



UM-DAE  
Centre for Excellence in Basic Sciences

2017

# NOVELLUS

ANNUAL STUDENT MAGAZINE

4th  
Issue

# ACKNOWLEDGEMENT

We are indebted to the institute for the continual support to our endeavour. We are grateful to Mr. Kishore Menon, without whose help this magazine would not have come to fruition. We also wish to thank the faculty, students and administrative staff of CBS for their wonderful contributions and for making Novellus such a success.

# CHAIRMAN'S MESSAGE



May I express my pleasure in noting that CEBS students are bringing out yet another edition of Novellus-an annual tradition well worth undertaking. Clearly Novellus provides interested students an insight into the exercise of publication and the nitty-gritty of the machinery of production, quite apart from generating coherent pieces of writings on specific themes. This is indeed a very laudable enterprise and I should like to convey my warmest greetings to the student community.

We only hope that when the students go out in the wide world after finishing their course, they will be able to bring credit to CEBS by making significant contributions to our national programmes in the area of not only science & technology, but also to the society at large to which they owe immense debt for supporting them.

S M Chitre  
Founder-Chairman

# EDITORIAL

If we were asked for one word to describe the past academic year, we would pick the word ‘motion’. The student life at CEBS took up speed this year, and we were blown away by the momentum gained.

This year bore witness to a host of new developments: esteemed mathematician Prof. M. S. Raghunathan took over as the Chair of the academic board. The implementation of better sports facilities, competitive sports performances and the advent of clubs that brought people and their skills together to create magic from their common interests.

Unfortunate times did come to us, but we made our way towards the light the only way we know how: together.

The student life in CEBS has always been moving: lilted at times, and yet whizzing past our collective ears. We find ourselves looking at this picture of an institute walking with its head held high as its age progresses into the double digits. The excellence of CEBS spilt into realms outside academics. Open Mic sessions from the Music Club, inter and intra- college sports events, Rendezvous and Student sessions from the Science Club, Oris from the Art Club, and the freshly minted E-games Club: students brought forth their talents in all possible directions.

This issue of Novellus, much like its earlier issues, aims to capture this student life in something slightly more permanent than memories. In the light of all the developments, this is one tradition worth cultivating. Novellus also documents the creative endeavours of people associated with CEBS. The literary prowess of our students, staff and researchers is etched in the pages to come. Alongside, one finds a serving of our lives, funny side up in the Hostel diaries, and the internship experiences.

Without revealing any further details, we invite you to turn the pages and witness glimpses of the student life at CEBS. Look closely, and you might find details of the year that was, and probably a hint of the promises the next year holds!

~Team Novellus  
(novellus@cbs.ac.in)



**BASKETBALL  
KEYBOARD  
BADMINTON  
TABLE TENNIS  
PAINTING  
RAPPING  
GUITAR  
SINGING  
DANCE**

The CBS Student Community was in shock and grief over the loss of one of its stalwarts this year. Many of his friends wrote glowing accounts of their memories of his time in CBS. Team Novellus remembers Abhijith Varma(Quanta 5), a person of many talents, sheer brilliance, and a good heart.



I remember our first semester. We were all new and kinda lost, but your shyness stood out...and so did your natural talent in every field imaginable! I can't clearly recall when we really became friends... was it when we were lab partners? That was a fun semester! and then the winter when we went to Mohali! I will never forget that long train journey to Chandigarh. Your palms bleeding in the dry weather concerned me so much! And of course, the time we spent roaming around Chandigarh and waiting forever for that flight! That trip is one of my most cherished memories.

Through the years that went by, we had very few conversations as serious as the ones we had about Harry Potter. He was my first Potterhead friend around CBS. I recall this one really funny incident where I came to tell him about the fact that the Boa Constrictor in the first book was Nagini, and then he and I went on deep internet research to debunk this fact. We had a good laugh about it later.





*Initially when I came to CBS, I knew him as the "big" guy.....*



*You have taught me what patience is all about.....*



*Your memories will always remain with us!*



*We'll miss you, not just today. ALWAYS.*



*I always believed that nothing is perfect in the universe, but after seeing him it seemed to be wrong.....*



*Every time I come up with a nerdy joke, I would first want to hi-five you.....*



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Live to Eat

Fall



The Southern Wind



Celebrations!!



The Lament of the Scientist

Science Club



Ditch Date

Green to Brown

Walking Shadow

#CBSpeaks

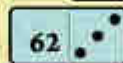
Her

Confessions under  
Moonlight

These Words



Tiny Tales



Oris



Question

Just in CASE!



Partners in Crime



Music Club of CBS  
(Dhwani and Symphonia)



Khwahishon ki Jung

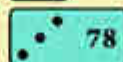
Movie Club



Hostel Diaries



Shot at Sight!



The Year that was

Team Novellus

2017





# PROTEIN CHEMISTRY LAB @CEBS

This time, on our yearly lab explorations, we delve into the Protein chemistry lab, with Prof Basir Ahmad.

## Education:

PhD (Biotechnology) Aligarh Muslim University (April 2008), Specializations: Molecular Biophysics and Biophysical Chemistry

MSc (Biotechnology) Aligarh Muslim University (July 2002), Specializations: Protein Chemistry

BSc Honors (Chemistry) Aligarh Muslim University (July 1999)



## Positions:

Reader-F : UM- DAE Centre for Excellence in Basic Sciences (August 2013-Present)

Visiting Scientist : UM- DAE Centre for Excellence in Basic Sciences (April 2013-July 2013)

Research Associate: UM- DAE Centre for Excellence in Basic Sciences (June 2012-March 2013)

Visiting Research Associate: Michigan State University, East Lansing, MI, USA (January 2010-February 2012)

Postdoctoral Fellow: University of Florence, Italy (November 2007-December 2009)

## Research:

Protein folding and stability

Protein misfolding and aggregation

Drug development against aggregation based diseases

Drug-protein Interaction Studies

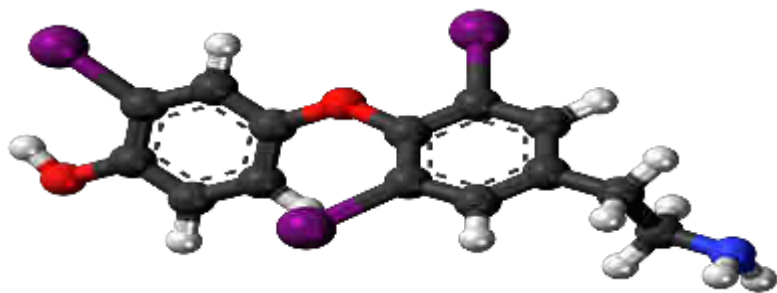
## Selected Publications:

Borana, Mohanish S. et al. "Curcumin And Kaempferol Prevent Lysozyme Fibril Formation By Modulating Aggregation Kinetic Parameters". *Biochimica et Biophysica Acta (BBA) - Proteins and Proteomics* 1844.3 (2014): 670-680.

Kamtekar N, Pandey A, Agrawal N, Pissurlenkar RRS, Borana B, Ahmad B "Interaction of Multimicrobial Synthetic Inhibitor 1,2-Bis(2-Benzimidazolyl)-1,2-Ethanediol with Serum Albumin: Spectroscopic and Computational Studies". *PLoS ONE* 8.1 (2013): e53499.

Ahmad, B., Y. Chen, and L. J. Lapidus. "Aggregation Of  $\alpha$ -Synuclein Is Kinetically Controlled By Intramolecular Diffusion". *Proceedings of the National Academy of Sciences* 109.7 (2012): 2336-2341.





When asked to explain the broad topic of his research, he told us it is all about protein chemistry and protein conformational diseases. He went on to elaborate that proteins are polymers of the twenty different types of amino acids. They are synthesised on ribosomes as linear chains, which must fold into 3D structures, called “native state” in order to be able to perform physiological functions. The process of folding is a spontaneous process involving different types of interactions, both within the polypeptide chain and with the surrounding water molecules. However, one must remember that this process takes place within the cell, which is crowded with a large number of molecules. Therefore, within the cell, chances of misfolding and aggregation are high. In order to tackle this problem, our system has evolved some processes for protein quality control, but this weakens in old age, increasing chances of misfolding. Therefore, proteins that are usually water soluble convert into an insoluble fibrillar form, in places including the brain, to cause diseases such as Alzheimer’s, Parkinson’s, Huntington’s etc. Any part of the body can fall prey to this fibril deposition. This is called systemic amyloidosis. In this laboratory, he went on to explain, the mechanism of this folding and misfolding are studied, and attempts are being made to design inhibitors for protein misfolding. These inhibitors may be used as drugs for late life diseases such as the ones described above. The inhibitor that is used currently being researched about is one from traditional medicine. Molecules are also being searched for under western medicine, and molecules are being synthesised.



*“It is my belief,” he said, regarding this search for inhibitor molecules, “that it is not a particular property of a molecule that makes it a drug, but a particular structure. For instance, the drug curcumin has antioxidant properties, and it is commonly believed that this is the reason it can be used as a drug. However, such is not the case. I think a molecule acts as a drug because of the structure of the molecule, since it interacts with the protein molecule as a whole.”*

Regarding the current research going on in the lab, he said that apart from searching for a molecule to prevent aggregation or formation of amyloid fibrils, it is important to find a molecule that can dissolve the already formed fibrils, since this is the only way to cure diseases such as Parkinson’s which have fibrils that have already accumulated in the body. Other than this, attempts to find the molecular mechanism of aggregation are being made by studying egg white lysozyme, human serum albumen and a milk protein called kappa casein. Studies about Cetrizine also might be able to help ascertain what determines the aggregation. Cetrizine prevents aggregation in physiological conditions, as has been recently found by students working in this lab. However, in low pH, it accelerates aggregation.

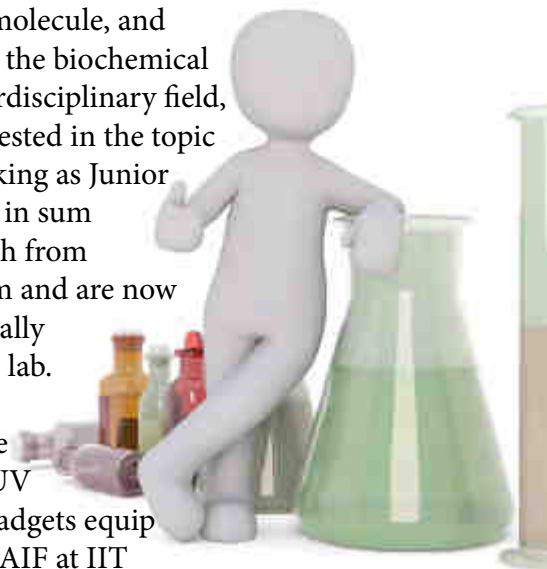
When asked about the application of his field, his response was very enthusiastic. The study of protein conformational diseases is a public health priority. More than 50 diseases are caused directly by protein aggregation. Millions of people every year are affected by it, and a great many benefit from this research. A basic science curiosity can also be fulfilled by studying protein aggregation. Aggregation is a generic property of a protein. Any amino acid sequence when given suitable conditions can fold into amyloid fibrils. Therefore, to fully understand the polymeric nature of proteins, it is not enough to merely understand its native structure, but this amyloid

structure as well.

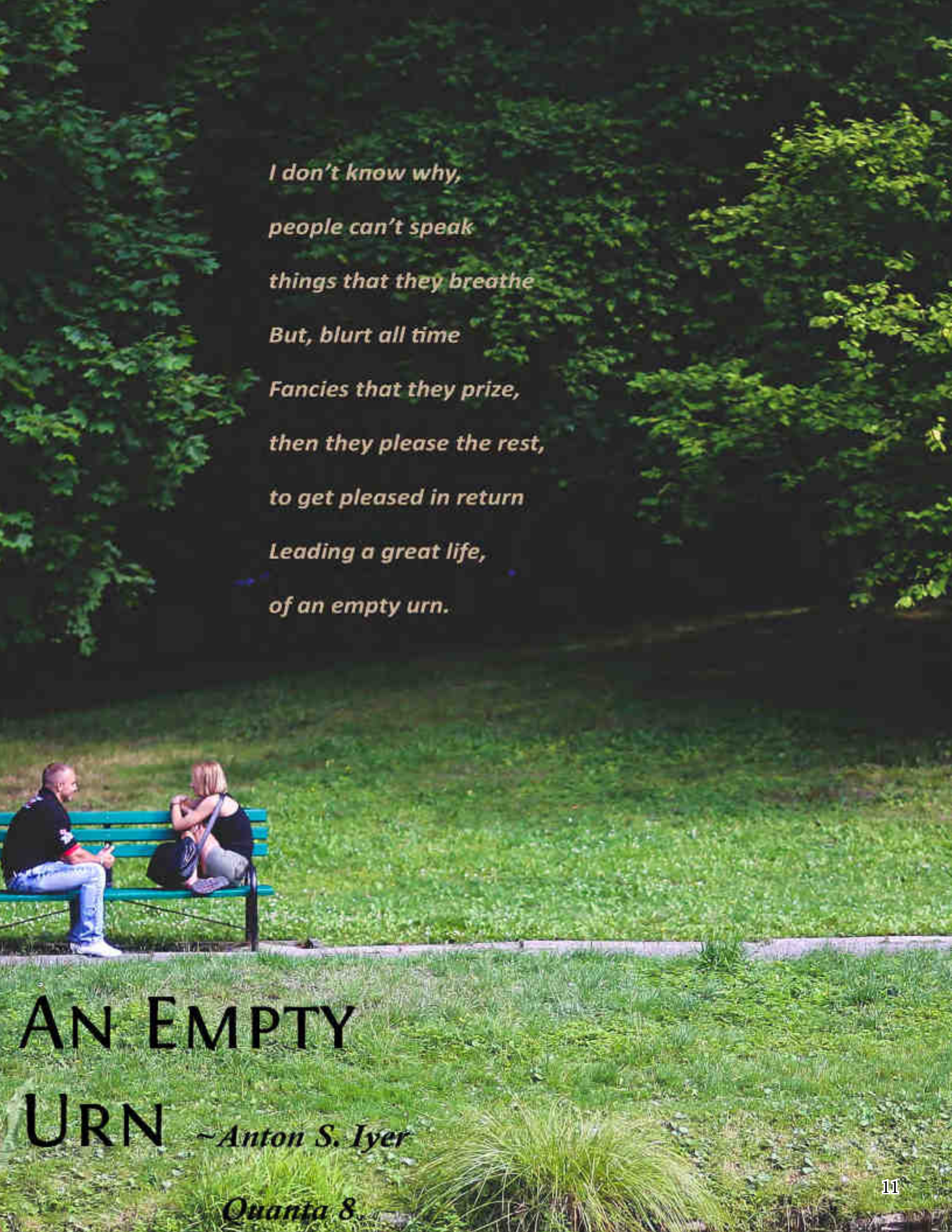
These fibrils are also used as means of drug delivery. They cannot be treated as foreign particles by the body, because after all, they are protein molecules. This also finds use in nanobiotechnology, given that some properties of these fibrils make them stronger than steel.

