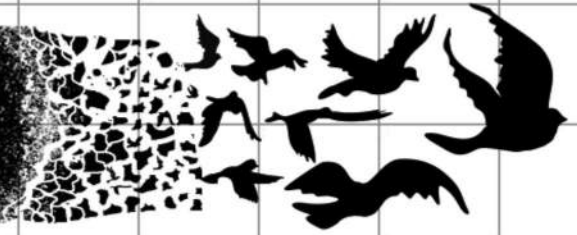


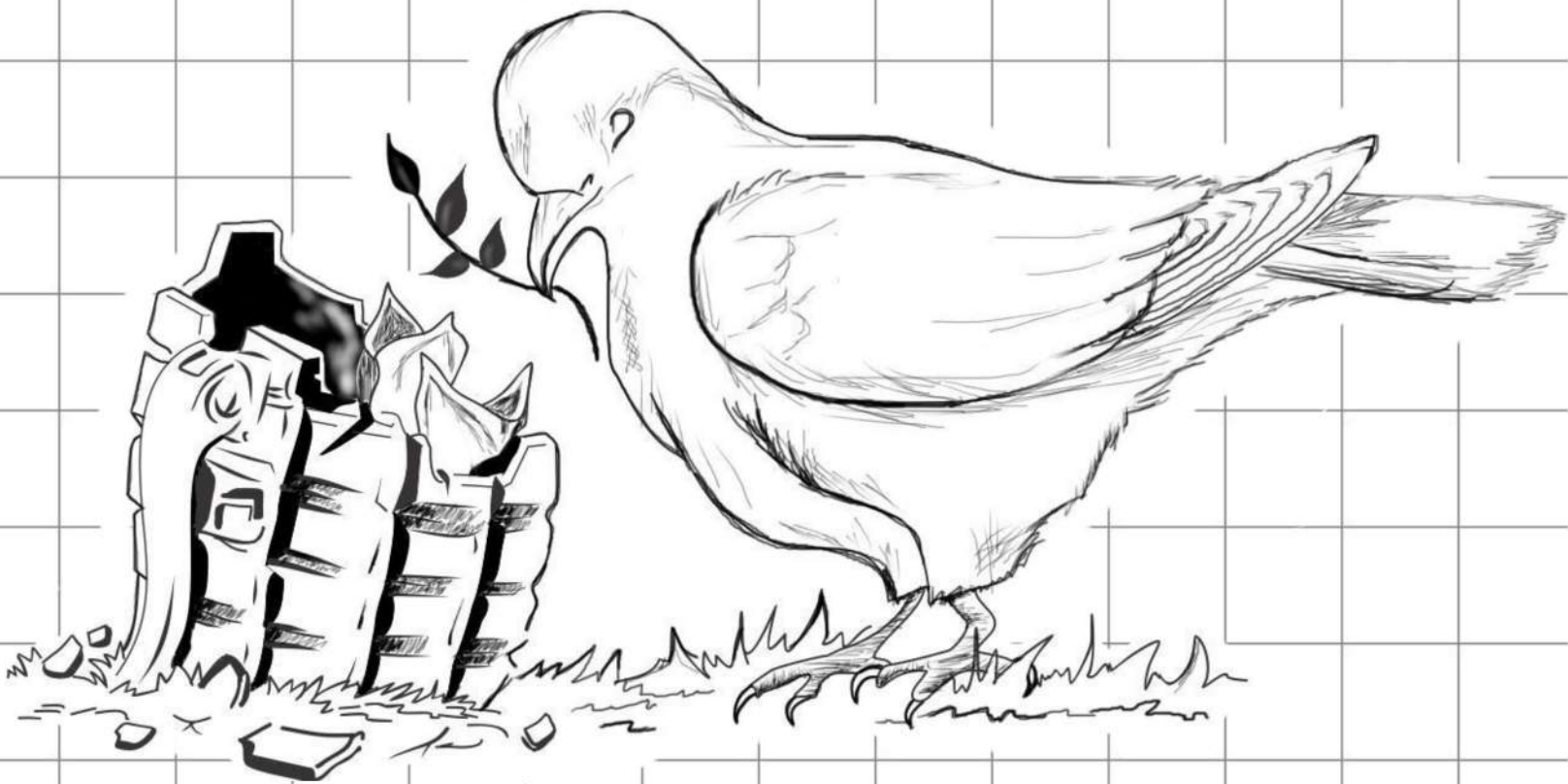


TEZPUR UNIVERSITY  
presents

# TechXetra'15

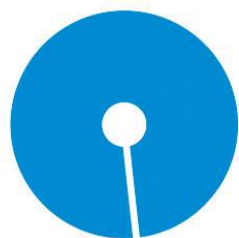


Empowering Peace and Security: A Tech Step Forward



স্মৃতি চিহ্ন  
**SOUVENIR**  
স্মরণিকা

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TEZPUR UNIVERSITY PRESENTS

# TechXetra 15



## SOUVENIR



Tezpur University  
(A Central University)  
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*Special thanks to*

**Kumar Utkarsh**

**Team TechXetra condoles the passing away of  
Shri Janaki Ballabh Patnaik, Ex-chancellor of Tezpur University**



**(Jan 3, 1927 – April 21, 2015)**

*J.B. Patnaik was a three-time chief minister of the state of Odisha as a leader of the Indian National Congress and had been the governor of Assam since 2009. He passed away in Tirupati at age 89. He displayed versatility by excelling in literature, journalism and culture during his lifetime. May his soul rest in eternal peace.*

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#### **Nothing but Net**

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**Kumarika Gohain** (Mechanical Engineering)  
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**Kumar Utkarsh** (Computer Science & Engineering)  
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**Shrijana Kaushik** (English & Foreign Language)

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**Bitopan Deka** (Mechanical Engineering)  
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#### **Mobishoot**

**Meghna Dutta** (Mass Comm. & Journalism)  
**Shaheen** (Mass Comm. & Journalism)

#### **Wrangle**

**Kalyani Kaushik** (Mechanical Engineering)

### ***Symposium***

#### **Spell BEE**

**Tofica Ullah**  
**Indranee Kalita**

#### **Full swing**

**Shashank K. Dwibedi**

#### **Mathelon**

**Liza Dutta**

#### **School exhibition**

**Kabir Kalita**

#### **Full throttle**

**Ayushman Devraj**

### ***Leisure***

#### **Divulge**

**Swapna Sikha** (Food Engg. & Technology)

#### **Amazing Race**

**Gunta Surya Teja** (Computer Science & Engineering)  
**Bismita Deori** (Computer Science & Engineering)

#### **5 on 5 Football**

**Saurabh Anand** (Mechanical Engineering)  
**Bikash Upadhyay** (Mechanical Engineering)  
**Chonglong Engti** (Civil Engineering)

### **2 on 2 volleyball**

Tridip Mili (Mechanical Engineering)

Manas Pratim das (Mechanical Engineering)

### **3 on 3 badminton**

Mukul Anand (Civil Engineering)

Abhishek Das Gupta (Electronics & Comm. Engineering)

Bhaskar Sharma (Electronics & Comm. Engineering)

### **Triple Heat Basketball**

Himanshu Gogoi (Computer Science & Engineering)

Jackson (Computer Science & Engineering)

### **Rapid Chess**

Arup Jyoti Chutia (Mechanical Engineering)

### **Fungama**

Modha Venkat (Electronics & Comm. Engineering)

Eduru Harindravenkatesh (Electronics & Comm. Engineering)

### ***D'Colloseum***

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Asfak Alam (Mechanical Engineering)

Pradipta Buragohain (Mechanical Engineering)

Sidharth Medhi (Mechanical Engineering)

#### **NFS**

Ankur Hazarika (Electronics & Comm. Engineering)

Hirak Jyoti Rabha (Civil Engineering)

#### **Counter-strike**

Abhishek Bhattacharya (Civil Engineering)

#### **COD: MW**

Jiomoni talukdar (Mechanical Engineering)

#### **Mortal Kombat**

Chiranjib Baruah (Mechanical Engineering)

Tanmay Barman (Electronics & Comm. Engineering)

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Muneshwar Pandit (Computer Science & Engineering)

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Shivam Kaushik (Electronics and Comm. Engineering)

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Mriganka Saikia (Mechanical Engineering)

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GOVERNMENT OF INDIA

### MESSAGE

It gives me immense pleasure to know that Tezpur University is organizing "Techxetra 2015" the annual technical fest from 30<sup>th</sup> October to 1<sup>st</sup> November, 2015 at its premises with a theme 'Empowering peace and security : A Techstep Forward'.

I congratulate the Vice Chancellor of the Tezpur University for taking such initiatives to encourage students to come together and excel themselves in expanding the frontiers of technology in a spirit of camaraderie and healthy competition. I am happy to know that Techxetra is conducted by organizing various workshops, lecture series, technical competitions including cultural events to spread the message of brotherhood and leadership development among the youth of the country. A Souvenir published on this occasion will highlight colorful presentation of the programmes and information on the fest.

I convey my best wishes to the Tezpur University and to all the participants for making the Annual Fest a successful event.

Date:- 19.10.2015.

  
(SARBANANDA SONOWAL)



**Tezpur University**  
(a Central University)  
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E-mail : mkc@tezu.ernet.in

**Professor Mihir K. Chaudhuri**, FASc, FNA  
Vice-Chancellor



09 September 2015

### *Best wishes*

I am happy to learn that the VIIIth edition of our University *technical festival* will be held during 30 October to 01 November 2015. This is a much awaited event that our students look forward to every year. It is heartening to note that **TechXetra** over the years has been gaining grounds in terms of the quality of technical events and popularity among the students of the Northeast region including the state of Assam. I fully understand that it is a colossal task for the organizing students as this involves not only the financial back up but also a lot of quality man hours. However, all these will go a long way if the students of our schools, colleges and universities accrue the benefit out of it.

“Peace and Security” has been decided to be the theme of **TechXetra 2015**. While peace is something that is much looked up to and prayed for, security of our children, women and others is of topical importance. The chosen theme is certainly a difficult one, but with proper thinking and intellectual inputs the goals can be achieved. It is a matter of concern for all of us that **there is no peace in the world**, and to that end, we all must come forward for a sustained solution.

I wish **TechXetra 2015** a success.

  
Mihir K. Chaudhuri



तेजपुर विश्वविद्यालय

(केंद्रीय विश्वविद्यालय)

प्रोफेसर अमरज्योति चौधुरी

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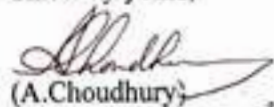


MESSAGE

I am glad to know that the School of Engineering, Tezpur University, is bringing out a Souvenir to commemorate the annual technical festival "TechXetra" dedicated to the theme of "*Empowering peace and security: a TECHstep forward*".

I am sure the festival will be able to empower peace and security by igniting technical innovations in this vital sector.

Sincerely yours,



(A.Choudhury)

Pro- Vice Chancellor

Tezpur University

20-05-2015



## Message from the Dean Students Welfare, Tezpur University



TechXetra is becoming one of the mega events of Tezpur University Students. The energetic involvement of the students for this mega event, perhaps, is example of institutional learning. TechXetra gives our students an opportunity to organize event with judicious balance between socializing and info-tainment without compromising ethical blending. This is also a window to showcase our talents as well as to peep talents outside.

I wish this 8th edition of TechXetra 2015 a great success.

Prof. D C Baruah  
Dean Students' Welfare,  
Tezpur University, Assam.



Office of the Dean  
**SCHOOL OF ENGINEERING**  
**TEZPUR UNIVERSITY**

(A Central University)

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### Message

I am extremely happy to know that initiatives are already on to bring out the souvenir of **TechXetra** 2015, an annual event of Tezpur University. I appreciate the selection of the theme for this year "Empowering peace and security". I am sure that the souvenir will provide scope to each member of the University for innovative and creative expression. **TechXetra**, the auspicious annual event has been successfully conducted in the past with large-scale participation not only from almost all the technical and non-technical institutions from NE region, but also from other parts of the country and some schools and degree colleges from Assam. It gives me immense pleasure to note that a good number of creative writing and expressions are included in this souvenir. I believe it would excel to still greater heights.

Wishing a grand success of the souvenir.

(D K Bhattacharyya)

August 12, 2015



Prof. Dhruba K Bhattacharyya, Dean, School of Engineering is with the President of India Mr Pranab Mukherjee at the Rashtrapati Bhawan as an **Inspired Teacher** during a week long programme 'Inspired Teachers In-Residence Programme 2015'.



## Words from the Chairman, Organizing Committee



I am privileged to write a few words for the souvenir of TechXetra 2015, Tezpur University, Assam. This is the 8<sup>th</sup> Edition of the technical festival and growing phenomenally since its beginning in 2008. This Technical festival helps us in showcasing the talents of our young minds not only from the university but from the other institutes as well. Many eminent personalities across the country or other parts of the world come to this technical festival and discourse on various contemporary topics. In TechXetra our student host various events and competitions, exhibitions, lectures, workshops etc. I am fully confident that our young upcoming graduates will unleash their talents in TechXetra 2015, will interact with their peers and I believe that this will be beneficial to our society in long run. Wishing all success to TechXetra, 2015.

Prof. Sankar Chandra Deka  
Chairman, TechXetra, 2015  
Tezpur University, Assam

## Words from the Student Convenor

*"Don't limit a child to your own learning, for he was born in another time"*

-Rabindranath Tagore

The committee of TechXetra 2015 was formed in the month of March 2015 with great zest and zeal, harboring the dream to provide one of the best platforms in India for the young minds to showcase their talents and bring their creativities to life.

Just like economic integration made the world more cooperative and less conflict-prone, so can technology. Today, as technology has been applied to enhance modern warfare, we must also take advantage of technological innovations to prevent, mitigate and resolve conflicts. Keeping this in mind, the eighth edition of TechXetra comes forward with the theme "Empowering peace and security: a TECHstep forward".

Various Workshops, competitions like the Robophrónesis, Impulse, Code Masters are the highlights of the technical scenario. TechXetra'15 plans to achieve new heights with the inclusion of lecture series from eminent personalities such as Prof. J N Goswami, the principal scientist of India's moon mission and many others. Also, collaboration with ISRO, INDIAN ARMY, KTM, AVENUES will make this fest grand in its own way. Techxetra'15 is also going to witness the upgraded robotics competition, Robophrónesis 2.0, sectioned into 6 modules. This year TechXetra has a potpourri of cultural extravaganza under the banners of UNDERSIDE, ADITI SINGH SHARMA and DJ TEJAS. Various additions such as paintball, KTM stunt show, army's display of arms & ammunitions will surely add on to make the fest grand.

Managing and planning every aspect of this fest was a mammoth task for the entire student committee but the continuous help from our faculty and seniors made the entire process a learning experience. Finally, we would like to express our sincere gratitude to our honorable Vice-Chancellor Prof. Mihir Kanti Chaudhuri, respected Registrar, Prof. Biren Das, Prof.S C Deka, Chairman, Techxetra 2015, Dean of SoE Prof.D.K. Bhattacharya, Prof. D.C. Baruah, Dean of Students' Welfare and the Tezpur University fraternity for their full cooperation in organizing Techxetra2015. A special thanks to all our sponsors who have been associated with us in our endeavors.

-Rishav Kakoty  
Student Convenor, TechXetra'15.  
Tezpur University

## Editorial. . .

*“Why does this applied science, which saves work and makes life easier, bring us so little happiness? The simple answer runs: Because we have not yet learned to make sensible use of it.”*

-Albert Einstein

Technology has made lives simpler and easier and has influenced people from every facet of life. The scientific advancement has crossed miles and miles in the path of progress but doubts arise if we have been able to patch up the vents from where man's expressions of anguish, fears and grief emanate. The best gadgets accomplished by science cannot heal the wounds of heart if human emotions cannot be infused with technology besides building up psycho-moral and psycho-social synchronization. We live in an era where 'peace and security', experienced from every aspect is very intricately related to the scientific and technological progress of the world, more so, from the present state of instability and inequilibrium that has resulted from the insensible use of applied science. Technological advancement has its dark side as well and humans are solely responsible in the manifestation of it as a boon or a bane. We have witnessed incidents where people have been butchered in the name of religion. Such improper use of weapon technology which otherwise has been developed to keep peace lie testament to the threat that is posed to humanity if the darker side of technology is explored. Other incidents of crimes against women, thousands rendered homeless due to political and cross-border conflicts, etc. - all point towards a degrading socio economic fabric of the society posing a threat to its peace and security at large.

As the proverbial saying goes, “Little drops of water make up the mighty ocean”, efforts no matter how trifle they may be lead to a bigger impact when put together over time. Over the years TechXetra has been able to make an impact through joint efforts in issues like water conservation, bridging the digital divide and sustainable development. This year the theme of ‘Empowering peace and security – a TECHstep forward’ has been aptly chosen to emphasize on the need to orient our minds in a direction towards a peaceful society, incorporate technological boons to improve lives rather than deprive one of it. TechXetra is a place to highlight the appeal of human mind, bringing scientific acumens together, to create slogans of compliments and reciprocation of peaceful thinking.

This edition of ‘Souvenir’ which commemorates the spirit of TechXetra’15 has aimed to bring out the creativity in the students of Tezpur University. We, as the team of coordinators, are highly grateful to all the authors who spared valuable time in exercising their creative mind and contribute towards making this edition of ‘Souvenir’ a success.

‘Happy Reading’

- Team Souvenir, TechXetra’15.

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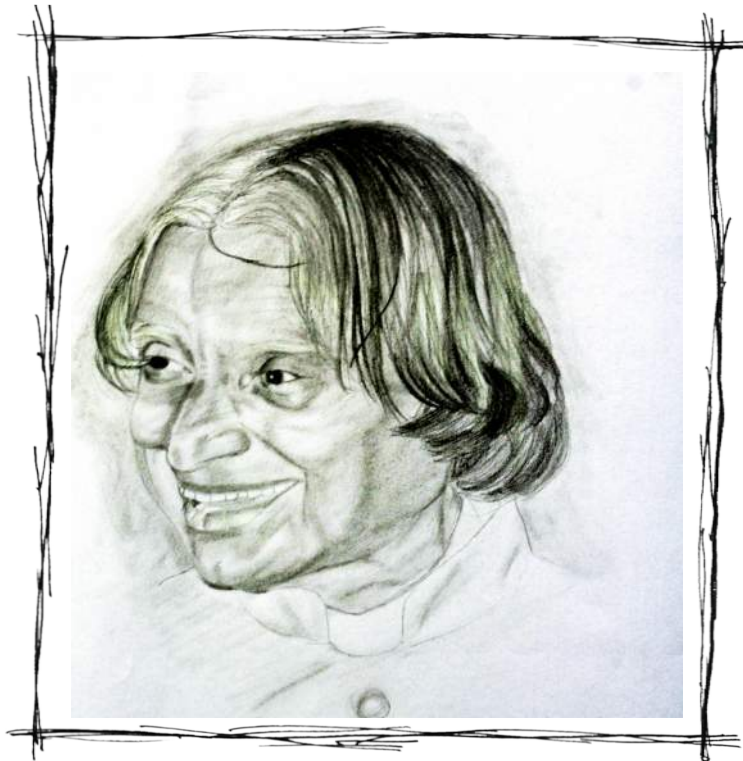
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# Dr. A.P.J. Abdul Kalam

October 15, 1931-July 27, 2015



*'The missile man of India' and 'People's president'! Sounds like a paradox or syncretism?*

*Missile provokes a negative emotion, whereas, People's president is an honor in itself, a very positive emotion for that matter. Such was the charisma of Dr. Avul Pakir Jainulabdeen Abdul Kalam! He was instrumental throughout his life in bringing about a synchrony in diametrically opposing views and ideas. A complete Indian in true sense! A man of substance!*

*His carrier began in Defense Research and Development Organization (DRDO) in the Aeronautical Development Establishment as a scientist after he finished his graduation from Madras Institute of Technology in the year 1960. In 1969, Kalam was transferred to the Indian Space Research Organisation (ISRO) where he was the project director of India's first Satellite Launch Vehicle (SLV-III) which successfully deployed the Rohini satellite in near-earth orbit in July 1980; Kalam had first started work on an expandable rocket project independently at DRDO in 1965. The journey that began here continued far long to get him more success and accolades. The fact that Switzerland declared May 26 as the Science Day in honour of visiting President APJ Abdul Kalam speaks volumes of his scientific achievements. Details of his multifarious achievement can be easily found in internet. What we would try to investigate in this article is the person Dr. Kalam was!*

*Dr. Kalam was born and brought up in a typical Indian plot of admixture of all cultures and tolerance of humane difference not only in terms of religion, but even in daily life. As Dr. Kalam himself recalled, "Every evening, my father A.P. Jainulabdeen, an imam, Pakshi Lakshmana Sastry, the head priest of the Ramanathaswamy Hindu temple, and a church priest used to sit with hot tea and discuss the issues concerning the island." Such early exposure to multifarious view points for viewing life as a whole convinced him of the one fact that the answers to India's problem lies 'dialogue and cooperation' amongst the political, religious and social leaders. One of his favorite quote was, "For great men, religion is a way of making friends; small people make religion a fighting tool."*

*Indian history is marred with incidents of mass massacre in the name of religion. In such a scenario, Dr. Kalam represented a personality of absolute harmony amongst all religious differences. Having read all the major scriptures of the world, he held a firm conviction that religion in its true form cannot and should not be used as a mean or method of hatred. A spiritualist from within, he preached human values and stood for Universal brotherhood. It was for such magnanimous attributes of Dr. Kalam that he was unanimously elected the President in the year 2002 with a huge margin.*

*On 27 July 2015, Dr. Kalam travelled to Indian Institute of Management (IIM) Shillong, to deliver a lecture on "Creating a Livable Planet Earth". He had been planning for this lecture and being disturbed by the ongoing unproductive ways of the Indian parliament, he had reportedly planned to assign a project to the students about smooth working of parliamentary affairs. However, at around 6:35 p.m. IST, five minutes into his lecture, he collapsed. He was rushed to Bethany Hospital in a critical condition; upon arrival, he lacked a pulse or any other signs of life. Dr. Kalam was confirmed dead of a sudden cardiac arrest at 7:45 p.m IST. His last words, to his aide Srijan Pal Singh, were reportedly: "Funny guy! Are you doing well?"*

*Even in his last exchanges, Dr. Kalam exuded immense love and care for his fellow men. It was thus a wise and timed decision of the Tezpur University fraternity to have recognized the substance in Dr. Kalam and having conferred onto him honorary doctorate degree on the 1st of November' 2001 in occasion of the third convocation of Tezpur University. We are all indebted to a great legacy...the legacy of Dr. Kalam... May his soul rest in eternal peace!*

**-Manash Deep Dey**, Research Scholar  
Dept. of Molecular Biology and Biotechnology.

Sketch by **Chiranjib Baruah**, 5th Semester  
Dept. of Mechanical Engineering.

# Deep Inside

Have you ever met yourself  
Deep inside your bone and flesh

What does present connote to you  
As you make your search afresh

How have you travelled?  
Out of the wood or  
Into it, my dear  
As you digress

Honestly I do not find a change  
In the pre-historic you or me  
Although we are changing our attire-our dress

Tell me, have you never lost  
The dear one in you  
In a river, forest or a mountain

Or in cities or towns that never rest

I often listen to the sound of a tree  
No-not of its swaying  
But that of tender pipes in it  
Sucking the meal from its roots  
All in a frenzied spree

Do you now perceive  
Your contour in the haze  
As the flesh suddenly breaks free

Have you ever ambled in the moonlight  
At Noakhali, Gossaigaon or Merapani  
As these show their might

As you write the lazy line about the din  
And the sight  
Can you deny  
That you are now eagerly waiting for an award or a prize  
All tense and tight

On an evening when monsoon breaks in pain  
Have you ever got yourself all wet and lost in rains  
All of a sudden do you reach the end of the lane  
The fathom of life, death, its charms and banes

Now as the lightning strikes and tends  
In the frame of the sky  
Touching the grounds in bends

Could you filter yourself from the shadow  
With all the pains splintered in the meadow?

**Dr. Amarjyoti Choudhury**  
Pro Vice-Chancellor,  
Tezpur University

# Academics: A Busy Business?

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**Mohammed Abdul Kalam**

Professor of Eminence

Department of Sociology/Social Work

Tezpur University

In 1978 I was appointed Lecturer in Anthropology at the University of Madras. I took my job quite earnestly; thought most of the problems not just in Madras (as the city was then known) but on planet Earth would gradually cease to exist through the efforts that I would put in via my job. After all I had landed in one of the most crucial jobs that were available and all responsibility to combat problems and solve issues of the world was on my not so slender shoulders (my sports background had taken care of that, I mean my shoulders). So such total dedication to my profession meant I was a busy person. And I unhesitatingly bandied about the word busy. Busy with this; busy with that; so much to do; such a lot left undone. While projecting to be so preoccupied, I am sure my body language too suggested that. I was rushing from one place to another in the campus, canteens included, to finish the manifold tasks (always in the plural, after all I was a multitasker). Most of the people I rubbed shoulders with, my colleagues and fellow academics, seemed to tacitly accept what I was saying and exuding (not necessarily through any tangible production or results; in fact hardly any). They too were busy souls, being in the same line of business.

