

UM-DAE  
Centre for Excellence in Basic Sciences



# Novellus

3rd Issue 2016

Annual Student Magazine  
(2015-2016)



# ACKNOWLEDGEMENT

We write this to convey our thanks to the Director of our institute, Prof. R.V. Hosur and the Founder-Chairman, Prof. S.M. Chitre for their constant support. 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 CBS conducive for creativity.



# DIRECTOR'S MESSAGE

Dear students,

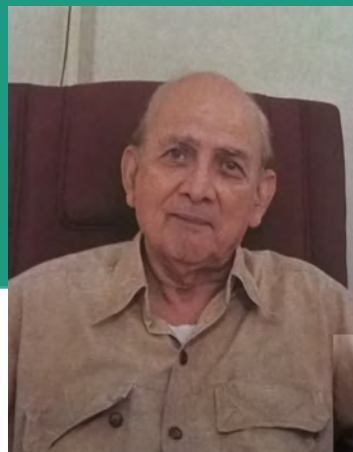
I am highly pleased to write this for the third edition of your magazine NOVELLUS, which represents a continued demonstration of creativity from the student community of CBS. I take this opportunity to congratulate you all.

NOVELLUS is a vivid display of the varied talents we have at CBS and we all should be proud about it. It connects all the present with the past students and is a useful resource for seeking opportunities. It highlights your achievements, both academic and non-academic, and I am sure you will bring more and more accolades for yourselves and for CBS in the future as well.

I wish you all the best and hope to see this tradition continue.

R. V. Hosur

# CHAIRMAN'S MESSAGE



It gives me great pleasure to note that Novellus, the CBS Students' magazine, is bringing out yet another edition - a tradition well worth continuing in a Centre such as ours. I am delighted to see the enthusiasm and commendable effort on the part of students which results in productions such as Novellus.

I should like to convey my warmest greetings to the community and all my good wishes for a flourishing future, in the hope that they will bring credit to CBS which is striving to prepare them for professional careers to help build up our national programmes in Science & Technology and Industry. Equally, we expect them to contribute to the needs of Society by rendering services to the community at large.

With all my best wishes,

S. M. Chitre

# EDITORIAL

Okay, so you know how the caterpillar metamorphoses into a butterfly? That always intrigues us. Like, does it know at birth that it is going to become one? How does it know? Moreover, why does it do so? Is it destined to be so, or does it just go with the flow and end up being that beautiful mess? We'd like to think it's a little bit of both. Or so we hope for our little caterpillar: Novellus, now in its third edition!

We welcome you to this edition of the annual student magazine of CBS. This edition comes at the end of one of the most amazing academic years in the short (but sweet) history of CBS, Mumbai. As the Institute's age nears the double digits, CBS has started taking new strides in multiple directions.

Astounding performances in Inter and intra-college events, rejuvenated Art and Music fests, Science talks that blew our minds, and most importantly, CBS becoming a Grant in Aide institute were some of the main highlights of this year (for more details, read the magazine. No Spoilers!).

This brings us to the issue of this edition. Novellus is in the third year of its print. Anything that calls itself half a student magazine must change itself with the students and the institute itself (That being one of the reasons we submitted it for publication later than usual). In that vein, it is a matter of joy to us that the pages further ahead carry on themselves the works and much more active contributions of a larger group of students and people associated with CBS. The augmented and freshly minted Team put their best foot forward to accommodate everyone's requests, while adding their own individual tastes towards augmenting this magazine into what it is now: Our magazine. We sincerely hope that you find something inside that catches your interest (If nothing does, write something and submit it to us next year!)

~ Team Novellus

DISCLAIMER : Team Novellus is not responsible for any views expressed by the authors!



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# CANCER BIOLOGY @ CBS

This year, we explore the Experimental Cancer Therapeutics and Chemical Biology Laboratory at CBS. With about 8 publications in the four years at CBS, this highly interesting and successful lab is led by Dr. Manu Lopus, with various student and JRF members working under him.



## EDUCATION:

Ph.D.: Indian Institute of Technology Bombay (2006)

M.Sc.: St. Berchmans' College, Mahatma Gandhi University, Kerala (2000)

B.Sc.: St. Berchmans' College, Mahatma Gandhi University, Kerala (1998)

## POSITIONS:

Faculty (Visiting Scientist-II), UM-DAE Centre for Excellence in Basic Sciences, Mumbai (2013 –)

Senior Scientist, University of California, Santa Barbara (2011 – 2013)

Post-doctoral Fellow, University of California, Santa Barbara (2007 – 2011)

## LAB MEMBERS:

RESEARCH ASSOCIATE : Dr. Sanith C

JUNIOR PROJECT ASSISTANT : Ms. Tejashree Mahaddalkar

UNDERGRADUATE STUDENTS : Mr. Swagat Pradhan, Mr. Abhishek Howlader, Mr. Chaitanya Krishna

## SELECTED RECENT PUBLICATIONS

• Mahaddalkar T, Suri C, Naik PK, and Lopus M (2015). Biochemical characterization and molecular dynamic simulation of  $\beta$ -sitosterol as a tubulin-binding anticancer agent. *Eur J Pharmacol.* Aug 5;760:154-62.

• Lopus M, Smiyun G, Miller HP, Oroudjev E, Wilson L, and Jordan MA (2015). Mechanism of action of ixabepilone and its interactions with the  $\beta$ III-tubulin isotype. *Cancer Chemother Pharmacol.* Nov;76(5):1013-24.

• Wilson L, Lopus M, Miller H, Azarenko O, Riffle S, Smith J, Jordan MA (2015). The effects of eribulin on microtubule binding and dynamic instability are strengthened in the absence of the  $\beta$ III tubulin isotype. *Biochemistry.* 54 (42), pp 6482–6489.

We asked Dr. Lopus to give us a basic introduction to the research carried out in the Experimental Cancer Therapeutics and Chemical Biology lab. The lab focuses on the following areas:

Development of novel anticancer molecules, which have lower side-effects than those of current drugs. The research is subdivided into three topics :

1. Cancer metastasis: Metastasis (spreading of the cancer into different parts of the body) is the primary cause of cancer-related death worldwide. Benign tumours are relatively easy to treat. However, once the cancer spreads, treatment becomes difficult. Here the lab focuses on inhibiting the conversion of cells from the epithelial (stationary type) to mesenchymal (mobile type) phenotype – a hallmark of cancer metastasis, using novel therapeutics. As the first step towards this goal, we are studying the intricate pathways that convert epithelial cells to mesenchymal cells.

2. Development of drugs that are devoid of neurotoxicity, which is a major side effect of current chemotherapy. One such compound identified in the lab is beta-sitosterol, which has anti-cancer properties with negligible side-effects. We found it to be protective of neuronal cells while effectively eliminating cancer cells. In this area, the lab also investigates anticancer potential of Ayurvedic formulations.

3. Tubulin isotype-mediated drug resistance and development of molecules which can address this resistance: In this area, our studies are centred on the protein partners involved in this form of drug resistance. We have identified a potent molecule that can specifically target  $\beta$ III tubulin, the major tubulin isotype implicated in drug resistance.

On a more basic level, the lab also works on understanding how post-translational mod-

ifications of tubulin affect progression/remission of cancer. Such modifications may be a target for the treatment for cancer; some cancer drugs are known to facilitate these modifications. Conversely, such modifications may also play a role in the progression of some forms of cancer via activation of various signalling pathways.

*“The field is richly rewarding due to its potential to contribute to society novel, improved therapeutics; it also helps us to understand basic cellular mechanisms”*

The research goals of the lab also include collaborative research with the Nano Science Centre in the University to identify potential nano carriers for tumour-specific drug delivery, and to understand the molecular details of the interactions of nanoparticles with tubulin and microtubules.

When asked about project opportunities in the lab, we received an enthusiastic reply: “Internships and project students are always welcome in the lab. Currently, two CBS students have been working in the lab. Projects would be allocated to students according to their interests in medicinal chemistry, cell biology, computational modelling, biophysical characterization of protein-ligand interactions, etc.”

To those interested in the subject area of the lab, “Cancer biology is a very exciting field. Here we are fighting with the intelligence of cancer cells that can successfully evade even advanced treatment strategies. When human intelligence succeeds, we have novel drugs that, in combination with other therapies, can completely eliminate many types of neoplasms – especially when detected early on. The field



is richly rewarding due to its potential to contribute to society novel, improved therapeutics; it also helps us to understand basic cellular mechanisms”, said Dr. Lopus, whose postdoctoral work has contributed to the development of three major breast cancer drugs currently used in clinic, namely, Kadcyła, Ixempria, and Halaven.

On the topic of interdisciplinary sciences, Dr. Lopus says that the lab collaborates with several faculty members both within CBS and from institutes such as IIT Bombay, IICT Hyderabad, and ACTREC. Apart from biology, other disciplines too have major contributions to solving the black box that is cancer biology. “Cancer Research requires a trans-disciplinary approach to address several critical challenges. Physical sciences have been tremendously helpful in this regard. Atomic force microscopy, for example, helps us study surface-level properties of cancer cells which are important when exploring cell adhesion mechanisms and tumorigenicity. We are planning to procure an Electric Cell-Substrate Impedance Sensor, an impedance-based apparatus to study proliferative and metastatic activities of tumour cells. We would like to involve students with a physics background for its standardization (as a short-term project). Chemical sciences play a key role in the rational design and synthesis of novel therapeutics. We have been actively collaborating with many chemistry faculty members of our institute to biologically evaluate potent drug molecules, to investigate novel methods of drug activation, drug-delivery etc. Mathematics had helped us in the past in modelling the interactions of drugs with microtubules, and we published a couple of papers in this area. CBS provides an ideal environment to collaborate not only for addressing various challenges in this field, but for asking new questions as well.”

# JOURNEY

-AJAY C J

0130 hrs. Ratnagiri Railway Station.

*How did I end up here?*

Let me introduce myself. I am ....

Nestled between Western Ghats and the Arabian Sea, between cold and the warmth, between silence and the words – Ratnagiri, the Goddess of the Western Ghats.

*Shall I call you Devi?*

Ratnagiri is a major city in South Maharashtra. An agricultural capital, producing rice, vegetables and fruits. It is most famous for Alphonso mangoes if not other exotic fruits whose names are hard to remember. Ratnagiri is also the headquarters of Konkan Railways, an island of much needed railway relief facilities in the midst of helplessness of the country. For reasons yet not clear, I decided to visit Ratnagiri – Ganpatipule (beach and temple) and the Ratnadurg fort.

*Why did I come here, Devi?*

Unlike my other travels which were marred by transportation nightmares, my trip to and around Ratnagiri was very comfortable. Rain stopped the moment my train stopped at Ratnagiri. Out of the railway station, I walked straight out along a long road, not knowing where I was going, to end up at the bus stop just in time for the bus to the bus station. At the bus station, the bus to Ganpatipule just arrived as I finished drinking my tea. There was one seat left in the bus.

*Is this an aberration of reality? Or of illusion?*

Ganpatipule is a scenic expanse of white chipped sand mitigating the pounding of the pure blue of the ocean and the dirt from the temple drain. As

I learnt later, this is one of the few temples where the deity faces West. The long queue of people waiting for a glimpse of the idol makes me laugh. It gives me immense pleasure to think low of institutionalized religion. But at the same time, I cannot figure out how the kids, who cannot even read, holding their parents' hands, saying prayers that they don't understand, could erase my existence with their smiles.

The Southern side of the beach was devoid of people. Rocks, small and large, adorn the stretch. Some had fallen from the cliff adjacent to the beach and had split into two. Rocks which once believed in their immovable force... The stretch is also inhabited by small crabs. I spent the morning sitting on a rock, my rock throne, watching my crab subjects go about their business - go-







ing into their crab-holes, coming out of the crab-holes, going back, coming back, again and again... I think they are confused.