*"I am not only a scientist, but also a teacher."* We then questioned him about how undergraduates might benefit from working in his lab. He deemed that working with him would train students in basic molecular biology techniques such as how to make the protein molecule, and the basic spectroscopy techniques. These techniques are to investigate the biochemical phenomenon taking place in the body. Since this is an extremely interdisciplinary field, he keeps his doors open to CEBS students of all streams who are interested in the topic of research. Currently, there are two CEBS students who are now working as Junior Research Fellows in this lab. Many undergraduate students also work in summers and winters. He notes with pride that his previous students, both from CEBS and outside, from all over India, have stayed in contact with him and are now pursuing PhDs in rather illustrious places. Numerous students, especially from the University of Mumbai, also pursue their MSc projects in this lab.

This lab boasts of a very good basic molecular biology facility to create and modify proteins. Two fluorimeters, a thermal titration system, a UV-VIS spectrophotometer, an FTIR machine and other machines and gadgets equip this lab. This team uses the Transmission Electron Microscope from SAIF at IIT Bombay. Not only this, they have also collaborated with numerous labs both in India and abroad, to help grow and expand. These include Michigan State University, USA; University of Florence, Italy and some labs in India such as those under Dr Manu Lopus and Dr Sinjan Chaudhary from CEBS, Prof Dongre from Mumbai University and Prof Rizwan H Khan at Aligarh Muslim University, Aligarh. They are also in talk with some labs in Iran, Spain and Rome, Italy. We thank Dr Basir Ahmad for providing us this insight into his lab and the field of protein chemistry. We hope this ignites an enthusiasm for this subject in the minds of our readers.







*I don't know why,  
people can't speak  
things that they breathe  
But, blurt all time  
Fancies that they prize,  
then they please the rest,  
to get pleased in return  
Leading a great life,  
of an empty urn.*

# AN EMPTY URN

~Anton S. Iyer







# Freshers

Quanta 10 was welcomed into the CEBS family in September 2016 with a colourful fresher's party. The beginning of the show was marked with a vibrant cosplay. Freshers walked down the ramp dressed up as and enacting their favourite characters. They rocked us with their dances and made us swoon to their melodious songs. We saw some geeky rubic cube action too.\*

The much loved seniors performed back to back along with the juniors and the band performance enthralled us all. The "Ebullience of Quanta 10" cheered and energised the entire CEBS fraternity. The event came to a perfect ending with the much awaited DJ night and a fulfilling and delicious feast.





# TWO AND A HALF WISHES

“Opportunity knocks on your door only once,” I told myself. I would be a fool to let it go. There would be no second chance. I couldn’t just spring something like this on my father. It had to be asked in the right way, on the right day, at the correct time. What I wanted was something that had to be asked for very carefully. As someone who worked this hard just so that we, his family, could get everything we wanted, this was something he might refuse. So, I had to ensure that everything would be just right when I finally asked him.

Father was obsessed with cleanliness. The servants, therefore, always did a marvelous job of cleaning the house. There was not a speck of dust to be seen anywhere. I had asked the butler to replace all the CFLs with LED bulbs. Nobody likes a gloomy, dark place, and at the moment, I needed everything to be bright and cheerful. Like always, the air conditioner was on, but I had the temperature set at 26. Father disliked high temperature just as much as he hated excessive cold.

His dinner was something that I had planned out well in advance. There were three things that Father just loved in his meal: Paneer, fish and something sweet. It had taken some pouting and my famous puppy-dog expression, but our cook had finally agreed to make six different varieties of each of the three. It was all due to her effort and my coaxing that our dining table was now laden with all the mouth watering food that could possibly be cooked within the stipulated time.

Mummy had gone to a charity event in Paris with her friends. This meant I was home alone for now. If Mummy would have been here she could have persuaded Father to agree in no time. Still, I was not going to give up. I would not let all this effort go in vain. Taking a deep breath and hurriedly giving the hall a last glance, I rushed out to the porch. His car had just driven in and the chauffeur was opening the door. It was irritating, the suspicious look that his bodyguards gave me, but I ignored them. This was not the time to argue with them. Besides, the bright smile that Father gave me more than made up for the looks. Chatting happily with him, I gauged his mood as we entered the house together. Handing over his blazer to a nearby staff, and made a beeline towards the dining table. Mum always said that for a billionaire, Father ate like a vagabond who had not eaten food for days! Needless to say, I was hoping it would play to my advantage.

Father was smart, there was no arguing with that. He took a deep breath inhaling the aroma of the food and asked me, “So, pumpkin. Why exactly am I being buttered up? What is it that you want?”

Taking a deep breath, I answered, “I want to go on a world tour with my friends”.

“Opportunity knocks on your door only once,” I told myself. I would be a fool to let it go. There would be no second chance. I couldn’t just spring something like this on my father. It had to be asked in the right way, on the right day, at the correct time. What I wanted was something that had to be asked for very carefully. As someone who worked this hard just so that we, his family, could get everything we wanted, this was something he might refuse. So, I had to ensure that everything would be just right when I finally asked him.

Father was not fond of dirt. That was the reason I had gone and collected dry palm leaves today. Wrap them up and you have an excellent broom! It did not take all that long to sweep the floor. Father hated clutter as well and that was why we had just the bare minimum of possessions. This made keeping our hut clean very easy. Just for this day I had gone to my grandmother’s place and borrowed a hand fan. She doted on me so much, she even gave me a spare candle to use today. It was just a stump but it would last long enough for father to finish his dinner.

The Higher Powers were definitely making luck play in my favor. Just yesterday Father brought a little flour and there was even a little salt to go with it! After going to bed hungry for two days in a row, I could have made an ash of a chapatti and Father would have gladly eaten it. But as luck would have it, if there was one thing I was famous for, it was for making really good chapattis. I would gladly go with a little less food for a day if it meant Father giving me permission.

Mummy worked as a domestic help in a sub urban locality, and sometimes it took her quite long to get back home. This meant I was given the responsibility of looking after the house, preparing a meal if there was something to cook and look for a job as a daily laborer if I could find one. What I wanted to ask for from dad would just shatter the whole system of the household but I was determined to give it a try at least. The laughter of Father and some of his friends as they approached the house was a good sign. This meant he was in a good mood. I heard him bid farewell to his friends before pulling the sheet that acted as our door back to enter the house. I was quick to give him water to drink and wash his hands and face with. Rubbing his face with his “gamcha” towel, he finally sat down for dinner.

There was one thing I had to hand to my dad. He was the smartest person I knew. He looked around at the neat house, lit candle and the thick chapati and gave me an indulgent smile.”So, princess. What is all this effort for? What is it that you want?”

Taking a deep breath, I answered, “I want to go to school.”



# WAITING

It's not just when the sun sets  
that I think of you.

Not just when I'm alone.  
You are with me;

In each infinity between two moments,  
I think of you.  
Always.

And I wait for you.  
Wait to lay my eyes on you,  
To hold your hands,  
And feel your touch.

I loathe waiting.

I hope that my misery comes to an end soon.

But still I'm here,  
Waiting for you.

You are my everything.  
There's nothing else I'd rather do.

- Srishti Priya, Q9

# REALISATION

Having lived all these years in hell

I realized that there is no heaven.

Having spent all these years in Life's cell

I realized that He hasn't yet forgiven.

Having walked in solitude the Lanes of Life

I realized that there is no point to just survive.

Having seen closely the Life's reality

I realized that there is nothing more painful than immortality.

Having seen the strength of the Stream of Life

I realized there is no point to fight .

O Father! Have mercy on me

Lead me to the way of light.

Show me the beautiful path of humanity

Destroy within me the last drop of Satanity.

Indranil Das

Quanta 10



# FOUNDATION DAY

The CEBS Foundation Day celebrations were held on 20th September 2016. It was graced by several great minds such as the Hon'ble Vice Chancellor Dr. Sanjay Deshmukh and Dr. Anil Kakodkar, former Chairman, Atomic Energy Commission.

This auspicious occasion marked the formal release of the book "Mechanics, Waves and Thermodynamics: an example-based approach", written by Dr. Sudhir Jain. This session was followed up by a delicious lunch and an enriching cultural event. This included a musical recital by Ms. Mrunal Agarkar and a classical dance recital by Ms. Samyuktha Rajan.

Ms. Mrunal has done a diploma in light music from the University of Mumbai in which she secured the third rank. She has undergone training in natyasangeet for one year. She is simultaneously pursuing a Bachelor's degree in Hindustani classical vocals from the Mumbai University. A talented dancer with a flair for nritya as well as abhinaya aspects of kathak, Samyuktha has performed at various prestigious venues with her guru Sanjukta Wagh, as part of a dance company as well as a soloist.



# BIG CITY BLUES

-ANIRUDDHA T.V.

Not a soul I see for a million miles  
Am I not in the big city?  
How I long to see some smiles!  
The streets and lights, they aren't pretty

The emptiness, it's everywhere  
How I wish I were home  
This city, it can never be my lair,  
For life here is monochrome

How I wish we had a conversation  
One with no purpose and no profit  
Oft I wonder, am I below your station?  
This place I tell you, it's tophet

Everyday I talk, but I don't speak  
Everyday I grin, but I don't smile  
Far from nice, this city is bleak  
I have little left in me, maybe one more mile.



**NO TITLE**

When you finally realise  
how vpn works



So I heard the Power Rangers  
are releasing a new movie

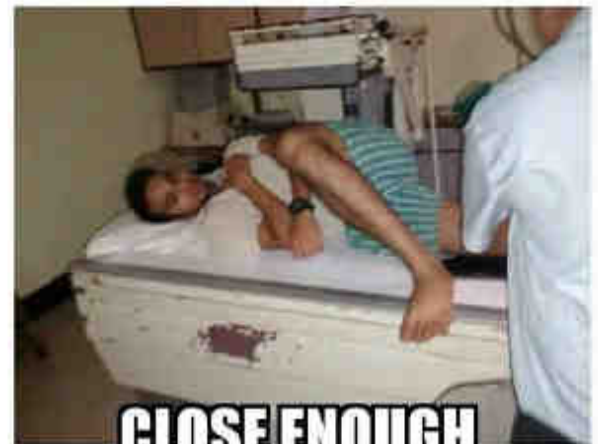


**You vs**

The guy she  
told you not  
to worry about



**WHEN IT'S 70% OFF AT**



**CHOTA PARIVAR**



**ITNA BADA PIKACHU  
PAKDA MAINE**

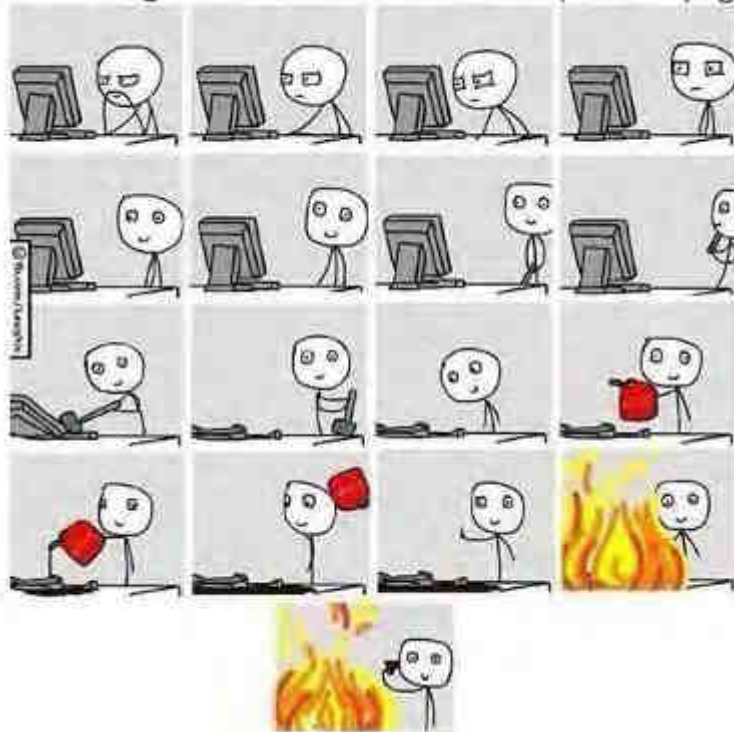




**...U MAD?**



Me reading the CEBS Confession/Compliment page



# RAGNARÖK

Ragnarok is the most awaited event of the year, where CBScients come together to display their immense energy, enthusiasm and sportsmanship.

