and photometric characteristics of synthesized ZnO NPs [11]. Chandrasekaran et al., studied the effect of various capping agents on the modifications of ZnO NPs synthesized by sol-gel process and reported morphological change of the synthesized particles with capping agents [12]. Verma et al., synthesized uncapped and biodegradable Polyvinyl Alcohol (PVA) capped ZnO NPs by adopting a rudimentary chemical precipitation method at room temperature followed by isothermal annealing. They suggested potential applications of such biodegradable capped NPs as biophotonic materials [13] etc. However, few works are reported capping the as-synthesized ZnO NPs with varied concentration of capping molecules. In the present work, an attempt is made to cap the as-synthesized ZnO NPs by increasing the concentration of PVP molecules and to systematically investigate the structural and optical properties of as-synthesized PVP capped ZnO samples.

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 0167-577X/© 2024 Elsevier B.V. All rights are reserved, including those for text and data mining, AI training, and similar technologies.

Impact of Social media on Society

Social media is an electronic communication platform through which users can create online communities and share information, ideas, personal messages, videos, etc. There are different forms of social media, including social networking sites, photo-sharing sites, video-sharing sites, podcasts, blogs, and many more. The most popular examples of social media platforms are Facebook, Instagram, TikTok, YouTube, WhatsApp, LinkedIn, etc. The first social media site, “Six Degrees,” was created by Andrew Weinreich in 1997. Though Andrew Weinrich is known as the father of social media, Mark Zuckerberg and his team at Facebook contributed a lot to popularize the social media.

In the present age of technological advancement, social media has influenced our daily lives. Social media has transformed society into a global village where people can interact with each other within a very short time. It has improved communication among people and enhanced business and marketing by giving advertising platforms. Many people have got exposure by sharing their skills and creativity through social media. Students also benefit by accessing educational resources online. Social media has also played an important role in spreading information and raising awareness about social, economic, and political issues. Social media offers numerous advantages, but it also has some harmful effects on society. Especially teenagers are highly affected by social media. Due to overuse of social media, they are suffering from depression, anxiety, sleep disturbance, etc. Besides, they are exposed to harmful

content and false information, which can create unrealistic expectations in their minds. Excessive usage of social media can lead to poor academic performance, reduced self-confidence, detachment from family, relatives, etc. Not only the youth, but all people are affected by social media. Due to addiction to social media, people are neglecting their real-world responsibilities and relationships. People share personal information unknowingly, which leads to serious problems like identity theft, stalking, data breaches, etc. In social media content that goes viral without proper verification, some people spread rumors and fake news, which can create chaos in the society. Cyberbullying is another damaging consequence of social media. Victims of cyberbullying may suffer from emotional trauma, which can lead to self-harm or suicide.



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In conclusion, social media has both positive and negative impacts. It is the responsibility of the users to use it wisely and safely. Before sharing photos, videos, or personal details, people should ask themselves whether it would harm them in the future or create chaos in society. People should avoid sharing exact locations or daily routines to prevent tracking or stalking. Instead of sharing everything on social media, people can create private digital scrapbooks or cloud albums to preserve memories.

ললিত চন্দ্ৰ ভৰালী: এক অফুৰন্ত স্মৃতি

ললিত চন্দ্ৰ ভৰালীৰ পবিত্ৰ পথাৰ,
মোৰ জীৱনৰ সপোনৰ আধাৰ।
ইয়াতে শিকিলোঁ জীৱনৰ পাঠ,
স্বপ্নৰ আকাশতে দিলে ফুৰণি ৰাজপাট।

ইলেক্ট্ৰনিক্সৰ জ্ঞানৰ উজ্জ্বল জ্যোতি,
জীৱনলৈ আনিলে নতুন এটা গতি।
বন্ধু দুজনৰ লগৰ মধুৰ স্মৃতি,
দিবসে ৰজনী আছিল সুকোমল পখিলা পখি।
কেম্পাছৰ গছ-বিৰিয়ে যেন হাত বাউলী মাতিছিল,
শিক্ষকৰ দৰশনে আমাক প্ৰেৰণা দিছিল।
মেধাৰ অৰণ্যত আছিল সপোনৰ ছাঁ,

সেইদিনবোৰৰ স্মৃতি আজি মনত ৰচা।
অলপ হাঁহি, অলপ দুখৰ একে বাটত,
ললিত চন্দ্ৰ ভৰালীৰ নাম আকাশত।
জীৱনৰ প্ৰতিটো পৰতে লিখি থৈছোঁ,
মোৰ সাধনা, মোৰ স্বপ্ন তোমাতেই সুঁৱৰি।

ললিত চন্দ্ৰ ভৰালী, তুমি থাকিবা সদায়,
আমাৰ হৃদয়ৰ মাজত, জ্ঞানৰ দ্বীপ জ্বলাই...