Monsoon is raining havoc in the state, yet it did not rain except for a light drizzle at noon. Since my childhood, I have never really wanted to enjoy the rain. But this once, I wanted to feel the wetness of the cold drizzle.

*A wetness that has eluded me for a long time, now teasing me, leaving me nowhere to hide. 'It rains when the heavens celebrate', my sister had said once... But were the heavens rejoicing for me, Devi?*

I returned to Ratnagiri town in the afternoon and decided to walk to Ratnadurg Fort which was only 4km away. Ratnadurg fort was built by the the Bahmani Sultanate, the first independent Islamic kingdom in South India. It was captured by Shivaji in 1670 from AdilShah of Bijapur kingdom and was then used as a base for the Maratha Navy.

I sat by a window on the stone walls, overlooking the ocean. Man's history on one side, God's on the other... I wish I could stay... end my journey...

*'The lilies of the field are far more graceful than King Solomon in all his glory'*  
*Did I wish for that which I do not deserve, Devi?*

*I am... I am a bird... I am an ostrich... a golden ostrich flying high into the sky... shedding golden feathers...*

I decided to spend the rest of the day reading, by the window, surrounded three sides by the ocean. A collection of short stories by Madhavikutty. I remember having read her asking whether a mother would love any child as much as her own, whether one could love something that is not his own.

*Laughing at me, Devi? It no longer surprises me that the 'brightest of all angels' was Lucifer.*

The sun was bleeding orange, red and crimson. It was time to leave.

*The walk back... having been at the confluence of heaven and earth, having felt the commotion in solitude... the walk back was painful... Agonizing to know that no matter how much I try I would always fall short... The walk back... I remember Apsaras lining the road, singing, making sure I did not fall, that I complete my journey back....*

I reached the station at 2200.  
It is 0230.  
The cold...

*What's left of you, your fallen strands of hair, like the tentacles of a Kraken from an old story, wound around me, crushed me, and dragged me down to scary depths.*

My train is approaching. The old Alco, inverting the night, like a devil come to get me.

*Thirayattam...  
Thundering noise tearing the night.  
Devi..? My night is still silent...*



# PHD PLACEMENTS

## QUANTA 4

Mayank Singh  
McGill University, Canada  
Offers also received from: University of Minnesota, USA, University of Illinois at Chicago, USA

Rakvi Shrivastava  
Cornell University, USA  
Offers also received from: Ohio State University, USA, Louisiana State University, USA, Institute of Mathematical Science, IMSc, Chennai, India

Koushik Senapati  
University of Queensland, Australia

Pooja Chandrakar  
Brandeis University, USA

Shalini Gupta  
Phillips University of Marburg, Germany  
Offers also received from: Australian National University

Pratik Kumbhar  
University of Geneva, Switzerland  
Offers also received from: CEA, Cadarche, France in collaboration with University of Nice, France

Nivin Mothi  
University of California Merced, USA.

Ashwin Kumar  
Physikalisches Institut, University of Bonn, Germany  
Offers also received from: School of Physics and Astronomy, University of Nottingham, UK

Akanksha Vishwakarma  
Deutsches Elektronen-Synchrotron - DESY, Germany

Harsh Bhatt  
BARC, India  
Offers also received from: National University of Singapore, Singapore; University of British Columbia, Canada; University of Warwick, UK

Prashant Sridhar  
University of Kansas, USA

K.J. Karthika  
State University of New York, Buffalo, USA

Aditya Reddy  
University of Geneva, Switzerland  
Offers also received from: Institute of Science & Technology, Austria, Michigan Technical University, USA, ICFO, Spain, University of Alberta, Canada

Laxmi Sindhu  
University of Amsterdam, Netherlands  
Offers also received from: University of Bonn, Germany and University of Hamburg, Germany

Sanoj Raj  
University of Illinois, Chicago, USA  
Offers also received from: Michigan Technological University, USA

Prashant Chauhan  
Johns Hopkins University, USA  
University of Stuttgart, Germany

Ayush Mandwal  
University of Calgary, Canada

Ajay C.J  
École Polytechnique Fédérale de Lausanne, Zurich  
University of Rochester, USA  
University of Texas at Austin, USA  
CEA Cadarache/Aix-Marseille University, France

Galaxy Gupta  
IIT-Madras, India  
Offers also received from: IIT-Delhi, India

## QUANTA 5 (OFFERS)

Bhishek Manek  
University of California, USA

Phalguni Shah  
Northwestern University, USA

Akshay Malwade  
University of Waterloo, Canada  
Institut Pasteur, France  
Young India Fellowship, Ashoka University



# *From the Lips of Immortality*

One day I shall fly past the raging sky  
In a ship chiseled and carved out of existence  
I shall fly past the gluttony of gravity  
Into the bosom of some distant mystery  
To paint the seasons of that sky  
To sketch a poem on the walls of the universe

That shall course through the artery of infinity  
I shall be lost in the sound of that serenity  
Never to be heard again in the hymns of earth  
But my words shall always be sung  
through the lips of immortality.



-MADDY

# FRESHERS

CBS welcomed the new faces by organising a Freshers' party in September 2015. The ice was broken by a colourful cosplay, in which the freshers walked the ramp, bringing to life characters from mythology and fiction. The 'Flairs of Quanta 9' were evident in the foot tapping melodies and dazzling dances that graced the stage. The plays and the comic acts invited much applause as well.

The back to back band performances set the stage aflame and had the audience singing along, and it was certainly good to see the veteran faces of the seniors in their fun filled dance performances that brought the show to a culmination.

The DJ night and the much awaited feast that followed were a perfect end to the beginning of another successful year.







# ATOP A CLIFF

It's the edge of terra firma,  
The end of the world I know.  
I stand here, feet trembling,  
Not knowing where to go.

The solid ground beneath,  
Reassuring presence of years,  
I sense now, our trusted kinship,  
Into unknown territory veers.

Stretched out above me, ahead,  
As far as the reach of my eyes,  
Splashes of warm, brilliant azure,  
Colour the extent of the skies.

Mesmerized by their allure,  
I hear them softly beckon me,  
To jump, spread my wings,  
Be the free bird I've wanted to be.

A hundred feet below me,  
Ripples glisten as they dance,  
Over the aquamarine deep,  
Till the horizon, across its expanse.

Fascinated by its charm,  
I feel it gently call me,  
To dive, to sprout my fins,  
And be a fish in the ethereal sea.

Yet I stand, rooted here,  
Neither diving nor flying.  
Numbed not by fear or dread,  
But, neither apprehension defying.

Standing atop this cliff, I see,  
From this vantage point surreal,  
The magical possibilities of the morrow,  
Oh, help me jump, dive - make them real!

- KATHERINE RAWLINS



# UP AGAINST A STORM

Shelter I seek in your lips, comfort in your voice  
Every moment we live let's together rejoice

Let me hold you tight in my arms  
The rest of the world, let us ignore  
I'll like to smell the piquancy in your hair  
And kiss you like none had kissed before.

Let us stand face to face, body to body, lip to lip  
Let our embrace strengthen as the storm draws close  
My head upon your shoulder, we'll pass on for ages  
Aiming but infinity in our enduring repose

For once take me back to the place where it all begun  
I'll like to sing all your tunes, left long unsung  
Let me share your dreams in an unimaginative night  
Far be the dawn, long lost be the light...

-PRANEEL SAMANTA



# Foundation day

On the occasion of the 8th CBS Foundation Day, there was a lecture by Dr. J. P. Mittal, M. N. Saha Distinguished Fellow from BARC, Mumbai. The speaker is the former director of the Chemistry & Isotope group in Bhabha Atomic Research Centre and has published over 300 papers in high impact international journals, including Nature and Science. He is also the recipient of various awards in recognition of his research work, including the Senior Humboldt Research Award and the INSA gold medal. He was awarded the Padma Shri by the Government of India in 2003. The topic of the talk was the potential of New Chemistry, which is opening up more every year. He gave various examples such as using photons as a catalyst, fullerenes, high Tc semiconductors etc.



Following the lecture was a Bharatanatyam recital by Ms. Sindhuja Bheesette. Ms. Bheesette has trained in the art form since the age of six under the tutelage of various gurus including Guru Ramaa Bharadvaj, Guru Padmini Radhakrishnan and Guru Savitha Sastry. She gave a mesmerising performance, thoroughly entertaining the audience and ending her splendid recital with the traditional *thillana*.



The day he went to cry out in the open, rains took away all the attention.

-DUTTATREYA

His eyes turned moist as the 3rd string finally got snapped. More excruciating than just the cut, that was the string she played her last tune on, years back.

-PRANEEL

Eyes shut, cowering in fear, her fingers trembled across her phone screen, "Will you come and watch the rest of the movie with me?"

-MAITHREYI

He missed her sound, her smell, her spirit. He longed to be one with her again. He wished he could call his old city up.

-PHALGUNI

They exchanged gazes, She felt his fingertip across her skin. The gentle kick woke her up, Some things never change

-ANJALI

Five: happy ending  
Fifteen: forever  
Twenty five: solitude  
His favorite words evolved as he grew mature.

-RAMAN RISHI

# TALES

Angry for being left alone on her birthday, Driving recklessly, she left her parents alone forever.

-PINKI

They called him effeminate seeing his long flowing hair. They never knew: his name was Rabindranath.

-PRANEEL

Her bones crushed, The pain was unbearable, But that cry made it all oblivious.

-ANJALI

As everyone filled up their answer sheets, I closed my eyes again trying to shake off the image of his face just before jumping off that roof. Why was he smiling at me?

-VISWAJITH

They celebrated their homecoming on their flight back to India. Their co-passenger, returning to his late mother, stayed silent.

-PRANEEL

നഗരത്തിലെ തന്റെ ബംഗ്ലാവിലെ ക്ലോറിൻ ചുവയുള്ള വെള്ളം കുടിക്കുക അവൻ ഓർത്തു, നാട്ടിലെ കിണറ്റിൽ നിന്നും കോരിക്കുടിച്ച വെള്ളത്തിനെന്ന് രുചിയായിരുന്നു!!

Trans-lation:  
As he drank the chlorinated water at his bungalow in the city, he thought, the water from the well at my home tasted a million times better!!

-VISWAJITH

House cleaned, dressed in her best, she sprang to open the door. Only folded khakis greeted the once eager wife.

-MAITHREYI

"Goodbye", he said. And walked away.....towards his dreams!!

-PINKI

All the guests frowned at the burnt porridge before them, save for one old man. Not everyone could feel the magic of his daughter's first attempt at cooking.

-MAITHREYI



# LIFE IS A DAMN GAME

- PUSHPENDRA YADAV

We, who are not fit for war, have taken up sports so that there can be combat without mortality. We, who are not fit for the wild as wolves, hunt in packs in the wilderness of cricket grounds. Man, originally a savage beast, who was savaged by society, still has that urge to break free and run wild and perform impossible feats that defy the limitations of our human body, mind and soul. This is one purpose for which man has created sports, and while cherishing it, he relishes the million year old man in him who sits by the fire sharpening his sword and staves.

So now that I have managed to stir some emotions in you, let me tell you plain and straight that these thoughts were on my mind as I went to play for CBS in the Inter-IISER Sports Meet that was held in IISER Bhopal. A Three months have swiftly passed by since the games, and I can still feel the rush coursing through my veins, for reasons unknown. We started the journey from Mumbai on the 14th of December 2015, and this was the first time that CBS was participating in such an event. We were excited, but absolutely clueless as to what can be expected. We were a contingent of merely seventeen students and were puffed with confidence and radical strategies. All these crazy thoughts were invigorating in our head while we were socializing with our seniors in our train coach. And suddenly I realized that we were not travelling as seniors and juniors divided by ego and maturity, that we were travelling as a team united by an unknown force moving toward an unknown destination.