This year, Tug of war not only marked the beginning of Ragnarok, but also its end. (Thanks to the broken rope). The events conducted were: cricket, football, basketball, volleyball, badminton, table tennis, carrom, chess and cyber games like Age of Empires and Counter Strike.

The neck-to-neck competition between finalists in TT, badminton and football was thrilling to watch.

## TUG OF WAR

Men's

Winner: Quanta 6

Runner up: Quanta 10(1)

Women's

Winner: Senior girls

Runner up: Quanta 9

## BADMINTON

Men's singles

Winner: Gursahib Sethi

Runner up: Apurva Singh

Women's singles

Winner: Anjali Jayachandran

Runner up: S Dhanlakshmi

Men's doubles

Winner: Gursahib Sethi & Apurva Singh

Runner up: Aron G & Vikas Bothe

Women's doubles

Winner: S Dhanlakshmi & Akanksha Shah

Runner up: Anjali Jayachandran & Poonam Singh

Mixed doubles

Winner: S Dhanlakshmi & Prabhu Swain

Runner up: Poonam Singh & Apurva Singh

## TABLE TENNIS

Men's singles

Winner: Tejas Singar

Runner up: Abhinav Singh

Women's singles

Winner: Kaarunya Dhevi

Runner up: Aswathi K. Sivan

Mixed Doubles

Winner: Tejas Singar & Nikita Gupta

Runner up: Abhinav Singh & Kaarunya Dhevi



Men's doubles

Winner: Abhinav Singh & Sunil Rampuria

Runner up: Tejas Singar & Prashant Gupta

Women's doubles

Winner: Kaarunya Dhevi & Aswathi K Sivan

Runner up: Shraddha Agrawal & Pinki Gahlot

### **VOLLEYBALL**

Men's

Winner: Quanta 10

Runner up: Quanta 7

Women's

Winner: Senior girls

Runner up: Quanta 8

### **FOOTBALL**

Winner: Quanta 6

Runner up: Quanta 10

### **CRICKET**

Winner: Quanta 9+10

Runner up: Quanta 7

### **CARROM**

Winner: Kaarunya Dhevi & Vikas Bothe

Runner up: Ram soure & Annaya

### **CHESS**

Winner: Fahid Latheef

Runner up: Arujash Mohanty

### **BASKETBALL**

Men's

Winner: Quanta 8

Runner up: Quanta 10

Women's

Winner: Quanta 8

Runner up: Quanta 9



Background Photo Credit:  
Nikhil Belure





# SPORTS

This year CEBS established its identity in multiple sports fest in Mumbai and outside. Starting as early as the IISM (inter IISERs- CEBS - NISER sports fest) in December, followed by SPORTICO (Mumbai University inter-departmental sports fest by the physical education department), ICT sportsaga and ending with IIT sports fest AAVHAN

## IISM:

It was amidst Ambedkar Jayanti, eve teasing and all the fruitless march past practices that our heroes and heroines reached IISER Kolkata campus. The events started with Athletics, an area which Manush M completely nailed. He was the only individual from CEBS who bagged the much coveted gold in 1500 m, silver in 5000 m and a bronze medal in 800 m. Women's Volleyball did fairly well, winning two out of three matches, with the third match ending in a deuce in the third set. Men's basketball team won two out of four matches. Rest of the teams played well but unfortunately could not win a lot of matches. We wish them the very best and hope that they will bring more medals in the future. All in all, CBScients had one hell of a time, with a few patches of dictatorship weighing the experience down.





### SPORTICO:

CEBS returned to SPORTICO this year with hopes of defending the champion's trophy. With a total of 157 points (90 more than the 1st runners up), CEBS bagged away a lot more than just trophies and medals. Two days and more than 25 events, it was an unforgettable experience running between the events and cheering for your team! CEBS won awards in the following events: Basketball-gold, Volleyball- gold and silver, TT women's doubles- gold (Aswathi K Sivan and Kaarunya Dhevi G G), silver (Poonam Singh and Pinki), TT women's singles- gold (Kaarunya Dhevi G G), Silver (Pinki), Badminton men's doubles- Gold (Anirudh Vinod Pillai and Gursahib Singh Sethi), Badminton Men's singles- Gold (Gursahib Singh Sethi), Badminton women's doubles-silver (Anjali Jayachandran and Poonam Singh), Carrom (women's doubles)- gold (Kaarunya Dhevi G G and Sumalata Sonavane R), Carrom (singles)- Silver (Kaarunya Dhevi G G).

Even on the tracks CEBS did not fail, 100m women- silver (Akansha Shah) and Bronze (Sumalata Sonavane R), shot-put women- gold (Helly Chetan Jadav)

### SPORTSAGA:

ICT Sportsaga happened towards the end of March and CEBS had a few memorable moments. For the first time in the history of CEBS a team event has been won on an away ground, Volleyball girls' team really did strive for it. After showcasing a memorable finals match against IIT-B, the CEBS scientists returned home with the runners up cup. CEBS participated in few other events but unfortunately could not win a medal. Nevertheless it was a good year for the football team as they had their first winning match in an away ground. The basketball team gave a good fight as well. It was tough luck for the girls 3 on 3 team as they lost in the semi-finals.

Last but not the least CEBS participated in the open tournament held in IIT (AAVHAN) and witnessed a different level of competition. Although couldn't grab a medal CEBS teams showed good performance.





# *Love lost. Lesson learnt.*

*Thank you, time.*

The place was filled with silence. Not literally, but for me, it was. I had lost all my senses. I could no longer hear the cries or the cheers arising from the football match being played behind me. No longer was the breeze able to cool my sweaty body. My gaze was fixed upon her eyes. My vision now comprised only of the frowning expression on her face. I could no longer soak in the beauty of the fractals created by dusk at the horizon, as her fallen face kept pouring guilt into my heart. Yelling at her should have eased my anger, but it proved to be the opposite. I could have chosen another foolish way to express how I felt about being ignored by her sometimes, for this act of mine only had a negative impact on my life. I could have opted for one of the 'smarter' methods to express, like jotting down my frustrations on a blank A4 sheet (as I am doing right now), except that it's not frustration that I express now. Love, guilt, apology... I really don't know what it is. Every bit of me is trapped in this complex emotion, unable to distinguish between the real and the imaginary worlds, but every part of me wants her back.

It has been many days since she first made me understand the true meaning of being ignored by someone. She also taught me how to ignore people once they have started doing that to you. That unforgettable Tuesday evening had set up an epitome of time's promiscuous nature. Yes, time had shown that it doesn't take much to change people's lives. There are people who, in some way, attract this nature of time. They want things to change instantly: lose half their weight in a week, earn one mole of rupees per annum, or become successful overnight. There is another set of people as well. Those who believe that time is like a river that flows swiftly in one direction- from present to future, birth to death. But believe me, I have seen the face of time. I can tell you that it is 'like an ocean in storm'. Its waves leave you with no control over yourself, throwing you according to its wishes: sometimes closer to the coast, and sometimes far, very far away, from where it's hard to return.

I want to get back from there. If time flows in one direction, I want it to reverse now. If time is like an ocean in storm, I want the waves to throw me near the coast. Let me have control over myself, O mighty waves, and give me my life back. I want to keep soaking in the Tuesday sunset and prevent myself from doing anything that would start filling me with guilt. We all make mistakes; some are small, some are large. But my mistake, born of innocence, fuelled by fury, was the greatest and most terrible of them all. A mistake that could not be undone with apologies. I look at her, she looks at me. Frozen lips keep us silent, and the eyes choose to do the talking. "She is happy in her new world"-my eyes say to my heart, without revealing anything to her. "Let it be then" is my heart's reply. My flooded eyes turn themselves away, with a promise to keep her happy forever, and a little longing; a wish to have her back... someday...sometime...somewhere...

-VIBHU VAIBHAV

# Ph.D Placements (Quanta 5 and 6)



United Kingdom

**Abhijith Varma**- Northumbria University  
**Swami Vivekananda Chaurasia**- Cardiff University  
**Bhishek Manek**- University of Sheffield



Australia

**Lamia Yasir Varawala**- KTH Royal Institute of Technology



Sweden

**Aishwarya Mishra**- University of Queensland



USA

**Sagnik Dutta**- Cornell University, Yale University, Brown University, University of California-Irvine, University of Michigan-Ann Arbor and Pennsylvania State University  
**Rohit Vaidya**- University of Illinois at Urbana-Champaign  
**Aishwarya Mishra**- State University of New York  
**Kamal Sant**- University of Notre Dame  
**Sanchit Sablok**- University of California, San Diego  
**Vishal Padwal** - Northwestern University  
**Ajay CJ**- Rochester University and University of Texas, Austin  
**Praneel Samanta**- Louisiana State University, Clemson University and The University of Iowa



Finland

**Swagat Pradhan**- University of Helsinki



Japan

**Rohit Vaidya**- IPA program, RIKEN



Germany

**Kamal Sant**- Max Planck Institute for Solar System Research  
**Bhishek Manek**- Max Planck Institute for Solar System Research  
**Saket Suman**- Technische Universitat Darmstadt  
**Swami Vivekananda Chaurasia** - Theoretical Physics Institute, University of Jena  
**Naman Agarwal**- Max Planck Institute for the Structure and Dynamics of Matter  
**Chaitanya Kasuba Krishna**- IMPRS Max Planck Institute, Munich



Spain

**Anushree Ray**- Tata Institute of Fundamental Research, Mumbai  
**Joji Benny K**- Indian Institute of Technology, Madras

**Praneel Samanta** - University of Barcelona & University of Catalonia



India



Canada

**Aishwarya Mishra**- University of British Columbia  
**Soumendu Maurya**- University of Waterloo

**Chaitanya Kasuba Krishna**- ETH Zurich



Switzerland



# INTERNSHIP EXPERIENCES

## THE LAND OF THE RISING SUN

Rohit Vaidya

When it was decided that I will be going to RIKEN, Japan for my Master's thesis project, a wide range of concerns were raised by my family and friends. They ranged from food (especially considering I am a vegetarian), communication problems, natural calamities and the strict work culture. Some unusual ones included the stereotypically weird tastes of Japanese girls, and getting to date one. Regardless of these concerns, I was quite excited to go to Japan. I had little knowledge about the country (except whatever I had gathered from watching anime) and wanted to explore as much of it as possible.

I was relieved to see that my lab was not a typical Japanese workplace. It was a free and open environment. Most importantly, everyone spoke English. I have to admit that the language problem is quite considerable in Japan. It was not much of a problem inside RIKEN, but the moment one steps out, the localites understand very little English. A rudimentary knowledge of spoken Japanese is required, or one ends up relying on sign language. However, the Japanese are some of the most polite, helpful and patient people in the world (only Canada can probably come close). They have mastered the art of understanding the foreigners even if they don't know the language, and wait patiently till they do.

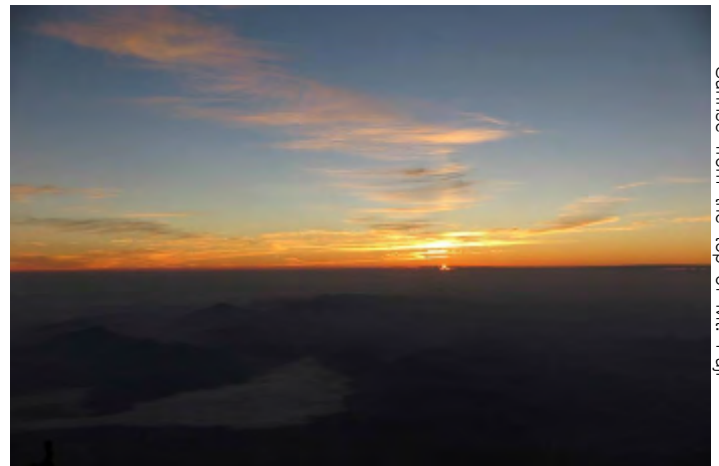
I was living on the outskirts of Tokyo, inside RIKEN campus. There are hundreds of Indian restaurants all over Japan, so no dearth of vegetarian food. Almost every weekend I went to Tokyo for some reason or another. The public transport is simply amazing and extremely efficient. Being used to Mumbai locals, the huge crowd was not surprising to me. What was surprising was the absence of noise. Japanese people follow the principle of causing minimal trouble to others. They won't even make calls on their phones while in the train. Talking about the crowds, some of the metro stations in Tokyo such as Shinjuku, Shibuya and Ikebukuro are world's busiest (Shinjuku is even included in the Guinness book of world records for this reason with some 4 million people traveling per day!). I found these stations extremely daunting, when I first realized that they go as low as 5 floors below ground with trains running on each floor. The Tokyo train network is actually designed in 3D.