A couple of years into my job I ran into a very dear childhood friend. After exchanging pleasantries he asked me why I had not replied to his letter. I had sat on that letter for may be about two months, only. The impulse to lie and ask him what

letter he was talking about did cross my mind. But somehow it did not seem proper to cheat. Not to a dear one at that. He was, after all, my childhood friend. We were in fact in buddies all through school. Probably just an acquaintance or one of the nascent by-the-way friends could be subjected to such ignominy; certainly not a childhood friend. But wait; nothing could prevent me from employing the usual (academic?) refrain. I was free to invoke the oft-repeated: "sorry, I was busy" refrain, which had after all academic blessings and was an oft-repeated catchphrase in my august occupation, academics! So I did utter those words. "Oh! But with what?" pat came the question from my friend. I could have easily mumbled some mumbo jumbo. My friend was a non-academic, after all. In my (polite) academic circle fellow-academics did not ask such silly, uncomfortable counter questions. There was no cross-examination among academics; if I said I was busy, they knew I was busy, and what I meant by that. They were all smart and intelligent, honourable comrades-in-arms, highly literate (not educated?), usually with a doctorate degree, who indeed knew what it meant when we said we were busy. I was at a loss to explain how I was busy. But the situation needed to be saved; who else would rescue the entire, wide universe of scholars (and scholarship) if I could not? The reputation of my whole (academic) tribe was at stake. There had to be an escape route. I tried my best to wriggle out of the morass and offered what I thought were erudite sweet nothings

like, “you know, work; preparing notes for lectures, writing articles, writing research proposals for grants, preparing a draft for the forthcoming World Congress of Anthropology in Chicago (1983). I am sure you know what I mean; you understand that, don’t you?” Of course, he did seem to know what I meant; the expression on his face was crystal clear: he did know/understand I was bluffing. His smirk said it all. I was completely at unease, embarrassed, angry, irritated, felt like kicking myself. But it was an “*aa bail mujhe maar*”, situation *par excellence*. I had asked for it.

My academic socialisation process and enculturation course were deeply etched. I was embedded in it. I continued using the “I am busy” tag, but gradually sparingly, cautiously, and reluctantly. Deeply rooted traits, over a long period, do not rid themselves, not too easily. A whole lot of brooding, navel-gazing, introspection, reflection, self-examination, and self-analysis went on for months. Was I really busy? I delved into dictionaries and found that busy invariably meant “having a great deal to do”. It also meant “occupied with or concentrating on a particular activity or object of attention”. It was quite unpalatable to get out of the dream world, to negate the self-denials, face reality and reconcile to the fact that the above two meanings did not come anywhere near what I thought I was doing. I was busy but doing (almost) nothing! Ego was immensely reluctant in granting permission to go in for reality checks. But the picture that was emerging was getting clearer. Time was hardly playing a role here. Not doing things and claiming or pretending to be busy

had to do with the mind, not with time. Writing a letter, replying to someone’s mail, doing a task, going through an assignment, correcting a draft, going over to meet someone, or even something as innocuous as running an errand, or not doing any of the above, had very little to do with time or the lack of it. It was the mind that was at work. The amount of effort that we seem to invest in being busy does not appear to be reflected in productivity.

At another level, the *Favour Bank* too did not have much investment as a concurrent occurrence to the academic career (see Paulo Coelho, *The Zahir*, 2005, for a cogent exposition on Favour Bank. *The Zahir*, written originally in Portuguese, but first published in its Farsi translation in Iran, has been translated into 44 languages).

Over time I learnt that the state of mind/the mental framework that one is in, is the diacritical factor that determines whether one wants to do a task or not. Time has very little to do with that. Umpteen times I just loll around doing practically nothing but do not feel inclined to reply to the mail that arrived last week, nor to the one that is lying in my inbox for a month. Not that I do not get busy (in the real sense of the word) at all. I do, but very rarely. If I do, it is but for an hour or two, or may be for three or at the max four hours at a stretch, during which time I have to complete something on hand. If I claim that I have been busy for three to four days or for a week, just to shirk my work and responsibilities, then I definitely need to see a shrink.



## Complicating Crows

Prabin Mukherjee

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I am a human, or that's how they refer to me as, living near the Wagah border. The portion where I live, they call it Pakistan. Every morning, I bathe in a nearby water body. Few hours later, I move to a nearby place called India. Indian vegetation provides me food, Pakistan provides shelter. By evening, I move back to my shelter. And just after the sun is down, I am fast asleep. But this is not my story. I am here to tell you about these crows, day by day, complicating crows.

First of all, let me tell you, they proclaim themselves to be the most intelligent species on the planet. And that they can think. That they can ease their work by inventing and discovering things out of the virgin earth. I don't know where to start. But they had these 'civilizations', the earliest in their history. Few of the famous ones were the Indus Peepal Trees civilization, the Greek Olive Trees civilization and the Chinese Pine Trees civilization. These were basically a large number of crows residing in numerous trees spread over a wide area. They used to have a ruler or a king. They invented an economic system. They manufactured coins. It's like they could get an object like their beak brusher created by them at a place called market set up by them in exchange for a coin again created by them. Gradually, this coin or monetary system became the motivation for everything in their lives. They created belief in the existence of different religions and Gods. They had wars. One crow king would fly out with his crow army to some other kingdom. The latter's tree would then serve as the battle place. Then there would follow a series of twig fights, aerial warfares, and one-on-ones on the longer branches. And bloodshed. The survivor would from then on, possess two trees.

Religion, as I mentioned earlier, played an important role in their history. Often would crow groups indulge in duels because of religious differences. They even researched on the influence of human behaviour in a crow's life and came up with a book called 'Manav Charitra'. Many crows even took to guiding other crows on religious rituals and proceedings in exchange of money. They do it even today for livelihood. The coin entered every aspect of their lives.

Years later, there came up a bunch of crows from one particular land with a vision to conquer every tree kingdom all over the world. They didn't come with twigs to fight. Neither did they take the aerial path. They came by land. In boxes which moved due to metallic wheels. They called it tanks. These even had a protruding stick-like part. It could project fire at a particular distance. The crows came well dressed, in organized clothes that would not hang around. They brought miniature version of the tanks called pistols. These replaced twigs for one-on-ones. Not all came by land, some took the sea route. They came disguised as businessmen with a vision to conquer the trees in the longer run.

There was one strong reason behind their difference. They came with science. And maybe less of religion. What is science? It's just the result of the quest to find out why something happens. Like what enabled them to fly and exploring the possibilities of travelling by land just like humans. These crows had answers to these. Science also told that the world is a round sphere. And that it rotated around the sun. Thus happened days and nights. And it wasn't necessary to sleep immediately after sunset. They found out that there existed a 'blind sector' in the range of vision of a crow. They kept these secrets to themselves for many years.

And then started a world struggle against this particular group of crows. As the other groups started freeing themselves, they started forming independent crowntries. Just like India and Pakistan. Only a few kms and you could be in any of the two. The funnier part is that the crows belonging to one crowntry felt proud about themselves being 'crotizens' of that crowntry. They composed a national karaoke, crafted a national

nest structure, named national tree, named national animal, and further subdivided it into land and aquatic. They participated in a world event called Crowlympic games. And began competing for medals. Each crowntry would then feel proud for its winners.

Most of the time, the crowntries would clash into each other. One would say – “The oil is ours. It’s naturally found in our land only. If you need it, you will have to buy it.” See, money is the culprit here also. Just because the oil is found in that particular crowntry, it gives their crotizens the right to sell it and earn money out of it. Why is it not a world property? Why don’t they share it equally among every crowntry of the world for free and also do the same for every other product found in every other part of the world? And wait, these oil-sellers are now one of the richest in the world. They are proud of it. So funny. Meanwhile, nature has given crows of Sohra (previously Cherrapunji) surplus water through rains. On the other hand, the crows of the Sahara desert hardly are able to quench thirst. Why not just evenly distribute your surplus production and fulfil everybody’s needs in the whole world? I mean we humans are doing it so beautifully. Take the example of my family. We are four of us living together. Consider each of us is a crowntry. I go for hunting food everyday, my wife prepares our food, takes care of our shelter, my elder son gathers raw materials, and my younger son builds our shelter properly. We don’t take money from each other for this and do our work sincerely everyday. And even if one of us is unwell, the neighboring human family gets us food and vice versa. No one charges money. We help each other. We all humans of the world are a family. But would anyeconomics Crowbel Laureate accept this money-bereft model?

This is possible because our motivation is mortality. Only 70-80 years here. Neither do we have jealousy nor competition. Neither do we need to attend schools. Because our education is the earth. Neither are we longing for peace nor do we need security.

Back to the story, the crows of the world then decided. Let’s have Crowmocracy! It’s a form of government where the head of a nation is elected by all the crows of the nation in a direct process. Crowmocracy did result in basic world peace. And you must be thinking there was no need of a national army then. But, on the contrary, it was required even more.

Groups of minority crows came up. They started demanding all the banana trees under their own jurisdiction. They protested that no one paid attention to their trees and problems. When no one listened to them, they took to violence. Since they were minority in number, so they were considered conventionally bad or wrong. They were named extremists, terrorists, and so many things. But don’t they have demands too? They do right. But look at us. We don’t have countries, no boundaries, no rules and are not in need of anything. Neither do we have terrorists nor counter terrorists.

There is so much to explore but the crows are still fighting with each other. Who knows if there is a planet where all the deads reside in? Who knows if there is a parallel world called Earth where humans are crows and crows are humans? Who knows if there is a world where crowntries are known as countries and crotizens as citizens and Crowbel Laureates as Nobel Laureates?

Dear crows, honestly speaking, you can never match up to our level. You can never be happy like us. You will always be complicating more and more. You know why? Because you are intelligent and we are not. Because you have used your brain and we never did so. Because you are competitive and we are contented. Because I would have satisfactorily returned with Indian food to Pakistani shelter while you are still busy with your so-called ‘VISA check’ at the borders.

But hold on, I have just realized that I have been awake this whole night writing this story. I was supposed to sleep and wake up along with the sun. I am scared. I too don’t want to be dragged in this quest for peace and security. Cause there was a time when I needed none.

# **Peace and Security: from the Historical point of view**

**Bipasha Patgiri**

Assistant Professor

Dept. of English and Foreign Languages

After the World War II, four big powers- USSR, China, Great Britain and USA met at Moscow and proposed for the formation of United Nations' Organisation, and consequently in October 24 th , 1945, 48 nations signed the UN charter and thus UNO came into existence. Since then, UNO is regarded as the most crucial instrument to solve international problems, be it the problem of Iran, Syria- Lebanon, Indonesia or Kashmir, UNO has extended its helping hand to sort out the peace disturbances of the nations. The Peacekeeping department founded in 1948 of UNO is a unique and dynamic instrument developed by the Organisation as a way to help countries torn by conflict to create the conditions for lasting peace. UNO, with its 193 member countries currently aims at maintaining and preserving international peace and security; developing friendly relations and harmony among the countries along with promoting respect for human rights, dignity and freedom; solving economic, social, cultural and humanitarian problems through international co-operation. But UNO restricts itself from intervening in the matters directly related to the domestic jurisdiction of any country.

Since the time immemorial, the nations of the world are stressed with conflict with each other and those conflicts resulted in the outbreak of both the world wars. After the end of the World War I, a Peace Conference was convened at Paris in 1919 in order to solve the problems of the countries, to conclude a treaty with the defeated and to find out a way to maintain peace and order in the world in future on a permanent basis. Subsequently, on the basis of the fourteen points laid by American President Wilson, the allies agreed to form the League of Nations and signed the Treaty of Paris. Initially sixteen member countries signed the constitution of the League and aimed at preventing the possibility of war in future; encouraging the feeling of international co-operation; maintain peace, order and security on international level. In the Peace Settlement of 1919, disarmament was considered as one of the chief aims of the allied nations. Disarmament was recognised as a medium of establishing peace through the Treaty of Versailles, which prohibits armament strictly in Germany and other vanquished nations. The disarmament policy prohibited bombardment and chemical war as well as minimised the number of war aeroplanes and heavy canons. But the League of Nations is regarded as a total failure due to the selfish attitude of the European countries in the matter of disarmament, rise of Dictatorship in France, Germany and Spain and contradictory views of the big nations. As a result, once again the peace and feeling of international co-operation and brotherhood was disturbed and the massive devastation of the World War II was being witnessed. Likewise, the outbreak of World War I was not a casual incident. There were many causes and circumstances which created the background of this war.

It was caused by secret and diplomatic alliances, far flung rivalry among the nations, vast competitive armament, greed, selfishness and soaring ambitions of the European nations regarding imperialism and feeling of ultra nationalism.

If we peep into history, we must acknowledge that the Congress of Vienna marked the beginning of a new era. It gathered to solve the international problems, giving birth to the feeling of international co-operation and brotherhood for the first time. Soon after the decline of Napoleonic era in 1815 at the battle of Waterloo, the European big powers held the congress at Vienna and discussed about the reconstruction of Europe's map which was changed by the Napoleonic ambition. The Congress primarily stressed on the basic principle, i.e, Principle of Legitimacy and Principle of Balance of Power. The European big powers, Austria, Russia, Prussia, England and France managed to save Europe from the continental wars for a period of about forty years till the Crimean War of 1854-56 by restricting the countries to be more powerful to attack and disturb other territories. Since the success of the Congress was not long lasting, it is criticised as happens to be a congress of the victors who met to divide the spoils of the vanquished. Moreover, the resolutions of the Congress did not impact the common people, because it ignored the feeling of nationality, revolution, liberty, equality and fraternity which was hard earned by the common people of that era.

Considering Indian history of peaceful co-existence, we must recall India's post-independence foreign policy of Non-alignment to retain and strengthen its independence from colonialism and imperialism. First Prime Minister of independent India, Jawarharlal Nehru constantly emphasised that peaceful co-existence of countries with different ideologies, differing systems, was a necessity. He outlined the five principles of peaceful co-existence, i.e, Pancha Sheel, viz, mutual respect for each other's territorial integrity and sovereignty, non-aggression, non interference in each other's internal affairs, equality and mutual benefit, and peaceful co-existence. India always advocated the cause of nuclear disarmament and adoption of non-violence. India has earned its long fought independence through the means of Gandhian philosophy of non-violence.

Looking back to the medieval history of India, we have the example of the greatest monarch of the subcontinent, Akbar who adopted a peaceful consolidation of the territories abandoning the devastating and disturbing warfare since the middle phase of his reigned period. During the medieval age consolidation of other territories and religious conflict among the sects were common, but Akbar had formulated the religious tolerance policy to maintain the peace and communal harmony in the land. The most significant of this great era of medieval India was the secular discussion at the court of the Mughal Emperor, which led to the evolution of the concept of Peace between all Religions, i.e, Sulh-i-Kul. In the same line, we may recall the concept of cultural conquest during 261 BCE of the Great Mouryan King Ashoka, who stressed on one Dharma, one Language and one Script philosophy for enabling the political unification of the empire. Ashoka, the great is important in history mainly for his policy of peace and non-aggression. It is remarkable that Ashoka was far ahead of his time regarding his policy of non-violence, non-aggression and promoting peace and harmony among all the sects of the society which are the key notes being discussed at various peacekeeping and peace-building programmes now a days.

India has been playing always a positive role in maintaining world peace and promoting international brotherhood since time immemorial. Indian culture and civilization is primarily flourished with the sacred texts of the Vedic era. According to the Hindu philosophy, in Satyuga, people were

pious and upright, who did not know fighting. The use of lethal weapons was unknown. It was like heaven on Earth. In the mythological time of Mahabharata too, we find how Lord Krishna assures the mankind to take reincarnation for re-establishing 'Dharma', i.e, justice or principle of peaceful co-existence if it is threatened by inhuman activities. The Atharva Veda says, "This Mother Earth is our common Mother and we all are sons and daughters of this Mother. Therefore, there is oneness among all the innumerable souls inhabiting the different physical bodies." This exhibits how these ancient texts gave us the knowledge of mutual co-operation, peaceful co-existence and feeling of brotherhood. According to the Vedic philosophy, all persons have the right to share the boons and blessings of the Mother Earth equally. Moreover, for maintaining and building peace and security within self as well as at the cross border level, we must follow the teaching of Vedas that all are our friends, none is our enemy; Love begets love and hatred breeds poison and contempt.

!!Om Shanti Shanti Shanti!!

# *The Vestiges of Sanity*

*Of Humanity-on the brink I stand  
Edged with hope, a pompous band  
"I'll be there" - Oh! But they didn't say when,  
For everyone's their own - lost in a hypocrite's den*

*A patch of black and the canvas is ruined, it's gone  
An artist's delight - now he hides himself, he mourns.  
Sprinkles of ecstasy, Streaks of strife  
You can amass all you want, but you have fingers five  
Greed overwhelms, you only take  
Spare none, when some's lives are at stake*

*Life gives you lemons you make lemonade  
It will take all from you, and no goodbye be bade.*

*Alas! Only few do understand life's listed price  
A game of chances, a game of dice  
And on the brink I stand - of Humanity  
Down under, I stare at - The Vestiges of Sanity.*

*Clinging onto the edges, I stood, powerless I am but I do not pray  
For, the colorful utopia he once painted is now blurry, chronic grey.*

*Drop by drop, filled the ocean of filth  
Drop for drop, sympathy we killed  
Gory death did it die; once gracious, now deprave  
Unknowingly along with; we dug our own grave.*

*The Vestiges of Sanity, I now stare at  
A chiasmic ride of vanity, on a perforated mat.*

Shimanta Krishna Bhuyan  
B.Tech CSE, 1<sup>st</sup> Semester  
Tezpur University



## Let's Be At Peace

Man has the power, man can bring the change,  
But there is a certain fact that is so very strange,  
Man makes the tools, man can do it all,  
Then why do so many of us need to take a fall?  
Man is intelligent, we are not all that bad.  
But this makes the present scenario even more sad.  
Man built technology, man keeps improving all the time,  
But we lost our morality, we committed such a crime.  
Technology has been used for good, but more for the worse,  
Maybe every idea man had transformed into a curse.  
In our relentless March, maybe we forgot to see,  
Too eager to take the lead, maybe we forgot to be free.  
We built security, but we might have lost what was secure,  
Trying to duplicate the original, we forgot what was pure.  
Maybe we forgot what we initially set out to do,  
And only when we have come too far, we would look back and rue.  
Together maybe, we can still be the change we need,  
Maybe our starved minds would have new thoughts to feed.  
Maybe if extend our arms, forget our reasons to fight,  
Then maybe, just maybe, we might set everything right.  
Maybe we won't live like kings, maybe we won't be there at the peak  
But together we will make sure that none of us stay weak.  
Let's use technology in the right way, we got our lands on lease,  
We will make progress for sure if only we sue for peace.

**Nikhil Dixit**  
CSE, 3<sup>rd</sup> Sem

# **An Outline of the Solid Rocket Motor Technology**

## **Some Key Features in the Design and Development**

**Paragmoni Kalita**

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Department of Mechanical Engineering, Tezpur University

### **Preamble**

Our country's recent success in space, as well as in the missile programmes, gives every Indian a reason to feel proud. This is a result of prolonged and dedicated efforts of several scientists and engineers under the leadership and inspiration of legends like Prof. Vikram Sarabhai, Prof. Satish Dhawan and Dr. A. P. J. Abdul Kalam. The successful launches of the PSLV, GSLV and the Chandrayaan by the Indian Space Research Organization (ISRO) are notable technological steps towards India's peace and security. In the country's Integrated Guided Missile Development Programme (IGDMP) also, the research and development initiatives by the Defence Research and Development Organization (DRDO) has led to the successful launches of the Agni-series of missiles. The space launch vehicles, as well as most of the sophisticated missiles, are powered by liquid-fuelled rocket engines or solid-propellant-fuelled rocket motors or combinations of both. This article presents a brief outline of the design and development of the solid rocket motors. Any new design of a rocket motor has to pass through the pilot production, pilot testing, main production and ground testing stages before going into the flight testing stage. Each stage involves the knowledge and application of interdisciplinary fields.

### **The design stage**

To begin with the design process the objectives like the payload, range, Mach number etc. to be fulfilled by the rocket motor are identified. These parameters determine the thrust force to be generated by the rocket motor during the take-off and flight. Apart from the initial thrust, the desired trajectory of the spacecraft or the missile determines the required thrust of the motor as a function of time. By systematic calculations, this thrust vs time can be mapped to the pressure vs time required by the rocket motor. Now a suitable chemical composition of the propellant is selected. The chemical combination of the propellant is selected based upon previous experience and study of the recent developments. The propellants mostly contain a solid fuel (e.g. Aluminium Oxide), an oxidizer (e.g. Ammonium Perchlorate), a binder (e.g. Hydroxyl-terminated Polybutadiene) and a burn rate modifier (e.g. activated copper chromite). Additionally, small amounts of suitable plasticizer, curators, antioxidant, cross linker and chain extender are also added. The propellant grain is designed with a hollow core, so that, on ignition, the combustion proceeds in radially outward direction. Based on the desired pressure vs time plot the designer specifies the burn rate of the propellant. Additionally other properties of

the propellant such as the hardness, anisotropic strength, shelf life etc. are specified during the design process itself. The dimensions like length, diameter etc. of the rocket motor are obtained from the burn rate, desired duration of combustion and the total thrust required in the intended application. Based on the material of the rocket motor casing and the maximum inside pressure, the thickness of the casing is calculated with the minimum possible factor of safety. The temperature of the hot gases due to combustion may reach as high as 3000 °C, which no casing material can withstand. Thus, a suitable insulation layer is placed between the propellant grain and the casing that can withstand high temperatures for the desired duration and a particular limit.

Additionally, depending on the altitude and trajectory, the number of stages of the motor can also be decided. The hot gases after combustion inside the motor get exhausted at supersonic speed through a converging-diverging nozzle mounted at the tail of every stage. The outgoing high-speed jet provides the forward thrust to the space vehicle following Newton's second and third laws of motion. For the directional control of the space vehicle, the nozzle axis can be tilted by few degrees using suitable control mechanisms. The geometry and dimensions of the nozzle are determined in the design stage itself keeping in view the thrust profile required by the rocket motor. It may be noted that the material for the rocket motors should have the highest possible strength-to-weight ratio and reliability to reduce the inert weight of the space vehicle and success of the mission. In brief, at the end of the design process, the details such as the design thrust vs time, pressure vs time, temperature vs time, dimensions of the casing, maximum surface temperature of the casing, maximum stress on the casing, dimensions of the propellant grain and the insulation, nozzle, chemical composition of the propellant are all available.

### **The pilot production stage**

The pilot production stage is very crucial. For the given batches of raw materials, the exact

chemical composition and the mixing process for the propellant to be used in the main motor are finalized in this stage itself. The designer proposes a composition of the propellant based upon standard data. But minute variations in the properties of the raw materials are quite normal from batch to batch because of constraints in the manufacturing processes of these materials. These small variations in the individual raw materials lead to appreciable changes in the propellant properties. The propellant immediately after mixing behaves as a visco-elastic material. The viscosity of the propellant as a function of time greatly influences its subsequent properties. The highly viscous propellant after mixing is cast into the so-called Ballistic Evaluation Motors (BEMs). A number of pilot level mixing and casting of propellants are conducted. Samples of the BEM castings are tested for the Mechanical properties like hardness, strength etc. and chemical properties like the burn rate. The cast propellant needs to be solidified by using specified heating and cooling cycles called the curing cycles. Each BEM is tested on the ground to find out the thrust vs time and pressure vs time curves. This testing is called the static testing of BEMs. During the static testing, the Electronics and Instrumentation engineers play a key role in the reliable data acquisition for the pressure and thrust developed by the BEM. The pilot mixing and castings are repeated till the particular composition and mixing cycle which gives the desired performance the propellant is achieved. This particular composition of the propellant is frozen for the main motor to be cast using the same batches of the raw materials.

### **Main production stage**

During the main production stage, the processing of the propellant, as well as the rocket motor casing is done. The propellant is highly prone to ignition by mechanical impact, static electricity and friction. Therefore, safety standards of the highest level are maintained during each and every stage of the production through standard operating procedures (SOPs). All space applications require the highest possible reliability of operations

owing to highly exhaustive money and manpower involvements. Thus, the quality standards are maintained at every step including hardware preparation, hardware insulation lining, insulation machining, propellant raw material weighing, testing, mixing, casting and curing operations. The mixing, casting and curing operations in the main production follow the same procedure as in the pilot casting, except that in the former case a larger volume of raw materials of the order of tonnes are to be handled with weighing accuracy of the highest order. Depending on the total length of a particular stage of the motor and the maximum depth of the casting facility available, the number of “segments” in a particular stage is decided. For a very long stage, the number of segments may reach seven. These segments are to be finally assembled into a single stage using highly sophisticated mechanical operations with close dimensional tolerances. It may be noted that the Challenger disaster of NASA in 1986 took place because of a faulty O-ring used during the assembly of two segments. This asserts the importance of stringent quality control during every stage of a rocket motor production. The individual segments and the whole stage are inspected before, as well as, after the mechanical assembly respectively by Non-Destructive Testing (NDT) techniques for any casting or assembly defects in the interfaces. The NDT is a very crucial step that requires deep involvement of Physics and the observations during the NDT play a significant role in deciding, whether to go for the static test of the rocket motor or not.