We reached Bhopal in the dead of night, but the night seemed to be sleepless in the milieu of Bhopal Junction. One of the coolest moments of our life time was when we saw the volunteers of IISM waiting for us in that cold night, sleepless and tired, just to escort us. We were shown the way to our buses and found IISER Trivandrum accompanying us. Our friends from Kerala seemed to be mentally occupied in that the Trivandrum folks brought from their native land. While the rest of us were quiet and absolutely clue less as to the origin of their language.

One fellow said, “I think they are from Tamil Nadu.”

“Oh no they might be from Karnataka,” said someone else.

“It all sounds the same - andugunduthandapani,” said the Marathi guy from Mumbai.



The bus journey was not as long as we expected it to be, we reached IISER Bhopal on time. We were instantly struck by the vast campus and the isolated location it was set up in. We saw blue painted volleyball and basket ball courts shimmering in the Huge flood lights. If they would have let us, we would have started playing in the middle of the night. Our hostels had wifi and warm rugs. We used them both to warm ourselves.

Morning came and brought the occasion of march past in the inauguration ceremony. With merely 17 members, I still remember the CBS flag held high and proud in my arms, waving with the wind, and the same wind passing by our shoulders to wave the flags of other contingents. Suddenly we were straight as an arrow and strong as soldiers. The lamp was lighted and our hearts rejoiced with joy.

Then came the time to do what we came to do. Play.

Cricket seems like the dream sport of almost every Indian kid at some point of time in their life. Needless to say, we were pretty excited about cricket. We elected to field first in our first match. But the magic of adrenaline seemed to take that very thought away from our numb heads. Oh, we fought hard that day. We dropped catches, but we caught praises from our rivals. We lost that game and the one after that and the one after that, until we had no more to play. We might have lost in the sport but we gained in brotherhood and an abstract confidence that we will carry in our hearts till death. If I remain silent and try to recollect the memory of that crimson red ball in my hand, I feel powerful enough to want to lend you my eyes and my skin so that you can embrace what I had past experienced.

Then came volley ball. We were devoid of experience in this particular sport and yet managed to do fairly well, and we discovered that



we had potential spikers and defenders who could hold a smash with their fingers and block the serial smashes. We lost the game, but we won some fans. We could hear the audience cheering CBS..CBS..CBS as we played. Thunderous applause for our smashers and defenders could be heard from time to time. We did not lose because we were weak, but because the others were well prepared.

We had our guys sent for badminton. They did fairly well and lost graciously. Some were obviously sad, but something special about this sadness was that it was merely momentary and never saw the morning sun.

One gift that I took away from Bhopal is the gift of humility. We thought ourselves to be proud and strong, but we were barely good enough to put up a proper show. Life is all about humility isn't it?...

We returned as eager as ever and wanting to learn. We returned as sages knowing that learning never stops. We returned with a belief that “No man is your enemy but all men are your teachers.”



# How to land a Boeing 737?

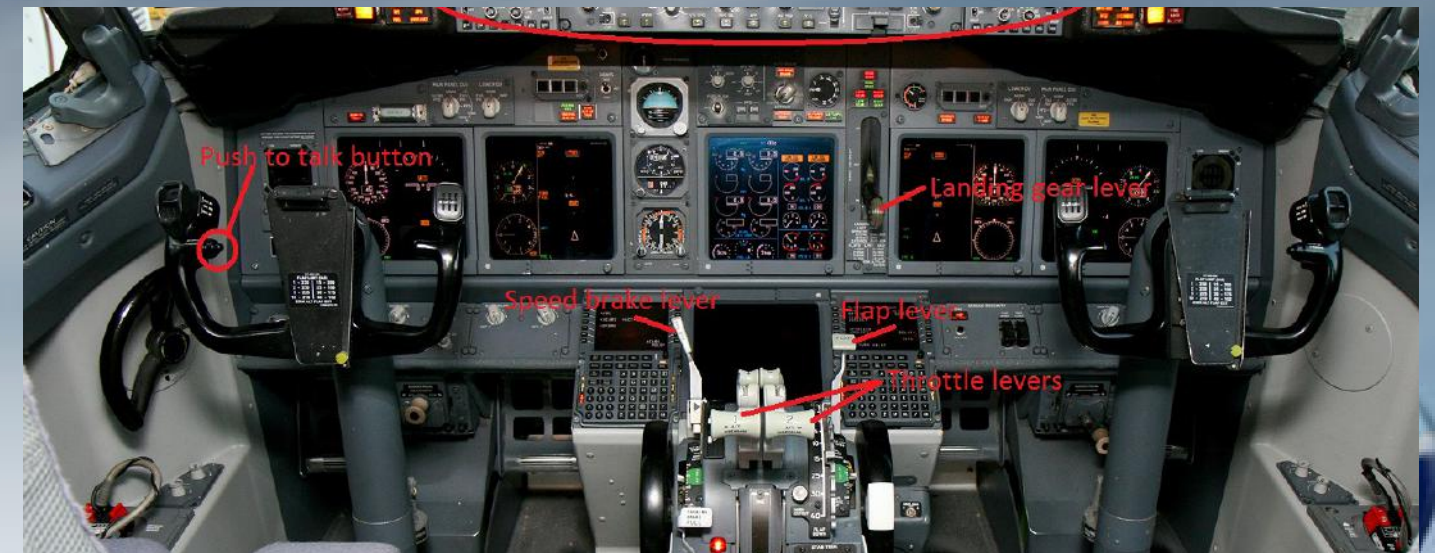
- MD. SAIFULLAH

God forbid for such a situation to ever occur, but what if you are in an airplane which is cruising and all of a sudden cabin crew announces that both the pilots are unconscious!! Does anyone know how to fly an airplane?? Creeps out doesn't it? Well don't worry, because if a situation like this ever happens to you, you just might pull off the landing part. Yes you heard it right, it doesn't take a genius to land an airplane if you are familiar with the basic instruments.

Different aircrafts have different cockpit configurations but more or less the basic idea is similar. Here I will guide you about landing Boeing built 737 aircraft. Go ahead at the front section of the aircraft where you will find the cockpit. You will find two seats: one for the captain (the left seat) and the other for the first officer (the right seat). Take your seat at the captain's position. Don't get nervous by the complexity of the cockpit as you won't be needing most of the buttons and switches to land. The control column directly in front of you is called the yoke. You can steer the aircraft using the yoke. Steering the yoke left or right will bank the aircraft to left or right and pulling the yoke up or down will cause the aircraft to pitch up or down respectively. Don't touch the yoke for now, since the aircraft will mostly be in the autopilot mode.

Your first line of action should be to communicate with the Air Traffic Control (ATC). To do so put on the pilot headset and look for the pilot audio control. You will find them at the pedestal to your right (see Figure). Make sure that VHF1 mode is selected at the mic selector group. Since the frequency for nearest control tower was already tuned in by the pilots since their last communication, just find and press the push to talk button on the yoke. At the time of emergency in an aircraft, pilots call out the word 'MAYDAY' three times to clear their intentions, so you must do the same and inform the tower about your situation. The ATC will contact a certified 737 flight instructor to help you and in the meanwhile will give you certain altitudes and headings to fly. You can change these parameters by using the mode control panel which is basically the panel for autopilot control (see Figure). To tune to a heading instructed by the ATC, rotate the heading knob till you get the desired heading reading and press the heading select button below the knob to allow the aircraft to follow the new course. For changing the altitude, rotate the altitude knob to get the desired altitude and press the level change button for the aircraft to start changing the altitude. As you get lower, the ATC will instruct to slow your speed to prepare for landing. You can do this by selecting the speed at the IAS/MACH window at the mode control panel.

Now the leftmost screen in front of you, which is called the primary flight display will display your current speed, heading and altitude. Controlling the altitude, speed and heading should get you safely close to whatever airport ATC wants you to land at. After the ATC vectors you to line up with the runway, you will be required to descend and reduce the speed to the landing speed. Typical landing speed of a Boeing 737 is somewhere between 130 and 150 knots (where 1 knot=1.852 km/hr.). Let's say the ATC wants you to land at 140 knots. Since the aircraft cannot fly at such low speeds, you will have to set a desired flap setting. Flaps are used to generate extra lift at low speeds. Just below the landing gear lever, you will find various flap settings for



various maximum speeds. You can set the flap lever as you slow down for various maximum speeds by pulling the flap lever up and bringing it down at the desired position. Put the landing gear lever down while you are slowing down. Finally you will reach the speed of 140 knots with the flaps fully extended and landing gear down. At this stage you should be able to see the runway (provided the weather is clear).

Now comes the real challenging part- turn off the autopilot by pressing the CMD A or CMD B button on the mode control panel. This will sound an alarm with a button with A/P marked on it flickering. You can turn the alarm off by pressing this button. You are in control of the aircraft. If you start drifting to the right, correct it by gently moving the yoke slightly to the left and vice versa. As you get closer to the runway, you will start to see the PAPI (Precision Approach Path Indicator) lights, which are on the left side of the runway. These lights can guide you along the proper glide slope for landing. If the two bulbs on right side are red with the other two white, then you are on a proper glide slope. If you see three or four red lights, it means you are too low in which case, pull back on the yoke to stop descending for a while. Likewise if you see three or four white lights, it means you are too high and you should push the yoke to increase the rate of descend.

Just keep focusing on your alignment and glide slope and you will start hearing a call out of your altitude below 1000 feet. When you hear 50 feet, it's time to start the flare which is done by gently pulling back the yoke. Pull the thrust levers all the way back using your right hand. When you feel the touch down, pull the reverse thrust levers which are two small levers in front of thrust levers all the way back. The speed brakes will be armed automatically. Always look forward so that you don't steer off the runway. You can steer the aircraft left or right by pushing the left or right pedal respectively at your feet. As the speed reduces to 60 knots, push the reverse thrust levers to the forward position and keep pressing on the pedals to brake till the aircraft comes to a final stop.

Congratulations!!! You just landed a 737 safely.



# Fears and Phobias

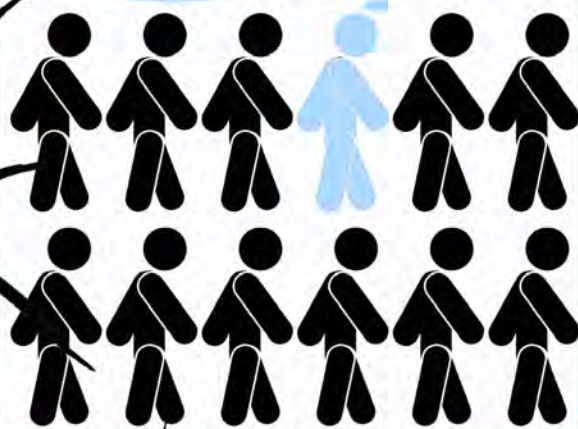
DARKNESS



fish



being lonely

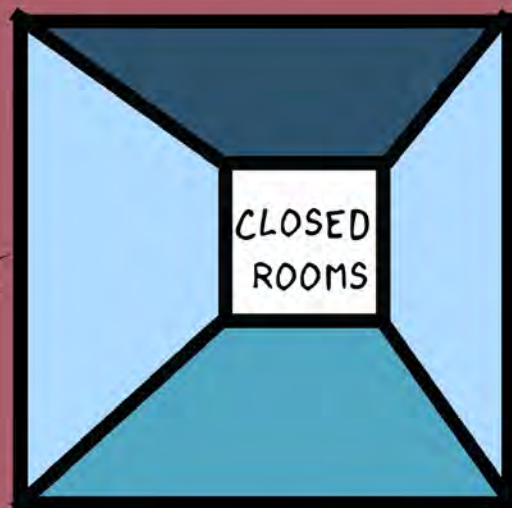


heights

water



CLOSED  
ROOMS



#CBSpeaks



# SCIENCE CLUB

## @CBS

The Science Club of CBS aims to provide the students of CBS an opportunity to learn and explain the various aspects of science and doing scientific research. This academic year marked a high point for the Science Club. 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. On the other hand, telecasts and documentaries on interesting scientific discoveries screened weekly throughout the year saw a large number of students turning up to satiate their thirst for knowledge and understanding. Here's a look at all the sessions that took place in the last year :

### TELECASTS AND DOCUMENTARIES:

#### 1. AN INCONVENIENT TRUTH

A highly acclaimed documentary on Climate change featuring the 2007 Nobel peace prize winner Al Gore

#### 2. HOMI BHABHA

A documentary on the life of Dr. Bhabha (released by TIFR) about his life, career, methods and ambitions. Samvit Mahapatra led the session.