I also got many opportunities to explore rural Japan, which stands in sharp contrast with cities such as Tokyo. About 70 percent of Japan is covered with mountains. I went on many hikes and once went rafting (although not as thrilling as rafting at Rishikesh in India).



The super-crowded pedestrian crossing outside Shibuya Station

Witnessing sunrise from the top of Mt. Fuji, after climbing for 6 hours through the night was one of the best experiences of my life. During summer, there are a lot of festivals in various villages and is a good time to explore Japanese culture. Another traditional experience is the 'Onsen' or the natural hot water spring pools. There many such pools built all over Japan and is a part of traditional Japanese life. It feels simply awesome to watch over the serene beauty of Japanese mountains, with silence broken only by the sound of a waterfall in the vicinity, body half immersed in water at 40 degrees when the surrounding temperature is 5 degrees. As with everything in Japan, there are some etiquette to follow here as well, such as being completely naked (trust me, it feels really awkward, especially when you are accompanied by your whole lab).



Sunrise from the top of Mt. Fuji

I also went to the tropical island of Okinawa around 1000 km off the coast of mainland Japan. The beauty of the place and clear blue waters are simply mesmerizing. It is quite impossible to describe all my experiences of Japan in words. I cannot do justice to so many places, such as Akihabara, the electronics and anime capital of the world, the kinky maid cafes, Odaiba, a man-made island in Tokyo Bay filled with wonders. I will just recommend that everyone visit Japan, and experience the discipline, efficiency, politeness, madness and weirdness of this beautiful country for themselves.

## VIVA LA VIDA

Pratik Mandal

After watching the movie “Zindagi Na Milegi Dobara (Won’t Get Life Back Again)” I had this undying urge to go to Spain along with my friends and do all those things the trio did in the movie. Literally, life is so unpredictable and you never know what is coming next. I got a chance to go to Spain and that too with my best friend, Ankur Poonia Chaudhary. I was selected by Prof Mara Dierssen to work on my Masters’ Thesis project in her lab at CRG, Barcelona and Ankur was to work at IRB, Barcelona. The icing on the cake was my institute was situated in front of the beach.



Mediterranean Sea from the lab

Picture this: Lying on a sandy beach, the sun slowly setting on the horizon, feeling the gentle warmth of the breeze. This is what it feels like to be in Barcelona. Barcelona is defined by its architectural beauty, historic streets, beautiful beaches, incredible art and food. The stunning architecture is what blew me away the most. I ended up loving Barcelona. It’s a city I will definitely go back to, and hopefully enjoy just as much as I did the first time.

People say friends can be closer to us than family. At crucial points this may sound true. Friends make the times we spend with them most enjoyable. The experience wouldn’t have been this amazing if it wasn’t for Ankur. Traveling with him really boiled our friendship down to the bare bone \*cough\*. The best memories start from the cooking sessions (from tandoori rotis to rosgollas to innovative creations), late night parties that lasted till daybreak, weekend trips (which took hours to decide!), walks through the streets, never ending fights, hosting people in the apartment to enjoying the struggle of communicating in Spanish with the locals. We definitely had the experience of a lifetime.

The one thing that was on the top of my bucket list during my trip was to attend the La Tomatina festival, and how lucky was I! While searching for the the dates of La Tomatina 2016, I found out that it falls on my birthday. La Tomatina is a festival held in Bunol, Spain on the last Wednesday of August each year. It’s the world’s biggest food fight where thousands of people fill the streets to throw tomatoes at each other. After getting off the bus from Barcelona in the morning, it was clear to me that this would be an experience I hadn’t anticipated. That was the best birthday I ever had!



La Tomatina Festival 2016



Another reason I was excited for my internship in Barcelona was Girona. Being a huge fan of Game of Thrones, I came to know that Girona, which is a one and half hour ride away from Barcelona was one of the filming locations in the season 6 of the series.



Girona

Another remarkable experience of my stay in Barcelona was being able to visit my dream city “PARIS”. The trip was also more exciting as my other bestie Swagat also joined us both. It was a great feeling to arrive in Paris – a modern city with a very deep sense of history.



On Pont Alexandre III Bridge over the river Seine with the Eiffel Tower



## GRACIAS AMIGOS

Aishwarya Mishra

People say Science has endless possibilities and I trust them. Endless possibilities to travel and explore the world, make some awesome friends, strike off things from your bucket list and of course, do some quality research. If you are in a foreign country for a short duration, you need two essential tools: Couchsurfing and Meetup. These apps will do wonders for you, helping you travel or live anywhere at cheap rates.

After weeks of hanging out with same people and doing the usual, I decided to tag along with an unknown Couchsurfing hiker and it was one of the best decisions I ever made. On the way to the hike, we picked up other couch surfers making us a group of five.

After driving for three hours along a way which overlooked the mesmerizing sea to sky highway, we picked up some eatables, drinks and liquor for the camping next day. On foothills of the hike, we set out to find a camping place only to discover that all camping places in British Columbia were booked for this long weekend. We walked in the forest at night in search of a clean area of land and we found it. Our camping area turned out to be surrounded by trees, away from forest rangers' sight and away from bears (we hoped!). We slept with our bear sprays with rustling winds and gushing river in the forest.

working holiday visa. He had been hiking all along BC solo to celebrate his stay in Canada. He ended up sleeping on my couch for two days after the hike, before leaving the country.



Black Tusk

Others in the group included a professional hitchhiker Armando from Mexico who had hitchhiked his way across the world doing pretty much anything from harvesting berries in Canadian Valleys to selling antiques all over Europe. He is planning to visit India soon after taking a break at home. Laura, a Life sciences undergraduate from Mexico took a year away to stay in Canada on a working holiday visa and travel. We shared numerous hikes and fun stories after the hike until she left Canada. The last member of our group was a young kid called Alan, a religious undergraduate student at UBC who always had a way to tell us that there is a god in us. One can just find someone known/unknown to travel with and make stories and friends, even in a land, far away from home.



(Right to left: Alan, Aishwarya, Laura, Florian and Armando)



Panorama Ridge

Early morning, we set out for the mammoth hike of Panorama Ridge which was a round trip of about 30 km and by noon or so we were at the top making sandwiches, drinking beers and enjoying the view. We then decided to go for another hike to Black Tusk, which was a short but a strenuous one. We did not stop there, as after reaching that top, we decided to push it further and go to Garibaldi Lake to absorb the amazing view of the glacier lake. By 9 pm, we were back at the parking garage. We had hiked for about thirteen hours straight and our legs were cracking up with lactic acid. But the hike, the interaction we had and the bond we shared was all worth it. Our host was a Florian, a German guy on a

बचपन में सुने थे  
जो कभी  
कुछ गाने  
मिल गए रेडियो पे आज।  
जैसे दूर देश में मिल जाए  
घर का खाना  
कान कुछ वैसे ही झूम उठे।  
जो कभी छूट गया था  
जीवन की भाग दौड़ में  
वो कुछ पुराना सा  
आज याद आ गया।

रुह एक बीती उम्र पाद करके  
सिहर उठी।  
वो दोस्त, वो गुज़रा वक़्त  
नज़रों के सामने घूमने लगा  
कुछ उम्र की गर्म लू की धपेड़  
तेज़ लगने लगे।  
अब निद्रा भी क्यों लेगी आगोश में?  
इस सोच में मन डूबा  
के कितने कल मैं भूल गया  
मन टटोला तो जाना  
आज की खबर न थी।  
गाना बदल गया  
फिर एक पुरानी आवाज़ गूँजी।  
आते कल के उपासक से  
बीते कल की इस उपासना में  
वो कुछ पुराना सा  
आज फिर याद आ गया।

औखें मूंद कर मैं भी  
सुनता रहा,  
कभी लफ़्ज़ों को बुदबुदाता  
कभी धुन गुनगुनाता।  
न जाने कब औख लगी  
न जाने कब रात ढली।  
एक स्वप्न बड़ा सुन्दर सा  
घर-बार, बाहर अंदर का  
उस रात जो मुझ को झिंझोड़ आया  
सच कहता हूँ  
वो कुछ पुराना सा जो था  
कभी भूला ही न था  
ऐसा एहसास हुआ।

# कुछ पुराना

दत्तात्रेय नाथ श्रीवास्तव

Quanta 8



# JIGYASA

## 2017

It is pleasing to say that this year's Jigyasa, the annual CEBS science quiz, was quite a success. With a total of 89 participating teams across Mumbai and Pune, the organisers from Quanta 8 are proud to have had the largest participation yet.

Teams of three and two flocked to their centres at CEBS, ICT Mumbai, IIT Bombay, and IISER Pune on 15th January 2017 to try their hand at the first stage of Jigyasa.

29th January 2017 was another exciting day for CEBS as the second and third stages of Jigyasa were conducted. The second stage consisted of a number of descriptive questions which were to be answered in a given amount of time, and the third stage had three rounds : a sequential round, a rapid fire round, and a buzzer round. The third stage was conducted at Pheroze Shah Mehta auditorium in the University of Mumbai.



Jigyasa 16-17 only became possible due to the efforts of innumerable people – the CEBS faculty and staff, the kind and cooperative staff at all the centres, the enthusiastic participants, and the sponsors from LIC and Bank of Baroda. Organising Jigyasa was definitely a learning experience for the students of Quanta 8.

Below is a list of the teams who qualified to the final round, and all in all, bagged prizes worth 29,000 rupees. CEBS salutes them and thanks them for staying curious!

1. IIT Bombay
2. IIT Bombay
3. IISER Pune
4. CEBS
5. CEBS



# A THOUSAND MILES APART

Like fumes of immensity, miles away, she awaits  
Foliages in the wilderness of obscure isles, interests her no more  
Like branches of palash in recent onset of spring, she awaits  
Oriental lavishness in blowing winds, can now tilt her no more

When evening dawns in her open hair, when at night she scrabbles on her bed  
When her gauche teapot, her bedside lamp struggle to keep her company  
Sometimes melancholic squalls enter opening her tightly fixed windows  
They carry with them lullabies from half a world away

Clearer than crystals, darker than nights, she hides herself beneath a veil  
She works all day, she works all night, she rarely gets time to think for herself  
Fairytale are but stories to her, fantasy only a state of mind  
Stuck in a foreign land, she waits for me... I hope this poem could keep her warm

-Praneel Samanta,  
Quanta 5





# Live to EAT!

-Shraddha Agrawal &  
Bhavya Venkatesh

## Relish

A popular continental restaurant in Churchgate, famous for food that is not for the health conscious. One particular stand out is the Swiss cheese fondue. A pot of molten cheese, with vegetables and croutons to dip in, this dish is both yum and fun! Another highly recommended dish is the chocolate fondue, which is served with pieces of cake and fruit to dip in. By the end of this all, if you are not groaning because of the sheer richness, we bow down to you.



## -301° F

There are multiple outlets of this ice cream parlor, but we have one major recommendation that brings back so many memories. One bite of the guava chilli ice cream will have you close your eyes with appropriate nostalgic music playing in the background. Go for the unconventional flavors here, they really do them justice.



## World Street Food

Travel the world, one plate at a time. This restaurant is located in Nariman point. Most of the items on this menu, you would not have heard of, unless you binge watch Master Chef Australia. Try the African bunny Chow, or the Malaysian satay, which comes with a finger licking good peanut sauce. The New York style nachos are also recommended. We didn't try any desserts because by this time we were too full to move, but do let us know which ones are good!



## Sukh Sagar

Sure, the name doesn't sound like it can serve anything remotely un-Indian. But, you are in for a treat if you go for their veg lasagna. It's cheesy, yummy and well, cheesy! Their sizzlers are not far behind either. Do visit it once when hanging out with friends in the Chowpatty area.



## Cream Centre

Situated in the heart of phoenix city mall, Kurla, this place looks pretentious and expensive but we found it to be a good place to eat. The Kung pao potatoes are to die for and vegetable pasta is amazing. In fact, for us kangaal students, they have this combo where we can sort of make our own three course meal at a very reasonable price. All in all, a good place to try. P.S. - The brownie hot fudge sundae makes you go weak in the knees!



## Little Italy

It's a really cool place for a special date, where you can gorge on your favourite Italian and Mexican dishes. Their menu is exhaustive and you are spoiled for choice. Their wood burn pizzas are highly recommended. It's expensive, but worth a shot!