### **Static testing stage**

Once a new design of a rocket motor is produced it has to go through a minimum of two consecutive successful static tests before that design is allowed to go for flight test. An extensive review of each and every stage of its production is done including raw material and hardware selection, pilot production, main production and NDT reports before the static test of every rocket motor. Once systematic scientific analysis during the review gives sufficient confidence level regarding

possible safe static testing of the motor, it receives clearance from the review committee for the static test. The static test is done by mounting the rocket motor to a swinging type of frame, called the “swing-bench test bed” that can allow the motor to transfer its thrust to a calibrated load-cell mounted between the motor and a “thrust-wall”. The load cell provides the thrust vs time plot to the Data Acquisition System (DAS) that can be monitored from the Mission Control Centre (MCC). Additionally, pressure transducers are mounted inside the rocket motor to give the pressure vs time curve. Strain gauges and thermocouples are mounted on the motor casing at designated places to record the stress and temperature levels on the motor casing during the test. Linear Variable Displacement Transducers (LVDTs) are used to record the displacement data of critical locations of the swing bench. The displacement data of the swing bench is crucial as that can be used along-with the stiffness of the swing-bench material to calculate the actual thrust developed by the motor. After the safe static test, another review regarding the success of the design and production is done. If minor variations from the expected performance specified in the design are found, suitable modifications in the design and manufacturing of the motor for the second static test are suggested.

### **Flight test stage**

Once all the stages of a new design of a rocket motor qualify for the flight test, whole integration of the space vehicle is done including all the stages, the payload, the control system including the on-board computer. Understandably stringent safety and quality standards are essential at each and every step of this final stage as well. During the flight test, the desired trajectory is fed to the on-board computer (OBC). The OBC continuously receives the actual trajectory of the space vehicle during its flight by suitable sensors, compares the actual co-ordinates of the vehicle with the programmed trajectory and accordingly sends feedback signals to the control and actuation system for the correction of the flight trajectory.

Various features such as the successful ignition and disintegration of each stage, operation of the vehicle control system, stability of the vehicle during flight etc. are also monitored.

### Summary and concluding remarks

This article gives a brief idea of various stages involved in the design and development of solid rocket motors for space vehicle applications. Giving an in-depth picture of the whole technology is beyond the scope of any single article on this topic. The author's idea was to ignite the readers' minds with the kind of technological intricacies required in such developmental works. The reader

will probably appreciate that in an area like a rocket motor development, people from many disciplines like Chemical Sciences and Engineering, Mechanical Engineering, Aerospace Engineering, Mathematical Sciences, Physical Sciences, Safety Engineering, Electronics and Instrumentation Engineering, Computer Sciences and Engineering have to join hands. Above all, the success of such works requires the highest level of sincerity, honesty, commitment and dedication for the country. India is doing well in space technology. Further success awaits us, especially if some more talented youth from the country make up their minds to serve in this sector with passion and dedication.

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3. A. Vishwakarma, *Indian Long Range Strategic Missiles*, Indian Defence Review, Vol. 21 (4), pp. 1-7.



## **Achievements of the Students of Tezpur University 2013-2015 (Cultural & Literary)**

### **Zonal Competitions**

#### **Inter University East Zone Youth Festival, 2013**

A Team of 17 students participated in cultural competitions in the 29<sup>th</sup> Inter University East Zone Youth festival, 2013 organized by Association of Indian Universities, Sponsored by Ministry of Youth Affairs and Sports, Govt. of India in association with Lalit Narayan Mithila University, Darbhanga, Bihar. The achievements of Tezpur University in the competitions are as follows:

- Folk Orchestra: 1st Prize
- Debate: 1st Prize
- Quiz: 2nd Prize
- Photography: 3rd Prize

#### **Best Literary Team: Tezpur University**



## Inter University East Zone Youth Festival, 2015

A team of 33 students participated in cultural competitions in the 30th Inter University East Zone Youth Festival, 2015 during 5-9 January 2015 organized by Association of Indian Universities, Sponsored by Ministry of Youth Affairs and Sports, Govt. of India in association with Ranchi University, Ranchi. The achievements of Tezpur University in the competitions are as follows:

- Debate: 1st Prize
- Western Vocal: 1st Prize
- One Act Play: 2nd Prize
- Folk Orchestra: 3rd Prize
- Elocution: 3rd Prize
- Spot Photography: 3rd Prize
- Quiz: 3rd Prize
- Folk Dance: 3rd Prize

### Best Literary Team: Tezpur University



- The students of Tezpur University have won the North East Leg of the All India Inter University Debate Competition named “The Great Debate 2014” organized by the British High Commission, Kolkata in partnership with the Debating Society IIT Guwahati during October 16 – 17, 2014. The team comprising Kalyani Kaushik, a B. Tech. (ME) student and Ayushman Devraj, an Integrated MA (EFL) student will now represent the North Eastern Region in the national competition to be held in New Delhi in November this year.
- The quiz team of Tezpur University comprising Ashutosh Das (M.Tech, ME) and Vedanta Baruah (M.Tech, ME) won the regional round of the *Mahindra Auto Quotient 2014* (automobile quiz) held at NIT, Silchar in September 2014.

## NATIONAL LEVEL COMPETITIONS

- The Tezpur University team comprising Ashutosh Das (M.Tech, ME), Anubhav Joshi (B.Tech, ME) and Subhasish Dutta (B.Tech, ECE) won the *Sweden India Nobel Memorial Quiz* held in New Delhi during November, 2014.
- Best Debate Team: Manik Chandra Barooah National Level Debate competition, 2012.
- Second Best Debate Team: Manik Chandra Barooah National Level Debate competition, 2013, 2014

## All India National Inter University Youth Festival 2014

A team of 14 students from Tezpur University participated in the cultural and literary competitions of 29th All India Inter University Youth Festival organized by Association of Indian Universities, Sponsored by Ministry of Youth Affairs and Sports, Govt. of India, in association with Kurukshetra University, Kurukshetra, Haryana from 18th to 22nd February 2014. The achievements of Tezpur University in the competitions are as follows:

- Folk Orchestra: 2nd Prize
- Quiz: 3rd Prize



## All India Inter University Youth Festival 2015

A team of 14 students from Tezpur University participated in the cultural and literary competitions of 30th All India Inter University Youth Festival organized by Association of Indian Universities, Sponsored by Ministry of Youth Affairs and Sports, Govt. of India, in association with Devi Ahilya Viswavidyalaya, Indore, MP during 12th to 16th February 2015. The achievements of Tezpur University in the competitions are as follows:

- One Act Play: 2nd Prize
- Western Vocal: 4th Position

## INTERNATIONALCOMPETITIONS

- A 12 members Folk Orchestra team of Tezpur University, Assam participated in the 8th **South Asian Universities International Youth Festival 2015** organised by Association of Indian Universities, New Delhi and sponsored by Ministry of Youth Affairs and Sports, Government of India held at MohanlalSukhadia University, Rajasthan during 7-11March 2015.

Tezpur University Team receives **The Best Regional & Folk Team Award** in the 8th South Asian Universities International Youth Festival 2015.



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## Regional & State Level

### Best Debate Team: Tezpur University

- Parag Das Memorial All Assam Debate Competition held at State Museum, Guwahati during the month of August for the years 2012, 2013, 2014.
- Golap Sarma memorial Northeast level debate competition organized by North lakhimpur College, 2013, 2014.
- Tonu Konwar memorial All Assam Debate Competition organized by Garhgaon College, 2012.
- K. C. Kakati Memorial Debate Competition organized by J. B. College, Jorhat.: 2012, 2013.
- All Assam Debate Competition organized by Pragjyotika College, 2012, 2013, 2014.
- All Assam Debate Competition in memory of Dr, SurendraNath Das organized by B.H. College on 11 April 2015.
- All Assam debate competition organized by Tezpur College during April 2015.
- Radha Gobinda Baruah Memorial Debate Competition, 2012, 2013 Best Debator: Ms. Jyotisha Saikia, MA, MCJ. 4<sup>th</sup>sem.
- Kailash Nath Sarma Memorial Debate Competition, 2013. Best Debator: (Jyotisha Saikia)
- TechXetra 2012 Debate Competition: (National Level)  
Best Debator: SimonaTamuli.
- Manash Barua North-East Level Debate competition organized by Alumni Association, Goalpara Army School. 2012, 2013.  
Best Debator: SimonaTamuli(2012), JyotishaSaikia(2013).
- All Assam Open Debate Competition organized by AJYCP, Jorhat, 2015.  
Best Debator: Jyotisha Saikia.

# Canvas Speaks



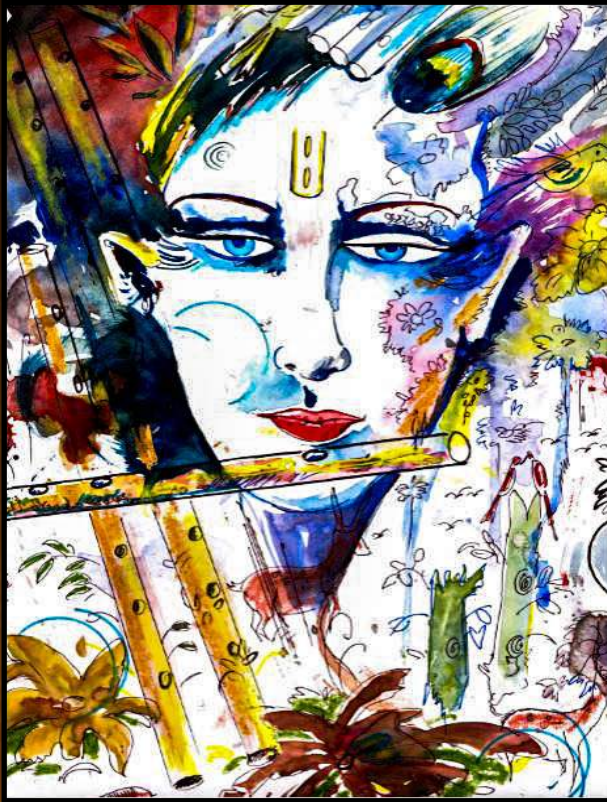
... Signifies 'wish for freedom' - demand to be free and independent ...

- Ankita Saikia, 9th sem,  
Int. MSc in Physics

WOMEN WITH PEARS  
(DEFORMED STRUCTURE)

- Debangshu Sinha, 7th sem  
B.tech, Dept. of mechanical engineering





### সুৰভ নাচি উঠা প্ৰেমৰ প্ৰকৃতি

যান্ত্ৰিকভাৱে বৃদ্ধ প্ৰকৃতিখনক যেন আকৌ এবাৰ  
বাঁহীৰ মূৰৰ সুৰৰ প্ৰয়োজন হৈছে। অংশীত্বই একমাত্ৰ  
মাৰ্ঘ্যম যিয়ে শুই থকা প্ৰকৃতিখনক জগাই উল্লিৰ  
পাত্ৰে। বাঁহীৰ মূৰৰ সুৰে পুনৰ প্ৰকৃতিখনক নৃত্যত আগি  
পৰিবলৈ উত্তেজনা জগাইছে।

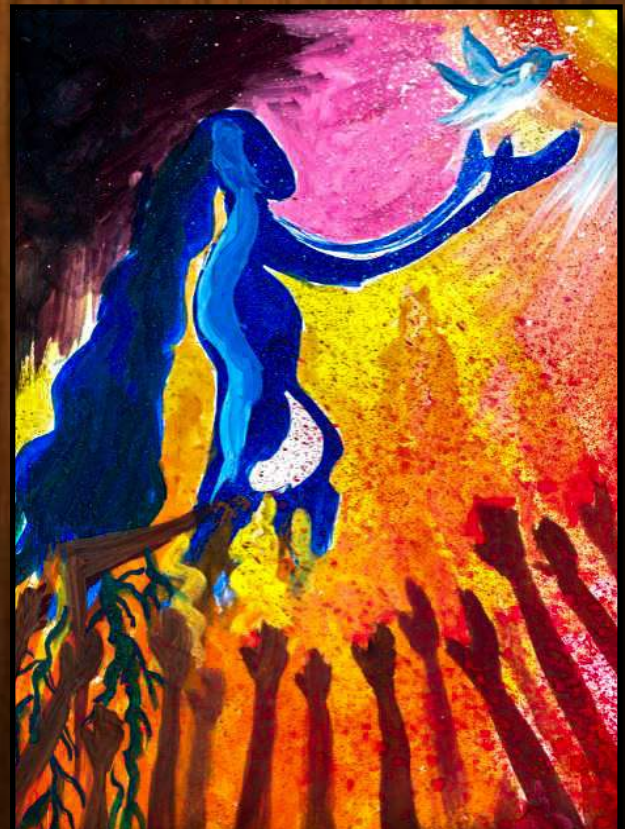
(বি.চ. ইয়াত সুৰৰ মাৰ্ঘ্যম স্বকণ্ঠে কৃষ্ণক দেখুওৱা হৈছে)

Keshab Chandra Das, 3rd Sem  
B.tech, dept. of ECE

### SHE ... rebel against female foeticide

Women painted in blue (denote her as the source of life and creation), she carries a girl baby in her womb and she is shown releasing a bird in the air which denotes freedom of light. The blood smeared hands denote all evil forces of society that is against girl child. They try to destroy the goodness of life. In spite of all opposition, the woman holds her ground (the green roots) and wins victory over the devil. The dark black colour at the left top indicates all negative powers whereas the light-pinkish colour on the right top indicates positivity and feminism.

- Priyanka Borah, 3rd Sem,  
Int. MSc, dept. of MBBT





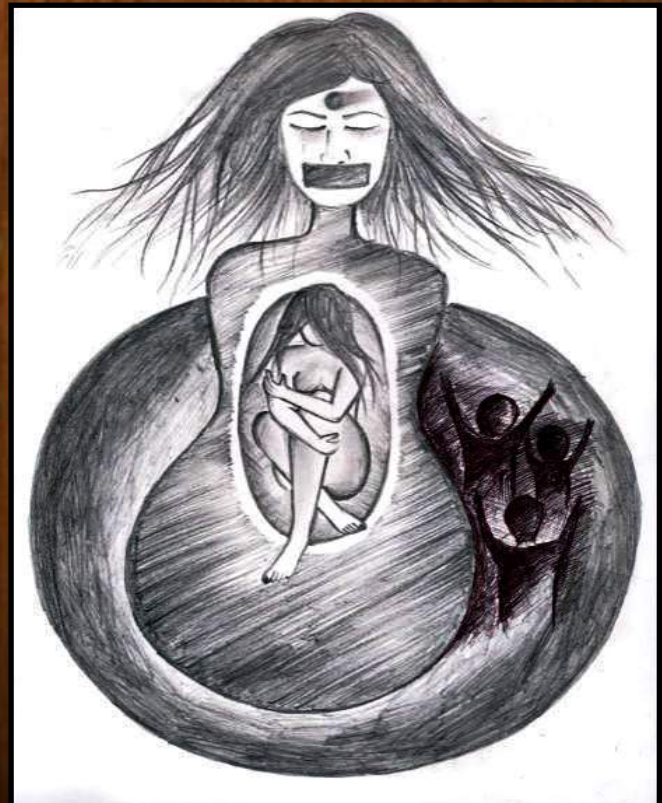
### Abstract of love

It is an imagination of love between two birds. The bright colour denote their happiness whereas the dark colour on the edges direct people to get rid of evil deeds and follow their pure love.

- Saurav Jyoti Sarma, 3rd Sem,  
Dept. of Mechanical Engineering

The picture addresses the trials and tribulations a mother goes through to protect her girl child. Society, being a construct of human, often tries to stigmatize a girl's character for no fault of her at time. For eg., the burgeoning rape crimes that we witness or hear about day in, day out where people often tend to look upon the girl as a cause of crime rather than a victim of it. It is however the strength of a mother that provides the panacea of all sufferings and gives the strength to fight against all the evils of the society. The picture is thus a celebration of motherhood, an undomitable courage of a mother to protect her child against all forces of societal constructions.

- Priyanka Mali, 2015 passout,  
Dept. of Environmental Science





স্বপ্ন-বিশ্ব-বিশ্ব-বিশ্ব  
স্বপ্ন-বিশ্ব-বিশ্ব-বিশ্ব

- Soma Kirtania Paul,  
resident of T.U.



This is basically the present scenerio of the world. Our universe is what it is in the middle of the painting, the right part depicts the destruction, the battles, the crimes and all the harmful deeds by the human species. The left part depicts the mother earth, the natural world. In due course of time the right part i.e. the bloody battles is casting its influence on the leftmost part i.e. our natural world. Everyone has some good within themselves which they have to realize before doing any harm to anyone. That is depicted by the middle part. It is the universe within.

- Sourabh Jyoti Hazarika, 7th sem,  
Dept. of CSE

# Making Indian Engineering World Class

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## Biomimetic and Cognitive Robotics @ Tezpur University

**Shyamanta M Hazarika**

Biomimetic and Cognitive Robotics Lab

Department of Computer Sc. & Engineering, Tezpur University

Tezpur, India

shyamanta@ieee.org

It is difficult, almost impossible to quantify what world-class is! A sophisticated device or a contrivance indispensable for someone in a developed economy may not have any meaning for the common man in a developing country. Same may be true for processes involved in accomplishing different tasks. However, what binds anything 'world class' in a common thread is its 'being of the highest caliber' ingrained with excellence. 'World-class' engineers need to synthesize new ideas; innovate and develop new processes and technologies to address contemporary challenges.

I shall discuss issues and challenges in a national perspective; and present research being carried out in the Biomimetic and Cognitive Robotics Lab at Tezpur University (BCR@TU) in pursuit of such goals.

### Engineering for the changing world

Globalization and rapidly evolving technologies are driving profound changes in the role of engineering. Technology needs of a global knowledge economy are dramatically changing the very nature of engineering practice. Simply the mastery of scientific and technological principles is no longer adequate; awareness of what is happening elsewhere is of paramount importance. Today engineering is different!

We are experiencing a time of rapid and profound social transformations; a transition from a century in which the dominant human activity

was transportation to one in which ICT has become overriding. There are other technologies such as biotechnology and nanotechnology. These technologies characterized by an exponential growth are driving profound changes in our world. There has been a shift from an emphasis on creating physical objects to knowledge itself.

In a global, knowledge-driven economy, innovation – the transformation of new knowledge into products, processes, and services of value to society – is critical to competitiveness and long-term productivity as well as growth. However, innovation is not simply about new technologies - it is also about how business processes are integrated, how services are delivered, public policies are formulated, and how society benefit. The requirements of 21st-century engineering are considerable: engineers must be technically competent, globally sophisticated, culturally aware, innovative and entrepreneurial.

### Engineering: Practice; Education and Research

These challenges and opportunities suggest that major changes will be necessary in engineering practice, research, and education; changes that go far beyond conventional paradigms. This is compounded by the fact that India is set to become the largest contributor to the global workforce.

Engineering programs should incorporate knowledge of the fundamentals and dynamics of globalization; internships need to provide

opportunities to become immersed in study, work or research abroad. Transnational mobility for engineering students, researchers and professionals needs to become a priority. Engineering education need to be driven through cooperation between the industry and the academia. Engineering excellence depends critically on a mutual commitment to partnerships, especially those that link engineering education to professional practice.

## BCR @ TU

Biomimetic and Cognitive Robotics research at TU is driven through a societal commitment to provide cost-effective assistive devices. BCR@TU conducts research in the areas of Knowledge Representation & Reasoning and Rehabilitation Robotics. The development of interfaces that link the human musculoskeletal system with robotic devices has been a major focus. Research at BCR@TU is driven by *biomimetics* i.e., examination of nature particularly human intelligence and skills, its models and systems to emulate and take inspiration from the design. Goal is to enhance capability of independent living by restoration of physical functionality through use of *intelligent assistive devices*.

## TU Bionic Hand

We are working on development of a cost effective bio-signals controlled prosthetic hand. TU Bionic Hand is an interdisciplinary project combining research elements from the domains of Biology, Electronics, Computer Science and Mechanical Engineering. The successful realization of this highly visionary project uses the state-of-the-art research results from relevant fields to improve the functionality and controllability of a prosthetic hand.

Figure - 1 shows the TU Bionic Hand developed following a biomimetic approach. Prototype 1.0 can replicate six grasp types involved during 70% of daily living activities using forearm surface electromyogram (EMG) signals.

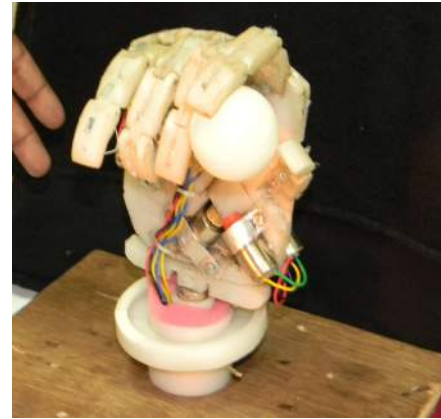


Figure 1: TU Bionic Hand - Prototype 1.0

## BCI for Control

In the Biomimetic and Cognitive Robotics Lab at Tezpur University, we have also looked at classification of motor imagery. More recently, we have designed and developed a simple maze game, where a player effectively plays the game by using his brain signals. We have worked on classifying four motor imagery tasks: Both Hands Up, Tighten Both Fists, Right Hand Up and Left Hand Up. Bispectrum estimation of the electroencephalogram (EEG) signals allows us to discriminate between the four motor imagery tasks.

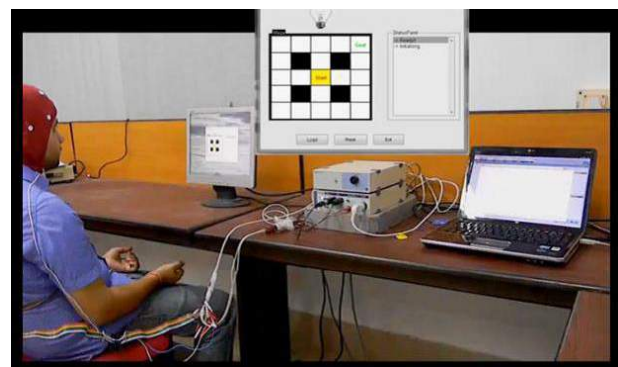


Figure 2: BCI Maze Game

Figure - 2 shows a volunteer playing the maze solving game. In this game, the subjects solved the maze only using their thoughts. Experimental results show that subjects can rapidly achieve

a significant level of mental control, even if far from optimal, to drive a block on the maze. This game demonstrates the feasibility of continuously controlling complex robotics devices using a non-invasive BCI across subjects.

### BCI Integrated Wheelchair

Traditionally BCI research has been focused on the direct control of external devices through motor imagery classification. While this is definitely an accomplishment to cherish in the area of rehabilitation robotics; we firmly believe that the potential and promise of BCI is untapped. Undoubtedly one of the greatest promises of brain sensing is the ability to gauge the cognitive and affective states of users; and within an ambient intelligent environment this need to drive the adaptation of the device being controlled.

We take this idea forward to integrate a BCI with a cognitive architecture for collaborative control of a smart wheelchair. The cognitive architecture mediates based on the extent of automatic vs. manual control to be achieved. Motivation for such an effort comes from the aim to assist users without undermining their capabilities. Assistance is to be provided to the extent necessary; the on-board cognitive architecture deciding when and how much of control needs to be passed on to the user.

Such architectures of collaborative control are not new. Literature reports different approaches to tailoring the control system of intelligent wheelchair to the user. This ranges from low level of human intervention to one driven through BCI. There are a number of intelligent wheelchairs working on hybrid systems that autonomously switch modes of operation. The dual role for the BCI is what makes the BCI Integrated Collaborative Controller being developed in the Biomimetic and Cognitive Robotics Lab at Tezpur University different from the others.

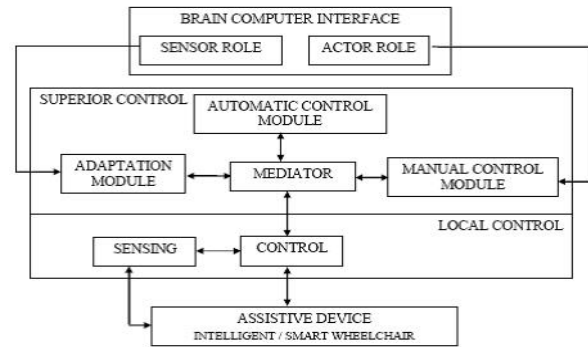


Figure 3: Collaborative Control Architecture

Figure - 3 shows a schematic of the three layered BCI Integrated Collaborative Control Architecture.



Figure 4: BCI Integrated Wheelchair

### Indian Engineering –Way Ahead

Industry must take the lead in developing opportunities for students to practice engineering in a global context, whether through on-site employment, virtual involvement in global engineering projects, or other experiential opportunities. Barriers to studying, working, conducting research, and forging International Collaborations need to be removed. Engineers need to be encouraged to become effective collaborators and communicators; working across boundaries. We must bring up Engineers to think against the grain; swim upstream; violate the norm!