#### 3. HOW LONG IS 1 METER?"

A talk by Prof Klaus Von Klitzing

#### 4. ON HUNT FOR THE 'GOD' PARTICLE

A documentary released by CERN about their successful search for the Higgs Boson

#### 5. THE GREAT MATH MYSTERY

An interesting documentary about math and the universe.

#### 6. THE YEAR OF PLUTO

A session about the New Horizons mission to Pluto. Sujith Remulla led the session.



## RENDEZVOUS SESSIONS:

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.

### NINAD JETTY

Ninad Jetty shares his experience of doing a project when he was a student of CBS. He describes how doing his project changed his outlook on science while giving us an idea about the project itself and about diffraction and other optical phenomena.



### PROBING THE 'C' IN CHEMIST

Professor R K Vatsa gives insight into the life of a chemist using his own career as an example. He speaks about the career opportunities a student of chemistry has and what to expect after choosing a career in chemistry in addition to the qualities of a good chemist and a scientist in any field.

### NOBEL PRIZE IN PHYSIOLOGY AND MEDICINE 2015

Prof. Swati Patankar gives a talk on discovery of parasitic drugs for which the Nobel prize was awarded in 2015. Focussing on drugs against malarial parasites she discusses the problems faced by today's society in the fight against communicable diseases, drug discovery, challenges faced and drug resistance in pathogens and its prevention.



### NATURE VS. NURTURE: WHAT MAKES US HUMAN

Dr Subhojit Sen gives us a peek at the history of the evolution of humans from great apes. What similarities do we have with the rest of the species and what sets us apart from our closest cousins the chimps? We extend our scientific lens to a molecular understanding of how nature vs nurture plays a role in modulating human genomes.



### MATHEMATICS, PROOFS AND COMPUTATION

In his talk, Prof. Madhu Sudan talks about the historical role of proofs in computation, leading to the "prototype" of the modern computer in the 1930s, to the conception of the famous "Is  $P = NP$ ?" question in the 1970s and some modern variation like interactive proofs, zero-knowledge proofs and probabilistically checkable proofs. Alongside, he shared some of his experiences in research with the students.



### EXTRASOLAR PLANETS: THE SEARCH FOR A NEW WORLD

Prof. Anwesh Mazumdar, HBCSE (TIFR)

The question of whether we are alone in the universe has fascinated humankind for centuries. Thanks to modern technology, the existence of planets around many distant stars has now been established. The speaker discussed the major techniques of detecting extrasolar planets and presented an overview of this challenging field of research. In the later part, the speaker reflected on education, research, and education research.

### "NEUROSCIENCE :THEN AND NOW

-Dr. Vidita Vaidya, TIFR

A musical 'Gharana' is the home/family/school from which a particular style of musical ideology emerged. Taking such an approach through the history of neuroscience, the speaker found some common stylistic threads across the last several centuries. Further, the speaker tried to identify the modern inheritors of some of the classical neuroscience Gharanas!!



### "STELLAR BANG FOR A LIGHT BUCK"

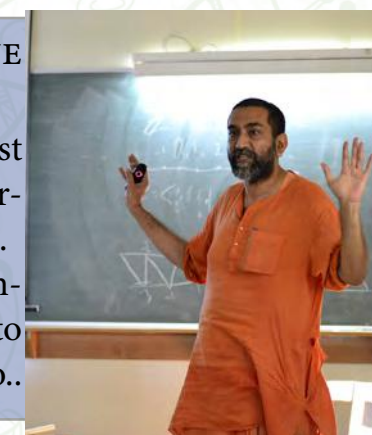
Prof. G. Ravindra Kumar, DNAP-TIFR,

The speaker spoke about the possibility of simulating stellar conditions on the earth and that too on a table top in a small laboratory, and how such experiments further our understanding of astrophysical processes. The speaker explained to us how intense laser light can give us some ideas on this subject.

### TITLE: HYPERBOLIC GEOMETRY AND CHAOS IN THE COMPLEX PLANE

Prof. Mahan Mj., TIFR

Hyperbolic geometry comes up when a system starts developing fast interconnections, (eg. trees, the human brain and the internet). One characteristic of it is the existence of a fractal in one dimension less, like brain surface. The speaker then discussed a special case where the fractals emerge in the complex plane as a result of symmetries of  $\mathbb{H}^3$ , which act on  $\mathbb{C}$  as well. Going to hyperbolic geometry in 3 dimensions, he set up a dictionary between the two.





# STUDENT TALKS @SCIENCE CLUB

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.

BINARY QUADRATIC FORMS

Duttatrey Nath Srivastava

WHAT IS DARK MATTER?

Swapnil Shankar

STRUCTURE BASED DRUG  
DISCOVERY

Nikhil Sathyan

C.R.I.S.P.R.S

Anirudh Pillai

POUR L'AMORE DE MATHEMATIQUES

Praneel Samanta

YOUR GENES ARE NOT ENOUGH

Upnishad Sharma,  
Anirudh V. Pillai

PATTERNS AND RANDOMNESS

Anton S. Iyer, Mohd. Nisham,  
Nikhil Vishwanath

NON EQUILIBRIUM PROCESSES

Phalguni Shah

A TALE OF TWO CRYSTALS

Aditya S. Rajput

INTRODUCTION TO QUANTUM  
COMPUTING

Shraddha Singh, Samvit Mahapatra

MAZES TO AMAZE

Duttatrey Nath Srivastava



# Sunshine

-IKSHUL J.

People consider love a vice.  
Well, even I don't think it's wise  
To let your heart be the one to decide  
And make your brain feel unfairly denied.

But what if you feel a pain inside?  
A desire your gut can't subside.  
Lashing out, your soul opens wide.  
Still you are shy to venture outside.

Love is this unexplored land.  
It can ruin everything you planned.  
And sometimes give work to your sweat  
glands.  
When she comes by and grabs your hand.

And thus you entered my domain.  
I loved you so, I felt no pain.  
So I flashed my light again and again.  
You'd reflect it back, I hoped in vain.

Yet you cared for me, it felt nice.  
As even if the world was made of ice,  
Your presence could make the sun rise,  
And melt the ice, not once, but twice.

The look on your face.  
That gentle smile.  
The false grimace.  
That comes once a while.

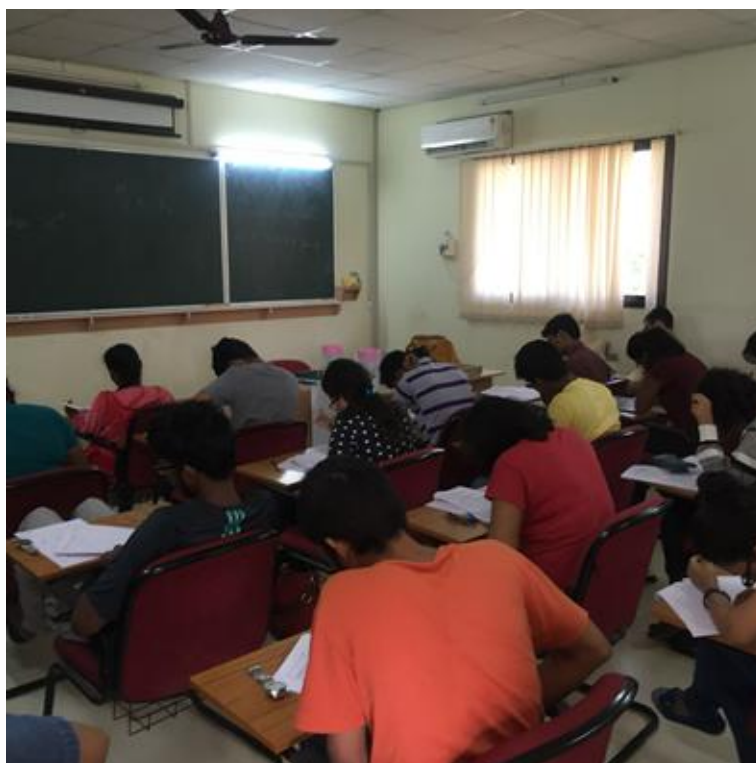
The complaining tone when someone  
spoils your hair.  
Your limericks are beyond compare.  
Your eyes...are they Evil or Divine?  
After all this, I still can't define you...Sun-  
shine!



# Jigyasa 2016

Jigyasa 2016 was conducted on the 31st of January. With a total of over 170 participants from colleges all over Mumbai and Pune, it was a great success.

The first round consisted of questions across Physics, Chemistry, Mathematics and Biology, and was an individual examination. Based on an individual as well as group cut-off, the top 10 teams were selected to proceed to the second round. Five of these were from CBS. The questions in this round were to be solved by the group as a whole and consisted of analytical and experimental problems.



The stage round was conducted in the Department of Physics seminar hall, University of Mumbai. Five teams, from Indian Institute of Technology-Bombay, Institute of Chemical Technology and Centre for Excellence in Basic Sciences competed. IIT-Bombay bagged the first prize, and second place was shared by two teams from CBS. Cash prizes upto Rs. 24000 were awarded to the top 3 teams and the finalists were also presented with event T-shirts.

Jigyasa would not have been a success without the help of Mr. Kishore Menon, Prof. Ameeya Bhagwat and Prof. R. V. Hosur in organising the event, and all the faculty of CBS who helped in verifying the question paper for the first round. The event was sponsored by Bank of Baroda.





# Live to EAT

We are back! Unashamed foodies with an endless appetite, we got to try some really great places through the past 10 months. After much debate, we narrowed it down to these. We hope that last year's places had you sighing in satisfaction and that this year's make your "to-visit" list. So happy reading and bon appetit!

-BHAVYA VENKATESH &  
SHRADDHA AGRAWAL

**Tea Centre** - Another age old landmark in Churchgate, Tea Centre transports you the colonial era with their charming bell to catch the attention of the waiter, to the framed posters as wall decor. The entrance itself fades into the background and is quite easy to miss. With its mix of fairly affordable Indian and Continental fare, this place is a must visit for anyone in Mumbai. Do remember to try some of their iconic teas, the banana caramel hot tea especially. Among the food, the pastas, biryanis and shepherd's pie are exceptional.

Note : Tea Centre is currently under renovation, so please do not curse the authors if you are faced with bolted doors!



**IMBISS** - The non-vegetarians rejoice, at the new Kalina outlet of IMBISS. The mouth watering beef and pork dishes, just 15 minutes away! The place is small, but packs a punch with their hardcore meat-centric menu. There is literally only french fries and garlic bread available for the vegetarians, so beware! The recommendations from the menu include the Buffalo beef roast and the Meating joint burger, and surprisingly the apple flavoured non-alcoholic beer. It's pretty sweet but unexpectedly nice!



**Seranyaa** - This easy to miss place in Andheri serves amazing variety in Chinese and Tibetan cuisine. The ambience is remarkable and they feed you with so much love and enthusiasm. You are already spoilt for choice on top of which the owner personally suggests dishes that are off-menu. Some of our personal recommendations are the spring rolls and momos.

**Sassanian** - One of Mumbai's iconic Parsi Cafes at Marine Lines, this restaurant exudes the old world charm of Bombay, complete with a rude cashier and scurrying waiters. The menu offers diverse dishes and is quite affordable. The place is famous for its sizzlers and rightly so. Both the vegetarian and non-vegetarian sizzlers are sumptuous and filling, and are a must have. The desserts are to die for, with special mention going to lagan nu custard, mawa cake and custard cold cherry!