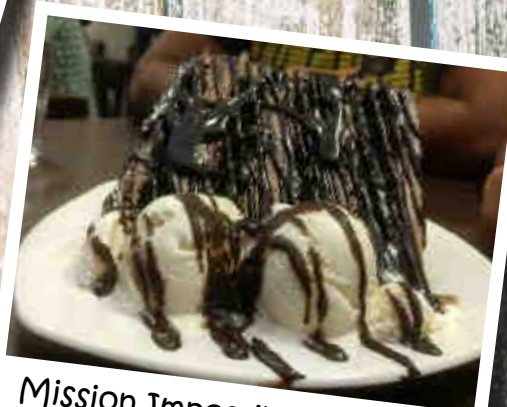
## Grandmama's Cafe

This charming little nook in Juhu, has overwhelmingly cute decor. But the reason we wrote this review was the phenomenal hummus, which was licked clean from the plate. Other recommended dishes are the homemade waffles and the blackcurrant cooler. The prices do lean towards the higher side, but it is still worth a visit.

## Tidbits



Coconut Biscuits @ Regal Bakery, Byculla



Mission Impossible @ 5 Spice, Pali Hill



Moong Bhajiya @ Kalina



A person is captured in mid-air, jumping off a dark, jagged cliff edge. The background is a vibrant sunset with a warm orange and yellow sky. In the distance, silhouetted mountains are visible. A large, semi-transparent white circle is centered over the person and the word 'FALL'.

FALL  
-:-:-

**THE KNACK OF FLYING**

**IS LEARNING HOW TO THROW**

**YOURSELF AT THE GROUND**

**AND MISS.**

**- DOUGLAS ADAMS**



# Ditch Date

I have never been ditched on a date before. You'd think that is because I have been charming to women so far. You'd be wrong.

The only reason I've never been ditched on a date is because I have never been on a date before.

Why have I not been on a date before? I have been discussing that continually with Varun for the last three years, and the only conclusion that I could draw up is too complex to be put up on a page (digital or otherwise).

I call it "a mix of psychological factors and self-limiting beliefs coupled with external conditioning towards self deprecation and satiation of the need for validation via acquisition of self help towards the exculpation of the ego".

Each of those words mean a lot to me, with varied interpretations. I wouldn't be able to summarise it into anything smaller. Varun calls it 'being chicken', though. I hate my roommate.

Come to think of it, I have been sitting here for the last hour, thinking she will eventually come back.

'I'll just come back from the washroom', she spoke those words with an awful smell in her breath.

And then she didn't come back.

Not that the date started badly.

She came in with the blissful smell of lavenders, the aura of a goddess incarnate, and as a vision of utmost beauty in that lilac dress of hers. Or so I imagined. As she walked her lanky walk, her hair bounced lightly in a way unique to hers. I know this because I have seen her hair bob up and down the same way for the last two years, twice a day. She could not spot me at first, what with me sitting close to the railings next to the lake in a crowded restaurant. (I swear to you, it is never this crowded usually). I lifted my arm and waved it.

It took her a few seconds to actually notice that, but once she did, she quickly walked towards my table. 'I should stand up,' I told myself.

Or maybe,' another voice in my head argued, 'you should wait till she is closer.'

As she closed in on my table, I rose from the chair. Torn between the voices, I did not stand up fully, not until she was close enough. Just in time, though, I stood up, greeting her with a faint 'hi' and a nod. She looked at my face for a few seconds. Then her lips broke into a smile and she said 'hi' too.

'Step 1 finished,' I made a mental note. 'On to step 2 now,' the other voice said.

'It's crowded here today,' she looked around, 'it usually isn't so'.

I looked at her for a few more seconds. She is a regular here, too?

'It usually isn't, yeah,' I agree.





'Please, have a seat,' I let my hands guide themselves and her to a chair just next to mine, which I then pulled out. She slipped in the chair comfortably, placing a tiny red pouch on the table. I moved on to sit in mine.

Moments later, Jamaal arrived. He looked at her, then at me, then again at her.

'Umm... orders?' he spoke. I think he was shocked to see me with a woman.

'Well, um', I looked around the menu. I had my regulars, sure, but this wasn't a regular day. I had to make sure the food I eat with her reflects my personality.

'A chicken lasagna, please,' I spoke finally, and for her...' I waited for her to fill in.

'The usual, Jamaal,' she spoke coolly, and smiled.

'Anything to drink with that?' he asked.

'Just a glass of water,' I said.

'Not for me,' she spoke quickly, 'I've had quite my share for today, thank you,' she looked at me, positively grinning. I threw in a quick smile.

'Yeah you have,' Jamaal muttered this as he turned around. 'Talk to Jamaal after this is over,' I made a mental note again. 'So, Aadyaa, how have you...' my sentence was cut off midway as she raised a finger. 'Shush' she nearly hissed it, bringing that one finger gently close to her lips. I tried not to stare. Anyway, it ruined the first stage of step 2.

'Erm...' I was about to speak out a half baked joke when she shushed me again.

A minute passed before she spoke again, 'Can I tell you a secret?' her voice wasn't nearly as sweet as I had heard before. It was more, shall I say, dazed. I knew what it meant. I just hoped it wasn't that.

That finger of hers that had a shushing effect on me was up again. But this time, it was pointing straight up, then curling up towards the palm, and the straight up again. I took it as a signal to come closer. As I leaned in towards her, a strong smell of alcohol wafted towards me. And then the words came in.

'I'm *frunk*,' she said.

'What?'

'I said, I am DRUNK! D-R-U-N-K', she spelled it out.



'Oh, okay.' I spoke, in what I assume to be my blank voice. This wasn't what I had planned for.

'Why'd you come here, then?' I added, hesitantly.

Just to clarify, I don't hate alcohol. It is OK with Varun, you know. He comes in drunk, I lead him to his bed, then make him a lemonade the next day, and nothing more. But alcohol was kinda ruining my first stage of step 2, and by extension, the date itself.

'Because,' she leaned in closer, 'I lurrvv you.' she mouthed the words again.

Okay, I got it. Someone just pasted the expected results of step 18 to this stage only to mess with me. Good going, whichever God is working behind this.

'Luurrrrv!', she was at it again, 'funny how it sounds, right?' She continued speaking that word in a singsong voice for the next minute or so. I didn't say anything. (It was cute, alright?)

And then those unfortunate words came out of her mouth. 'I'll just come back from the washroom,' she spoke with that awful smell of alcohol around her.

I wouldn't have waited, if only I'd had any idea how long is considered the acceptable time limit for her action. Her red pouch was still lying on the table. I waited for a long hour, during which I had started nibbling my lasagna, which didn't taste all that good.

Okay, that's not the truth. Jamaal came back with her dish, her 'usual'. It was my usual. By that time, thirty minutes after her departure, I knew I'd been ditched. I spent the next thirty minutes trying to finish both of those dishes. I think the anger made me do it.

There wasn't much to do after it. Desolation closed in on me. I wanted to be alone, I thought. I went ahead and paid for the dishes, and went out through the doors, into the starkly dark night. It's funny how, in love and in the night, the moon skips showing itself exactly the moment one wants to see it.

I took the red pouch with me. I don't know why. Maybe as a reminder of a story that could have been beautiful. 'Could've, Would've, Should've' said that weird voice in my head. I signalled a taxi to stop. 'This story, I told myself, is over.'

I texted Varun to tell him I've been ditched. 'There's other chicken in the world, then :P', he was sniggering, I suppose. 'I'll talk to you later, going out with Aditi now :D' he texted. She texted me later that week. I didn't reply.

'Drink it' Aditi's voice rang in my head, which was hurting badly after last night.

'No', I told her.

She made me hold the glass,'drink that lemonade, Aadyaa', she spoke almost threateningly.

I had no choice. I gulped it down as fast as I could. Jerking my head a little caused me a lot of pain. I noticed Aditi looking at me reproachfully.

'I'm not doing this again,' she cried out,'ever again. You've been to that place, like, all the time!', she fumed , 'and that poor guy! Do you know how much courage it takes to ask someone out?'

'Not nearly as taking the first shot at drinking before the first date at your roommate's suggestion!' I lashed back. Her eyes widened.

'Varun is drunk all the time when we go there,' she spoke rather calmly,'I don't see him falling down the ditch at the construction site next to it and passing out.'

'Firstly, had I seen it, I wouldn't have gone down', my original self was finally up and running,' and secondly, I would never fall again if drunk was my natural state.'

She looked hurt,'I just wanted you to be uninhibited for a while. Who drinks a whole bottle?' and stormed off . Later that night, she apologised for it all. Then she cried for a while about ruining my date.

All the while, I thought of that cute poor guy who had to bear with me. I resolved to text him back, all the while swearing never to touch alcohol again.

I couldn't remember where I kept my red pouch last night.

I texted him a few days later. He didn't reply.

Duttatrey Nath Srivastava  
Qaunta 6





## GREEN TO BROWN

A leaf falls,  
Off the parent it held so dearly.  
Pushed by the gust,  
The same which once it breathed.  
It falls, as its days are done.  
It thinks as it sails upon its slayer,  
The vibrant spring it was,  
Born smiling green.  
Faced the sun and rain,  
To grow dark and bold,  
All the way to its end.  
Watches the grey sky,  
Yellow and brown.  
Breaks hold  
And falls,  
Falls to be petrichor.  
Yet again,  
To feed its mother.

-Swarnim



# WALKING SHADOWS ON THE STAGE



There are some people who get recognised from a very early age, destined to do great things. I happened to be one of them. I know it is a bit difficult, always trying to live up to everyone's expectations, nevertheless, swelling with self-pride in front of the world is surely a reward that can overshadow anything. Such great people exist in quite a number in this world. And as one of the all-time truths of nature, much like a cruel unavoidable joke, they always happen to have a cursed sibling who is considered the black sheep of the family. In the case of my elder brother, it was a bit worse.

My brother, Ujjwal, had always been a very nice person to interact with. He always claimed to have a good sense of humor, but it mainly consisted of clichéd puns followed by a puerile guffaw, which other people rarely joined. He never crossed the class 6 mark, failed 7th twice in a row. Dad got frustrated at the end and made him sit at the grocery store, something that had been our family profession for the last two generations. Two weeks after he joined, our store saw an unexpected loss, with disappearance of several packs of bread and cookies. It turned out that my good-for-nothing brother had been giving them all away for free to any ill-dressed person who happened to cross our store. Dad thrashed him bad that night, so much so, that neighbors gathered around their windows to listen to him swear and my brother scream in pain. From that day all market duties were assigned to him. Not that he could do that properly, but giving up upon your own son was not that easy. He was like our very own version of Kafka's insect, that remained with us, for God knows how long and had always been a burden to the family. My brother hated us all. Well actually, all but me. He probably thought I could achieve enough that normally takes two brothers of a family to achieve. I stood for the aspirations he could never have fulfilled. Every year when I stood first in my class with top scores in almost all the subjects, he used to be the happiest, even more joyful than dad. There was one more person he loved, at least that's what he had told me back then. Her name was Swarupa. She was the only daughter of a police constable, a relatively powerful man in our small village of powerless people. She was probably my age; maybe a year older. I was in 10th standard then, about to sit for my boards. She was in 11th. She, most of the times wasn't exactly the kind of a girl one would turn back to take a second look. As much as I remember, she was no doubt fair but with a very flat nose. Her forehead was exceptionally broad with unkempt hair. But one thing anyone would say about her was that she was smart. Not smart like me though, she never came first or even in the top ten in any class, but she had an unparalleled talent for singing, dancing and biggest of all, acting. She had been a regular performer in all of our college plays. In spite of her average looks, she knew how to charm her audience. The on-stage Swarupa had become a night-time fantasy for many boys of our school. Ujjwal knew all that, but he never protested. I can swear that his love was pure. All my nincompoop brother ever dreamt of was, not to flirt, but to impress her in her own game, by acting in a play. But acting is by no means a child's play. He did try his luck at several places, some of them I had myself arranged for him. Given my reputation, it was not really possible that somebody could say no to any request that I made right in their face. So Ujjwal used to get calls for auditions, but I knew all along that those all were just for the namesake.

My brother had one singular gift. I had taken him to Kolkata at several instances to show him several plays being acted on stage. Not just Sarat-babu and Rabi-babu, I even showed him a Bengali adaptation of Macbeth. To my surprise, he managed to remember every single line from the plays he watched. I had seen him acting some time as both Macbeth and Banquo, different voices, in conversation, in front of a half broken mirror that was stationed on his wall. This mirror had been a perfectly functional wall mirror once, until my brother broke it into a half with a cricket bat, for no apparent reason. A broken glass is a bad omen, and the family decided to place the intact half in the culprit's room so that if any omen descends, it should descend on the most worthless member of the family. I had always felt bad about my brother and the one dream he had, he was struggling so much to achieve it. Despite his acting talents, which he probably had, he had always been a chicken. The reason he never got any part in plays in our locality was his reputation as a duffer, which was pretty prevalent all around. Being a chicken, in spite of the fact that I offered him any amount of financial help he needed, from my innumerable scholarships, he never wanted to risk his life in an unknown city. But more so, he feared to lose his girl. Stupid he, I at times wonder why I never told him Swarupa could never be his. The first night he woke me up from my sleep to tell me about this girl he saw on his way to the market, I should have told him right away, "Do you have any idea how big an embarrassment you already are? Why on earth do you think a smart girl like her would give you any consideration at all?" But I never did, perhaps deep in my heart, I had always felt that inside his dullard exterior, he held something unearthly, something that could make him achieve anything if he really wanted to. Perhaps I loved him way too much to see the apparent danger I was letting him into, by condoning his hopes to succeed.