Work being done in the Biomimetic and Cognitive Robotics Lab at Tezpur University reflects such a commitment.

# Virtual Ethics

**Shobhanjana Kalita,**  
Assistant Professor,  
Dept. of CSE, Tezpur University

## **Technology empowers. Period.**

There remains no room for any question as to who and how it empowers. It is indiscriminating in its beneficiaries and universal in its scope. The Internet is the first thing that comes to my mind when it comes to such empowering technologies. In fact, it is also the only thing that comes to my mind, when I consider the sheer breadth of its reach and the depth of its scope.

Internet is power in the air and running through cables. And it is available to anyone carrying a device capable of internet connection. It can as easily help the enterprising student in quenching their thirst for knowledge as it can help the lazy one to cheat in their assignments or examinations. It does not differentiate between someone trying to enrich lives by setting up an NGO or the sociopath who wants learn how to build bombs that can blow up a city. If on one hand it provides a stage where the liberal free-thinker voices their opinion, on the other it is also the medium for conservative autocrats to stifle opinions disturbing to their narrow notions. If it is a free arena for the smart entrepreneur, it is also the biggest playground for the wily thieves.

It is power and it is up for grabs- come one, come all. And grab, we have. But what have we done with it? With great power comes great responsibility. Unfortunately though, the internet, in its indiscriminate distribution does not and cannot take into account that small detail. It is just like every other form of power- be it political, financial, influential, intellectual or physical- it cannot be classified as good or bad; it depends on how one wields it. Therefore, it falls on the empowered to take responsibility.

But if every person were to act sensibly and responsibly, there would never have been any need for laws and courts. And if every person were to use the internet ethically there would have been no use for cyber laws. However, such laws prevent only the serious cyber crimes, that too if and when found or caught - most mis-users usually get away with it because of the anonymity that the Internet offers. Incidentally, it is also this same sense of anonymity that also leads most users into being more maleficent, irresponsible and unethical in their dealings with the virtual world.

Power of internet is not any different from other forms of power when it comes to enforcing its ethical use too. It cannot be done through mere laws. One has to understand and appreciate the consequences of one's actions. Of course there will always be some intentional miscreant who simply lives to create havoc, whose only way through life is to steal and cheat, whose only satisfaction is in causing harm. But as long as we do not wish to fall down to that category, we should start taking responsibility for our own internet activities. Let us not unleash the Mr Hyde of our characters in the shadows of internet anonymity. Let us try to live in the virtual world with the same sensitivities and moralities that govern our actions in the real world.

# TEACHER OF TEACHERS

**Dr. Sanjib Banerjee**

Assistant Professor,  
Dept. of Mechanical Engineering

‘Teacher’s Day’ is indeed a day to bestow our love and respect to those mentors, who have moulded us, to what we are today. It is said that dream begins with a teacher, who believes in you, who hugs and pushes and leads you to the next plateau, sometimes poking you with a sharp stick called ‘truth’! We, the teachers, are also truly and even more thankful and pleased with the enthusiastic love and gratitude received from our beloved students, for whom we have atleast tried to dedicate our years behind. But to speak the truth, even on this auspicious occasion, my heart knows only agony; eyes are left with painful tears; almost stumbling through this journey termed ‘life’! My dear students, to give you a glimpse of such unnaturality, let me share a bit of bitter truth from my heart.

It has been long six months, since my very beloved mother was detected victim of the deadly demon, called ‘Cancer’. An advanced stage is incurable. Ironically it tells the heartbroken story of an only child, officially receiving a sudden notice, to face the consequence, something that the brain may though understand, but the mind gets never prepared for! The detection itself is sufficient to rob the mental peace, shatter the financial backbone, and slow poison an entire family literally into destruction! And it is during such difficult phase, when they say; a stranger may

become best friend with true human value, just as easy as, the so called ‘best friend’ may become an absolute stranger. One may not get the actual taste of such misfortune, unless has been similarly victimized. Because, truth is obviously stranger than friction. Although each single day seemed to be a decade long nightmare, ‘giving up’ in despair is crime, hence fighting tough and alone with uncertain hope remained the only option. May be, expecting miracle to beat reality somewhere! Literally not a single day did pass for us, without mental depression and agony, fears of painful destiny, tears in our eyes, or at least with a fake smile for the rest of the world. Each precious day I stay away, due to my distant job commitment, failing to physically render my possible care, support, service, or accompany her, who is counting her last days, seems to be an ultimate waste for me! Today when I helplessly stand before this loss, every bit of achievement or success, education or job, comfort from whomever on this earth, doesn’t actually make any sense, for this unfortunate. Because, all these are only mere consequences of efforts and sacrifices from her side, who is actually the mentor of my individuality as a whole.

The above story may not be misinterpreted as emotional outburst from a mere personal loss, but let me share how the same really concerns to a student-teacher

relationship. Just sit and think a moment, is it not true that 'ideal parents' absolutely possess every bit of qualities of an 'ideal teacher', yes, 'ideal' to be precise, if not more? Without their love, blessings, encouragement, unconditional sacrifices and continuous support throughout the years, it would have never been possible for us to achieve ourselves, and move still some further at every point of life! Being a heart broken son, and later a teacher, I can well realize that actually parents are our 'Real Teachers'. Their words will continue to enlighten our minds forever, which no mere degree or education perhaps could have done. They will be our Friend, Philosopher and Guide throughout the rest of our lives, no matter, whether they are physically still there or not. Every bit of education and morality, what we gift to our students today, never belonged to us, but was actually gifted by our parents only, in some point of time.

I believe, anybody failing to gain the perspective, is not really worthy to be termed as 'student' or a 'teacher' either. If one fails somehow to respect parents, it can rest be well assured that he or she cannot respect anybody else on the earth, whatever dedication may come in celebrating a 'Teaches Day'. 'Teacher Day' comes only once in a year, but let us celebrate every precious moment of life as 'Teacher Day' with our 'Real Teachers'. I shall like to proudly call them as 'Teacher of Teachers'.

My dear students, I am a teacher, and we are hence expected to be role models. From that perspective, and on the auspicious occasion of

'Teachers Day', I have a little message to deliver, from my own experience out of this 'reality show' called life. Having blessed by parents may be a sole enough reason to feel proud and grateful to God. It will be quite a fair not to believe in God or Religion, while still worshipping the parents. Hold their aged hands tight, as they always did to your childhood. Respect, Love, Adore, Thank, Hug, Speak, Smile and do whatever your heart dies to do to your parents, somewhat more than any class teacher, or any other relation on this earth! Simply because in today's era of professionalism, none else will selflessly sacrifice every bit of blood, just to see you smile and succeed! Because, sooner or later, you are somehow bound to realize that literally none can fill their void once created! Because, you never know, when you lose this precious opportunity, and start desperately crying for the same throughout the rest of your life! Because, when it comes to parents, trust me, life can't afford to give you a second chance!

I am thankful and evergrateful to my University and colleagues for their cooperation and understanding of my situation. Lastly I shall request you to pray for a painless life for my mother. Let us wish that no child has to pass through a similar misfortune, and let us also raise a sincere heartfelt prayer and tribute for every parents, who are basically none but priceless gifts from 'Almighty'!

# মা - গো



জন্মো মা দিয়ে যবে  
নিলে কোলে তুলে,  
আজও যেতে পারিনি সে  
কোল বেছেড়ে চ'লে ॥

থাকিলে না মা-গো আজি  
পৃথিবীর আলো,  
দেখিতে না পারিতাম  
মন্দ কি ভাল ॥

শৈশব নিষ্পাপ  
সাথি মা-গো হলে,  
ভালবাসা রক্ষণে  
কাটে হেসে খেলে ॥

কৈশোরে মা-গো জ্বালো  
শিক্ষা যে আলো,  
সেই আলো আজও জ্বলে  
মুছিয়ে যে কালো ॥

যৌবনে রাখিয়া পা  
মুখোশের ভীড়ে  
সেই মা-গো খুঁজি যাবে  
মন কনে নিবিড়ে ॥  
প্রিয় কত আসে ফেরে

ক্ষণিকের সাথে,  
প্রিয়তম মা-গো তুমি  
আজীবন পথে ॥

যৌবন যার নাম  
প্রেম তার পরিণাম,  
পারেনি তো কাড়ি নিতে  
কেহ তব সন্মান ॥

বৃদ্ধ মা ব্যাধি তব  
হয়তো বা অক্ষম,  
যুব আমি তবু তুমি  
পালনে যে সক্ষম ॥

গমনে মা যাও যদি  
রেখো স্মরণে,  
তোমারে বরণে রাখি  
রহি চরণে ॥

বান তব শোধনা নাহি  
সন্তবে জানি,  
চরণে গ্রহণ কর  
হৃদয় মানি ॥

স্মরণে মা রেখো মোরে  
আসি যদি ফের ফিরে,  
রূপ কিবা জানি ধরে  
গর্ভ তোমারি ভরে ॥

Dedicated to my beloved mother, Smt. Indrani Banerjee, whose unending and unconditional love, blessings, encouragement and sacrifices were the chief ingredients of my success, whatever I have achieved, at each and every point of my career, since childhood and who is presently suffering from advanced stage cancer.

- Dr.Sanjib Banerjee,Assistant Professor,  
Department of Mechanical Engineering.

# অভ্যাস

জুৰি দত্ত

পষ্ট ডক্টৰেল গৱেষণা সহযোগী

অসমীয়া অধ্যয়ন কেন্দ্ৰ

তেজপুৰ বিশ্ববিদ্যালয়

জীৱন আৰু সুশান্ত আন্ধাৰত ছাদৰ ওপৰত থিয় হৈ আছে। জোনৰ কোমল পোহৰে ছাদখন কিছু পোহৰাই ৰাখিছে। কাষৰ মানুহঘৰৰ নাৰিকলজোপাৰ চিৰিলা-চিৰিলি পাতবোৰৰ ফাঁকেৰে অহা জোনৰ পোহৰকণে আধা আন্ধাৰ আধা পোহৰৰ এক মায়াময় পৰিবেশ সৃষ্টি কৰিছে। ভিতৰত নিপা আৰু কাকলিৰ কথা-বতৰা আৰু বন্ধা-বঢ়াৰ আয়োজন মুকলি আকাশৰ তলত মাৰ্লবাৰোৰ ধোৱা উৰুৱাই দুজন ৪৫ বছৰিয়া পুৰুষ। দুয়ো ভাল বন্ধু। সময়ে অসময়ে সাংসাৰিক জীৱনৰ উৰ্ধত বেলেগ বেলেগ পৃথিৱীত বিচৰণ কৰি থাকিব পৰাকৈ বন্ধুত্ব তেওঁলোকৰ। উৎসাহী সুশান্তৰ গাড়ীত বহি বমডিলা টাৱাণ্ডৰ ওখোৰা-মোখোৰা ৰাস্তাত মনে মনে ভগৱানৰ নাম লৈ বহি যাব পাৰে জীৱন। পাহাৰৰ ওপৰৰ পৰা বৈ অহা গাখীৰৰ নদীয়েন পানীৰ ফেৰোৱাবোৰৰ ওচৰত গাড়ী ৰখাই সৰু ল'ৰাৰ দৰে জপিয়াই জপিয়াই পানীৰ চিটিকনিত মুখখন ভিজিবলৈ দি সুশান্তই চিঞৰে 'ওলাই আহা, বন্ধু। বঢ়িয়া লাগিব'।

পিতৃৰ গাভীৰ্যৰে জীৱনে তাক সাৱধানতাৰ পাঠ পঢ়ায়। হয়, হয়, খুব ভাল বন্ধু সিহঁত ....!

সেই সুশান্তই হাঁহি হাঁহি কৈছে...

- অভ্যাস বুজিছা অভ্যাস। সব্ অভ্যাস ...মানুহৰ সম্পৰ্কবোৰো আচলতে একো একোটা অভ্যাস। এটা সময়ৰ পিছত সকলোবোৰ অভ্যাসত পৰিণত হৈ যায়।

- ওহোঁ, মই নামানো। সন্তান আৰু মাকৰ সম্পৰ্ক, স্বামী-স্ত্ৰীৰ মাজৰ সম্পৰ্ক; তোমাৰ মোৰ মাজৰ সম্পৰ্ক

এইবোৰ কি মাত্ৰ অভ্যাস ?

সুশান্তই একো নক'লে। জীৱন আবেগিক মানুহ এইবোৰ সি হজম কৰিব নোৱাৰিব।

সুশান্তই জীৱনক আলবেয়াৰ কেম্যৰ আউটচাইডাৰ প্ৰথম বাক্যটো কৈ শুনালে : Mother died today. Or may be yesterday, I don't know. I had a telegram from the home : Mother passed away. Funeral tomorrow. Your sincerely'. That doesn't mean anything. It may have been yesterday. প্ৰতিবাদ কৰি উঠিল জীৱন, "সেইবোৰ উপন্যাসৰ চৰিত্ৰ মানুহৰ জীৱনটো উপন্যাস নহয়। তাৰোপৰি ফ্ৰান্সৰ সমাজ ব্যৱস্থা, মূল্যবোধৰ সৈতে আমাৰ চিন্তা আৰু বোধ কেতিয়াও নিমিলে।'

- জীৱনৰ ওপৰতেইতো আধাৰিত সাহিত্য। নহ'লে আমি সাহিত্য কিয় ভাল পাওঁ ? ভাল ছবি এখনে, এটা ধুনীয়া কবিতাই, সুন্দৰ গান এটাই, উপন্যাস এখনে কেতিয়া আমাক আকৰ্ষণ কৰে, কেতিয়া নিভৃত অনুভৱৰ সৈতে একাত্ম কৰে।

জীৱনে কেতিয়াবা কথাবোৰ বেছি দকৈ নাভাবিবলৈ চেষ্টা কৰে। দ'লৈ গ'লে সকলো কথাই দুখ দিয়ে, কষ্ট দিয়ে। উশাহ-নিশাহ বন্ধ হোৱাৰ দৰে হয় তাৰ ! ...হ'বই নোৱাৰে, সি মানি নলয় যে মানুহৰ জীৱনবোৰ আচলতে একো একোটা অভ্যাস — ইজনে - সিজনৰ লগত জীয়াই থকাৰ, সামাজিক প্ৰাণীৰূপে জীয়াই থকাৰ একোটা অভ্যাস।

সুশান্তৰ লগত কথা পতাৰ পাছত বহু সময়লৈকে জীৱনৰ মন-মগজ এইটো কথাই আচ্ছন্ন কৰি ৰাখিছিল।

নিপা আৰু কাকলিয়ে ডাইনিং টেবুলত ভাত-তৰকাৰী বঢ়াৰ যো-জা কৰিছে। নিপাই পানীৰ গিলাছত পানী বাকিছে। ইফালৰপৰা কাকলিয়ে চিঞৰিছে, “গিলাছত পানী বাকি নিদিবা। আমি কোনেও ভাত খাওঁতে পানী নাখাঁও। খোৱা হোৱাৰ আধাঘণ্টাৰ পিছতহে খাওঁ।

- অ’ মোৰ আকৌ এইটো অভ্যাসেই। ভাত বঢ়াৰ আগতেই পানীৰ গিলাছ কেইটা ভৰ্তি কৰিবই লাগিব। মই নিজেও ভাত খোৱাৰ মাজে মাজে পানী খাই থাকো। অভ্যাস! নিপাৰ মুখতো দুবাৰ ‘অভ্যাস’ শব্দটো শুনি জীৱন সজাগ হৈ পৰিল। হয়নেকি....? জীৱনৰ বেছিভাগ সময় কি মানুহ অভ্যাসৰ বশৱৰ্তী হৈয়েই আচৰণ কৰে! মাজনী স্কুললৈ ওলাই যাওঁতে নিপাই এটা চুমা খায়। তাইৰ পৰীক্ষা থাকিলে আৰু জীৱন ক’ৰবালৈ দূৰলৈ ওলাই গ’লে নিপাই গোঁসাই ঘৰত দুগছ চাকি জ্বলায়। আৰু সি ? মন্দিৰ, মজজিদ, গীৰ্জাঘৰ যিয়েই নহওঁক, দেখিলেই মূৰ দোঁৱায়। ৰাতিপুৱা গা ধুই উঠি সি মৃত মাকৰ ফটোত সেৱা জনায়। এইবোৰ **চব** অভ্যাস! অভ্যাসেইনে এইবোৰ ? নাই, নাই, জীৱনটো ইমান যান্ত্ৰিক বুলি সি নাভাবে, ভাবিব নোৱাৰে।

পতি-পত্নীৰ সম্পৰ্কক মানুহে কেনেকৈ অভ্যাস বুলিব পাৰে ? সুশান্ত আৰু কাকলি, জীৱন আৰু নিপা, জীৱনৰ মাক আৰু দেউতাক, দক্ষিণ ভাৰতৰ মালয়ালম ভাষা কোৱা তাৰ বৌৱেকজনী গাঁৱৰ নামঘৰত মূৰত ওৰণি লৈ সেৱা কৰি অসমীয়াত কথা-বতৰা পাতি সকলোকে আপোন কৰি লোৱা তাৰ বৌৱেক আৰু ককায়েকৰ সম্পৰ্ক...এইবোৰ কেনেকৈ একোটা মাত্ৰ অভ্যাস ! নাই নাই এনে প্ৰ’প’জিছন এটা মানি ল’বলগীয়া হোৱাটোও বৰ কষ্টকৰ ! ভীষণ দুখ !

ত্ৰিছ বছৰৰ আগৰ গাঁৱৰ ঘৰখন, চোতালখন, গাঁৱৰ মানুহবোৰ ... এটা এটাকৈ সকলোবোৰ আহি আছে। দেউতাকে গলগলীয়া মাতৰে কাহ এটা মাৰি চিঞৰে, “অই ল’ৰাইঁত, পঢ়িছনে ?” .....হয়, হয়, সন্ধ্যাৰ পাছত ভৰি-হাত ধুই সিহঁতে তেতিয়া গোঁসাই ঘৰত প্ৰাৰ্থনা গায় “তুমি চিত্ত বৃত্তি মোৰ .....” অথবা “মুক্তিত নিস্পৃহ যিটো” ..... পাঁচোটা - ছটা ল’ৰা-ছোৱালীৰ সমবেত ধ্বনি প্ৰাৰ্থনা গুচি চিঞৰ হয়গৈ। কিন্তু সিহঁতে সদায় প্ৰাৰ্থনা কৰে ..... কৰিব লাগে। মুক্তিত নিস্পৃহ হোৱাৰ পাঠ সিহঁতক কোনেও কেতিয়াও শিকোৱা নাই। নতুবা নিজক পাপীষ্ঠ, দুৰাচাৰ বুলিও জীৱনে কেতিয়াও নাভাবে। তথাপি সি প্ৰায়েই গাইছিল .....“মই দুৰাচাৰ, কেৱলে তোমাৰ” ..... হয়, সি

আজিও গায় প্ৰাৰ্থনা। নিপাই মাজনীকো সন্ধ্যা প্ৰাৰ্থনা গাবলৈ শিকাইছে।

দেউতাকে সদায় আগফালৰ আৰামী চকীখনত বহি বাতৰি কাগজ পঢ়ে আৰু ৰেডিঅ’ শুনে। মাজে মাজে চুণ-চাদা, জৰ্দা, কাঠা, মুখবিলাস দি নিজে সজাই পৰাই একোখন পান খায়। মাজে সময়ে, আচলতে বেছিভাগ সময় মাকে তেওঁক সেয়া যোগাৰ কৰি দিয়ে। জীৱনৰ আজিও মনত আছে মাকে জৰ্দাপানৰ গোন্ধটো অসহ্যকৰ বুলি নাকটো কোচাই উচ্চ পিচ্ কৰে আৰু দেউতাকক ধুনীয়াকৈ সেয়া যোগানো ধৰে। সি সদায় দেখিছিল দিনটোত কেইবাবাৰো মাকে জৰ্দা-চুফাৰী, কাঠা, মুখবিলাসৰ মিশ্ৰনটো হাতেৰে লিৰিকি-বিদাৰি দেউতাকক দিছিল।

জৰ্দাপানৰ অসহ্যকৰ গোন্ধটোৰ সৈতে দেউতাকৰ লগত একেখন বিচনাত শুইছিল তাৰ মাক। পাক ঘৰৰ তেল হালধীৰ গোন্ধৰ সৈতে একাকাৰ হৈছিলনে জৰ্দাপানৰ গোন্ধ...বৰ অসহায় লাগে জীৱনৰ এনেদৰে গোন্ধবোৰ একাকাৰ হোৱাৰ কথা ভাবিলে। সুশান্তৰ বাবে সেয়ে নেকি সকলোৰ অভ্যাস ? দুটা নৰ-নাৰীৰ দেহৰ জৈৱিক তাড়নাও কি কেৱল মাত্ৰ এটা অভ্যাস ! কষ্ট হৈছিলনে মাকৰ মাহ - হালধীৰ গোন্ধ আৰু জৰ্দাপানৰ গোন্ধ একাকাৰ হোৱাৰ সময়ত ? হয়, হয়, হয়তো মাহ- হালধীৰ গোন্ধ তেল- হালধীৰ গোন্ধলৈ ৰূপান্তৰিত হোৱাৰ সময়লৈ সকলোবোৰ অভ্যাসত পৰিণত হৈছিলগৈ।

জীৱনৰ সহকৰ্মী আৰ এছ যাদব আৰু তেওঁৰ পত্নীৰ মাজত প্ৰায়েই কাজিয়া হয়। যাদবৰ পত্নীয়ে নিৰ্বিবাদে গিৰিয়েকৰ শাৰীৰিক অত্যাচাৰো সহি থাকে মনে মনে। কেতিয়াবা মিছেছ যাদবৰ গালত, ডিঙিত, হাতত আঘাতৰ চিনো দেখা যায়। তেওঁলোক দুয়ো পিছে সম্পূৰ্ণ... একেলগে থাকে, বন্ধত দূৰলৈ ফুৰিবলৈ যায়, বাৰ্থদে, ৰেডিং এনিভাৰচেৰীত পাৰ্টি কৰে আৰু জীয়াই থাকে। জীয়াই থকাটোও চাগে এটা অভ্যাস! জীৱনে কিন্তু কথাবোৰ তেনেকৈ নাভাবে ... মানুহ কেৱল অভ্যাসেৰেই জীয়াই থাকেনে ? থাকেনে জীয়াই কেৱল অভ্যাসেৰে...। নামানে, জীৱনে সেইটো নামানে।

সৌসিদিনা মাত্ৰ জীৱনৰ সৈতে অফিছত হবছৰ একেলগে একোটা কামতে বহি কাম কৰা সুদীপ্ত চৌধুৰীৰ ট্ৰান্সফাৰ হৈছিল। বেচ কৰ্মদক্ষ আৰু উচ্চাকাংক্ষী আছিল সুদীপ্ত চৌধুৰী। প্ৰফেচনেল জেলাছী থাকিলেও মানুহজন হেল্লফুল। এক ধৰণৰ এটা আত্মীয়তা গঢ়ি উঠিছিল

তেওঁলোকৰ মাজত। আজীৱন বন্ধুত্ব নহয় তেওঁৰ লগত। কেৰিয়াৰ আৰু উচ্চাকাঙ্ক্ষাৰ ভৰত বহুত বেছি প্ৰেকটিকেল আৰু নিৰাৱেগিক তেওঁ। তথাপি তেওঁ গুছি যাওঁতে জীৱনৰ চকু দুটা পানীৰে ভৰি পৰিছিল কাষৰ চকীখন শূন্য হৈ থাকিলে বেয়া লাগিছিল তেওঁৰ। প্ৰেকটিকেল মানুহজনেও যাবৰ সময়ত জীৱনক সাৱটি ধৰিছিল আৰু কৈছিল, “জীৱনত খুব কম মানুহক মই বন্ধুৰ শাৰীত থওঁ, আপুনিও মোৰ বন্ধুৰ লিষ্টত আছে কিন্তু দেই।” .....নাই, ইয়াতকৈ বেছি আৱেগিক হ’ব নোৱাৰে তেওঁ। সুদীপ্ত চৌধুৰীৰ কথাষাৰ জীৱনৰ মাজে মাজে মনত পৰে। কিন্তু যোৱাৰ সময়ত কোৱা এই কথাষাৰৰ বাবে নহয়, আন কিছুমান কথাৰ বাবেহে জীৱনৰ চৌধুৰীলৈ মনত পৰে। পূৰাপূৰি অফিছ টাইমত চৌধুৰী অফিছত আহি পায়। অৱাবত সময় নষ্ট নকৰে। সহকৰ্মী সকলে অপ্ৰয়োজনীয় কথা বতৰা পাতি থাকিলে স্পষ্টভাৱে কয়, “Silence Please. I am working”। লাঞ্চ টাইম অথবা অফিছৰ বাহিৰত চৌধুৰী বেচ হাঁহি স্ফুৰ্তি কৰি থকা মানুহ। জীৱনৰ আচৰিত লাগে। চৌধুৰীৰ ভাষাত, “প্ৰফেছনেলিজিম শিকিবলৈ বহুত বাকী জীৱনৰ .....”।

হয়, হয় সুদীপ্ত চৌধুৰীৰ চকীখনত বেলেগ এজন বহিলহি। জীৱনৰ কাষৰ টেবুলখন আকৌ মানুহৰ আহ-যাহ, নতুন সহকৰ্মীৰ ফাইল আৰু পুৰণা কম্পিউটাৰটোৰ সৈতে তেওঁৰ ব্যস্ততাৰ সৰু-সুৰা শব্দবোৰেৰে ভৰি পৰিল। লাহে লাহে জীৱনৰ নতুন পৰিৱেশটোত আগৰ বেয়ালগা ভাববোৰ নাইকিয়া হৈ গ’ল। তেনেহ’লে সম্পৰ্কবোৰও অভ্যাসেই নেকি ? একো একোটা অভ্যাস মাত্ৰ?