**Theeram** - This tiny little eatery was our saviour during the mess crisis. Affordable and delicious, it takes you one step closer to Kerala. With their soft appams and pathiris and lip-smacking curries and stews, it's filling, tasty, close to home and does not burn a hole in your pocket. The fish fry and chicken curry are good for the non-vegetarians. The unlimited and extremely inexpensive lunch thali is just yum.



**K Rustom & Co.** - Nestled in a quiet corner in Churchgate, this gem has been open since 1953. The ice cream is served as a thick slab between two crispy wafers, making a mouth-watering sandwich. Biting into one, as you make your way towards Marine Drive, feeling the sea breeze over your face, is indescribable. There are lots of flavours to choose from, with good old chocolate, vanilla and strawberry alongside some very innovative combinations. Some of our recommendations are Rose ripple, which has a surprise pocket of gulkand inside, Rum raisin and litchi and orange.



**THE  
MESS CRISIS  
MADE ME  
DISCOVER**

**#CBSpeaks**

Theeram

grofers

Sai Garden's  
Bhindi Masala

mayonnaise

Yippee Noodles

Nagesh's Dosa

Univ. Canteen's  
Lassi

Learning how  
to cook

i'm not as hungry  
as I think I am

Karve Girls'  
Hostel mess

Stadium  
Restaurant

Potoba's Aloo  
Parathas





# GRACIOUS LUNACY

Lost in insanity we two are  
In rhythm, our hearts no longer employ  
An hour passed by not a single page turned  
The hourglass seems a mere toy.

Cracks run deep down our skin, severely itching from within  
We've never known true love, whatever it may mean.

This world had never been a pleasant place  
Neither for you, nor for me  
Our shadows have surpassed us today  
Amidst those dangling conversations, we yearn to be free.

Free?

Freedom is but an illusion, a luxurious dream  
Amidst our inveterate sense of fear  
try to hold my crown right above your head  
For you, I'll always be there...

-PRANEEL SAMANTA





# AFTER a long and tiring day, I came back to my room...

only to find a strange hush surrounding it. The lights were on, meaning my roommate was in, and to say it was strange for the little brat to be this quiet would be an understatement. I used my key and let myself in nonetheless, but the moment I stepped inside, a strange chill began to seep into my bones. I could not identify its source till I saw a form sprawled out on the floor. The body of my roommate, lifeless and still. Beside her, a note written in an almost childish hand "You are next."

-R. MAITHREYI

only to find something unusual going on. The room was dark, and I could hear some noise as though there was someone. I reached out for the switch board, but my finger touched something and I pulled my hand back. Suddenly, the lights were switched on and "Surprise!!!". There they were, my best buddies. It had been years since we met. It took me a while to come out of my numbness and throw the question, "How and when did you guys come?". As they were about to say something, I heard an irritating sound- my "ALARM"

-PINKI

only to find that some weight was missing in my pockets "Oops!", I left my MOBILE somewhere which is more valuable than any other thing these days. Then I calmed down when I realized where I had kept it.

I could not catch sleep that day even though I was tired and many thoughts kept running through my head about my mobile, work etc., I realized I have been working very hard these days which was resembling in my fi(a)tness, my social life and lost my mobile concentrating on work.

Suddenly a great man's quote stuck in my mind which was "Love your Job but.. Always leave office on time because work is a never ending process." I slept that day after a strong decision that I will use my precious time even for myself. The next day I just worked enough and left on time after finding my gold then I lost in that and got sick of Nomophobia.

- D. SIDDHARTH



A wooden crate filled with old, faded photographs. The photos are scattered and overlapping, showing various scenes including people, landscapes, and architectural details. The overall tone is nostalgic and warm.

# *nostalgia.*

“Remembrance of things past is not necessarily  
the remembrance of things as they were.”

- MARCEL PROUST



# THE YEAR THAT WAS



**REGULARISATION**  
Finally it happened! CBS is officially an institution of DAE!

**SPORTICO**  
CBS becomes the champions in the university's first ever inter-departmental sports event. We still don't get a basketball court.



**IISM**  
We travel all the way to Bhopal, shiver in the cold and come back with a lot of photographs in hand.

**LIT CLUB EVENT**  
50 people turn up for the event. Organizers shocked, writers rocked.



**SCIENCE CLUB RENDEZ.VOUS**  
Science club gains momentum. The position is now unknown.



**EXTRA STUDENTS**  
As if 45 new faces were not enough in our cosy little institution, we were made to put up with outsiders from a not-so-far-away land.



**ICT SPORTSAGA**  
We reached the semi-finals with our ever-un-tiring spirit, and then we got tired and lost.

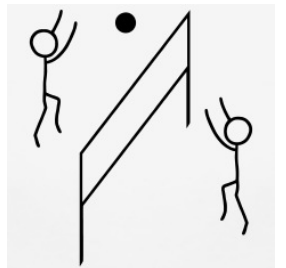


**Wi-Fi**  
In the age of Li-Fi, Wi-Fi came to CBS.

**MESS CHANGE**  
Students cheer the revolutionary change in the Mess Contractor. Still eat outside.



**VOLLEYBALL**  
Sticks and stones don't break bones, but volleyball definitely does.



**MUSIC CLUB EVENT**  
Helping the bathroom singers come out of the closet.





# *A Walk Down Memory Lane*

- SHRADDHA AGRAWAL

The room was dark.

I could hear grasshoppers croaking. A calm tuft of wind kissed my face. I looked at the sky. A feeling of déjà vu crossed my mind. The sky had the same orange tinge to it.

My eyelids were heavy, but sleep seemed to have completely abandoned me. My room was packed in boxes. We were supposed to move to another state. It was my last night in my room, the room which had seen my joys and disappointments for ten years!

I switched the lights on and went to one of the boxes. It was fully packed. It took me nearly ten minutes to get rid of all the tape and packing. All my slam books (they were a big fad in my childhood), notebooks, report cards, gifts were staring at me. I began to leaf through my report cards. I seemed to have done excellently. A comment on my report card read, "She can do better if she talks lesser in the class." I started laughing. Why do we always develop a pessimistic view about ourselves as we grow up? As a kid, I used to feel invincible. Now at 25, I feel devoid of any energy. I feel that certain things are just impossible to do. My slam book had an entry from my former crush. A rush of nostalgia filled my heart. All the birthday cards, congratulatory notes...

I realized that my little sister never failed to gift me a handmade card on my birthday every year! It is funny how easily we grow used to the people that we love. An old watch, a gift from my mother, that had stopped working. I never wore it because I thought that the colour was not "cool" enough. What was I even thinking?! I made a mental note to get the watch repaired.

I do not know when I finally did sleep. But I do remember that I looked forward to life now. I felt enthusiasm and love in my heart, and the energy to move forward.





# HOME

“Come home”, a call he heard,  
“Come” - the voice that was once his home,  
But he didn’t know whether to go or not,  
Because he wasn’t sure where home was.

Every day the sun calls him  
To the only place he ever wants to go,  
But where he isn’t welcome for more.

Every day the moon calls - he goes, he comes  
All this time he wonders,  
Where his home is

But he realizes that the feeling will never be back,  
As home wasn’t home anymore.

As he searches for home,  
He forgets the one who calls him home.

-ANONYMOUS





# THE BUS RIDE OF A LIFETIME

- BHAVYA VENKATESH

It was a muggy summer afternoon in Kerala. And on this particular day, the Universe had it in for us; us being me, Amma and my little brother. Being convinced of our independence, we had very contemptuously waved off my father's offer to pick us up from our native village and decided to meet him about two-and-half-hours away.

So, we trudged to the bus stop on the highway and waited. And waited, and waited. The government had picked that week to repair bus-stops. On that Sunday, they had left the roof of our bus stop and our only source of shade, resting in a repair house somewhere. We set our two suitcases, mainly filled with things that my grandmother was convinced we would not get anywhere in the city, down. A little while into our wait, we got a call from my uncle. The Universe had done its job. Due to a bus strike in a neighbouring district, very few buses were running on the route we were supposed to take. We decided to give it some more time before giving up. Along came a bus, with people hanging in bunches from each door. Even as we waved madly, the bus neatly avoided us, swerved in the opposite direction and sped off in the maximum speed that its overburdened engine could manage.

Frustrated, we went back into our roofless bus-stop. Just as we sat back down, my brother screamed "There's another

one! Another one!" Tired of dealing with a cranky five year old and a crankier teenager, Amma resolved that this would be our last try. This driver perhaps took pity on us and the bus lurched to a stop. This one, too, was stuffed beyond capacity. But compared to waiting in our roofless bus stop, it seemed a better bet. As we pushed our way in with the luggage, the hanging crowd boarded again and the driver floored the accelerator. And thus began the most memorable bus ride of my life.

At the next stop, a group of girls from the bench like seat next to the driver alighted. As children, we got priority and were pushed to the front and made to sit there. I settled in as much as I could with one arm around my brother to prevent him from being crushed, and began to look around.

That driver made the worst of BEST bus drivers look like calm, responsible citizens. The highway we were travelling on was not a wide one; a bus and a car could just about travel side-by-side. Our bus driver avoided crashes with other vehicles by swerving into the other lane, yelling something at the driver and swerving back on. As he once turned to look into the bus, carrying on his shouted conversation with the passenger behind him, I thought I saw a half-crazed look in his eye. Every time he looked away from the road, I suppressed the urge to yell, "Eyes on the road!"

As we pulled into one of the stops, a man stumbled out of the toddy shop next door. With appreciable bravado, he stumbled in front of the bus, folded up his lungi and dared the bus to go over him. Not used to suicidal drunks, I panicked "Oh no! How will they get him out now?" The driver, completely unperturbed, began his symphony of horns. Two seconds into it, the guy clapped his hands over his ears and stumbled out of the way.

And so the ride went on. During various points over the remaining ride, I carried everything from baskets of vegetables to bawling children, not always with complete willingness. During the last leg, a huge commotion began at the back, due to some misunderstanding between the conductor and a passenger. I did not know what the issue was, but the fight looked hilarious. The passenger was a short, stout man with a head as smooth as an egg. Flinging his arms around, he was screaming and threatening all kinds of bodily harm to the conductor,

who towered over him. The conductor listened to everything so patiently, and that in itself was a mockery of the whole scene. But unfortunately, with the timely intervention of some do-gooders, the fight fizzled out just as it was getting interesting.

Eventually, we reached our stop. By this time, Amma had had enough of carting around my now-asleep brother and all our luggage, all the while ensuring that I was not kidnapped or anything of the sort. As we got into the car, my father asked "So, how was the trip?" All he could get from Amma and my brother was a bad-tempered stare and a snore, respectively. But I don't know what it was about this particular bus ride out of so many in my life, all I said was "Amazing!"



# The Notebooks

'BETA!' my mother finally shouted, 'Dinner's ready!' It was that admonishing voice of hers that has kept me in line for all this time.

I turned around, parting my gaze from my recent discovery, this piece of treasure, lost long ago, found now.

'I'll be there in a minute,' I said.

I turned back to this thing of beauty in my hand. One man's trash is another man's treasure, they say. I could see now how apt that thought was.

I was holding in my hands two notebooks. This is their story.

The first notebook is what we students refer to as a 'Register'. It was a frail mass of a notebook with longer sheets, held together by three immaculately placed staples.

It was the winter of a yesteryear, of which I know just this: I was young. I was my Dad's sidekick in the adventures of the annual pre-Diwali ritual of cleaning up the attic and cupboards. While cleaning an old cupboard filled with books, it was realised that an opposing army of termites have devoured a few regions. A few minutes of panic later, in which I swore I had termites on me (It's biting my scalp, Papa!), it was decided that the almirah had to be moved away, while all the books are to be taken away and checked thoroughly for damage.