Anyway, I had been going on arranging auditions for him, but the replies used to be the same. Then the news came. Swarupa's dad got promoted and her family was shifting to Burrabazar, Kolkata. We were depressed that our long-standing fantasy, the goddess in dim lights would now start fading away slowly from our minds, but with Ujjwal, the story was different. He just couldn't believe he would have to let her leave without showing her at least for a second, himself standing on the stage. I don't know what exactly he did, but he went out of his way and managed a small but important part in a play by some struggling theatre group. The play was about to happen on Sunday evening. I swear he barely slept all those days. He went over the few lines that he had, over and over, in front of that broken piece of glass. Never do I remember waking up at night and not hearing him repeat his lines in the next room. I had never seen so much dedication in anybody, not at least to impress a girl, who was anyway leaving town never to come back. But my stupid brother did show that unimaginable dedication. He practiced all day, he practiced all night. Nobody got to know that Ujjwal, the good for nothing idiot could work this hard to achieve something. Friday, he left a letter with one of Swarupa's friends to hand it over to Swarupa, asking, rather pleading her to attend the play and that it would mean everything for him. Not sure whether Swarupa received the message, he, most



unexpectedly, gathered enough courage to go up to her on Saturday and ask her once again, to attend his play tomorrow. Swarupa replied with a yes.

So things worked out and the play was underway on scheduled time. My family, sure that it will result in a blunder, refused to show up for the play. I was the only person from our family seated among the audience. What I meant by audience, was this one small crowd and Swarupa was not a part of it. I was sure, probably for the first time I was about to feel proud of my elder brother, but out of nowhere, they dropped the scene. News spread that Swarupa had already left the village last night with her family and her words to Ujjwal was merely a false promise. The news said more: Ujjwal disappeared from the green room and was nowhere to be found. The production cast some alternate actor and saved itself from going into a loss. I ran home, followed by a few rowdy looking people from the production, all searching for the same person. But Ujjwal was not home. I checked Swarupa's place, Ujjwal wasn't there either. For an entire week, I didn't go to my classes and searched for Ujjwal at different places. But he was nowhere to be found. Reluctantly, dad finally went to the police to file a complaint, adding, "it won't harm, even if you don't find him." But they did, in a day or two. He was discovered in a desolate swamp, body half rotten and smelling. The police declared it a suicide, that my brother committed suicide by slitting his wrists. A sound enough reason was not difficult to come up with. For a person whose whole life had been a joke, it was pretty understandable that he would commit suicide to save himself of all the continuing humiliation. I didn't cry that day, I just kept looking at my dad wiping his tears silently, probably the first time he shed tears for a creature who by some fault in the stars had become his son. I didn't cry, I missed an entire year, skipped my board exams and came to Kolkata. Dad didn't even ask why. I came to Kolkata and searched for that old police constable from our village. But he wasn't there anymore. I did hear a rumor that he left his job and went away to some other place apparently because of an awful tragedy that hit the family. His 16 years old daughter had come under a truck while crossing the road at the Dharmatala crossing. I know how clumsy, we, as village-dwellers can be while crossing roads for the first time in a city. She was rushed to a nearby hospital, but the doctors declared her dead on the spot. Everything was over for the family.

It has been full 20 years since then. I am now an employee at a respectable firm, earning a handful every month. No, I don't remember much about Swarupa now, neither do I remember what my own brother used to look like. But I still have his half broken mirror with me. Sometimes, I look into it and mutter half consciously, "Things without all remedy Should be without regard: what's done, is done."

~Praneel Samanta



**WHAT IS THE MOST  
INTERESTING THING  
THAT YOU HAVE FALLEN INTO?**



Depression  
Anxiety  
Meditation  
Maths and logic  
Puddle  
Railway track  
Water kingdom slides  
CBS  
Anime  
Love  
Trouble



Oblivion  
Solitude  
Sleep  
Love  
Watching naruto  
Korean drama  
Manhole  
Love for anime  
Fitness  
Bike riding  
Sanitary pit

Friendzone



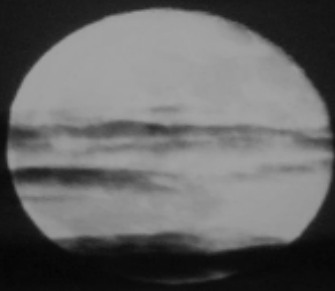


# HER

PINKI

It has been a long time since I'd seen her. She walked into the class in a pretty black dress in the middle of the semester. Everyone was amazed at her beauty and simplicity, and the way she drove away the gloomy silence of the class with a smile. Everyone was anxious to know more about her and interact with her. There was a long line of guys offering seats to her. She finally occupied the seat right in front of me. Her fragrance made my heart skip a beat, and for the rest of the day I was lost in thoughts of her. I was oblivious to my surroundings and ended up getting thrown out of a couple of lectures because of alleged daydreaming.

By the end of the day, I gathered the courage to ask for her name, and ended up in a nearby café with her, chattering through the evening. But I could never gather the courage to express my feelings for her. How could I risk losing such a good friend? The “what if” that still haunts me at times, is worth this beautiful relationship that I share with her. Today, I stand here at the altar as her bridesmaid.



It was a chilly late december night. Moon, blurred by the clouds was visible through my window. "Hope everything turns out fine", I thought. I dressed up in my most comfortable attire and headed out. I started my bike, the headlight glowed as I revved up the engine and the black dew covered road shone. "What happened to the street lights today?" I thought to myself as the dark tree lined boulevard crossed me. I took a deep breath and exhaled slowly trying to warm my cold-bitten nose. I was close now, so I parked the bike in the nearby shopping centre. I smiled inwardly, recollecting that I always did the same whenever I went to meet her.

Having parked the bike, I started my twelve minute stroll to our rendezvous. "It has been so many years now...", I thought as I walked past the security gate of my township. I couldn't recall the last time I held her hand. I looked up, it was all very familiar to me, the small bus stop behind which there was a narrow tree arched uphill, a path which forked ahead and led deep into the woods, the other leading to some hostels. I was to take the former one. It grew colder as I ambled beneath the canopy. It was weird, my heart thumping as if this was the first time I was to see her, I smiled and my eyes watered, for no reason at all.

As I went deeper into the woods a gust of wind blew rattling the twigs. The moon was visible now, it was almost full, "...the winds would have blown away the clouds." I thought. I looked for the old broken wall on my left, I had to walk beside it to reach there. Finally, the view cleared and I reached the place which occupied my mind for many days now. It was giant rock amidst the woods on a little hill, a small open place with a little wall on one side and a small canyon on the other side which had a rail track, it would have been around forty feet below the rock I stood. I looked around for her but couldn't see her.

"You're on time, as  
always" the most  
beautiful voice in the  
world whispered,  
the voice I had been  
yearning to listen.

"You're on time, as always" the most beautiful voice in the world whispered, the voice I had been yearning to listen. She was sitting amongst the shrubs against the wall. She stood up and walked towards me, I was stunned, couldn't move a muscle, she was even more beautiful than the day I last saw her. I could make out that she has not been eating properly for days now, still there she was, more beautiful than ever. She smiled at me, "How have you been?" "...uh..", my voice cracked and I couldn't answer. I realised I had not been breathing and took a deep breath.

"You don't know how long I have been wai...", I added. "I know" she interrupted. "I know you more than you think." I smiled.



# CONFESSIONS IN THE MOONLIGHT

"But I hope I wouldn't." she added. In just one moment all my memories flashed in front of me. I couldn't stop my tears. "I see you've grown a cute little tummy" she said tapping on my stomach. "I have missed you" I said. She sighed, looked down and then smiled at me. "I missed you too" she replied.

I held her, she kept her head on my shoulder, "I love you" I whispered to her. She was wearing a long deep red dress, I could make out that she loved it.

"So... now what?" she enquired.

"I don't know" I said.

Sobbing, she muttered "I have tried, all this time I have tried my best, but I can't forget you. Whether I shout or even if I go out with someone else, you still wait for me to come back. Why are you like this? Why can't you change?" She held my hand.

"I see that you haven't changed much either."

"That's all because of you. Why... why have you been so nice to me?" she punched my chest.

"I fell for you, remember?" I ran my hands through her hair.

"I am sorry I lied to you" she said.

"I am not mad you, have I ever been?" I replied.

Clenching her teeth, she pushed me away. We sat down on the edge of the rock, I was holding her in my arms and the night slowly lingered ahead in time. "I've tried, they won't agree", "I really can't stay with that him".

"Don't worry" I said.

She looked at me. We stood as we heard the far approaching train. We both looked at the place once again. The place where we spent our childhood playing. It was our secret land. The place where we grew loving each other. As the scattered yellow light of the train approached, we watched the moonlit sky going further away. As the train whistle became deafening loud, we were together, in our own silence.

~ Inspired from Joe Hisaishi's composition.

~Swarnim Shashank, Q8

# These Words

-ANONYMOUS

Snow blankets an icy ground,  
The wind whistling to the trees,  
But a silence so deep, so profound,  
Is set upon the undying land,  
That the howling of wind is nothing  
But a candle to the sun  
Of the quiet, deafening silence.

It's cold, cloudy, but the sun is shining,  
Somewhere behind those lofty clouds,  
It's there but does it matter,  
If its light cannot reach the ground?  
Is its warmth any good if not to be used,  
What does it matter to the frozen desperation,  
That is laid bare upon this  
Stage of life; Listen, be my witness!  
Let them know that just being present is not enough,  
You have to make me feel it,  
How can the warmth of your heart thaw my frozen soul,  
If you aren't near it?

You were there once, that was the summer, it's gone,  
Now this snowfall points to the upcoming winter,  
It's time for fall, the leaves once so alive  
And green, now start to stir,  
A conscious uncoupling of ways must now occur,  
What matters is who we are, not who we were!  
Your memories will shroud me from the cold, be my fir,  
It is time to leave, my friend, my love,  
These words are all I have to show, for all of the above...



# The Southern Wind



**M  
A  
D  
D  
Y**

## About the author

Maharajan Thevar, who goes by “Maddy”, is a multi-faceted talent. He found himself attracted to photography and film making, and has done photography for about a year or two. He was assistant to Padmashree award winning Documentary Photographer, Shri Sudharak Olwe. He has also worked as assistant director, cinematographer and production manager in many independent film and music videos, and is a part of KMA (Kiss my Ass (donkey)) Productions from its very birth. His quest for truth, which he still claims to be on, led him to philosophy, the mother of sciences. This curiosity made him study various religions like Christianity, Islam, Buddhism, Hinduism, Kabbalism and Judaism. In depth, he has found his answers in Vedanta, Sufism, Tantra and Christian Mysticism. He deeply admires the revolutionary bhakti moment led by Kabir, Namdev, Eknath, Bulleh Shah, Mirabai, Shah Abdul Latif, Rumi and the likes. Over the years, wildlife and nature have become an integral part of his life. This reflects in his poems and stories. In his own words, “I try to constructively tap the melody in nature in my form of art.” The collection of poems that he has in “Atman” has been written over a period of four long years of struggle of the heart and mind. Apart from “Atman” he has been working on a Novel, “The Southern Wind”.

## Chapter 1

In an ancient village, which was as old and as sacred as soil itself, there lived a family with not much wealth but adequate health; enough not to find themselves in the clutches of hunger. The village was hidden in the nethermost depths of South India, where it was always reasonable for the government to exile it from its full-fledged attention. The early morning milieu was filled with the simple and elegant sounds of all the fowls of air, tuning a symphony that is nectar even to deaf ears. Those speechless creatures of earth whom nature deemed unfit to sing, definitely did not remain silent and added to the existing chorus, their own form of art. Here, in this village, to this a man awoke. Women even before men, for they are the primal energy which sustains life to create more life.