সুশান্ত আৰু জীৱনৰ বন্ধুত্বৰ আঁট ধৰিয়েই কাকলি আৰু নিপাও ভাল বান্ধৱী। কাকলি কলেজৰ শিক্ষয়িত্ৰী। নিপাই চাকৰি নকৰে। নিপা পুৱাতে শুই উঠে। মাজনী আৰু জীৱনলৈ টিফিন সাজু কৰে। দুয়োৰে বাবে পুৱাই ভাত ৰান্ধে। কাম কৰিবলৈ অহা মানুহজনীয়ে পাচলি কটা, মাছ বচা, মছলা-পিচা আদি কামবোৰ কৰি দিলেও ৰন্ধা কামটো তাই নিজে কৰি ভাল পায়। জীৱনক নিপাই তেনেদৰেই কয়। কাকলিৰ ল’ৰা টুনু স্কুললৈ যায় যদিও তাৰ টিফিন তাই নবনায়। কাকলিয়ে কেৱল ৰাতিৰ সাঁজহে ৰান্ধে। সৰুটো ল’ৰা থুণু আৰু পুৱাৰ পৰা সন্ধ্যালৈ ঘৰখন তাই বেলেগ এগৰাকী মানুহৰ দায়িত্বত এৰে। নিপা আচৰিত হয়। টুনু আৰু থুণু প্ৰায় গোটেই দিনটো মাক-দেউতাকৰ পৰা আঁতৰি থাকে। স্কুলৰপৰা অহাৰ পাছত টুনুক জিনামাহীয়ে ভাত বাঢ়ি দিয়ে। সেই সময়ত থুণুৱে চুচু কৰিলে জিনামাহীয়ে তাৰ

পেনটো সলায় দিয়ে। দাদাৰ লগত ভাত খাম বুলি উৎপাত কৰা অকণমানটোক বাতি-বাচন দি বহুৱাই থৈ জিনাই আন কামত ধৰে। চাৰি-পাঁচমান বজাত ঘৰ আহি পোৱা কাকলিক এই সময়বোৰত বিচাৰি সিহঁতে কেতিয়াও আমনি নকৰে। কথাবোৰ ভাবে জীৱনে। তাৰ মাকেও স্কুলত চাকৰি কৰিছিল .....আজিৰপৰা অতবছৰৰ আগতে গাঁৱৰ ঘৰৰ বোৱাৰীয়ে চাকৰি কৰাটো বেচ আচৰিত কথাই আছিল তাৰ মাক গাঁওখনৰ প্ৰথম চাকৰি কৰা মহিলা আছিল। আজি সেই কথাটোত বেচ গৌৰৱবোধ কৰে সি। সেই সময়ত আবেলি স্কুলৰ পৰা আহি এলুমিনিয়ামৰ চৰিয়াটোৱে ঢাকি থোৱা চেঁচা চেঁচা ভাতবোৰ খাওঁতে তাৰ বেয়া লাগিছিল। সেই বেয়া লগা অনুভৱটো সি চাগে পাহৰি যোৱা নাছিল - নিপাই চাকৰি নকৰাকৈ থকা সিদ্ধান্তটো সি মানি লৈছিল। কিন্তু নিপাৰ দৰে ইমান সহজে সি একোতে আচৰিত নহয়। কাকলিয়ে ৰাতি দেৰিলৈকে পঢ়ে। কেতিয়াবা বহুত দেৰিকৈ শুই উঠে। গ্লুবেল ইচ্ছু, আৰ্কটিক চামিট (Arctic Summit) লৈ উদ্বিগ্ন হ’ব পাৰে কাকলি। তাই আলোচনা কৰিব পাৰে নিউক্লিয়েৰ ৱেপন টেষ্টিং (Nuclear Weapons Testing) বন্ধ হোৱা উচিত নে অনুচিত। কাকলিৰ বাবে নিউজ আৱাৰ, বিভিন্ন মুক্তি তৰ্ক, আলোচনা পুৱা শুই উঠি টুনু আৰু সুশান্তৰ বাবে আহাৰ তৈয়াৰ কৰি থকাতকৈ বেছি ভাললগা অনুভৱ হ’ব পাৰে। সি আচৰিত নহয়। জীৱনৰ কাৰণে ভাল-বেয়া কথাবোৰ আপেক্ষিক। সি তেনেদৰে বিশ্বাস কৰে। এনে আপেক্ষিকতাৰ প্ৰতি তাৰ বিশ্বাসে বহু সময়ত তাৰ কষ্টবোৰ কমাই দিয়ে।

জিনাৰ সৈতে ডাঙৰ হোৱা টুনু আৰু থুণুৰ জীৱনটো নিপাৰ সৈতে অকলে ডাঙৰ হোৱা মাজনীৰ জীৱনতকৈ কিমান বেলেগ? দহবছৰীয়া টুনুৱে ইলিছ মাছৰ কাঁইট গুহাই আৰু দুবছৰীয়া মুনুৱে প্লেটত ভাত লৈ নিজে খাই থকা চাই আৰু বাৰ বছৰীয়া মাজনীক স্কুললৈ যোৱাৰ সময়ত নিপাই ভাত খুৱাই থকালৈ চাই জীৱনৰ আকৌ খেলি-মেলি হৈ যায়। অভ্যাস ? অভ্যাসনে ! সঁচাকৈয়ে মানুহৰ জীৱনৰ আচাৰ-আচৰণ, ব্যৱহাৰ পাতি সকলোবোৰ অভ্যাস নে ? অভ্যাসেই গঢ় দিয়ে নেকি আমাক !

নিপাৰ ভনীয়েক অনুপাৰ বিয়া। প্ৰায় দহবছৰ ধৰি ভালপোৱা আছিল অনুপা আৰু বিকাশৰ। দুয়োঘৰৰ সন্মুতিত ইমানদিনৰ পুৰণি সম্পৰ্ক এটাই এতিয়া সামাজিক স্বীকৃতি পাইছে - দৰা-কইনা, পৰিয়ালৰ সকলোৰে আনন্দ। অথচ দৰাঘৰৰ পৰা জোৰণ আহি পোৱাৰ খবৰ পোৱা মাত্ৰই



অনুপাই যি কান্দিবলৈ আৰম্ভ কৰিলে .... তাইক কাপোৰ-কানি পিন্ধাই বিকাশৰ মাকে শিৰত সেন্দূৰৰ ফোঁটটো দিয়াৰ পাছলৈকে তাই উচুপিয়েই থাকিল। অনুপাই উচুপি থকাটোত মানুহবোৰে একো নক'লে। কোনো আচৰিতো নহয়। সকলো স্বাভাৱিক ...জীৱনৰ অসুবিধা লাগিল। কথাবোৰ, নিয়মবোৰ, অনুভৱবোৰ অভ্যাস বুলি মানি ল'বলৈ জীৱনৰ কষ্ট হ'ল।

নিপা আৰু কাকলিৰ মাজৰ কথোপকথন

- মিছেছ বৰুৱাৰ ঘৰখন যে ইমান পৰিপাটি!
- ডাঃ মিছেছ চৌধুৰীৰ ঘৰৰ কথা নোকোৱা কি? কি নিখুঁত, পৰিপাটি।
- তুমি তেন্তে মজুমদাৰ আৰু গোস্বামীৰ ঘৰৰ ভিতৰখন দেখাই নাই।
- শুনিছো, মজুমদাৰণীয়ে বোলে গেছৰ ছিলিগাৰটো বাহিৰে বাহিৰে ঘাঁহি-পিহি ধুৱাই, শুকোৱাৰ পিছত এটা কভাৰ লগাইহে ভিতৰলৈ নিয়ে।
- গোস্বামীৰ ঘৰত প্ৰতিটো বস্তু কেনেকৈ ৰাখে জানা? বিখ্যাত মানুহৰ, ঐতিহ্যপূৰ্ণ ঘৰ এখনত ব্যক্তিজনৰ বস্তু-বাহনীবোৰ কিবা সংস্থা আদিয়ে খুব সুপৰিকল্পিতভাৱে, সুন্দৰকৈ সজায় থয় যে দৰ্শনাৰ্থীৰ সুবিধাৰ্থে সেইদৰে সুশাস্তই মাজতে বেচ গভীৰভাৱে দাৰ্শনিক মন্তব্য এটা আগবঢ়ালে - “আজিকালি মানুহবোৰে ঘৰবোৰ ইমান পৰিপাটিকে ৰাখে দৰ্শনাৰ্থীৰ সুবিধাৰ্থে - অথচ কেতিয়াবা তিনি-চাৰি মাহলৈ সেই ঘৰখনত ভৰি দিবলৈ এজন আলহীও নাথাকে। আগতে আমাৰ মাহতে পুৱা শুই উঠি বাঢ়নী হাতত লওঁতেই কেতিয়াবা আলহী পায়হি ... বিচনাৰ খুটিবোৰত উলমি থকা আঁঠুৱাবোৰ খুটিৰপৰা আঁতৰাই জাপি থবলৈ কাৰো সময় নাথাকে। কেৱল আঁঠুৱাখন ওপৰলৈ উঠাই থৈ বিচনাৰ কাপোৰবোৰ অলপ ইফাল সিফাল কৰি জাপি থয় আৰু।”

সুশাস্তই ঠিকেই কৈছে ..... সেই দিনবোৰত গাঁৱৰ ঘৰবোৰত বিচনাই বিচনাই উলমি থকা আঁঠুৱাবোৰৰ দৃশ্যটো জীৱনৰ চকুত ভাঁহি উঠিল। আঁঠুৱাখন দাঙি একেবাৰতে ওপৰলৈ দলিয়াই দিওঁতে এটা টোপোলাৰ দৰে হয়... মাজটো গধুৰ হৈ তললৈ নামি অহা টোপোলাটো কোনোবা বিচনাত বহিব বিচাৰিলে তেওঁৰ গাত লাগি থাকে।

নাই, নাই, পুৱা শোৱাপাটি এৰাৰ পিছত বিছনাত আকৌ কোনো নপৰেগৈ। মাকহঁতে গা ধোৱাৰ পাছত বিছনাত বহিলে গা ধুব লাগে আৰু সিহঁতবোৰকো ডাঙৰে শোৱাপাটি এৰাৰ পিছত বিচনাত পৰিবলৈ নিদিয়ৈ।

গাঁৱৰ ঘৰখনৰ বিশাল চৌহদটোৰ আগচোতাল-

পাছচোতাল নাৰিকলপাতেৰে বনোৱা বাঢ়নিডালেৰে মাকে অকলেই সাৰিছিল... তাৰ পিছত গোহালিতে গাই দুজনীৰ গাখীৰ খিৰাইহে তাৰ মাকে গা ধুইছিল। চাহ-ভাত, আলহীৰ হেঁচাত পাকঘৰ চ'ৰাঘৰ কৰি জীৱনৰ বেছিভাগ সময় পাৰকৰা তাৰ মাকে শেষবয়সত প্ৰায় হবছৰমান তাৰ লগত টাউনৰ ঘৰত আছিল। ৭ মান বজাত বিছনাৰ পৰা উঠি মাকে বাতৰি কাগজ পঢ়ি, গুড মৰ্নিং ইণ্ডিয়া চাই, ৯ বজাত ৱেকফাষ্ট খাই ১০-১০.৩০ বজাত গা ধুবলৈ যোৱা অৱস্থাটো জীৱনৰ আজি বেছি ভালদৰে মনত আছে। প্ৰচণ্ড শীততো পুৱাই গা ধুই কঁপি কঁপি খালী ভৰিৰে পাকঘৰত কাম কৰি থকা তাৰ মাক আৰু সি অফিচলৈ ওলোৱাৰ সময়ত গা নুধুৱাকৈ ডাইনিং টেবুলত ৰুটি-ভাজি খাই থকা তাৰ মাক দুয়োটা ৰূপ তাৰ খেলি মেলি লাগে। কোনজনী মাকক চিনি পাইছিল সি। দুয়োজনীয়েই তাৰ মাক। হয়, দুয়োজনীয়েই ...! অভ্যাস! অভ্যাসৰ অস্তিত্বই আকৌ এবাৰ জীৱনক জোকাৰি গ'ল। মাক আৰু মাকৰ জীৱনটো দেখোন কেৱল কিছুমান অভ্যাসৰ সাল-সলনি মাথোন, সঁচাকৈ? ... অভ্যাসৰ নিয়ন্ত্ৰণেই নেকি সকলো?

নিপাৰ পৰিপাটিতৰ ধাৰণাও তেন্তে অভ্যাস ? অপ্ৰয়োজনীয় বুলি নিপাই ঘৰৰ ভিতৰৰ পৰা আলনাবোৰ আঁতৰাই পেলাইছিল। অফিছৰ পৰা আহি চাৰ্টটো খুলি ৰাখিবলৈ জীৱন পিছফালৰ পৰা বাৰাণ্ডাখনলৈ যাব লাগে .... তাৰ পৰা নিপাই নিজে ছাৰ্টটো আনি ধুনীয়াকৈ জাপি ৱাৰডপটোত ভৰাব। প্ৰয়োজন হ'লে ধুবলৈ থ'ব। “নাই, নাই, আজিকালি মানুহৰ ঘৰত আলনাত কাপোৰ উলমি নাথাকে... ৰুমটো দেখিবলৈ চিজিল নালাগে।” সৰুতে আলহী আহিব বুলি আগতীয়াকৈ গম পালে জীৱনৰ বায়েকে ধুনীয়াকৈ কাপোৰ জাপি জাপি আলনাবোৰ সজাইছিল ... মানুহবোৰে বায়েকৰ পৰিপাটিত শলাগিছিল নিপাই ড্ৰয়িং ৰুমত সজাই থোৱা ফুলৰ টাবকেইটা, বনছাই পুলিটো চাই মানুহে শলাগে। সদায় ৰাতিপুৱা ফুলৰ টাবকেইটা লৈ ব্যস্ত হয় নিপা ...এমাহ বা দুমাহৰ মূৰে মূৰে ড্ৰয়িং ৰুমৰ কুচনৰ কভাৰবোৰ সলায়। চিকচিকিয়া কৰি ৰাখে বিভিন্ন ঠাইৰ পৰা অনা ক্ৰিষ্টেল মূৰ্তিকেইটা, কাঁহ আৰু পিতলৰ সজোৱা বস্তু কেইটা। মাক, বায়েক আৰু নিপাৰ পৰিপাটিতৰ জগতবোৰো চাগে সলনি হয়। আৰু তাৰ নিজৰ ? এসময়ত গণেশৰ মূৰ্তিৰে সজোৱা তাৰ চ'ৰাঘৰৰ বেৰখনত এতিয়া এখন বিদেশী পেইন্টিং। ৰবি বাৰ্মা আৰু যামিনী ৰয়ৰ পেইন্টিং কেইখন গেষ্ট ৰুমত ৰাখি সিদিনা সি বেংগলৰ ফক

আৰ্ট আৰু চালভেডৰ ডালিৰ পেইণ্টিং দুখন বন্ধাই আনি ড্ৰয়িং ৰুমত সজাইছে।

কি সলনি কৰে সময়ে ? অনুভৱ, ৰুচি নে অভ্যাস? কলেজীয়া দিনত অনবৰত চিগাৰেটৰ ধোৱা উৰুৱাই থকা জীৱন বৰুৱাই এতিয়া চিগাৰেট নাখায়। সেই দিনবোৰত কোনোবাই তামোল বা লং ইলাছী খাবলৈ দিলে হাঁহি উঠিছিল তাৰ। এতিয়া ড্ৰাই-ফুট আৰু লং-ইলাছী, পান মছলাৰ সৰু টেমা এটা অনবৰত লগত ৰাখে সি। তথাপিও অভ্যাসেই সকলো নিয়ন্ত্ৰণ কৰে বুলি মানি ল'ব নোৱাৰে সি।

সুশান্তৰ ঘৰত ডিনাৰ কৰি আহি জীৱন নিজৰ ঘৰ সোমালিহি। গাড়ীখন গেৰেজত থৈ সি গেটৰ তলা মাৰিলে। তলাটোত বৰষুণ পৰিব পাৰে বুলি এটা প্লাটিকৰ পাতল বেগ মেৰিয়াই দিলে। ভিতৰ সোমাই সি গীলখনটো তলা মাৰিলে। নিপা আৰু মাজনী বেডৰুমলৈ গ'ল। জীৱনে এবাৰ খিৰিকিবোৰৰ ছকবোৰ ভালদৰে বন্ধ কৰা হ'লনে চালে। বিচনাত পৰিবলৈ লৈ তাৰ মনত পৰিল গেছষ্টভটো চোৱা নহ'ল। নিপা এইবিষয়ত বৰ অসাৱধান। কেতিয়াবা গেছত

পানী উঠাই নমাবলৈ পাহৰে। উঠি গৈ সি লাইটো জ্বলাই চিলিগুৰটো চালে, ঠিকেই আছে। হাতত পানীৰ বটল আৰু গিলাছ এটা লৈ জীৱন বেডৰুমলৈ আহিল। তাৰ মনত পৰিল দেউতাকলৈ। ঢুকুৱাৰ আগলৈকে মাকে ঠাণ্ডাদিনত পাকঘৰৰ কাম সামৰি ভৰি হাত ধুই অকণমান হাত ভৰিকেইটা সেকি লগুঁ বুলি জুইৰ কাষত অকলে বহি থাকিলে দেউতাকে বিচনাৰ পৰাই চিঞৰি থাকে, “হেৰ”, মাৰক আহি শুই থাকিবলৈ কহঁত; অকলে অকলে জুইৰ ওচৰত বহি টোপনিয়াই থাকি কোনোবাদিনা জুইতে পৰি হাত-ভৰি চুলি চেলাউৰি পুৰিব”। সিহঁতে হাঁহে, সদায় হাঁহে। দেউতাকে সদায় একেধাৰ বাক্যকে। আৰু মাক তাৰ পিছত বেছি সময় নাথাকে, জুহালৰ কাষৰ পৰা উঠি আহি নিজৰ বিচনাত শুই থাকেগৈ। পাকঘৰৰ গেছষ্টভ, চ'ৰাঘৰ বাৰাণ্ডাৰ দুৱাৰ খিৰিকিৰ ছক বোৰ চাই, হাতৰ পানীৰ বটলটো বিচনাৰ কাষৰ সৰু টেবুলখনত থৈ জীৱনও শুই থাকিল।

# My long lost sister

You held me by my hand  
As we walked our journey to dawn  
Through the dark woods  
Of struggle against death.  
Somewhere in the dusk  
The Devil stole glances  
Giggling  
Perhaps our helpless state  
Makes him so.  
Light gave way to darkness  
But you dragged me along  
For you promised me of a new morn.  
Little did I know  
The icy hands of the Devil  
Had your wrist.  
Lost in oblivion as you are  
My soul shouts in desperate attempt  
To reach out to you  
To hold your hand again.

-**Bhanupriya Das**, 1st year  
M.Tech, Dept. of Energy.

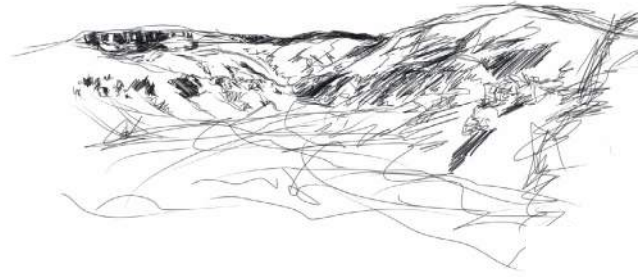
## Peace ~ Your Security

Raaj Tilak Sarma, 1st semester,  
B.Tech CSE

You search for peace,  
Amidst the cerulean sky,  
And search for light,  
Amongst the radiant clouds.

A broken soul you have,  
Not yet shattered,  
A faint hope you contain,  
Not yet broken.

A long path you travelled,  
A longer road lies ahead,  
With desires to fulfil,  
And history to create,  
A persona to mould,  
A craving to satisfy,  
Your quest for peace,  
Pursuit of security,  
Finds its end in nowhere,  
But yourself.



## Poetic Mirage

Sneha Roy, 1st semester,  
Integrated B.A.B.Ed in English,  
Dept of English and Foreign Languages

Is poetry a hypocritical weapon,  
A perpetual excuse for madness  
A leakage of turbulent insanity  
Bubbling inside a mad mind

Is a poet partially blind,  
To see the concrete of the world,  
Imaginatively linking differences,  
Into a fragile silver thread.

Is he an unknown autistic,  
A coward who escapes all business,  
A crook who makes the vulnerable,  
Believe in soul's existence?

Metaphors : A Black magic, ah!  
Impressing minds which seldom think,  
Hyperbole, a symbolism in itself  
For the curves of feminine talk.

Is Poetic prattle, not justified,  
To be termed as talk of the fools ;  
who build a wall of feigning conceit  
To embalm the expose of a void skull?

Is a poet so perverted in being,  
That he finds love in cores of cosmos ;  
For all the naked bared eyes see,  
Knives of vanity thrust into one another.

# বুঢ়ালুইতৰ সোঁত বিচাৰি

সহযোগী অধ্যাপক,

লেখক : ড০ ভৱেশ নাথ, কম্পিউটাৰ ছায়েন্স আৰু ইঞ্জিনিয়াৰিং বিভাগ  
সহযোগী লেখক : অক্ষয় জ্যোতি মহন্ত, ইংৰাজী আৰু বিদেশী ভাষা বিভাগ  
সংযুক্ত স্নাতকোত্তৰ পঞ্চম ষাণ্মাসিক

শিল্পীৰ সৃষ্টিৰ মাৰ্যাদা প্ৰতিপন্ন হয় দৰ্শক অথবা শ্ৰোতাই সেই সৃষ্টিৰ গূঢ়াৰ্থ উপলব্ধি কৰি তাক কাৰ্যক্ষেত্ৰত প্ৰয়োগ কৰিবলৈ প্ৰয়াস কৰা মানসিকতাৰ ওপৰত। ইয়াৰ পৰিৱৰ্তে সেই সৃষ্টিক যদি মাথোঁ মনোৰঞ্জন নতুবা ক্ষণিকীয়া আবেগ-অনুভূতি জগাই তুলিবলৈহে ব্যৱহাৰ কৰা হয়, তেন্তে সি অপূৰ্ণ হৈ ৰয়। অসমৰ হিয়াৰ আমঠু বিশ্বপ্ৰসিদ্ধ শিল্পী ড০ ভূপেন হাজৰিকাৰ সৃষ্টিৰাজি অমৰ। সমাজ জীৱনৰ প্ৰতিটো বিষয়ক সাঙুৰি লোৱা হাজৰিকাদেৱৰ গীতৰ তাৎপৰ্য্য মন কৰিবলগীয়া। বয়স আৰু জ্ঞানৰ ভিন্নতা অনুসৰি প্ৰতিজনে এই গীতসমূহ ভিন্নধৰণেৰে লক্ষ্য কৰিব পাৰে। কাৰোবাক যদি তেওঁৰ গীতৰ সুৰ আৰু লহৰে আকৃষ্ট কৰে, আন কাৰোবাক গীতৰ অমূল্য শব্দশৈলীয়ে। ভূপেনদাৰ শব্দৰ মালিতাবোৰে সদায়ে তেওঁৰ মনৰ বাৰ্তা কঢ়িয়াই আনিছে। কেতিয়াবা সহজেই সেই বাৰ্তা অনুধাৱন কৰিব পাৰি যদিও বহু গীতৰ ক্ষেত্ৰত তেখেতে তাক শব্দৰ জালৰে এনেদৰে মেৰাই ৰাখে যে তাক প্ৰথম দৃষ্টিতে বিচাৰি পোৱাটো কঠিন। এই গীতবোৰৰ প্ৰকৃত বিশ্লেষণ নকৰা নাইবা সেয়া বুজিও নুবুজাৰ ভাও ধৰাৰ মানসিকতাই তেওঁৰ প্ৰতি কৰা অৱহেলাকে সূচায় যেন অনুভৱ হয়। এই বাৰ্তাসমূহ হৃদয়ঙ্গম কৰিলেহে আমাৰ মুমূৰ্ষ সমাজখনে জীৱনৰ বিদ্যুৎ আহৰণ কৰি ভূপেনদাৰ জীৱনক প্ৰকৃত মৰ্যাদা দিয়া হ'ব।

‘বিস্তীৰ্ণ পাৰৰে’ তেখেতৰ এক অপূৰ্ব সৃষ্টি। অসংখ্য সমস্যাৰে পৰিপূৰ্ণ সমাজখন দেখি (যাৰ উত্তৰাধিকাৰী হ'লো আমি) শিল্পী মৰ্মাহত। সেয়ে অসমীয়া জনজীৱনৰ

প্ৰাণস্পন্দন ব্ৰহ্মপুত্ৰক মাধ্যম হিচাপে লৈ শিল্পীয়ে সমগ্ৰ সমাজখনৰ ওপৰতে ক্ষোভ উজাৰিছে যেন আমাৰ অনুভৱ হয়। সমাজৰ চৌদিশ অৰাজকতাৰে ভৰি থকাৰ সময়তে সেয়ে আমি গীতটো পুনৰবাৰ বিশ্লেষণ কৰিবলৈ প্ৰয়াস কৰিছো।

“বিস্তীৰ্ণ পাৰৰে

অসংখ্য জনৰে

হাহাকাৰ শুনিও

নিঃশব্দ নীৰৱে বুঢ়ালুইত তুমি  
বুঢ়ালুইত বোৱা কিয় ?”