It was through the second shelf that I first met this notebook. As frail as I mentioned before. There was a canary yellow sheet of paper as its cover. An illustration in royal blue depicted a Sun rising in the mountains at its dead centre. The shining rays reaching a small rounded box near the bottom of the cover, which had two spaced lines for writing one's name. It had my dad's name and a yesteryear etched on it. As an able sidekick, I brought it up to my Father.

'Pa, what do we do of this?' I asked him, holding it out as high as I could.

He took it in his hands. Gently running his hand on the cover, he opened the notebook. I could not see what was written inside. I saw him turning page after page, and I glimpsed the first look for something that would enthrall me in the years to come: A blank, ruled sheet of yellowed paper, slightly brown around the edges. I've seen old books with yellowed pages



before. But the interesting thing about this one was that there were pages that were blank. How often do you get the chance to write on a paper like this? For the young boy that I was, those chances looked pretty slim. My father chuckled.

'It's an old college notebook of mine,' He finally spoke, 'I never knew I had it now.' He placed it down at the table where he was sorting stuff from his almirah. He spent a few more minutes observing the pages, 'I guess we should throw this one away' he added, with a sigh.

'Can I keep it?' I blurted out, much faster than I thought I would.

'Huh?' Dad lent me his ears this time.

'Can I keep it?' I asked again, this time a little louder.

'Hmm,' my father thought for a while. Then, without saying anything, he took the notebook in his hands again. Carefully, he bundled together a few of the pages. He folded them neatly, creasing them about an edge close to the binding. In a moment, with a clear single action of his arms, he tore those sheets apart from the binding staples.

'I guess you can,' he handed the notebook over to me, 'take good care of it, beta, at least while it lasts.'

My joy knew no bounds that day. I jumped around carrying that notebook. Then, I promptly sat down with the notebook (partly because my jumping around had brought up a little tear in the back cover).

The best part was writing. I had recently acquired a beautiful fountain pen (courtesy of a sister who's moved on to Gel Pens), and it had recently been filled with ink to the brim. I flipped the respective lids and cover open. Slowly, I put the pen on the first sheet of paper, and withdrew it after the slightest touch.

A tiny spot of ink appeared on the paper. I looked at it closely. Tiny streams of ink branched haphazardly out in every direction from that spot. As if my pen was an injection syringe and the paper a piece of delicate animal that had to be treated! I pressed the pen a little harder next. The spot grew bigger, the veins smaller. But they were there. Right there! My first two encounters. Later that day, I wrote a rhyme in it.

I remember hugging my father tightly that night for the gift. He chuckled again, 'It's nothing,' and smiled.

I remember thinking, for the umpteenth time, how amazing my father is for giving me such a valuable possession so easily.



That was a long while ago. I kept that treasured possession so safely that I found it that day.

The second notebook, that brown covered hardbound beauty, was a notebook of mine. I say 'was', because I have not written in it for last six years. Inside, a proudly ornate handwriting proclaimed 'Duttatrey Nath Srivastava, 8th-D, Roll No. 32' with the 'i' missing the tiny dot on it (it's called a tittle, I know!) and below that, 'Social Studies' shone in bright sparkling green ink. I had almost forgotten what a fad these things were that time! I touched the words with my fingers.

Carefully, I began leafing through the notebook. Every page had something to offer: that old game of tic-tac-toe in a corner, a quiet squiggle of a pen suspected to be dysfunctional. A conversation between two friends is etched on its last pages; a reminder of the punishment that we got later on because of it. So many images started floating up to my mind's surface. Where were these all this time? Isn't this what I used to be? Is this what I used to be? I chuckled, softly.

This was exactly the moment when my mother had decided to tell me (loudly) about dinner. I had to look away for a moment. When I looked back, I noted the one thing that I have been missing all this time.

The edges of the pages were not white. A tinge of yellow had already started its journey to the inside.

I stared at it for a minute or so. I chuckled a few more times: when a page bore a few expletives against me, when the teacher wrote 'V. good' with a big green check mark on my homework, when a page had a girl's name written and crossed off hastily.

I closed the notebook gently. I kept both the notebooks back on the shelf I found them on, resolving to come back to them some other time. My parents and dinner were waiting for me.

At dinner, I tell my parents the story of the first notebook. Then, as I mention the second notebook, my father says, 'I guess you'll have to pass that notebook on to your child. Not that he or she'll need it!' I look at him, puzzled. 'What with the iPad and all!' he laughed.

Yes, he or she might not need it. But it isn't about the need of it. The thing that this treasures is far beyond any need. Every new thing looks at the old with awe. Although the awe might later convert to contempt or hatred, it remains, at the time of discovery, an unparalleled pleasure for a curious mind.

Not that I am giving the notebooks away, anyway.







# Twenty Years On..

*In memory of a beloved grandmother*

The grass springs verdant - short-lived,  
eternal,  
Cloaking a grave twenty years old.

It feels like yesterday.  
The sweet fragrance of blooming flowers,  
And the scent of dug-up, wet earth.  
Happy, chirpy twitters from the trees,  
Drowning almost, in the crying below.  
The beauty of the vast eternal sky,  
Lost in the emptiness of a con.

It feels like yesterday.  
The painless agony of childhood,  
Witnessing incomprehensible death.  
The agonizing pain of being torn away,  
From the heaven-bound face of love.  
The wet earth slipping through my  
fingers,  
Into the emptiness of the con.

Here I stand, a score years later,  
Everything feels the same.

The eternal sky shades me above.  
Wet earth sinks my feet below.  
Colourful blooms perfume the air,  
Already joyful with avian songs.  
Tears stream down my cheeks again,  
Recounting the emptiness of that con.

A breeze comes blowing ever so gently,  
Kissing my red, teary cheeks.  
It rustles the overgrown strands of grass.  
I see her then, there, smiling at me,  
And realize the truth hidden deep,  
Buried in the emptiness of that con.

She isn't dead, she never was,  
She lives on, in Life that springs forever  
eternal.

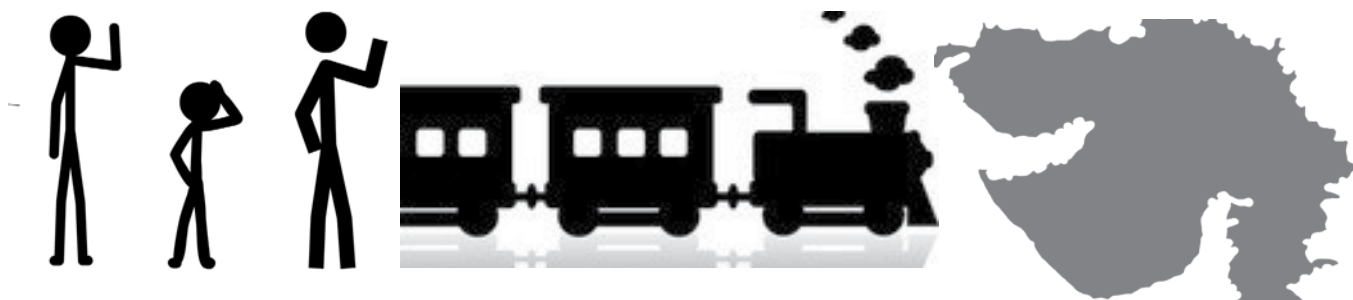
- KATHERINE RAWLINS



Kutch nahí dekha to.....

kuch nahí dekha!

-Prashant Kumar Chauhan



It started with my getting bored in CBS. I wanted to go to many places, especially Chattisgarh, but CJ's plan to visit Chattisgarh failed miserably. After a lot of drama, in the end of January, Ayush said no and Suma said yes. Only three people but the best group with lots of *gadbad* and *ghichmid* like always.

Only an hour was left for the train to leave from Bandra station, and we were still preparing to leave. We ran towards the University back gate and desperately tried to stop rickshaw walas to take us to Bandra. No one was ready to give us a ride. It was not unreasonable, as who would want to go in such traffic? Then somehow, Ajay got an auto but that guy took the longest route go to the terminus. We were stuck in the traffic for few minutes, but somehow we managed to reach near Bandra local station. Thank god they have built an overpass from there to the terminus, which helped us reach there just 6 minutes before the train left.

The next day we reached Bhuj station at 6 am. A place of mysteries, arts and old culture. Once we were out of the train, there were a lot of people standing there to welcome us and give us a ride to any place we want in exchange for money. But it's really difficult to trust anybody at a place famous for tourists in India. But the case with Kutch was just the opposite. During our 3 day's stay in Kutch, we realized how different were Kutch people from most tourist places in India. They are some of the most truthful and beautiful (at heart) people I have met. They take great pride in their way of living, their traditions, and their culture.

One thing about Bhuj is that it's an area prone to earthquakes, and the earthquake in 2001 shook the place greatly. More than half of

*“Only three  
people but  
the best  
group with  
lots of gad-  
bad and  
ghichmid  
like always”*



the Mahal was gone. In Ainamahal there are portraits which convey that earth is on the tails of a snake, and as the snakes move, it causes earthquakes. Similar stories are very popular there. The King of Kutch used to appreciate music. I saw his chamber where musicians from everywhere in India and outside used to come and play their Raga. It was covered with mirrors from everywhere. Then there was an original painting of Mastani, and yes she really was very beautiful. Pragmahal is a marvel of British architecture. It has a clock tower which is a copy of Mumbai University's clock tower, both designed by the same people.

Then we met Mr. Ghanshyam, who was our driver for the day. And we went to the nearby village called Sumrasar, where we went to a NGO called Kalaraksha. It's a museum for art preservation and institute for learning the art of the people of Kutch. It has lots of arts and handicraft from 1200 years ago that are almost lost today. It's a good place see the impact of their art in their modern clothing and lifestyle. They also have a small shop for tourists who want to buy stuff from there. But it was extremely expensive and completely not worth it. We concluded it was exclusively for foreigners who could afford such stuff.

Sumrasar has lots of artists and craftsmen who have the potential to make it big, but don't have the platform to show their art to the world. Some organizations like Indianroots, Kalaraksha, etc are selling the products they make throughout the country. One such person I met was Mr. Anchal who makes his living by making and selling leather products to wholesalers. Something I liked very much about these people is that they want to be recognized for their art and they are extremely proud of what they do and who they are. I even got a purse from Anchal who made it in front of me.

Meeting these amazing people was inspiring. After this, we were back on the road again. It was an amazing experience. On the sides, the remaining water bodies were drying up, but we could still see some migratory birds like white flamingos and many others whose names I don't know.





We also saw the Tropic of Cancer which passes through Gujarat. We then went to another village which belonged to a family of Meghwalmari community. This entire village is involved in only one business of Hand kadhai and they are the best at it. The designs they made on clothes were marvelous and extremely complicated. They also made lots of silver jewelry and similar stuff. Their village was small but very beautiful with round huts which were pretty cold inside in that dry and hot climate even though the walls were not very thick as the ones found in Rajasthan.

We ate our lunch in front of the village and went ahead with our journey towards Kalodungar near the village of Khavda. But entry in the area is restricted, so we had to take permission from the police there, as that area is near the Pakistan border. As we were closing Khavda, the vegetation was receding. Now the landscape was mainly sandy and it was becoming difficult to discern the distances due the land being completely flat with nothing on it. But once we were in Khavda area, we saw desert trees on Kalodungar which is the highest peak in Kutch. We went on top of it to get a view of the entire desert formed from a single lake. We saw that the lake was drying-up so most of it was already converted to desert. The remaining was marshy and some area had very little water left. One can also ride camels there and do remember that it is probably the highest point where one can ride camels in India. I met Mr. Saru Khan who was our camel. He took us till the top of the mountain.