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Nanoelectronics- A new era of Electronics

Nanoelectronics, a new era of innovation and efficiency is being ushered in by nanoelectronics, the intersection of electronics and nanotechnology. The development and use of electronic devices and components at the nanoscale (10^{-9} meters) is the focus of nanoelectronics. As the size of the materials and devices gets closer to the nanometer range, their behavior starts to change dramatically. This is because the quantum effect dominates in the properties of the nanoscale devices. The ability to control size on such tiny scales has created new opportunities for the creation of extremely potent and effective electronics devices.

In electronics, nanotechnology provides smaller, faster, and more portable system. By reducing power consumption and the size of transistors used in integrated circuits, nanoelectronics improves the density of memory chips, expands the capabilities of electronic devices, and makes it possible to handle and store more data and information. For example the smallest transistor now in use is 7 nm long, which is 1.4 million times smaller than the first transistors, which were designed in 1947 and measured more than 1 cm (1 cm is equivalent to 10 million nm). These efforts have produced billion-transistor processors, which combine 20 billion transistor-based circuits are integrated into a single chip after industry adopts 7 nm manufacturing techniques.

In addition of improving display screens on electronic devices, nanoelectronics has the potential to transform several

electronic products, applications, and processes by lowering the size, weight, and power consumption of integrated circuit transistors. Nanoelectronics is sometimes a contentious technology as the current contenders are statistically differ from traditional transistors. Advanced molecular electronics, silicon nanowires, carbon nanotubes, and hybrid molecule/semiconductor electronics are few examples of potential nanoelectronics.

Some applications of nanotechnology in emerging electronics

Nanoscale Transistors- The most of the electronic devices, from smartphones to automobiles, depend on silicon transistors, which are used to switch and amplify signals. However, a basic physical barrier that prohibits transistors from functioning below a certain voltage limits silicon semiconductor technology. This restriction, referred to as the "Boltzmann tyranny," makes computers and other electronics devices less energy efficient, particularly with the artificial intelligence technologies that demand faster computation. Researchers used a special collection of ultrathin semiconductor materials to create a distinct kind of three-dimensional (3D) transistor in an attempt to get around this fundamental constraint of silicon. They employed gallium antimonide and indium arsenide, two distinct semiconductor materials, to get around silicon's physical restriction. They then built their devices to take advantage of a special phenomenon in quantum mechanics known as quantum tunneling. The 3D transistors which can operate at a low voltage, maintain a great performance. Due to extremely small size, these 3D

transistors can be packed onto a computer chip, which would result in faster, more potent, and more energy-efficient.

Smart Displays-The organic materials that generate light and create images in screens of modern TV, cell phones, digital cameras, laptop computers etc are made using nanotechnology. It combines nanostructured polymer films known as organic light-emitting diodes (OLEDs). OLEDs are perfect for display and other applications because they are thin, flexible, and provide great contrast, quick response times, and broad viewing angles. When an electric current is applied, organic materials at the nanoscale are specifically designed to emit light.

Electronic paper- Nanotechnology researchers have shown that organic ink nanoparticles may offer a better method for creating electronic ink, which would produce Electronic paper. A form of display technology called electronic paper, or e-paper, simulates the look of regular ink on paper. E-paper displays are perfect for applications like e-readers, digital signs, and wearable technology since they are reflective, low power, and provide excellent contrast. These inks can show text and images because they contain nanoparticles that can change color when exposed to an electric field.

Nanomaterials in Touch screens- Over the past ten years, touch screens have proliferated in devices such as tablets, smartphones, and watches. A crucial component of their underlying technology

has curiously not improved as quickly in spite of this astounding expansion. Electronic displays of today are still somewhat costly and brittle.



Electronic paper

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Nanotechnology's extremely robust, flexible, and reasonably priced carbon nanotube-based materials are transforming this business. Displays that are 250 times stronger and up to 50% less expensive than present technologies are made possible by carbon nanotubes, which can either replace or complement new materials like silver and existing materials like indium tin oxide (ITO). In addition to extending the lifespan of current products, this will spur the creation of displays for several different uses that call for affordability, exceptional durability, or adaptability.

References: John M (2023) Nanoelectronics: Revolutionizing the Future of Electronics. J Nanomed Nanotech. 14: 699.

<https://aditishambharkar.medium.com/application-of-nanotechnology-in-smart-electronics-fa945cffe562>.