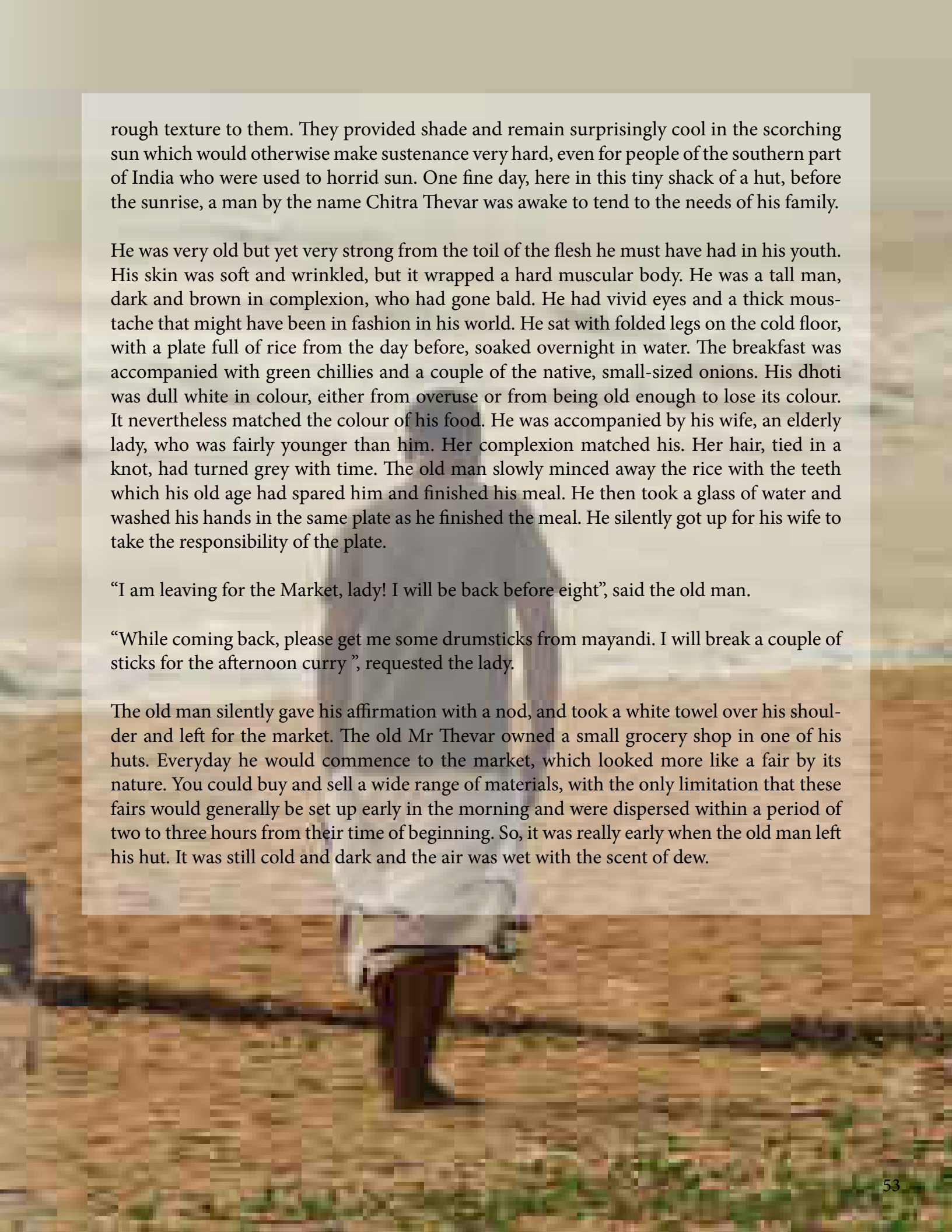
The land was magically split into two by a river, immaculately clean and free to flow and nurture both man and cattle that shared its course. The river was adorned with beach like sand on both the shores while the water glittered brighter than any gold that I had ever seen. The wind flew across the river, into the tall coconut trees, shaking them as if they were mere straws. The sun heated the land and set them on shades, where men, very old of age slept like small children, devoid of all the troubles of tomorrow, like they would have, in their mothers' laps. May be for them, the land was the only mother spared by nature, but it did not tend to them like their mothers. Unlike the children of urban civilization, the real children of this land did not have ample means of outsourced joy. They tended to satiate this craving for joy with the land they had. One could see them standing on the bridge over the river, without the slightest hesitation to make a candid jump into the river with the backdrop of a setting sun.

I could close my eyes and feel in the depths of my soul, the breeze that roamed through that land. I could feel the fact that my feet have never felt anything better, neither before nor after, than the touch of that sand.

While at dusk, the orange hues above the river reflected the simmering peacocks and peahens flying as high as the lower branches of trees or as high as they could, without ever being stared at by the villagers. The villages were segmented with single roads, which branched like nerves and neurons, with mud houses on both the sides. The typical characteristic of this land was its soil, beach like smooth sand that could deceive people from thinking that they are not far from the coast. But in actuality, this village was nowhere near the coasts of Tamil Nadu. This village with all its glorious beauty had the ability to deceive; like all the other forms of external beauty. For it was placid only on the outside, like a calm and serene lake, but it was far deeper than what met the eye. Situated in the district of Tirunelveli, in its deepest corners was this village by the name Sivilaperi. It shared its borders with the harsh and tall Valanad mountains, which were lush green during the rains, but nevertheless a very fertile. This society I am talking about was a caste oriented society, both in the manner of functioning and organization. To this day, the streets are named after the castes of their residents. Members of a particular caste find their residence in a street where a majority of the population belongs to their own caste. Most of the people staying this way are either distant relatives or share direct bloodlines, since the ancestors of these people have been living the same way across ages as in the present. My particular interest lies in a family which lived in the street where members from the Thevar caste are accommodated. The street had mud houses on both the shores.

The houses were roofed with dry coconut leaves or dry palm leaves, which added a majestic peace to the colour of the streets. The walls of these huts were cemented by mud mixed with cow dung which added a





rough texture to them. They provided shade and remain surprisingly cool in the scorching sun which would otherwise make sustenance very hard, even for people of the southern part of India who were used to horrid sun. One fine day, here in this tiny shack of a hut, before the sunrise, a man by the name Chitra Thevar was awake to tend to the needs of his family.

He was very old but yet very strong from the toil of the flesh he must have had in his youth. His skin was soft and wrinkled, but it wrapped a hard muscular body. He was a tall man, dark and brown in complexion, who had gone bald. He had vivid eyes and a thick moustache that might have been in fashion in his world. He sat with folded legs on the cold floor, with a plate full of rice from the day before, soaked overnight in water. The breakfast was accompanied with green chillies and a couple of the native, small-sized onions. His dhoti was dull white in colour, either from overuse or from being old enough to lose its colour. It nevertheless matched the colour of his food. He was accompanied by his wife, an elderly lady, who was fairly younger than him. Her complexion matched his. Her hair, tied in a knot, had turned grey with time. The old man slowly minced away the rice with the teeth which his old age had spared him and finished his meal. He then took a glass of water and washed his hands in the same plate as he finished the meal. He silently got up for his wife to take the responsibility of the plate.

“I am leaving for the Market, lady! I will be back before eight”, said the old man.

“While coming back, please get me some drumsticks from mayandi. I will break a couple of sticks for the afternoon curry”, requested the lady.

The old man silently gave his affirmation with a nod, and took a white towel over his shoulder and left for the market. The old Mr Thevar owned a small grocery shop in one of his huts. Everyday he would commence to the market, which looked more like a fair by its nature. You could buy and sell a wide range of materials, with the only limitation that these fairs would generally be set up early in the morning and were dispersed within a period of two to three hours from their time of beginning. So, it was really early when the old man left his hut. It was still cold and dark and the air was wet with the scent of dew.

# CELEBRATIONS @CBS



JANMASHTAMI







# DIWALI







# HOLI





## Lament of a Scientist

When I was born, a child so small  
I was so intelligent, no question at all

I knew that I had time to, live and breathe  
As I had no competition, and of course, no greed

I lived every moment without despair  
Breathing every moment, measuring each inch of air  
Learning all around me and making no assumptions  
Doubting a lot over all hurried predictions

But then came a time, I boggled myself  
Gave myself no rest in running through twists  
Suffered a lot, turned my face into dark  
Got prizes for wrongs, that I did for my greed

-Anton S Lyer, Q8

# SciClub

The Science Club of CEBS aims to provide the students of CEBS an opportunity to learn and explain the various aspects of science and doing scientific research. The speakers through the various weekly sessions included expositions by fellow students, and illuminating lectures from researchers tackling problems at the frontiers of scientific research. Open mic nights were introduced for the first time in the science club whose pilot consisted of ten speakers pouring both scientific and non-scientific knowledge.

## Rendezvous:

Rendezvous is a fortnightly event of the CBS Science Club where active researchers in the Basic Sciences are invited to share their ideas and thoughts with students of CBS. These sessions are aimed primarily at undergraduate students from all the four streams of basic sciences (Physics, Chemistry, Mathematics and Biology). Each session ranges from forty-five minutes to an hour and a half, followed by a Q/A session.

ALGORITHMIC BIOLOGY (6th August 2016)  
Prof. Manoj Gopalkrishnan  
Dept. of Electrical Engineering, IIT Bombay



OF STARS, PARTICLES AND ETERNITY (16th Aug 2016)  
Prof. Cedric Villani  
Fields Medallist, Directeur Institut Henri Poincaré, Paris



SEMICONDUCTOR NANOSTRUCTURES & UNDERGRADUATE RE-  
SEARCH (3rd Sep 2016)  
Prof. Vijay Singh  
Senior Scientist, Raja ramanna fellow, Physics group, UM DAE-CBS



DERIVATIVES, THE SPACE OF PATHS AND GEOMETRY (5th Oct 2016)  
Dr. Chaitanya Senapathi  
Research Associate, Mathematics group, UM DAE-CBS



## CHEMISTRY FOR A BETTER FUTURE (8th Oct 2016)

Prof. Avesh K. Tyagi

Head of Solid State Chemistry section, BARC ; Professor (Chemistry), Homi Bhabha National Institute, Mumbai



## SOME CURRENT PERSPECTIVES OF LEARNING (5th Nov 2016)

Prof. Arvind Kumar

Visiting Faculty, Physics Group, UM DAE-CBS



## WHY SEX MATTERS? (12th Nov 2016)

Dr. Deepak Modi

Visiting faculty at UM DAE-CBS, Faculty-Molecular and Cellular Biology Laboratory, NIRRH, Mumbai



## THE SCIENCE OF FOOD (5th Jan 2017)

Dr. Kurush F. Dalal

Faculty & Archaeologist, University of Mumbai, Culinary Anthropologist



## PLAYING ON THE SEASHORE- THE PURSUIT OF SCIENCE (24th Jan 2017)

Prof. M S Raghunathan

Chairperson of Academic Board, UM DAE-CBS; Visiting Professor, Dept. of IIT Mathematics



FROM BILLIARDS TO SURFACES (28th Jan 2017)

Prof. Jayadev Athreya  
Associate Professor & Director, Washington Experimental Mathematics Lab, Department of Mathematics, University of Washington, Seattle, USA.



SPACE IN THE BRAIN: A HISTORICAL PERSPECTIVE (3rd Feb 2017)

Dr. Sachin Deshmukh  
Faculty, Centre for Neuroscience, IISc. Bangalore



ASTROBIOLOGY: ARE WE ALONE IN THE UNIVERSE? (9th Mar 2017)

Dr. Henry Throop  
Senior Research Scientist, Planetary Science Institute, Arizona; Member of Science Team, NASA: New Horizons Mission Pluto



DYNAMICS OF SOFT INTERFACES: REAL AND IMAGINED (25th Mar 2017)

Prof. Sabyasachi Bhattacharya  
Ashoka University, formerly Director and Distinguished Professor, TIFR Mumbai.



EXPLORING PARTICLE PHYSICS - PARTICIPATING IN THE CREATION OF NEW KNOWLEDGE (19th Mar 2017)

Prof. Amol Dighe  
Professor, Department of Theoretical Physics, TIFR, Mumbai



CAGING AND REACTING (3rd Apr 2017)

Dr. Jyotishman Dasgupta  
Department of Chemical Sciences, TIFR, Mumbai





# Students Talk @ SciClub

Students studying in different majors bring in their interests into beautiful talks. These sessions help students hone their public speaking skills for the challenges of communicating science to a general audience, all the while providing with the opportunity to get people interested in the topics that interests them.

WHAT SO [NOT] TO TALK  
ABOUT BIOLOGY

Upnishad Sharma

ON THE MANY USES  
OF USELESSNESS

Samvit Mahapatra

THE BIO-TRANSPORTERS:  
on Molecular Motors  
and Vesicular Transport

Mohammed Nisham & Remulla Sujith

THE FINE ART OF  
BALONEY DETECTION

Aditya Singh Rajput

HANDS ON ORIGAMI

Sagar Shrivastava

CRISPRs RELOADED

Anirudh Pillai

CAN I BE A SUPERHERO?

Duttatrey Nath Srivastava

SOME PERSPECTIVES ON  
APPLIED RESEARCH

Kamal Sant

RADIODETECTIVE

Aishwarya Mishra

Hair cropped, beard shaved – a lot had changed. Yet, as he walked out of rehab, he recognized his reflection for the first time in years.

-MAITHREYI R.

My heart filled with joy as I saw that redness flowing. I just love beetroot juice.

-SWARNIM SHASHANK

I have always loved relativity. It provides both space and time which I have always needed.

-RAKESH SAINI

TINY

He never knew age could sting, till the day he turned twenty. Older than his big brother will ever be.

-MAITHREYI R.

She took a deep breath, and let it out through the ring. Bubbles were always fun!

- BHAVYA V

The same thought went around over and over in her head till she finally gave in and turned it into a bullet.

-MAITHREYI R.



"We are in the era of technology. Mankind is advancing and evolving much faster to a better and modern future," he said proudly. Nature laughed at him as he distributed several unnecessary sheets of paper in the next class.

-RAKESH SAINI

"Coffee, cigarette, alcohol, drug, what is most addictive?"  
"Passing through the labyrinth of ruins of past..." I whispered.

-RAMAN RISHI

# TALES

"Handicapped and cancer patients," the sign read. The coughing man clutched his paper and boarded the morning local. This time, he wouldn't have to worry about breaking the rules.

-MAITHREYI R.

Make a wish!"  
he said looking at the shooting star with moist eyes.

"Be happy, Always..."  
She whispered as she bade farewell forever.