*“One can also ride camels there and do remember that it is probably the highest point where one can ride camels in India. I met Mr. Saru Khan who was our camel. He took us till the top of the mountain”*

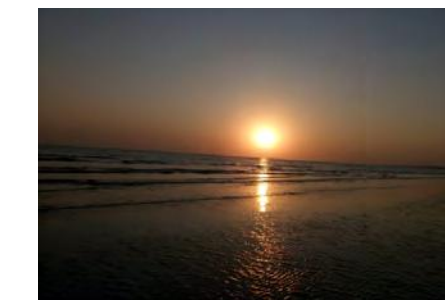


After looking at the salt desert from far away we wanted to actually go there and experience it, so we started our descent towards the Dhordo which is the closest village to the desert.

Then at last we, reached Dhordo: our last stop of the day. We went to the only salt desert in the world. Only white flat land meets your eyes. No vegetation or any other life form. Its beauty cannot be expressed in proper words. One needs to experience it to understand what I’m saying. We were there till the sunset. It was one of the most beautiful sunsets I have ever seen in my life. After going to that place I can truly say “Kutch nahi dekha toh kuch nahi dekha.” So if ever you get a chance, do go there.

After all this I was tired and just wanted to go back to the hotel. Next day we went to lots of different places in Bhuj like the Museum, Swami Narayan mandir which is the most beautiful temple I have ever seen. One more place to visit worth mentioning is Ram kund, which is a beautifully made well. It is considered a holy place and is very beautifully and elegantly designed. Then we went to Mandvi which is south of Bhuj. We rode toofan for the first time. In Mandvi we saw lots of stuff from ship building yard to wind energy power station. The Mandvi beach is pretty good. On the beach we saw a part of Indian coast guard on their duty, protecting our sea front.

We came back from Mandvi at around 21:00 hours in a Toofan, very tired. At 22:00 we had to board our train back to Mumbai. By afternoon the next day, we were in Mumbai, back home in CBS.







# RAGNARÖK 2016

The New Year's first event, RAGNARÖK 2016 is one of the most awaited events for the CBScients. The enthusiasm, energy and the sportsman spirit of the students make it a very special event for the CBS family.

As a symbol of great enthusiasm, the fest is started off with a high spirited Tug of War between the various teams of all the batches.

Cricket, football, basketball, volleyball, badminton, table tennis, carrom and chess, are the events conducted. With increasing craze of computer games, E-sports like Counter Strike Source and Age of Empires III: The Asian Dynasties are included in the lists of events, since 2015.

The fest was concluded with the prize distribution ceremony, with the medals and trophies distributed by the faculty members of CBS. The dinner was also organised with delicious delicacies to end the Fest with nice tasty food.



Events like table tennis, football and chess saw some very close matches between the Finalists. The finalists gave each other a challenge to compete for the Gold Medal. The carom final was also very interesting & a spectacular show to watch.



The Winners of the Events are listed below (Congrats!):

**Tug of War:**  
Winner (Male): Quanta 5 (1st Team)  
Winner (Female): Senior Girls Team

**Badminton:**  
**Men's Singles:**  
Winner: Abhijith Varma (Quanta 5)  
Runner Up: Somendu Maurya (Quanta 5)

**Women's Singles:**  
Winner: Anjali Jayachandran (Quanta 8)  
Runner Up: Bhavya (Quanta 7)

**Men's Doubles:**  
Winner: Abhijith/Somendu (Quanta 5)  
Runner Up: Ajay/Joji (Quanta 5)  
**Women's Doubles:**  
Winner: Anjali/Poonam (Quanta 8)  
Runner Up: Bhavya/Shraddha (Quanta 7)  
**Mixed Doubles:**  
Winner: Saket/Kaarunya (Quanta 5/6)  
Runner Up: Abhijith/Anushree (Quanta 5)

**Volleyball:**  
**Men's Team:**  
Winner: Quanta 7  
Runner Up: Quanta 6

**Women's Team:**  
Winner: Senior CBS Girls  
Runner Up: Quanta 8

**Men's Doubles:**  
Winner: Abhinav/Sunil (Quanta 8)  
Runner Up: Chaitanya/Vishal (Quanta 5)

**Women's Doubles:**  
Winner: Aswathi/Kaarunya (Quanta 6)  
Runner Up: Bhavya/Shraddha (Quanta 7)

**Mixed Doubles:**  
Winner: Saket/Kaarunya (Quanta 5/6)  
Runner Up: Abhinav/Poonam (Quanta 5)

**Table Tennis:**  
**Men's Singles:**  
Winner: Abhijith Varma (Quanta 5)  
Runner Up: Tejas Singar (Quanta 8)

**Women's Singles:**  
Winner: Shraddha Agrawal (Quanta 7)  
Runner Up: Kaarunya (Quanta 6)







Chess:

Winner: Arujash Mohanty (Quanta 9)

Runner Up: Sagnik Dutta (Quanta 6)



Carrom:

Winner: Saket/Kaarunya (Quanta 5/6)

Runner Up: Akshay/Ashok (Quanta 5)

E-Sports:

Counter Strike Source (8 v 8):

Winner: Quanta 8 (1st Team)

Runner Up: Quanta 7

Cricket:

Winner: Quanta 5

Runner Up: CBS XI

Age of Empires III: The Asian Dynasties

Winner: Quanta 8 (1st Team) {Abhijith M./ Fahid/Jaseem/John}

Runner Up: Quanta 8 (2nd Team) {Abhinav/ Ashish/Dwiti/Prashant M}

Football (Team of 7):

Winner: Quanta 5

Runner Up: Quanta 9 (1st Team)

Basketball:

Winner: Quanta 5

Runner Up: Quanta 8





# SPORTICO 2016

CBS emerged Champions of "Sportico 2016" in their debut. Sportico is an Inter-Departmental Sports Competition conducted by the University of Mumbai. We participated in various events like Ring-Football, Badminton, Volleyball, Table-tennis, and Basketball.

After a close loss in Volleyball, CBS came back in style and clinched the Champions trophy. CBS lost the penalty shootout of the finals 1-2, and Basketball was won with a huge difference. Both of the finalists in T.T women's singles were from CBS. After a neck-to-neck battle with Alkesh Dinesh Modi Institute, CBS won the points table with 20-19.

List of Winners from CBS:

1. Basketball Team- Abhijith Varma, Vikas Bothe, John James, Balwant P. Kishen Abhishek Panchal, Tejas Singar, Arujash

2. Table tennis Women Singles- Kaarunya D

List of Runners-up from CBS:

1. Ring-Football Team- Somendu, Arujash, Vikas Bothe, Saket, Rishabh Nain, Shubham, Akshay K, Sachin

2. Table tennis Women Singles- Shraddha Agrawal

Apart from these, Anjali Jayachandran reached the semi-finals in Badminton women's singles, Poonam Singh and Anjali Jayachandran reached semi-finals in Women's doubles Badminton. Congratulations to all these players. May these trophies multiply in future.



# GALLERY





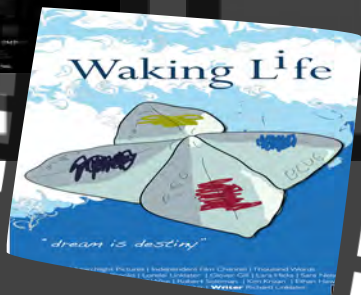
# COULD NOT...

(They say, "In the middle of an ordinary life, love gives you a fairy tale". Indeed, it might be true for those who have got true love and a compassionate companion in their life. But for rest of us out there, those who struggle with finding the quest of being loved deeply, it is mysterious and not just a fairy tale. It takes a lot of negativity to bring out one's positive traits in front of the world. People should not shy away from the negative aspect of their life, as they are the reason why we get to value positivity.)

Nights gave me what your days could not: Lonesomeness and Seclusion,  
Negativity gave me what your positivity could not: Attitude and Conviction,  
Hatred gave me what your love could not: Strength and Compassion,  
Home gave me what your lavish house could not: Satisfaction and Gratification,  
Hesitation gave me what your insistence could not: Persistence and Elegance,  
Eyes gave me what your heart could not: Determination and Diligence,  
Passion gave me what your prayers could not: Triumph and Vigilance,  
Suspicion gave me what your shyness could not: Scrupulousness and Loyalty,  
Brutality gave me what your gentleness could not: Kindness and Humanity,  
Silence gave me what your words could not: Placation and Comity,  
Deception gave me what your sincerity could not: Innocence and Credibility,  
Castigation gave me what your forgiveness could not: Grace and Sympathy,  
Revenge gave me what your acknowledgement could not: Tolerance and Empathy,  
Violence gave me what your music could not: Rhythm and Melody,  
Triviality gave me what your warmth could not: Glow and Abundance,  
Ignorance gave me what your acceptance could not: Forbearance and Endurance,  
Tenacity gave me what your flexibility could not: Resilience and Complaisance,  
Depression gave me what your Happiness could not: Optimism and Eminence,  
Tears gave me what your laughter could not: Indulgence and Patience,  
Death gave me what your life could not: Resurrection and Resurgence.

-SAMRIDHI PATHAK





# CBS MOVIE CLUB

CBS movie club did not cease to amaze the audience, as always. Quanta 8, taking the initiative to run the movie club, took us through a series of spine chilling thrillers to vintage classics. This time Indian movies also caught up with the pace of the club, adding to the diversity.





# SIGHT



The stars seem distant tonight.  
They keep on vanishing from sight.  
Peeping in, but not so bright.  
Pushing through the clouds to fight,  
their way into the quaint midnight.  
Making life a brief twilight.

This transience would feel nice.  
And next moment the sun shall rise.  
Each ray shall vie to bring light.  
Bringers of hope for people who might..  
..change this world, set everything right.

But what about those unseeing eyes?  
Dreams bottled up inside.  
Can other senses ever suffice?  
For the desire to see Nature's delight.  
To see the colour of fire and ice!

The stars should give me their wasted light.  
As they grow more distant every night!

-IKSHUL J





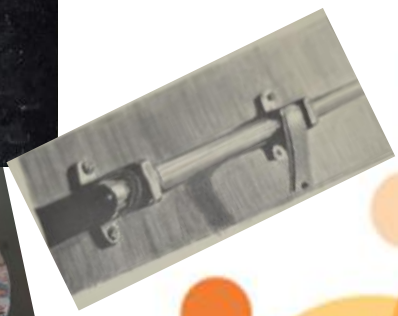
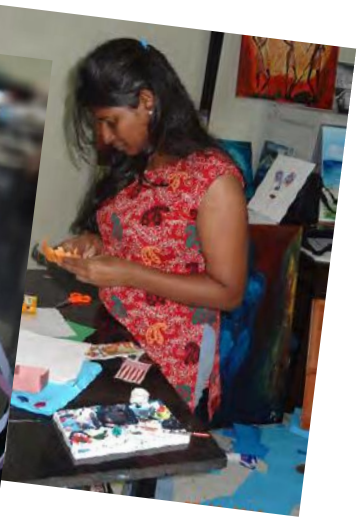
# ORIS

“Art is the  
only way to run  
away without  
leaving home”  
-Twyla Tharp

ORIS is the annual art fest of CBS. ORIS brings with it, a tide of imagination and enthusiasm filling the otherwise monotonous routine of CBScients with colours and creativity. This year, the theme of the event was “Aqua”, and it was held on 26th and 27th March. Going by tradition, Prof. Nagarajan accompanied the students in an origami session on the first day of the event. This was followed by face painting, quilling and handicraft sessions along with painting. Georgia O’Keeffe puts it perfectly that with colour and shapes, one can say things that we have no words for. And to present these unsaid words of CBScients, an exhibition was organised post the event. As a part of ORIS, a photography exhibition was also arranged by CBS art club based on Novellus’ theme this year- Nostalgia!









# SILENCE

The sudden silence doesn't pester me for long,  
Your face comes in front of my eyes,  
and I can feel you very near,  
close enough, my lips twist a side,  
and I let out a sigh,  
I stare out at you for what seems eternity,  
hoping you would break the silence,  
You don't, so I just smile  
I take steps towards you,  
taking your hands in mine,  
and locking them behind myself,  
just rest my head on you,  
That's how I try to explain myself to you  
That all the time we don't need words  
And that a silent gesture does more magic  
Than words could ever perhaps  
I enjoy the long prevailed silence  
As long as I feel you near me  
And not in a million years can I say  
That I don't enjoy the proximity we share.