বুঢ়ালুইতৰ দুয়োপাৰে অৱস্থিত মোৰ দেশত সময় বাগৰাৰ লগে লগে অশুভ শক্তিয়ে গা কৰি উঠিছে। অথচ সকলো দেখিও বুঢ়ালুইত নীৰৱে বৈ যোৱাত শিল্পী দুঃখিত হৈছে। সমাজৰ মানুহৰ মাজত পূৰ্বৰ মানৱীয়তা ক্ৰমাৎ লুপ্ত হৈ পৰিছে। চৌদিশে কেৱল কৃত্ৰিমতাৰ গোন্ধ, বিশ্বাসহীনতা, স্বাৰ্থপৰতা, নৃশংসতা, অসমতাৰ আৱৰণ। এফালে যদি গোষ্ঠীসমূহৰ মাজত সংঘৰ্ষ, আনফালে স্ব-শাসনৰ আশাত চৌদিশে প্ৰতিবাদৰ ঝংকাৰ। ইয়াৰেই পৰিণতিত বৰ অসম ক্ৰমাৎ ঠানবান হৈ পৰিল। প্ৰকৃততে বহু যুগ পূৰ্বৰপৰাই মোৰ সমাজত সহস্ৰজন ধৰ্ম-বৰ্ণ, জাত-পাতক লৈ উৎপীড়িত হৈছিল। কিন্তু এই আৰ্তজনৰ হাহাকাৰ দেখিও আমি নিমাত আছিলো। আজিও আছো! বোধ সেয়ে হয় শিল্পীয়ে

বুঢ়ালুইতক প্ৰতীকী অৰ্থত লৈ ইয়াৰ দ্বাৰা অসমবাসীকে তাছিল্য কৰিছে।

“নৈতিকতাৰ স্থলন দেখিও  
মানৱতাৰ পতন দেখিও  
নিৰ্লজ্জ অলসভাৱে বোৱা কিয় ?”

ব্যভিচাৰ, নিৰ্যাতন, মদ্যপান, অপহৰণ, সৌহাৰ্দৰ অভাৱ ইত্যাদি অনেক ৰকমৰ অধঃপতন আমাৰ সমাজৰ অবিচ্ছেদ্য অংগ হৈ পৰিছে। দৈন্যতাত মানুহ কাতৰ হৈ যাওক, ৰোগত মানুহ মৃতপ্ৰায় হওক অথবা নানা সমস্যাকে কোনোজন ভাৰাত্ৰান্ত হৈ পৰক - অসহায়জনক মাতিবলৈ আজি আমাৰ সময় নাই বা আমি প্ৰয়োজনবোধো নকৰোঁ। পূৰ্বপুৰুষে হাতেহাতে ধৰি গঢ়ি তোলা সমাজখনত মানৱতা তচনচ হৈ পৰিছে। নিদোষীজনে শাস্তি পোৱাৰ বিপৰীতে দুৰ্নীতি কৰাজনে শাস্তি পাইছে। কিন্তু আমি হৈছো চকু মুদা কুলি আৰু এনেদৰেই এটা ফোপোলা ভেঁটি লৈ ‘আগবাঢ়ি’ গৈ আছো। গতিকে শিল্পীৰ প্ৰশ্ন আমি এনে নিৰ্লজ্জ হৈ কেনেকৈ আগুৱাই যাব পাৰোঁ।

“জ্ঞানবিহীন নিৰক্ষৰৰ  
খাদ্যবিহীন নাগৰিকৰ  
নেতৃবিহীনতাত নিমাত কিয় ?”

এখন উন্নয়নশীল দেশৰ অনগ্ৰসৰ ৰাজ্য অসম। ৰাজ্যৰ গৰিষ্ঠসংখ্যকেই প্ৰকৃত অৰ্থত নিৰক্ষৰ আৰু এক গুৰু অংশই পেটে-ভাতে খাই জীয়াই আছে। অথচ তেওঁলোকক স্বাৱলম্বী কৰিবলৈ আগবাঢ়ি অহা মানুহৰ সংখ্যা আমাৰ সমাজত তাকৰ। এখন শক্তিশালী সমাজ গঢ়িবলৈ অসমীয়াৰ মাজত যে মানুহৰ অভাৱ তেনে নহয়। কিন্তু মূৰপোলোকা দি যি সকলে এনে দায়িত্বপৰা হাত সাৰিব বিচাৰে সেই সকলৰ উদ্দেশ্যৰেই বোধহয় শিল্পীৰ এই প্ৰশ্ন।

“সহস্ৰ বাৰিষাৰ উন্মাদনাৰ  
অভিজ্ঞতাৰে পদ্ম মানৱক  
সবল সংগ্ৰামী আৰু অগ্ৰগামী  
কৰি নোতোলা কিয় ?”

মোৰ দেশতেই আবিৰ্ভাৱ হৈছিল শংকৰ-মাধৱ-

আজানৰ, জন্ম লৈছিল বীৰ লাচিত, জ্যোতি-ৰাভা-লক্ষ্মীনাথে, দুৰ্দান্ত কনকলতাই। কিন্তু আজি মই সৰ্বশৰীৰ সুচল হৈ থকা পদ্ম মানুহ যাক দেখি শিল্পী উত্তেজিত হৈ পৰিছে। আমাৰ ভুল-ভ্ৰগটিৰ বাবেই আমাৰ সমাজত ইতিহাসৰ স্তৰে স্তৰে নানা উত্থান-পতন সংঘটিত হৈ আহিছে। অথচ আমি সেইবোৰক ভ্ৰক্ষেপ নকৰি নিজৰেই সৰ্বনাশ মাতি আনিছো। সেয়ে হয়তো শিল্পীয়ে সহস্ৰ ভুলৰ পৰা শিক্ষা লৈ নিজকে শক্তিশালী কৰি প্ৰগতিৰ পথত আগুৱাবলৈ অসমবাসীক আহ্বান জনাইছে।

“ব্যক্তি যদি ব্যক্তি কেন্দ্ৰিক  
সমষ্টি যদি ব্যক্তিত্ব ৰহিত  
তেনে শিথিল সমাজক নাভাঙা কিয় ?”

আজিৰ বস্তুবাদী পৃথিৱীত আমাৰ সমাজৰ সকলোৱেই, আনকি সমাজৰ গুৰিবঠা ধৰাসকলো কেৱল নিজক লৈ যে ব্যস্ত। এনে আত্মকেন্দ্ৰিক স্বভাৱৰ কাৰণেই আমাৰ সমাজত মানুহৰ মাজত মিলাপ্ৰীতিৰ সঁতু গঢ়ি উঠা নাই। এনে সামাজিক একতাৰ অভাৱৰ বাবেই বিদেশী শক্তিবোৰৰ সন্মুখত সময়ে সময়ে আমি দুৰ্বল হৈ পৰিব লগা হৈছে। শংকৰ গুৰুজনাই তেতিয়াৰ দিনতে এই সামাজিক একতাৰ প্ৰয়োজনীয়তাৰ কথা বাৰে প্ৰতি সোঁৱৰাই দিছিল। অথচ পৰিণতিত তেওঁ সামাজিক লাঞ্ছনাকে ভুগিব লগা হ’ল। সেয়ে শিল্পীয়ে বুঢ়ালুইতক ঢল বোৱাই আমাৰ খহি যাবলৈ ধৰা সমাজৰ ভেঁটিটো পুনৰ গঢ়িবলৈ আহ্বান জনাইছে।

“তুমিয়ে যদি ব্ৰহ্মাৰে পুত্ৰ  
সেই পিতৃ তেনে নাম মাত্ৰ  
নহ’লে প্ৰেৰণা নিদিয়া কিয় ?”

বুঢ়ালুইতে নিজকে ব্ৰহ্মাৰ পুত্ৰ বুলি গৌৰৱ কৰে আৰু ইয়াৰ দুয়োপাৰৰ বাসিন্দা আমি অসমীয়ায়ো তাকে লৈ আত্মহংকাৰ কৰোঁ। সেয়ে নিজকে দেৱতাৰ পুত্ৰ বুলি গৰ্ব কৰা বুঢ়ালুইত আৰু ইয়াৰ পুত্ৰসকলক শিল্পীয়ে ইতিকিং কৰি প্ৰশ্ন কৰিছে - তুমি ইমানেই যদি মহান, তেন্তে ভাঙিবলৈ ধৰা আমাৰ সমাজখনক পুনৰ আগুৱাবলৈ প্ৰেৰণা নিদিয়া কিয় ? আৰু যদি সেয়ে নহয় তেন্তে তেনে পিতৃত্বক লৈ অহংকাৰ কৰাৰ অৰ্থ ক’ত!



“উন্মত্ত ধৰাৰে কুৰুক্ষেত্ৰৰে

শৰ শয্যাকে আলিঙ্গন কৰা

ভীষ্মৰূপী অজস্র বীৰক

জগাই নোতোলা কিয় ?”

কুৰুক্ষেত্ৰৰ ৰণত আৱস্যস্তাৱী পৰাজয়ৰ কথা জানিও ভীষ্মৰ দৰে বীৰে প্ৰাণৰ আছতি দিছিল মাত্ৰ দেশৰ প্ৰতি থকা দায়বদ্ধতাৰ কাৰণে। আমাৰ সমাজতো তেনে লোক নথকা নহয়। কিন্তু এচামে তেওঁলোকক দমন কৰি ৰখাৰ হেতু তেওঁলোকৰ উপস্থিতি আমাৰ অনুভূত হোৱা নাই। সেয়ে শিল্পীয়ে বুঢ়ালুইতক সেই বীৰ সকলক তেওঁলোকৰ সক্ষমতাৰ কথা সোঁৱৰাই দিবলৈ আহ্বান জনাইছে, যাতে আজি সংকটৰ সময়ত তেওঁলোকে জন্মভূমিক ৰক্ষা কৰি বিশ্বৰ দৰবাৰত সসন্মানেৰে ঠিয় কৰাব

পাৰে।

এই গীতটো প্ৰকৃততে এক গভীৰ সমালোচনামূলক প্ৰশ্নৰ সমষ্টি, য'ত অন্তৰ্নিহিত হৈ আছে দুখ, শোক, স্নেহ, আকুলতা, দেশপ্ৰেম, ক্ষোভ আৰু প্ৰতিবাদৰ এক প্ৰবাহিত সোঁত। বুঢ়ালুইত আৰু অসমীয়া সমাজক কেন্দ্ৰ কৰি ৰচিত এই গীতটোৰ গুৰুত্ব তেতিয়ালৈকে তিষ্ঠি থাকিব যেতিয়ালৈকে ‘শোষণ’ ‘নিষ্পেষণ’, ‘অনগ্রসৰতা’ আদি শব্দ সমাজৰ অবিচ্ছিন্ন অংগ হৈ থাকিব। সেয়ে হয়তো গীতটোৰ হিন্দী আৰু বাংলা অনুবাদেও শ্ৰোতাক সমানেই আপ্পিত কৰে। এতিয়া মাথোঁ প্ৰয়োজন গীতটিৰ উদ্দেশ্যক অনুধাবন কৰা। শিল্পী আশাবাদী তেওঁৰ এই প্ৰশ্নবাণে প্ৰতিজন অসমীয়াক মৃত্যুমুখী মানৱীয় ধাৰণাসমূহক বিলীন হৈ যোৱাৰ পৰা উদ্ধাৰ কৰিবলৈ প্ৰেৰণা যোগাব।

# TechXetra

*The Annual Technical Festival of Tezpur University: A Reminisce of  
Establishment and Anticipation from its Resurgent Future*

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Extramural activities are proved as important ingredients for overall development of student community particularly in an institute of higher learning. Extracurricular activities may be broadly divided into two categories namely cultural / literary / sports and scientific, technological / management related activities etc. Whereas the cultural, literary and sports activities are traditionally performed during University week, the urgent necessity of one scientific, technological and management based University level festival was realised by honourable Vice chancellor Prof. M. K. Choudhuri taking into confidence of students and faculty members in the later part of the year 2007. With this background, Prof. D. K. Saikia (Presently, Director, NIT Meghalaya), the founder Dean, School of Engineering Tezpur University took initiative for organizing the first annual technical festival of Tezpur University. There were series of meetings between students and faculty members of Tezpur University with the chairmanship of Prof. D. K. Saikia. The general body meeting finally came into consensus that the first Tezpur University technical festival would be held preferably in autumn semester 2008.

The name of the technical festival was decided as 'TechXetra' through an open competition among students of Tezpur University and the empowered committee finally recommended the name as 'TechXetra' amid competitors with different suggestions and justifications. Therefore,

'TechXetra' word was coined by Mr. Digambar Dhadhumia, who was an MCA student of department of Computer Science and Engineering. There was a committee headed by Prof. D. K. Saikia, Dean School of Engineering, Dr. M.K. Sarma, Dean, Student Welfare, Dr. S. M. Hazarika, Dr. U Sharma, Associate Professors, Department of Computer Science and Engineering, Soumik Roy, Partha Pratim Dutta, Tapan K. Gogoi, Poragmoni Kalita, Polash Pratim Dutta, Ms Rita Moni Narzari, Prayash Baruah, Kukil Khanikor etc. The committee had decided the tag line as "expanding the frontiers of technology" on 08/05/2008. The first faculty coordinator proposed for TechXetra 2008 was Soumik Roy, Assistant Professor, Department of Electronics and Communication Engineering and student convenor was Mr. Prayash Baruah, B.Tech 4th Semester student of Mechanical Engineering Department. In the meantime, Soumik Roy had discontinued from the position of faculty co-ordinator and eventually, on request by the Dean, School of Engineering, Partha Pratim Dutta, Assistant Professor, Department of Mechanical Engineering took the charge of faculty co-ordinator of TechXetra 2008, the first annual technical festival of Tezpur University. Therefore, Dean, student welfare Dr. M. K Sharma appointed Mr. Partha Pratim Dutta as faculty co-ordinator of TechXetra 2008 with the approval of Vice-chancellor on 11/08/2008. Honourable Vice chancellor Prof. M.K. Choudhuri was the chief patron, the chairman was Prof. D. K Saikia, Dean

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<sup>1</sup>The author was founder faculty co-ordinator of TechXetra:2008, the annual technical festival of Tezpur University

School of Engineering, Dr. M. K. Sarma, Dean of Student's Welfare was the vice chairman. Moreover, it was also decided by the steering committee of TechXetra 2008 that the student coordinator for the subsequent years would be nominated by students with consultation with senior batch. Faculty coordinator would normally be from constituent departments of School of Engineering on rotational basis if nobody volunteers. Other sub-committees would comprise of students and faculty members across all the departments of Tezpur University. However, all nominated positions must be approved by competent authority of Tezpur University.

It may be mentioned that earlier to year 2008, the different departments like CSE, ECE etc., had their own departmental programmes like Compu Blast, Technostride etc. Therefore, TechXetra was an effort to converge all such departmental programmes to combine into a single entity with the philosophy that 'united we stand'. It was also decided that TechXetra would cover every possible activity starting from high school level to postgraduate scientific, technical, literary events to cultural and managerial events encompassing students of all the schools of Tezpur University and other institutions of north-east India or a part of institutes from East India.

The budget of TechXetra 2008 was started initially with a humble beginning of Rs.20000/- as seed money granted by honourable Vice chancellor, Tezpur University. Immediately a bank account with joint signature was opened at SBI TU in the name of TechXetra. Sponsorship committee particularly first batch B.Tech (2006-2010) had to put significant effort to generate fund for the said purpose. Since, technical festival in Tezpur University was of first kind at that time and it was an unusual event for many prospective sponsors unlike IITs/ NITs where technical festival is a common practice. The sponsorship committee had a really tough time in convincing sponsors regarding TechXetra 2008. Later it was observed that maximum amount of sponsorship ranged around Rs.10000/- to Rs.20000/- from single sponsor and

total expected budget was around Rs.171000/- (Rupees one lakh seventy one thousand only) including University contribution. It is a general trend that most of the sponsors release the funds much after completion of the event. Therefore, it was natural that there was cash scarcity of targeted amount for implementation of different events. At this juncture, Tezpur University granted certain amount of loan including its contribution for running essential expenditures of TechXetra 2008. The good portion of this cash was released as prize money for winners of different events. The cultural activity in the evening was performed by the students of Tezpur University; therefore we could confine to a low budget for a good cultural event. Now since some reputation and brand is attained by annual technical festival of Tezpur University, therefore, the sponsorship committee is less strained compared to the initial years for generating fund from prospective sponsors. It is worthwhile to mention that with final internal audit, a sum of Rupees forty thousand only (Rs.40000/-) was surplus out of total budget one lakh seventy one thousand and the amount was transferred to TechXetra 2009 committee.

It may be mentioned that the industry institute interaction was a primary motive behind initiation of technical festival TechXetra of Tezpur University. In this connection industry experts like Dr. Shuvendu Ghatak, Senior Consultant, Tata Consultancy Services, Mr. Dipak Chakraborty, Director (Technical) Numaligarh Refinery Limited etc., were invited to TechXetra 2008 to address the student community. Dr. T. V. Ramachandran, Scientist IISc Bangalore and experts from four cores, Tezpur interacted with students for career progression in industry, higher education and defence sector.

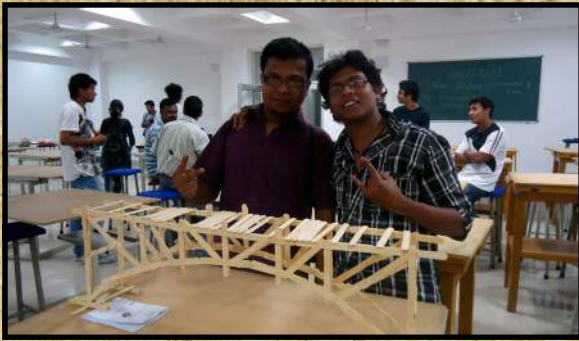
The different events conducted were Thru d lens (Photography: Mass Communication), D' Siegfried Debacle (Robotics: ECE, ME, and CSE), Defence Exhibition, D' Podium (Invited Talks), Innovation (Science Exhibition, School of Science), Nail d Byte (Coding Contest: CSE),

ADVantage (AD event: Business Administration), Nirman (Structure and Design: ME), D' Colloseum (Computer Gaming: CSE), Against the Tide (Robotics: ECE, ME, CSE), Full Throttle (Quiz Contest: School of HSS), Paradox (Mathematical Model: Mathematics). Over 500+ participants from institutes of North East and the few from East India took part in TechXetra 2008. From the list of events performed during first technical festival of Tezpur University, there was ample space for involvement of students of most of the departments. Over the years, the number of events increased to more than 50. However, we have experienced an increase in the expenditure in cultural events in the later editions of TechXetra which may be thoughtfully balanced in accordance to the proportion of expenditure done on technical, scientific, management, literary and cultural events.

TechXetra, the annual technical festival of Tezpur University, most of the activities and events are performed/managed by students of Tezpur University with active guidance from the

committee and subcommittee faculty coordinators while the prospective students could culture both managerial/leadership capability with different resources available for different events. Apparently, the roles of different subcommittees as well as faculty coordinators are very much crucial. The faculty coordinators are responsible for ensuring proper management of resources of either kind so that the need of the hour is met as well as the resources are utilized optimally. The faculty coordinators are also responsible for any occurrence of unpleasant incidents so that the dignity and integrity of the idea of organising this national level technical event like TechXetra does not get disturbed. Lastly we hope that after the last eight years of evolutionary process, TechXetra will bring about innovation with different events to be performed in coming years as a role model from institutions of North East India by sincere hard work and knowledge of students' community of Tezpur University and deliver appropriately to the development of society.

# TechXetra 2011



# TechXetra 2012



# TechXetra 2013



# TechXetra 2014



# Turning Wounds into Wisdom

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**Ratul Nath**

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Dept. of Energy

Test lead, Sabre travel technologies

It's a Saturday morning; I don't have office today. But I have to wake up early as this is going to be a busy day for me: I have monthly groceries to buy, have an appointment with the school for my daughter, need to go to the bank for my home loan, have to attend an invitation, and a long list of other tasks which never ends. I woke up slowly and opened the window. A beautiful cool breeze had caressed my face. The pearly sun rays had escaped through the window and fell upon my study table. I started listing down the tasks. I was thinking to myself that these responsibilities are never going to end. But it's more important to keep rejoicing life while performing our duties. It's important to look at the nature, to look at yourself, to be healthy, to sing, to dance, and to do everything that makes one happy in true sense. At the end, success comes down to only a single thing, "happiness". I recalled the email request from TECHXETRA SOUVENIR group for sharing my professional experience with the young students of TU. I thought to write something that could truly help.

Now here I am, wondering how to jot down my experience for you...

Let me first give you a background about me. I am currently working with a Software MNC called "Sabre Travel Technologies" as a Principal S/W Test Engineer. It's been nine years I am working in IT sector in the field of Software Testing with clients mostly from Airline Industries. My job is

decent enough for my needs and it also gives me opportunities to travel abroad and to interact with the World. In fact, in many other ways I am happy with my job.

However, the transition from student life to professional life has been a roller coaster ride for me. I did not have educational background in computer science. I did BE in Mechanical Engineering from JEC, Assam, 2001 followed by MTech in Energy Technology from TU, Assam, 2003. I worked in many other industries before entering into software and finally settled down in the field of software testing.

As someone truly said, "We learn from failure, not from success!". As a student and a professional, I have made many mistakes in my life. And I believe those mistakes have taught me few things which I am sharing as few points as below. I hope I succeed in turning my wounds into your wisdom.

## 1. Find Out What Makes You Happy:

Figure out in life what you want to do that makes you happy. And plan for achieving it from now on. You won't have the same energy and time ones you grow up. I did my education in mechanical engineering, followed by MTech & then four years of working in this field just to realize that I don't really enjoy working in mechanical industries. Browse through the web, ask people, keep your

eyes open to learn about all the possible prospects that you can have, and choose your field wisely. Just remember that whatever you choose to do, you'll be doing it nine hours a day every day, till you retire. Your job should not be a pain to you.

## **2. Believe In Hard Work**

Like a wise man said: "I'm a greater believer in luck, and I find the harder I work the more I have of it". Trust me! There is no alternative to "hard work". If you are not working hard now, then you'll be working a lot harder someday. It is like a bank loan. The sooner you complete payments the lesser you pay. A little hard work during student life returns benefits in many folds.

## **3. Don't Repeat Mistakes**

Life gives you second chance, don't repeat your mistakes. I had an opportunity to do BE in Computer Science. I didn't recognize my interest then and I choose Mechanical. In some twist of events I got another opportunity to decide if I wanted to come in Software field. It happens with everyone, life gives us chances. All we have to do is show some courage and listen to our hearts.

## **4. Know Your Priorities**

Student life is full of distractions. You need to prioritize your requirements and act accordingly. Time flies away; I still remember how I was planning to learn a foreign language. Thirteen years passed and I am still planning. Most of the things that you plan to learn during student life will remain as a plan, if not accomplished then.

## **5. Learn Soft Skills**

With all the technical skills, one should also build their soft skills. It includes, writing an email, professional interactions, writing resumes etc. There are free courses available in web, start learning it from today. It will help you a lot during the interviews.

## **6. Own Your Job**

In work life, the company pays you for doing a piece of work they assign you to do. When you own it, you treat it as your own work. You try to resolve any bottlenecks without being asked to do so. You automatically take the responsibility to accomplish it successfully. This is what makes you a valuable resource to any company. From now on don't wait for your teachers to tell you what to do. Figure out what can be done and what else can be done to make it better. Grow as a professional while you are a student.

## **7. Add Value To Your Job**

As part of owning a job, it is also important to find ways to make your result look better. Take the example of Orkut & Facebook. Orkut professionals were doing their job. Facebook professionals were doing theirs and were adding value to it. Don't just seek for a result. Seek for excellence in what you do.

## **8. Ask Questions**

No question is a stupid question. This is a luxury that only students have; they can ask questions if they do not understand something. In professional life, you have to find the answers by your own. So make use of this luxury to the fullest. Ask every doubt that you have. I am sure; you'll terribly miss it otherwise.

## **9. No Experience Is Bad**

Life has its own plan and finally it'll lead you to your path. Like Steve Jobs says, all the events in life are like dots which don't seem to have any meaning individually. But, when it takes a shape, we get to know that all these dots are important and are contributing in their own ways to complete the picture. Learn from your mistakes and accept them gracefully and don't repeat them.