-RAMAN RISHI

He: "#NotAllMen"  
She, the victim: "But Just Enough"

-SRISHTI PRIYA



# Oris

A snap of a camera, a splash of colour, the scratch of pencil on paper. Oris 2017, the annual CEBS art fest, was a pretty great hit. The photo walk conducted by Abhishek Howlader of Quanta 6 kickstarted the event. To follow it up was the origami workshop conducted by Prof. Nagarajan which fascinated CBScients and professors alike. T-shirt painting was a new addition this year which birthed a wacky wardrobe of self-painted t-shirts. All in all, Oris presented a fun-filled, much needed respite from academics, and served as an apt precedent to Holi, the festival of colours.











# QUESTION

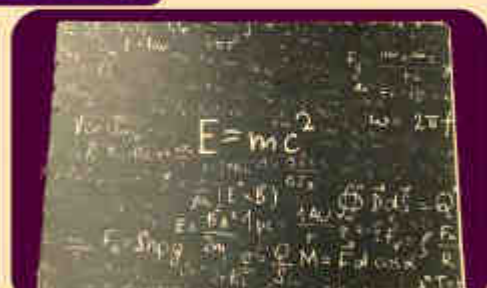
I went on a quest  
To find the Question's answer best,  
Does Life still exist?  
And if it does, is it a beast?  
I travelled like a traveller from land to land,  
Yet was unable to get a person at hand,  
Who would answer my Question,  
And give my soul salvation,  
Who would clear my mind's doubt,  
And would tell me what Life is all about.  
Then I paused and gave it a little thought  
And this was the conclusion which I got.  
I was chasing a mirage maybe  
Perhaps Life doesn't exist for me.

INDRAJIL DAS

QUANTA 10

# JUST IN CASE!

We asked CBScients to bring forth  
their best phone cases  
and laptop covers....





# PARTNERS IN CRIME

She remembered the day they met. It was Diwali, and the children ran around with their toy guns, firing away in their own little war zone. The little girl of eight stood in a corner and cried. "Soda buddi," he had called her, making fun of the round plastic glasses she wore. The name stuck, and all the kids in the neighbourhood began taunting her.

The brother's friend is often the ideal person for a little girl to have a crush while growing up. She could always hang around him being that annoying little brat without arousing any suspicion at all. In her eyes, he was strong and invincible. The best at gully cricket, the one who made all those funny impressions of their teachers at school. He never stopped making fun of her, but it was made up for by how he took the frail lonely girl and roped her into all their games and pranks. He won her heart the day he introduced her to cheetos and the pokemon tazos that came with them. She would make a face and cry when she lost the game, but at least the cheetos never failed as a tasty snack.



Soon he moved to another part of the city, and it was a sad day indeed. "I'm just a phone call away," he promised. Despite the odds, he kept the promise, and a teary telephonic conversation one night culminated in a visit. They became thick as thieves, staying by each other's side through the darkest times of their childhood, and suddenly, things weren't so lonely anymore. He went off to college first, and some years later, she followed suit. Distance took its toll, and they drifted apart, but the inside jokes and their shared hatred for brinjal never went away.

Everyone was dressed in black. Red puffy eyes were not that uncommon. Tissues were aplenty and silence was only punctuated by sniffles. A hush settled upon the gathering as she stood up to speak. "He was my best friend," she began. Was. She had always thought this was a sentence she'd have to say because the two of them had grown old and apart, and had moved to different places in life and drifted away. Never could she have ever imagined it would be while looking upon the dead body of a twenty four year old boy. She wiped a tear away. He always had a knack for making her cry.

Abrupt. Incomplete. That's how things always

# CBS Music Club

The CEBS music club and literary club conduct 'Symphonia': an open mic session as a platform for students, staff and faculty to try their hand at music, poetry, or simply sharing their thoughts. The event is held through the semester as a chance for the community.

Symphonia acts as a platform to bring out the bathroom singers and closet poets, and Dhvani, the annual music festival, gives them a spotlight and a place to shine.







This year's Dhwani, which took place on 23rd March 2017, did just that. From Carnatic and Qawwali music to Led Zeppelin and The Beatles. This programme had variety and quality, with an amalgamation of the old and the new, Indian with Western.

We hope that the years to come will be just as musical and fun filled as this one.



# ख्वाहिशों की जंग.....

-बबली अधिकारी

जीवन की लकड़ीसे पर लिखी ऐसी बात है,  
प्यार और मोहब्बत से चुना धिनका हाथ है,  
कभी लड़खड़ा जाए तो सँभाल लेना हमें  
ऐसी ख्वाहिशों की गुस्ताखी माफ़ की जाए

सोचा था रोशन ये जहाँ होगा  
आईने सी बेदरज़ ज़िस्मों में रूह होगी  
सिर्फ़ इन्साफ़ की जंग होगी  
और दिलों में बहती एक स्वच्छ गंगा होगी  
ऐसी ख्वाहिशों की गुस्ताखी माफ़ की जाए

सोचा था इंसानियत की तस्वीर होगी  
उनकी जान छुद से भी प्यारी होगी  
झोठों से मोठापन बरसेगा  
और कर्मों में ईमान होगा  
ऐसी ख्वाहिशों की गुस्ताखी माफ़ की जाए

सोचा था उनके लिए ईसना पड़ेगा  
जातिभेद के खिलाफ़ लड़ना पड़ेगा  
इन्साफ़ और इन्सानियत में ही माचुका होगी  
और उनके लिए ज़रा कर भी मुस्कुराना पड़ेगा  
ऐसी ख्वाहिशों की गुस्ताखी माफ़ की जाए

सोचा ही था पर यहाँ तो नज़ारा बदला था था  
मोहब्बत के नाम पर धोखा ही था  
ज़रूरत के नाम पर मतलब ही था  
इन्सानियत के नाम पर दिलों से खोलना ही था  
इन्साफ़ के नाम पर आँखों को बंद करना ही था  
दूसरों के दर्द में ईसना ही था

ऐसा जहाँ नहीं चाहा था मैंने  
बदल दो इस जहाँ को कोई तारिख़ान से  
ताकि सिर्फ़ प्यार के बदल जा जाए,  
दूसरों के दर्द झुफ़ियों के बारिशों में बह जाए  
ये ख़ूदा इस ख्वाहिश को कुबूल किया जाए ...



CBS MOVIE CLUB



Error : Connection timed out



This is a report on people who are mentally tormented by the loss of their phones during last year. There have been consistent complaints of sleeplessness, or sleep with their phones haunting them in their dreams. They miss the ringtones, and the touch that lingered long after they had slept. Almost all of them believe that the new phone can never replace their old phone, and that they had to bring in the new phone only because “something had to be done”. The people who probably benefitted from all this are amchi autowalas, who kept these high end, not so high end phones for themselves. Here is a list of all of the victims:

**Aron:** Dropped his phone in an auto. Waited for that auto driver to return for hours later, only to find out that people steal old, undesirable Nokia phones also! *Kya Zamana aa gaya hai!*

**Shubham and Arujash:** Like *Kumbh ke mele wale bhai*, they lost their phones one after the other.

**Prashant Chauhan:** He also lost his phone after he accidentally dropped it in an auto. Well, farewell gift (read *chon*) from Mumbai when he was leaving! Sigh.

**Anup:** Lost his phone due to his fellow mate, who kept the phone on his tummy and forgot about it! Later when he woke up, the phone from his tummy was gone. Later when Anup got a new phone, it was stolen too, due to the *bheed* in locals.



# Hostel Diaries

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25/02/2017

Mid semester exams were going on. It was 2:53 in the morning and I had planned to wake up at 3'O clock to study for my last exam. I was in deep sleep with one hand beneath my stomach and the other outside my blanket, when suddenly, I was awakened by something crawling near the hand which was inside my blanket. It's surprising how you can be screaming, standing on bed, backing up to the wall and fully awake at 2:53 in the morning within a fraction of second. But that did happen with me. Sasuke was already awake, standing near the door and both of us were on high alert.

With extreme care and caution, I bent forward and threw my blanket on Sasuke's bed, but there were no results. "It must be inside the blanket," I thought. There was a Reebok bat behind my bed and Sasuke advised me to give it to him. Still standing on the bed, I tried pulling it out, but it was stuck. Finally, I managed to pull out the bat by shifting the bed. I was still standing on the bed and Sasuke was on the same spot near the door in a high alert state. I threw the bat at Sasuke, Sasuke threw my blanket on floor and opened it with the bat. There was a 4 cm long cockroach lying upside down, trying to get back on its feet. The cockroach, within seconds, managed to regain its upright position and started flying. I jumped down my bed and ran to the door. Sasuke heroically hit the cockroach in midair (that was his best cricket shot that I have ever seen). The cockroach was thrown on my table and was trying to fly again. Sasuke asked me if he should kill it.



I gave him all the rights in the universe at the moment and urged him to kill the cockroach. Thus, he used the Reebok bat as the Sword of Gryffindor to kill the beast, and we succeeded. We both were victorious!

Now it's 5:41 AM, and it is my duty to stay awake and protect Sasuke from any more such calamities that can happen in the middle of the night, and of course, also to study Neurobiology! It was an experience worth remembering for a long time.

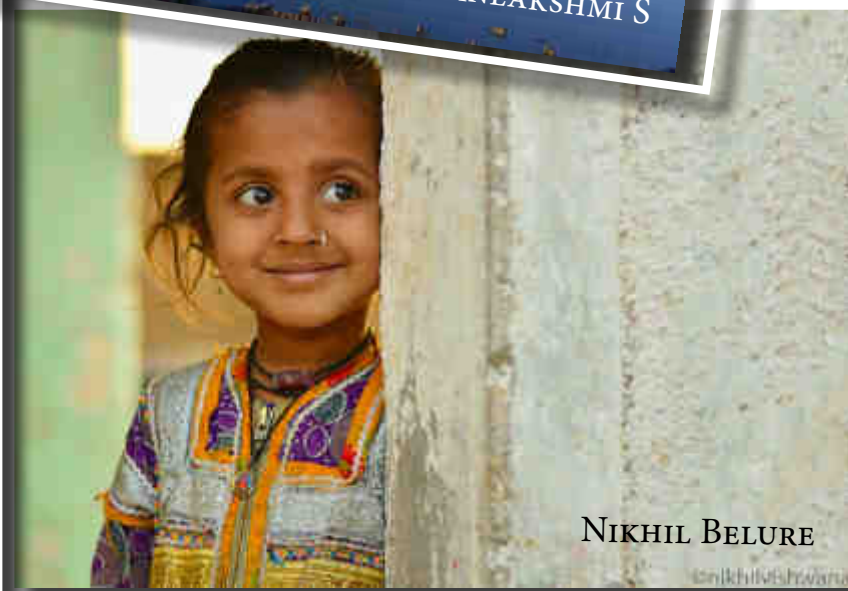
Uzumaki Naruto, 104.  
(Akshay Hotkar)



DHANLAKSHMI S



AMRITA P



NIKHIL BELURE



AMRITA P



JAY DOSHI





RAMAN RISHI



NIKHIL BELURE



ANONYMOUS



AKSHAY HOTKAR



JAY DOSHI



E-games fanatics begin a club. People get caught in the crossfire.

DIWALI EVENT : Students permitted to eat specially imported chivda.



BAJI GOES TO CHICAGO: Fifth years still waiting on acceptance letters but Baji's visa approved.

FAILED NAVRATRI: Error 404 : Dandiya not found.



# THE YEAR THAT WAS...

[NOT MUCH REALLY]

ENTRY REGISTER:  
The death note  
where you can  
write your name  
more than once.



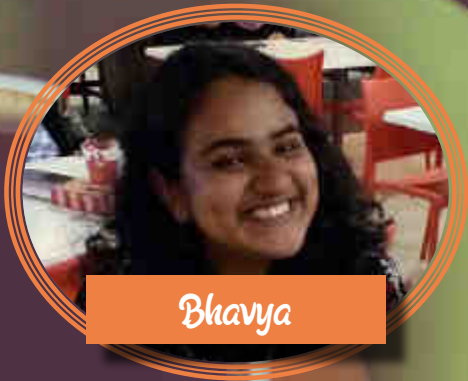
Chemistry student  
discovers new way  
to drop the base.  
Kumud ko BASE  
pasand hai.

VOLLEYBALL  
COURT UPGRADED:  
Fences and lights  
now cage the  
volley-beasts. No  
balls flying out of  
the court now!

NO RAGNAROK  
DINNER: All play  
and no afterparty  
makes Jack a hun-  
gry boy.

BUCKMINSTER  
FULLERENE:  
Diwali lit up  
FULLY.





Bhavya



Sniskiti



Pinki



Anjitha



Anon



Swarnim

# Team Novellus!



Maithreyi



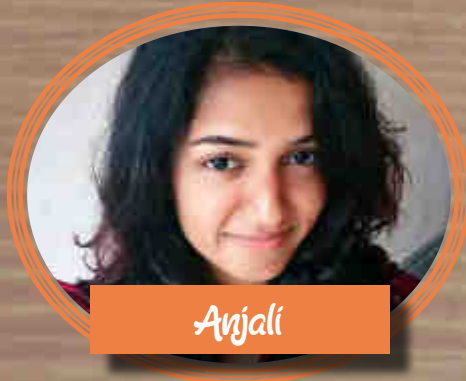
Duttatrey



Amrita



Shraddha



Anjali



Ashish







University of Mumbai- Department of Atomic Energy

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