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## 10. Take Care Of Your Health

Health is Wealth. It certainly looks too obvious to say it as experience. But the depth of this saying can only be realized when you are growing old. You can achieve anything and everything in life except your health. Go to gym, play sports, quit smoking, quit all those things that can damage your health. At certain age, you'll not repent if you can do so.

I hope these points will help you taking a step forward in building your career.

Ending here with a beautiful quote from Steve Jobs who has always inspired me in many ways:

*"Your time is limited; don't waste it living someone else's life. Don't be trapped by dogma, which is living the result of other people's thinking. Don't let the noise of other opinions drown your own inner voice. And most important, have the courage to follow your heart and intuition, they somehow already know what you truly want to become. Everything else is secondary."*

**-Steve Jobs**

# Dreams Becoming Reality

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**Manosh Jyoti Das (TU, SOE-2013)**

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The days gone were never to return, a truth which is a part of our lives. My first day in School of Engineering is still fresh in my mind. The last cup of tea with my gang at daju's shop is also not forgotten. The blissful 4 years of life which molded me in every way to race on the track of life. I have seen SOE grow day by day to its current magnificence in these four years during my stay in Tezpur University.

After graduation, I began my career at Jindal Steel and Power Limited. It is then that I realized the hard truth that my days of sweet dreams were over. The harsh reality was ahead of me. As days passed I realized that all I was doing in my job had no congruence with what I had learnt in 4 years of my engineering studies. I had to start all over again. Learning all steel making processes. For the first two months, I was in operations in Sinter Plant in JSPL, was trained in Digital Control System, PLC panels. A whole new yard of process plant technologies and associated maintenance procedures dawned upon me. Learning all these and attaining the correct skill-set was of utmost priority for becoming a good process engineer.

When I joined Brahmaputra Cracker and Polymer Limited as Senior Engineer, a complete switchover of working field took place. From a process plant engineer at a steel industry to a power plant engineer. Again I had to start from zero, learning critical operations of power plants to maintenance of its equipment. Among other things erection and commissioning of rotating equipment were notables that were worth learning. There for the first time, I got acquainted with the actual use of gauges and instruments related to mechanical processes. Other critical activities included alignment of rotating equipment. Yet again, the learning never ended.

From my experience I can infer that industrial exposure and training during the span of our curriculum would make things much easier in terms of learning and grasping new technologies once we enter the industry as a professional. Industrial collaboration projects in the final semester of engineering would make us more skilled and industry oriented. Organization of industrial workshops and alumni interactions must be encouraged. Moreover with the technology constantly updating, it is always better off to maintain industry-institute interaction to keep pace and bridge the gap between industry and academics.

# The rest as they say, is History-Newton's Apple

**Shimanta Krishna Bhuyan**

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It was sixteen hundred something (back in those days they didn't have calendars around to keep track of dates and years). Plague was engulfing everything in its way, and as a result, the University of Cambridge (in England of course) was shut down. Consequently, its coveted Professor, Sir Isaac Newton escaped home to his family estate, somewhere around Lincolnshire.

It was a lazy Sunday afternoon, and Newton was strolling around in his farm. He had always longed to stay here, in his childhood, tending to the livestock amidst the dirt and the bedlam of smells. But surprisingly, now that he was here, he completely stayed away from these field works. His mind started wandering off to inverse square functions and to change the mood, now that he was not on official professor duty, he made up his mind to set out to the Sunday bazaar and get a new toupee, since he had to grace the town mayor the next evening. He went inside his farmhouse and called on his mistress, Lady Newton for his shoes and his suit. She, like the hundreds of times she had earlier chided him, rebuked him yet again, "Don't make a scene again by bickering off the driver on how fast he should go to reach in optimum time and about how slow you were relative to the other motors." "But it only helps", Newton retreated

with this words as he knew it was better to fly off to the sun than to argue with a lady. Well, he reached the marketplace without making a fuss, although he kept grumbling quietly the whole way. Upon reaching, he ambled around looking for some interesting stuff and at the same time thinking about the researches he could do back there in Cambridge. He had one idea-about what could possibly happen if he ejected a cannon ball with enough velocity straight upwards. He was considering discarding it as till now, it had not made much progress. Unknowingly, and unconsciously, he left the marketplace without completing the to-do he had to do. Walking back the entire mile to his farm, he was in deep thought in this regard. Just before reaching his house, he felt tired and retired under a tree to give his forty year old legs a bit of rest. A few minutes after dozing off, something hitting his head woke him up. He, out of ordinary common sense, looked up. It was an apple tree and so he deduced that it might have been an apple that had hit him. He looked around to find the vicious apple and got hold of it. Picking it up, he rubbed it on his shirt and took a bite. Sweet taste it had. But then, sudden impulses in his body, made him jump up. Maybe casting off that experiment would be a bad idea. He immediately ran for his home. The rest as they say, is history.

# FAST FOOD – A POISON: SWITCH TO SLOW FOOD

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The sayings “Slow and steady wins the race” and “A stitch in time saves nine” have lost popularity nowadays. It is “Life is a rat race” that has become the slogan of today. People are no longer hungry for healthy food, they are hungry for time and convenience-a perceived necessity to keep up with such a fast paced society and survives amongst real world competition. Sticking to this notion, spending hours at kitchen for cooking seems to be utter wastefulness of time. And it would be rather impossible to alter this mind-set. So, picking up quick and instant fast foods is the easiest option that comes first to one’s mind. But the fact that it is killing them slowly is overseen. So what is next? Should we stop eating fast foods or is it more promising to opt for nutritious alternative to fast foods?

Foods- consumed to gratify hunger, taste and as packets of energy. But, what if the same serves as health antagonist? Yes, quite true is the case when fast foods are consumed. These fast foods containing high number of calories with very little or no nutritional value are evidently the main culprits behind the prevalent health degenerative diseases. Recognising fast foods brings to light the high levels of calories, unhealthy fats, sodium and sugar content. The difference between a fast food meal and a home cooked slow food is the sheer quantity of calories and fat it delivers in one go. The US Department of Agriculture recommended

daily intake of 2800 kilocalories and a maximum of 93 g of fat for a normal adult. A meal at a fast-food outlet – pizza, fries, drinks, and ice creams can deliver almost all of that in a single sitting. Fast foods also have an additive-like effect. It has been observed that excessive intake of these foods can trigger physiological changes which mute the hormonal signals that normally instructs to stop eating. There is evidence that consuming these sugar-dense, palatable foods raises the extracellular dopamine in the striatum and thereby possesses an addictive potential. Also the elevated levels of sugar in these foods speed up the absorption of tryptophan through the plasma membrane of the cells in which they subsequently get converted into a mood elevating chemical known as serotonin and causes an addictive effect. Besides the dopamine effect, the high sugar containing fast foods is a factor that contributes to a condition known as insulin resistance-a physiological condition in which the body cells fail to respond to insulin levels. Fast foods, being high in sugar, elevate the glucose levels of blood, stimulating the pancreas to release high amounts of insulin hormone which trigger the cells to absorb the glucose. But the abnormal rise in the insulin level makes the cells resistant to respond to the hormone. This ends up in high blood sugar levels and a precursor to type 2 diabetes. Many studies showed that high sugar foods resulted in elevated triglycerides, because of an increased production of VLDL

from fructose and sucrose, and also because high sugar intake displaces some omega fatty acids from the diet. This leads to high blood fat levels, low levels of good cholesterol, weight gain, type2 diabetes and other diseases, collectively called 'metabolic syndrome'. Added sugar and trans-fats of these foods are also the contributing factors in various heart diseases. Studies have shown that four people die of heart attack every minute in India and the age group is mainly between 30 and 50 and this is because of the changes in lifestyle habits, particularly the eating habits. The increased salt consumption due to fast foods contributes to hypertension. Salt-sensitive hypertension is generally associated with improper functioning of kidney, which results in an impaired ability of the individual to properly excrete sodium and water. Sodium balance in the body, after salt intake is regulated by a mechanism called pressure-natriuresis mechanism. Amount of sodium intake is associated with a transient increase in blood pressure. In order to maintain this blood pressure within the normal range, the arterial pressure increases, which facilitates the increased secretion of sodium in urine along with water? Individuals consuming high salt containing fast foods have impairments of this sodium elimination mechanism and they generally have higher blood pressure. Thus, retention of sodium causes higher cardiac output, thereby prevalence of high blood pressure and hypertension. Excess sodium may also increase the risk of developing osteoporosis. A high salt intake has been associated with calcium excretion in urine. Excessive calcium loss in urine leads to predisposal of hypertensive subjects which causes a greater bone loss and subsequently develops osteoporosis.

It is not just convenience or the save of time, but also the appetizing aroma outside the fast food joints or food courts that people feel for during a leisurely walk in pleasant evenings. And the mesmerising odour of korma, biriyani, chaats, rolls, fries stop people on their way compelling to opt for these foods. But the devil behind the beauty is unnoticed. The unhealthy fats in these foods

cause obesity, which is a gateway to other deadly diseases. Indian obesity is again different. It is 'apple type obesity' (abdominal obesity), which is more dangerous because all metabolic by products of visceral fat cells easily enter the liver and gets stored as fat. Michael Schwartz, an endocrinologist at the University of Washington in Seattle explained that high fat stores of the body significantly contributes to a more complex condition known as leptin resistance. Leptin is a hormone that is continuously secreted by the fat cells and its levels in the bloodstream act as a signal to the hypothalamus of the brain in coordinating the eating behaviour. The problem with the people who gain weight is that the levels of leptin get increased as body fat increases. These increased levels of leptin makes the hypothalamus of the brain insensitive towards leptin levels and interprets the elevated levels as normal and even misreads the drops in leptin levels of blood during weight loss. This is leptin resistance. The unfortunate result of this non-responsiveness of leptin declines in the fatty acid oxidation. Excess fatty acids in the bloodstream eventually develop an insulin resistance. Obesity is also associated with increase in respiratory problems. Studies also showed that children who consume fast foods frequently are at increased risk of developing asthma and rhinitis.

By now it is clear that fast foods render worse than the worst adverse effects to health. This scenario led to the search for an alternative approach to fast food tradition- thus came the slow food in practice. The slow food diet, rich in lot of plant foods, fresh fruits, beans, nuts, cereals, moderate amounts of fish and poultry and olive oil as source of dietary fat not only add up to the nutritional status of the body but also combats different health abnormalities.

### Recent studies

#### 1) Slow foods are better than low fat diet for cardiovascular risk

These diets have less amounts of saturated fat, and encourages intake of monounsaturated

fats that are known to lower cholesterol. Saturated and trans fat present in fast foods drastically increase LDL Cholesterol levels in foods. These foods increase the cholesterol level in blood, which builds up in the walls of arteries, and results in atherosclerosis, a form of heart disease. As a result of which, arteries become narrowed and blood flow to the heart muscle is blocked. The blood is the carrier of oxygen to the heart, and if sufficient amount of blood and oxygen do not reach the heart, it causes chest pain. If there is no blood supply to a portion of the heart due to blockage, it results in heart attack. But switching to slow foods rich in vegetables, nuts, whole grains, seeds, foods cooked with healthy oils, such as canola, sunflower, soybean, olive, sesame and peanut oils include monounsaturated fats and polyunsaturated fats - omega-3 and omega-6 one can protect from invasion of various diseases. These fats reduce the bad cholesterol in blood and increase the good cholesterol and lower the risk of heart diseases.

## **2) Following the slow food diet could slow aging process**

The traditional diet comprises of high amounts of vegetables, fruits, nuts, legumes, and grains and olive oil. Researchers showed that these foods have properties which slow down the aging process. This has been explained by telomere length. Telomeres are repetitive DNA sequences present at the ends of eukaryotic chromosomes which undergo attrition during each somatic cell division. Telomere length is considered to be a biomarker of aging. Telomere length decreases with age and varies considerably from person to person. Studies suggest that telomere attrition can be modified by lifestyle practices, including dietary patterns. Shorter telomeres indicate decreased life expectancy and proneness to developing age related chronic diseases. Fruits, vegetables, and nuts are the key components of the slow food diet, with well known antioxidant and anti-inflammatory effects. Since telomere length is affected by both of these processes, hence sticking to the slow food diet would be associated with longer telomere length and a marker for slow aging process.

## **3) Slow food diet could protect memory**

Researchers have suggested that following a slow food diet supplemented with additional portions of antioxidant rice, extra virgin olive oil or mixed nuts could protect cognitive functioning in older adults. Consuming dark, leafy greens such as kale and spinach are essential for a healthy mind and body. These contain high levels of vitamin E and folate. Vitamin E helps and protect brain's neurons, whereas folate helps to keep down levels of homocysteine in the brain, as this amino acid may lead to nerve cell death if the levels are too high. The minimum nerve cell deaths prevent the memory loss.

## **4) Slow food diet can prevent diabetes**

Slow foods play a protective role for prevention of diabetes. Type 2 diabetes mellitus is a multi-factorial disease that is caused due to high production and release of glucose in the blood, because of reduced insulin secretion and insulin sensitivity. High consumption of olive oil, fruits and vegetables, whole grain cereals, fish and moderate consumption of alcohol leads to a low glycaemic index (a number that indicates the effect of foods on a person's blood glucose level) diet and a higher intake of monounsaturated fatty acids, omega-3 and omega-6 fatty acids, dietary fibre and antioxidant and anti-inflammatory factors. These foods high in fiber are slowly digested and thus lead to a slower release of carbohydrates into the body, avoiding the ups and downs of insulin levels which again lowers the risk of developing an insulin resistance and maintains better insulin sensitivity. The normal functioning of insulin regulation thus prevents the risk of type 2 diabetes.

## **5) Slow food diet delay or prevent cancers**

Consuming slow food diets which are rich in high amounts of fruits and vegetables is associated with the reduced risk of cancer at different sites in the body. Various anticarcinogenic agents are found in these food sources, like carotenoids, vit E and vit C, dietary fiber, selenium, glucosinolates and indoles, dithiolthiones, flavonoids, isothiocyanates,

protease inhibitors, plant sterols, phenols and limonene. These agents exhibit complementary-overlapping actions, including the inhibition of nitrosamine formation, induction of detoxification enzymes, dilution and binding of carcinogens in the digestive tract, provision of substrate for formation of antineoplastic agents, antioxidant effects, alteration of hormone metabolism, and many others.

All these set a clear cut line of demarcation between the two diets, viz. fast food and slow food and trigger every mind to opt for slow food as an alternative to fast food. It is time to believe the famous line of Hippocrates “Let food be thy medicine and medicine be thy food.”

(NB: Literature was consulted during preparation of the manuscript and some of the important references are cited below.)

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## Related Links:

Focus: Fish is food for the brain as well as good protein (<http://www.fao.org/FOCUS/E/fisheries/nutr.htm> )

Attention young India, take care of your heart. (<http://www.thehindu.com/opinion/open-page/attention-young-india-take-care-of-your-heart/article5460388.ece>)

Food for Thought: What to eat to help lower your risk of stroke ([www.burke.org/blog/2014/5/food-for-thought-what-to-eat-to-help-lower-your-risk-of-stroke/17](http://www.burke.org/blog/2014/5/food-for-thought-what-to-eat-to-help-lower-your-risk-of-stroke/17))

# आदिवासी : उद्धव, संघर्ष और अस्तित्व

- जशोधरा बोरा

कोइ उन्हें 'वनवासी' या 'वन्य-जनजाति' कहता है तो कोई उन्हें उपहास से 'जंगली' या 'लगोटिया' के नाम से संबोधित करता है। कोइ उन्हें 'भुमिपुत्र' या 'वनपुत्र' कहना समीचीन समझता है तो कोइ उन्हें भारतमाता की 'आदि संतान' या 'आदिपुत्र' कहता है। यहाँ तक कि जंगल के 'अनाभिषिक्त राजा' के रूप में भी उनका गौरवपूर्ण उल्लेख किया जाता है तथा भारतीय संविधान ने उन्हें 'अनुसूचित जनजाति' के रूप में संबोधित किया है।

वास्तव में, आदिवासी आर्यों से पूर्व का मनुष्य-समूह है। वह इस भुमि का मूल मालिक है। सही अर्थ में वह ही क्षेत्राधिपति है। भारत अनेक जाति-जनजातियों, धर्म-पंथों तथा संस्कृति-संप्रदायों का भंडार है। जाति-व्यवस्था भारतीय समाज-व्यवस्था का प्राण-तत्व है। आर्यों का भारत आगमन, आर्य-अनार्यों के मध्य चला दीर्घकालीन संघर्ष; आर्यों द्वारा अनार्य आदिवासियों का क्रूर संहार और आतंक, जिसके चलते उन्हें गिरिकुहरों तथा वनों में आश्रय लेना पड़ा - कोई मनोरंजनकारी घटनाएँ नहीं हैं, जिन्हें पढ़कर भुलाया जा सके। सही अर्थों में यहीं से आदिवासियों की सामाजिक दुर्दशा का प्रारम्भ हुआ। यही उनके वनवास की कालरात्रि की शुरुआत है। उनके पूर्णतः पिछड़ेपन का पूर्णरूपेण कारण बनी वर्ण-व्यवस्था भी यहीं से शुरू हुई और

उन्हें वनों-जंगलों की ओर भगाने का कार्य भी तभी सम्पन्न हुआ।

सैकड़ों साल बीत गए पर आज भी अनार्य आदिवासी जंगलों, वनों और गिरिकुहरों में समूहों में रहकर जीवनयापन कर रहे हैं। दैत्य, पिशाच, राक्षस, असुर ऐसे अनेक उपहासपूर्ण शब्दों में समूहों में अनार्यों के अस्तित्व की चर्चा वैदिक साहित्य तथा रामायण-महाभारत आदि ग्रन्थों में की गयी है। इससे यह आसानी से समझा जा सकता है कि इनके जीवन को देखने की तत्कालीन समाज की नीति क्या होगी ?

भारत की ९० प्रतिशत कोयला खानें, ७२ प्रतिशत वन और अन्य प्राकृतिक संसाधन और ८० प्रतिशत अन्य खनिज पदार्थ आदिवासी भुमि पर पाये जाते हैं।

३००० से भी ज्यादा जल विद्युत बाँध भी इन्हीं क्षेत्रों में बनाए गए हैं। इसलिए स्पष्ट है कि भारतीय औद्योगिकीकरण और शहरीकरण के मूल संसाधन मुख्यतया आदिवासी क्षेत्रों से ही आते हैं। लेकिन इस विपुल सम्पदा का एक छोटा-सा भाग भी आदिवासियों के हिस्से में नहीं आता। अपनी नदियों और जमीनों पर उनके अविच्छिन्न अधिकार भी दूसरों को दे दिए गए। इसके फलस्वरूप ८५ प्रतिशत आदिवासी 'सरकारी गरीबी रेखा' से नीचे रह रहे हैं। अनुसूचित जनजातियों के लिए राष्ट्रीय आयोग ने



पाया कि देश के कुल बंधुआ मजदूरों में से ८३ प्रतिशत अनुसूचित जनजातियों के हैं, इसके अलावा वन-क्षेत्र घटते चले जा रहे हैं क्योंकि कुछ सवेत्तिर वनों को वन्य जीवन क्षेत्र और राष्ट्रीय उद्यान अर्थात् संरक्षित प्रदेश घोषित कर दिया गया है। लगभग ९० प्रतिशत आदिवासी अपनी जीविका के लिए कृषि पर निर्भर करते हैं। इसके अलावा शिकार और वनोपज जमा करना भी उनके जीवन का आधार है। लेकिन जैसे-जैसे आदिवासियों को उनकी जीविका के साधन-स्रोतों से दूर किया जा रहा है, वैसे-वैसे उनके आधारभूत कार्यकलापों में भी कमी आती जा रही है। आदिवासियों से उनके पूर्वजों की आवास भूमि छीनी जा रही है, जिसे कई लोग देशी उपनिवेशीकरण भी कहते हैं।

वास्तव में, आधुनिक भारत की रचना में अनेक जाति-जनजातियों का थोड़ा-बहुत जो भी योगदान है, वेसा ही आदिम जनजातियों का भी रहा है- इसे न मानना ठीक नहीं है। राष्ट्र की सांस्कृतिक रचना में इन जनजातियों का केवल योगदान ही नहीं अपितु मातृभूमि की रक्षा में इनका सर्वस्व त्याग भी बहुत बड़ा है। सच बात तो यह है कि यदि लोक संस्कृति और लोककलाएँ आज जीवित हैं तो उसका मूल श्रेय दलों और खासतौर पर आदिवासियों को जाता है। प्रकृति और अपनी मूल संस्कृति का संरक्षण तो आदिवासी जीवन पद्धति का अहम हिस्सा है। वे आज भी जल, जंगल और जमीन के लिए संघर्ष कर रहे हैं। आज भी आदिवासी बस्तियों में प्रायः नवजागरण का कौई निशान तक नहीं मिलता। दलित-आदिवासी साहित्य की तरह उनकी लोककलाओं में भी प्रतिरोध का स्वर प्रतिध्वनित होता है। हालांकि वनों के निविड़ टापू में वे शांत जीवन जीने के आदी हैं और किसी निर्चोलिए के हस्तक्षेप को पसंद नहीं करते। उनका जीवन, उनका साहित्य और उनकी लोककलाएँ सभी मौलिक हैं जो किसी अनुवादक की मोहताज नहीं हैं।

आदिवासियों को अन्य समाजों से अलग करनेवाली सबसे बड़ी विशेषताएँ हैं - अपने क्षेत्र से उनके खास जुड़ाव और उनके समुदाय का प्रकृति

से अंतरंग संबंध। उनके लिए अपने साधन स्रोतों के प्रबंध का अर्थ यह नहीं है कि अलग-अलग परिवारों के बीच भूमि का बँटवारा कर दिया जाये। आदिवासियों की दृष्टि में कोई व्यक्ति या समुदाय तभी भूमि से जुड़ता है, जब वे अपने पूर्वजों से लेकर पीढ़ी-दर-पीढ़ी उस जमीन पर बसा हुआ हो। आदिवासी का क्षेत्र उसकी सामूहिक चेतना का विस्तार होता है, जिसका अपना सांस्कृतिक, सामाजिक और राजनैतिक महत्व है। इसी के बूते पर कबीले के ज्येष्ठ व्यक्ति समुदाय का संचालन करते हैं। आदिवासियों का ज्ञान, अध्यात्म और धर्म व्यवस्था भी प्रकृति से उसके गहरे सम्बन्धों पर ही आधारित है। उनकी दूसरी विशेषताएँ हैं- समुदाय की सभी आवश्यकताओं को समुदाय के भीतर ही पूरा करना और अपनी जरूरतों के लिए बाजार पर कम से कम निर्भर रहना।

आज आदिवासी शब्द के उच्चारण से ही हमारे सम्मुख खड़ा हो जाता है- प्रत्येक सदी से छला-सताया नंगा किया और सोची-समझी साजिश के तहत वन-जंगलों में जबरन भगाया जाता रहा एक असंगठित मनुष्य। वह मनुष्य, जो अपनी स्वतंत्र परंपरा सहित, सहस्र सालों से गाँवो-देहातों से दूर घने जंगलों में रहनेवाला संदर्भहीन मनुष्य है- जो एक विशेष पर्यावरण में अपने सामाजिक तथा सांस्कृतिक मूल्यों को ज्ञान की कीमत पर सँजोये, प्रकृति-निर्भर, कमर पर बितेभर चिंदी लपेटे, पीट पर आयुध लेकर, भक्ष्य की खोज में शिकारी बना, मारा-मारा भटक रहा है। कभी राजनीतिक तथा सांस्कृतिक वैभव से इतरानेवाला यह कर्तव्यशील मनुष्य, परंतु वर्तमान में लाचार, अन्यायग्रस्त तथा पशुवत जीवनयापन करनेवाला मनुष्य। यही उसका कुल जीवन है, वेदना से भरा लोकाचार है।

सूर्यास्त के साथ-साथ गिरिकुहरों में उसकी हलचल बंद हो जाती है। सूर्योदय के साथ-साथ भोजन की खोज में वनों की सँकरी, कंटीली पगडंडियों पर उसके नंगे पैर, चिलचिलाती धुप में तपी उसकी पीठ, यदि भोजन मिल भी जाये तो कंधे पर शिकार का बोझ- यही है आधुनिक भारत में आदिवासी का करुणापूर्ण दृश्य। दिनभर की भटकन

के बाद आई यकाण को दूर करने के लोए थोड़ी-सी रोशनी में मस्त महफ़िल लगाई जाती है। उस संगीत-महफ़िल में देहभान भूलकर आदिवासी स्त्री-पुरुष, बच्चे, युवक-युवनियाँ तथा बड़े-बूढ़े सामूहिक रूप से नृत्य करते हैं, गाते हैं और अपने सांस्कृतिक मूल्यों को सजोये रखते हैं। ये मुख्य ही उनके सामूहिक जीवन के खास वैशिष्ट्य हैं। एक नहीं ऐसी कई आदिवासी पीढ़ियों का यह सांस्कृतिक आचार, उनकी समूह-चेतना को प्रेरणा देता आ रहा है। उसी के भीतर से उनका सांस्कृतिक निरालापन निर्मित होता है। आदिवासी सामूहिकता, भाईचारा एवं सबसे विचित्र - प्रकृति से निकटस्थ संबंध एवं प्रकृति प्रेम है, जो अन्य सभी संस्कृति की अपनी विशिष्ट पहचान है। इसके अंतर्गत जाति समानता, लिंग समानता, सहभागिता, सामूहिकता, भाईचारा एवं सबसे विचित्र - प्रकृति से निकटस्थ संबंध एवं प्रकृति प्रेम है, जो अन्य सभी संस्कृतियों से

आदिवासी संस्कृति को पृथक करता है। आदिवासी संस्कृति में मनुष्य का जीवन बिल्कुल सादा है। इनका दृष्टिकोण उपयोगितावादी है और विचारधारा - 'जीयो और जीने दो' की है। आदिवासी चेतना के अंतर्भाव में प्रकृति के नियम के अंतर्गत संग्रह की अपेक्षा त्याग, प्रतिशोध की अपेक्षा दया, क्षमा आदि का महत्वपूर्ण स्थान है।

आदिवासी समाज की जरूरतें बिल्कुल सामान्य व सीमित हैं। किसी भी वस्तु का एकत्रीकरण इनकी संस्कृति में नहीं पाया जाता। ये प्रकृति के पुजारी हैं। इनका धार्मिक स्थल कोई इमारत एवं भवन न होकर खुला आकाश होता है, जहाँ कहीं भी ये अपनी उपासना, अराधना कर सकते हैं। आदिवासी संस्कृति एवं प्रकृति में एक गहरा आत्मीय रिस्ता है, तभी तो प्रकृति प्रदत्त वृक्षों को आदिवासियों ने अपने जीवन से जोड़ लिया है। उनका यह सांस्कृतिक निरालापन ही, उनके समूह-जीवन की आधारशिला है।

सहायक संदर्भ

चौथीराम यादव

उत्तरशती के विमर्श और हाशिए का समाज

अनामिका पब्लिशर्स एंड डिस्ट्रीब्यूटर्स (प्रा) लिमिटेड

नई दिल्ली, प्रथम संस्करण २०१४

रमणिका गुप्ता (संपा)

आदिवासी कौन

राधाकृष्ण प्रकाशन, दिल्ली

पहला संस्करण : २००८

## HERALD OF PEACE

**Partha Pratim Deka**

Guardian, Rangia, Assam

There is no absolute definition of peace since peace is a concept conceived differently with changing time, person and place; still it is mostly pronounced that peace is a mental state of affair free from worries, anxieties, corrosive thoughts. The worries which consume ones mental faculties leading to a fatal condition is always antagonistic in the process of peace. Can anybody think of a human life possible, without anxieties and worries? Lord Buddha told “I was born free but now I am everywhere in chain.” Buddha, the light of Asia, in fact came out with severe austerity to find peace for agonised people, hardly found solution except asking mental balancing to deal with the hard reality. Hence peace is a process assuming oneself that he is happy under any circumstances. Thus a metaphorical approach towards life necessitates synchronization of human experiences of contemporary world without much comparing the superiors to own self.

The Barbarian society drew peace by sticking to eat, drink, sleep and sex- is obsolete for today as human being growing with perplexities of mental and social conflicts. Man in today's world is isolated for his mental needs. No man can relate completely same to any other. This isolation creates the feelings of solitude helps either to accept him positively scored or to depress to most fatal condition. Inner mental conflict, whatever is, is to be diluted through splendid piece of creative work. The inventions of science has created most easiest avenue for bodily comfort and lightness of running one's life, has jeopardised provocation of stimulus

thinking power and has created havoc. Unhealthy religious and cultural hegemony is pervading to the micro level of the society and has created ghost to kill the soul of spirit of unity and thus creates inner transitional barrier. Extremism, abduction, arson, atrocities, molestations, gang rape, pornography, drug trafficking, human trafficking, cybercrime are the most common words that appear in the morning newspapers are some instances of human brutalities which indicate frustrations of human mind all around.

The states of the world have been negotiating to curb the third world war after sarcastic humiliation of Second World War. If this demon is to be evolved, how far can we think of human glory of 21st century? An atomic war may drift us as Frankenstein. Hence it is a time to wake up by breaking and resynthesizing human values of yesteryears. Scientific temperament along with value based education is always meant for peace and progress. Concord and befitting it with positive regards to each other can run the world machinery in a perpetual manner. We have much to do to confirm an eco-friendly environment to stamp out the predicaments of peace and progress. Moreover, a world outlook is to be erected contrary to narrow individualistic and regional upbringing. A family of dove can reside peacefully in a small nest, though cannot be compared with human family, still kindle the light of hope to live together in peace with an unconditional positive regards to each other.

Lastly we can cite the example of Midas who couldn't be happy with his gold making power, rather it became a curse for him, so as to say man can live in this world with adequate balance of psycho-material and psycho-social symphonic alteration. The new generation must come forward with a missionary zeal to work for a common world where everybody will play their judicious economic, social, political, environmental and civic role without disgusting others is concomitant to peace.

# AFSPA!

**Bhaskar Jyoti Kalita**

Technical Assistant

Dept. Of Food Engineering and Technology.

*I have been hearing about the AFSPA since quite a long time and wondered what this Act defines. Why are most people against this special arrangement? Why is that lady Irom Chanu Sharmila so against it and even ready to die for its extirpation? Why only just a few states are covered under it? and lots more..... So I tried to get some idea about it. Here's what I got to know. Though I am unable to decide whether to support it or protest against the Act, I am just presenting a view which clearly fits the theme **"Peace and Security"**.*

## **What actually is AFSPA?**

*Armed Forces Special Powers Acts (AFSPA) are certain Articles in the Constitution of the Parliament of India that grant special powers to the Indian Armed Forces in what each act terms "Disturbed Area".*

AFSPA was passed by the Parliament on 11th September 1958 and was subsequently enforced in all the seven sister states of the North-East. Another Act was passed in 1983 and applied to Punjab and Chandigarh but was withdrawn in 1997, roughly 14 years after it came to force, and from Tripura in 2015. Later on, in 1990, it was extended to Jammu & Kashmir – due to the rising insurgency in the area. The act gives legal immunity to the armed forces when they undertake measures to quell violent protests in a "disturbed region". An officer is entitled to "fire upon or otherwise use force, even to the causing of death, against any person who is acting in contravention of any law or order for the time being in force in the disturbed area, prohibiting the assembly of five or more persons or carrying of weapons or of things

capable of being used as weapons or fire-arms, ammunition or explosive substances." It is entirely on the Centre and the state governments to decide whether an area should be declared as 'disturbed' or not.

*The Acts have received criticism from several sections for alleged concerns about Human Rights Violation in the regions of its enforcement. **"Irom Chanu Sharmila"** also known as the **"Iron Lady of Manipur"** who is a civil rights activist, has been in a hunger strike since November 2000, nearly 15 years, demanding the Indian government to repeal the AFSPA.*

## **Armed Forces Special Powers (Assam and Manipur) Act, 1958.**

In 1951, the Naga National Council (NNC) for the first time forwarded their demand for a "Free Sovereign Naga Nation" and boycotted every Government institution. In order to deal with the situation, the Assam Government imposed the Assam Maintenance of Public Order (Autonomous District) Act in the Naga Hills in 1953 and intensified

police action against the rebels. As situation worsened government deployed the Assam Rifles in the Naga Hills and enacted the Assam Disturbed Areas Act of 1955, providing a legal framework for the paramilitary forces and armed police to combat insurgency in the region. But the rebellion could not be controlled and on 23rd March 1956 “The Federal Government of Nagaland” was formed. The then president of India Dr. Rajendra Prasad, on 22nd May 1958 promulgated the Armed Forces (Assam and Manipur) Special Powers Ordinance, 1958 which was soon replaced by the Armed Forces (Assam and Manipur) Special Powers Act, 1958 on 11th September, 1958.

This Act empowered only the Governors of the states and the Administrators of the Union Territories to declare areas concerned in the State or UT as “**Disturbed**”. The reason for conferring such a power as per “**Objects and Reasons**” appended to the Bill was that, “Keeping in view the duty of the Union under Article 355 of the constitution, inter alia, to protect every state against internal disturbances, it is considered desirable that the central government should also have power to declare areas as ‘Disturbed’, to enable its Armed forces to exercise the special powers”. The territorial scope of the Act also expanded to all the 7 states of Northeast. The Armed Forces (Assam and Manipur) Special Powers Act, 1958 was substituted by “Armed Forces (Special Powers) Act in 1958.

*Recently the Tripura government has decided to withdraw the controversial Act citing significant reduction in the extent of terrorist activities in the state. In June 2015, after review, AFSPA in Nagaland state has been extended for one more year.*

### **The Armed Forces (Punjab & Chandigarh) Special Powers Act, 1983).**

The central government enacted the Armed Forces (Punjab and Chandigarh) Special Powers Act on 6 October 1983, repealing The Armed Forces (Punjab and Chandigarh) Special Powers Ordinance, 1983, to enable the central armed forces

to operate in the state of Punjab and the union territory of Chandigarh. The Act was enforced in the whole of Punjab and Chandigarh on 15 October 1983. The terms of the Act broadly remained the same as that of the Armed Forces Special Powers Act (Assam and Manipur) of 1972 except for two sections, which provided additional powers to the armed forces.

1. Sub-section (e) was added to Section 4 stipulating that any vehicle can be stopped, searched and seized forcibly if it is suspected of carrying proclaimed offenders or ammunition.

2. Section 5 was added to the Act specifying that a soldier has the power to break open any locks “if the key thereof is withheld”.

*The Act was withdrawn in 1997, roughly 14 years after it came to force.*

### **The Armed Forces (Jammu and Kashmir) Special Powers Act, 1990.**

The Armed Forces (Jammu and Kashmir) Special Powers Act, 1990 was enacted in September, 1990.

### **THE ACT**

The Articles in the Constitution of India empower state governments to declare a state of emergency due to one or more of the following reasons:

- Failure of the administration and the local police to tackle local issues.
- Return of (central) security forces leads to return of miscreants/erosion of the “peace dividend”.
- The scale of unrest or instability in the state is too large for local forces to handle.

In such cases, it is the prerogative of the state government to call for central help. In most cases, for example during elections, when the local police may be stretched too thin to simultaneously handle day-to-day tasks, the central government obliges by sending in the BSF and the CRPF. Such cases do

not come under the purview of AFSPA. AFSPA is confined to be enacted only when a state, or part of it, is declared a 'disturbed area'. Continued unrest, like in the cases of militancy and insurgency, and especially when borders are threatened- are situations where AFSPA is resorted to. By Act 7 of 1972, the power to declare areas as being disturbed was extended to the central government.

In a civilian setting, soldiers have no legal tender, and are still bound to the same command chain as they would be in a war theatre. Neither the soldiers nor their superiors have any training in civilian law or policing procedures. This is where and why the AFSPA comes to bear - to legitimize the presence and acts of armed forces in emergency situations which have been deemed war-like.

According to the Armed Forces Special Powers Act (AFSPA), in an area that is proclaimed as "disturbed", an officer of the armed forces has powers to:

- After giving such due warning, fire upon or use other kinds of force even if it causes death, against the person who is acting against law or order in the disturbed area for the maintenance of public order.
- Destroy any arms dump, hide-outs, prepared or fortified position or shelter or training camp from which armed attacks are made by the armed volunteers or armed gangs or absconders wanted for any offence.
- To arrest without a warrant anyone who has committed cognizable offences or is reasonably suspected of having done so and may use force if needed for the arrest.
- To enter and search any premise in order to make such arrests, or to recover any person wrongfully restrained or any arms, ammunition or explosive substances and seize it.
- Stop and search any vehicle or vessel reasonably suspected to be carrying such person or weapons.
- Any person arrested and taken into custody under this Act shall be made present over to the officer in charge of the nearest police station

with least possible delay, together with a report of the circumstances occasioning the arrest.

- Army officers have legal immunity for their actions. There can be no prosecution, suit or any other legal proceeding against anyone acting under that law. Nor is the government's judgment on why an area is found to be disturbed subject to judicial review.
- Protection of persons acting in good faith under this Act from prosecution, suit or other legal proceedings, except with the sanction of the Central Government, in exercise of the powers conferred by this Act.

### United Nations view

The United Nations Human Rights Committee termed the law as "dated and colonial-era law that breach contemporary international human rights standards. On 31 March 2012, the UN asked India to revoke AFSPA saying it had no place in Indian democracy. It clearly violates International Law.

A report by the Institute for Defense Studies and Analysis points to multiple occurrences of violence by security forces against civilians in Manipur since the passage of the Act. The report states that residents believe that the provision for immunity of security forces urge them to act more brutally. The article, however, goes on to say that repeal or withering away of the act will encourage insurgency. On 2 November 2000, in Malom, a town in the Imphal Valley of Manipur, ten civilians were shot and killed while waiting at a bus stop. The incident, known as the "**Malom Massacre**", was allegedly committed by the Assam Rifles, one of the Indian Paramilitary forces operating in the state. In addition to this, there have been claims of disappearances by the police or the army in Kashmir by several human rights organizations.

The Armed Forces Special Powers Act (AFSPA) grants the military wide powers of arrest, the right to shoot, to kill and to occupy or destroy property in counterinsurgency operations.

Indian officials claim that troops need such powers because the army is only deployed when national security is at serious risk from armed combatants. Such circumstances, they say, call for extraordinary measures.” Human rights organizations have also asked Indian government to repeal the Public Safety Act, since “a detainee may be held in administrative detention for a maximum of two years without a court order.”

### **Santosh Hegde commission on Manipur encounter deaths.**

A high-power commission headed by the retired Supreme Court judge, Santosh Hegde was constituted in January 2013 to probe six encounter deaths in Manipur. The committee, comprising former Supreme Court judge Santosh Hegde, ex-CEC J M Lyngdoh and a senior police officer, has said in its report that the probe showed that none of the victims had any criminal records. The judicial commission set up by the Supreme Court is trying to make the controversial Armed Forces Special Powers Act (AFSPA) more humane, and the security forces more accountable. The committee has suggested fixing a time frame of three months for the central government to decide whether to prosecute security personnel engaged in extrajudicial killings or unruly behaviour in insurgency-hit regions. The Commission noted that AFSPA was an impediment to achieving peace in regions such as Jammu and Kashmir and the northeast. The commission also said the law needs to be reviewed every six months to see whether its implementation is actually necessary in states where it is being enforced. About Section 6 of the act, which guarantees protection against prosecution to the armed forces, the report said: “It is not that no action can be taken at all. Action can be taken but with prior sanction of the central government.

### **The Controversy**

To a layman, AFSPA indeed sounds like awarding the ‘Right to Kill’ to our armed forces. But it is the contents of the act that are flawed and misty.

Firstly, it makes no distinction between a peaceful gathering of five or more people and a berserk mob. So, even innocents – who have no role in creating a situation that results in that region being called ‘disturbed’, also come under the purview of the law.

Secondly, the law also states that, “no prosecution can be initiated against an officer without the previous sanction of the Central government”. Purportedly, the logic behind the inclusion of this section is, to protect the officers from frivolous and misguided allegations. The government is usually not very fluid in giving this much-needed sanction, in order to express their faith in the armed forces and protect their interests.

Thirdly, the decision of the government to declare a particular area ‘disturbed’ cannot be challenged in a court of law. This has been the heart of the problem. As the recent situation in Kashmir seems to go out of hand, leaders have now suggested that the act must be repealed from certain provinces – citing the reason that the imminent threat, due to which AFSPA was enforced in that province in the first place, has been neutralized over the years. Certainly, the reasoning is specious – it is nothing more than a tactic to appease the population and pacify their agitated sentiments. If the threat has indeed been neutralized, then why not declare the region as ‘not disturbed’, which will by itself conclude the role of the army?

### **Situation on Ground**

Unquestionably, there have been killings and human rights violation, in both Kashmir and the North-East, as a direct result of AFSPA. But the opinions are mixed. The Joint Chiefs have repeatedly reasserted that even partial revocation of AFSPA will greatly curtail the freedom of the army, to carry out operations. According to them, a soldier deserves all the legal protection he can get, for the result of any action/decision he takes on the spot, acting in the best interests of the situation. While the politicians, as said earlier, are bent upon diluting AFSPA and scoring some political brownie points.

More than 80 civilian deaths have been reported in Kashmir last year. While on the other hand, the North-East has been the victim of this state of play for the past 52 years. Instances of mass killings of people and custody deaths, like that of Th. Manorama, have been catalysing the protests. Irom Sharmila has been fasting, for over a decade, demanding the annulment of AFSPA from Manipur and other parts of the North-East. But evidently her pleas seem to land on deaf ears.

### **The Future**

It will be unfair to entirely blame the army for the situation we are in today. A far greater blame lies on the Centre and the respective state governments. On his visit to Assam in 2006, Prime Minister Manmohan Singh assured the people of the North-East – of replacing AFSPA by a more humane law. The Justice Jeevan Reddy Committee, appointed for the same, recommended the complete repeal of AFSPA from the North-East.

But the present situation broadly highlights the poor progress made, in this regard.

The army is only called in when the situation is serious enough and the state law enforcement forces are unable to handle the crisis. The precious time, during which the army takes the affairs into its own hands i.e. when AFSPA is in force, should be totally utilized in strengthening the state police forces. This will enable them to discharge their own duties of maintaining law and order in the region, by themselves, as soon as possible. But sadly, the government today finds AFSPA a convenient tool to hide their poor advancement, in fortifying and upgrading the state police machinery. Until and unless these basic issues are addressed, it will be farcical to remain optimistic.

Source:

[https://en.wikipedia.org/wiki/Armed\\_Forces\\_\(Special\\_Powers\)\\_Act](https://en.wikipedia.org/wiki/Armed_Forces_(Special_Powers)_Act)

# Education, Women and Society...

**Bindita Sinha**

3<sup>rd</sup> Semester

Dept. of Mass Comm. and Journalism

*"Our women have more rights than women of other countries , but there are large areas wherein women are suffering, where, may be they are not conscious of their rights"*

-Gulshan(1975)



Education without a vacillation has an important functional, instrumental and utilitarian dimension. This is revealed when someone asks the question 'What is the purpose of education?'. The answers too often, are 'to acquire qualifications for employment/upward mobility', 'wider/higher (in terms of income) opportunities' and 'to meet the needs for trained human power in diverse field for national development'. But in its deepest sense, education is not instrumentalist. That is to say it is not justified outside of itself because it leads to acquisition of formal skills. A child enters in a school at the age of 4-5 and leaves the school at around the age of 17-18, it means most of his/her childhood is being spent inside the boundary of a school where he/she learns how to adjust with the society, how to live and work for the future. So we can see that the basic stage of a person's life is completely influenced by education.

When we talk about education, the very first thing that comes to our mind is Mother. A child receives informal education from his/her mother after birth. She gives knowledge of the world, of the society and leaves no stone unturned to make her child educated. But our society forgets that mother or that woman when it comes to education. Why cannot we understand the importance of education for a girl child? We have completed 69 years of independence and we are living in a country where modernization and urbanization processes have been taking place to make our society, our nation a fully developed one. But in this development process or rather we can say in this modernization period where do women exist? What is their position in our society? Where are their rights? Where is their freedom? Till today, our parents prefer to have a male child. A girl child is killed before her birth. We can see countless number of cases related to female infanticide which have been filed in police stations.

In the Indian Constitution, education is both a union and a state subject. The Indian government has made a constitutional act of Education (Right To Education) in August 4, 2009 where it has been stated that it is the duty of parents to send their children to school for education irrespective of sex. But our society and mindset of the people are still the same, nothing has changed or we can say things are changing at a glacial pace.

Our society always speaks about history, traditions, cultures then why it always disdains the importance of women education which has been written in our ancient Vedas, Upanishadas and where our ancestors like Raja Ram Mohan Roy, Ishwar Chandra Vidyasagar, Rani Laxmibai had already raised their voice for education of women? Ironically, women are preached in the name of Goddesses but in real world women are treated as a 'object' not as a 'subject'. They are encouraged to look sexy and attractive to men but when an attractive woman is raped, most of the time our society thinks she must have 'asked for it'.

Though it is gradually increasing, the female literacy rate (60.6%) in India is very less than male literacy rate (81.3%). We can see the differentiation of women easily where girls are preferred to be kept inside the house and prepare themselves for wedding. Our country is blessed with rich culture and tradition where we keep women in the top most place but in real scenerio, women are still suffering, women are asking for their rights and the most important thing, women are being deprived from education. We must realize that only through the proper Education, the crimes against women can be reduced. Women will come to know what their rights, what is their position along with men, they will become self-dependent both economically and mentally because education is something which tells us about the values of life, it teaches us about our rights and duties and most importantly, it teaches us about humanity. The mindset and the outlook of the people, of the society can be changed only by educating each one of them because a proper educated person will never do injustice to the women but always raise his/her voice against crimes and injustice against women.



Society is incomplete without women and no society can exist without them. Girl education is must for a surpassing society. Time has come to realize the importance of Women Education, because education is the only way to make a better and developed nation. It is our responsibility, the culpability of the youth to understand the duties towards women and also create the awareness among the people to send their girl child to school, to make them aware about the consequences of the education to build a foster society. It is for girl education only, Malala

Yousafzai, a young Pakistani activist was attacked by the terrorist group of Pakistan but still she has been raising her voice for the girl education which leads her to win the Nobel Peace Prize. Change is necessary, especially in a world where we are living in a modern and developing era and for that we, the young people should take the very first step just like Malala Yousafzai so that we can frame a better society, exceeding nation not only for us but also for the future generation.

# অহেতুক

Nirmal Borah  
MCA, 1st Semester

পূৰ্ৱতি নিশাৰ এচলু পোহৰেৰে,  
গাঁঠিব খুজিলো মালা হেপাঁহৰ;  
সপোনৰ ডোলেৰে আঁটি আঁটি।  
বাৰে বাৰে মচ্ খাই যোৱা কেন্ভাচত,  
কঁপা কঁপা হাতেৰে ধৰি লৈ তুলিকা,  
বুলালো হুমুনিয়াহৰ চেক;  
নীৰৱতাৰ পাত্ৰত জুবুৰিয়াই আনি।  
সৰি সৰি পৰে প্ৰতিপাহি ফুল!  
ভাগি যায় প্ৰতিটো পাহি!  
নামি আহে শীত...ফাগুন...  
আকৌ উকা হয় কেন্ভাচ!  
ৰামধেনু হেৰুৱাই,  
নিসংগতাক কৰি লয় আপোন।  
তুলিকাই লৈ আনে ভাগীৰথীক  
বোৱাই।

শৰতৰ শেৰালিয়ে দুৰৱিত পৰি ককবকাই,  
চাতকেও উৰি উৰি বাট হেৰুৱায়,  
পোহৰৰ আঁৰে আৰে বেলিটিও লুকাই,  
জোনাকীয়েও আন্ধাৰত উঠে ছট্ ফটাই।  
উহ: !!!  
উৱলী যোৱা ব'ঠাৰ কিমান নো জোৰ!  
কালৰ অন্তৰাল ভাঙি-ছিঙি  
তুলুং-ভুটুং কৰি আগুৱাই নিয়ে  
কম্পমান প্ৰাপ্যৰ হেপাঁহকনক।

# ধূসৰিত ধৰা

চিমি দাস  
গণ সংযোগ আৰু সাংবাদিকতা বিভাগ  
প্ৰথম বাণাসিক

পশ্চিমৰ আকাশৰ হেঙুলীয়াখিনি  
আজি তিত্ত ৰাঙলী  
কিনো হৈছে বাৰু ?  
চাৰিওফালে এয়া উথও - থপ,  
সঁচাকৈয়ে এয়া মৰুবাসী নৰ নে ?  
সভ্যতাৰ সোঁতত উটি আহি  
নিজৰ পৰিচয় আজি কি ?  
প্ৰচণ্ড গোলা - বাৰুদৰ শব্দ  
আৰু ধোঁৱাত ধূসৰিত আজি আকাশ - বতাহ।  
পলকতে ধ্বংস হৈ গৈছে এটা জীৱন  
সঁচাকৈয়ে কি হৈছে বাৰু এয়া ?  
এফালে হাঁহাকাৰ,  
আৰু আনফালে সেয়া প্ৰাপ্ত্যাশাত মতলীয়া  
জন।  
কি মূল্য এই প্ৰাপ্তিৰ  
নিৰীহ জনতাৰ তেজৰ সোঁতত,  
তহঁতৰ প্ৰাপ্তি লুকাই আছে নে কি ?  
একবিংশ শতিকাৰ এয়া সভ্য মানৱ

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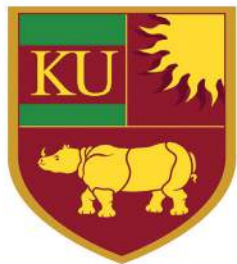


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Total 26 Beneficiaries States/UTs/Distribution Companies

Power Generation of 22038 million units during 2014-15



**NHPC Limited**

(A Government of India Enterprise)

NHPC Office Complex, Sector-33,

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