-AISHWARYA MISHRA



# CELEBRATIONS @ CBS

## NAVARATHRI



## DIWALI



## HOLI





# ONAM



# DAHI HANDI





# VOICE OF LIES/TRUTH

*The rich man's tongue sold in fame  
simmering with lies blatant  
A garb of vice as poet is dressed  
To all the eyes that view  
A veil is cast unaware to the oppressed  
And the voice this time*

*So sound is heard  
Not owing to its nature no  
But a glimmering stage of wealth and fame  
And to the voice of truth  
Lost in the noise of wealth  
Is done the service it never deserved.*

-MADDY



# Dhwani

*Celebrating diversity...*

*...Reliving the roots*

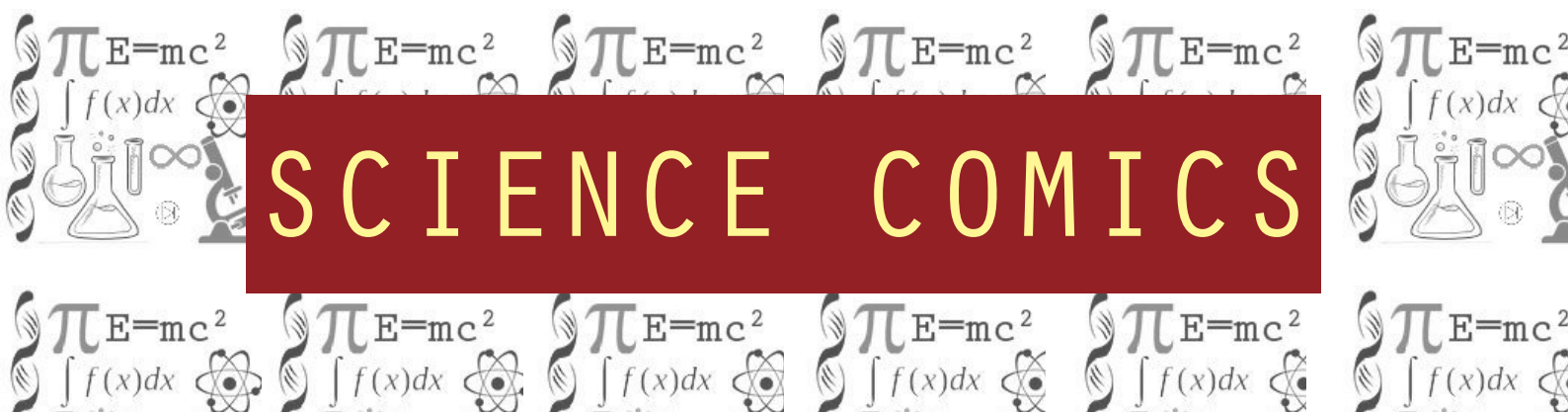
Dhwani, the annual music festival of CBS, was held on 5th April 2016, in Marathi Bhasha Bhavan. The programme this year centred around the theme of reliving the roots of classical music in India, and featured 14 vocalists and 9 instrumentalists from across CBS.



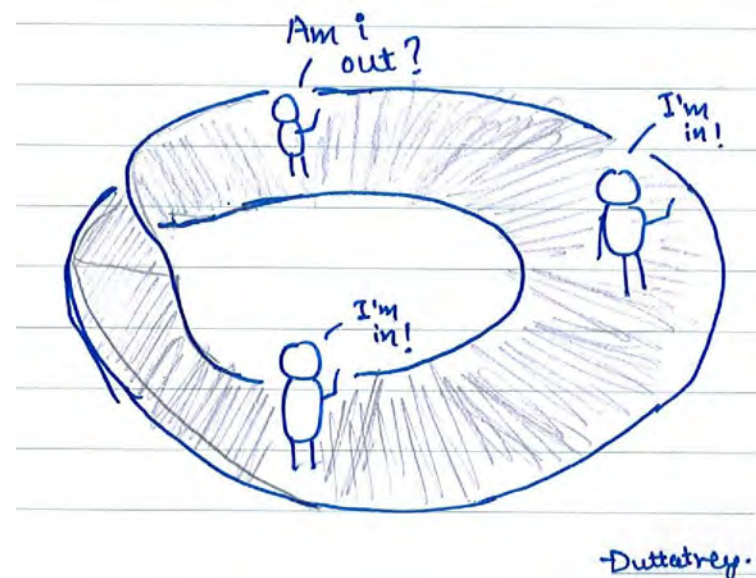
The event had three main sections - Carnatic Classical, Rabindra Sangeet and Hindustani Classical and Semi-classical. Two songs out of the five gems of Tyagaraja known as Pancharatna Kritis were performed in the Carnatic section, as well as two other kritis. The Rabindra Sangeet section included recitations of some great poems along with melodious Bengali songs. The Hindustani section comprised of various classical songs, and also light music with a heavy classical influence. The festival culminated with a spirited instrumental rendition of Vande Mataram, that had the audience moving with their rhythm, and offered the evening a finish with flourish!



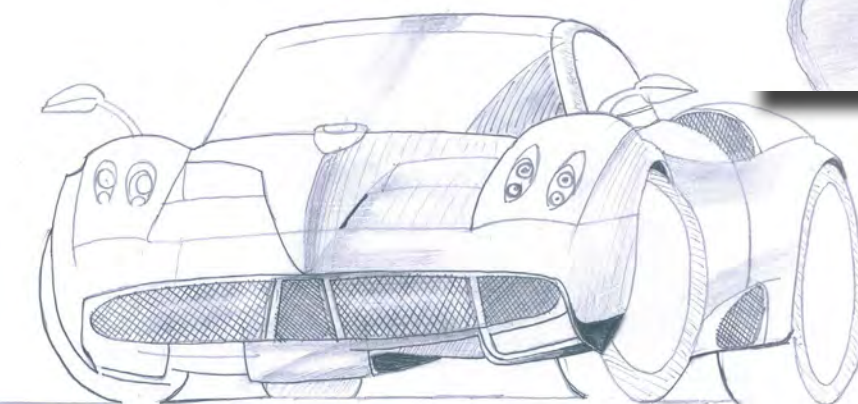




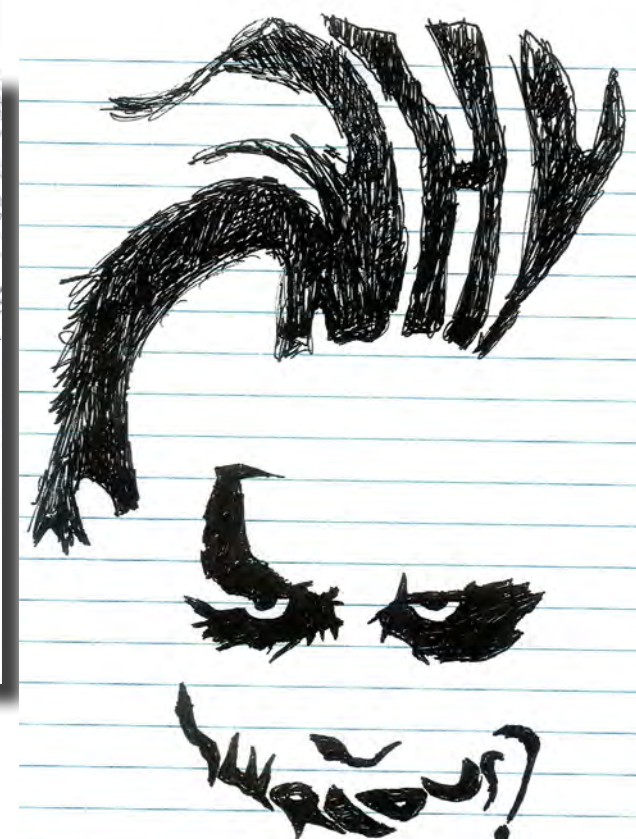
# SCIENCE COMICS



# Impressions



KARTIKEYA  
SHARMA



ABHISHEK  
PANCHAL



# HOSTEL DIARIES

## WHAT'S THAT SMELL?

So one day I return to my room after class and lay down to relax. All of a sudden, there is a rustle, originating somewhere in the pile of trash lying over half the room (#NotMyHalf). The windows were closed as were the doors so I was sure a rat couldn't have entered. I close my eyes again. In a minute, there's that sound again. Unmistakable. Then I get up and pick up the lathi we keep (for times like these apparently) and start poking trash everywhere. Finally I hit a spot and a large rat jumps out and dashes to the space below my cupboard. At that very moment, Pawan and Kartikeya pass outside my room so I hand them the lathi, tell them where the rat is, stand as far away I can and watch as Pawan looks for it. As he drags something out, it is something much much worse than I could have imagined - a dead rat! Dead and dried out, because it had been dead for so long. The lack of cleanliness, thanks to my roommate and the housekeeping staff combined, apparently led to this corpse lying there undisturbed for weeks (I shudder). That was it. I switched rooms within a week. Had to move floors. One of the best decisions of my college life!

-SANCHIT SABHLOK

## DEAR ROLL THEIR

After a long, tiring day, I came to my room. Just the thought of mess food made me pause and I decided to try a new restaurant for dinner. And so I ordered a 'healthy' roll and when it was delivered it came with a packet of ragi chips. For those unfamiliar with ragi, it does not make the best chips. And just as I was about to sit to eat, I got a request for a notebook. I put my roll and so called chips back into its bag and went down for some time. On coming back, the bag was exactly where I had kept it. And when I opened it, all there was inside were the damn chips. And just then I understood the true meaning of the word hangry, which is anger induced by hunger. In yet another incident, the mess crisis had led to the refrigerator being available for common use. I had saved a bottle of cold coffee for a long time, and after a not-so-great exam I decided to cheer myself up by drinking it. I open the fridge and take out the plastic cover of my things and find all the fruits and vegetables intact, but my cold coffee missing. I still haven't found my food thieves, but when I do...

-BHAVYA VENKATESH

## THE "EPIDEMIC"

Midsems are in full swing. And exam fever has caught on everywhere and in a couple of cases, resulted in a temperature of 104 degrees. And so Aswathi is rushed to the hospital along with a couple of chaperones and we all went back to burying our heads into our books, taking periodic updates. And by then everyone woke up the next morning, three more people from the same batch had been admitted as well. And so began the flu scare of CBS. The administration was quickly contacted and exams cancelled for the day. Meanwhile, some of the admitted students were scared by the doctors about a possibility of swine flu. By evening, various doctors were consulted and it was concluded that it was just a simple viral fever. A list of measures were designed to cope with the situation. We still don't know if it was a bad dinner or a bug that caused the "epidemic", but that was one scary 24 hours!

## 'BANE' AND BACK

Last semester, there was a broken bone/ligament tear/sprain fiasco at CBS. And I gloated more than enough about surviving 21 years without ever breaking a bone or tearing a ligament. It was the time when sports became very popular at CBS with regular groups playing volleyball, basketball, football and cricket as much as they could. I indulged in long hours of volleyball games. One fine evening, after shedding enough sympathy on the fractured bones I went to play volleyball. Two hours into the game, almost everyone left. But one doesn't simply leave the court without displaying football talents that never existed. So I started kicking the ball around along with a fellow player. In the excitement I kicked the ball out to the lawn and ran for it, the idea was to reach the ball before he did. I kept running at the highest velocity as if my life depended on it. But he had already reached the ball and I just ran into him with all my strength. After a moment's darkness and pain I opened my eyes to find blood and some saliva like fluid pouring out of my nose and mouth. And he stood a couple of feet away rubbing his head in pain. All I did was cry silently in pain because any effort at making noise led to excruciating pain all over my head. Soon my nose started swelling and people started staring. I realized it was serious when a female chemistry faculty stopped on her way to the mess to have a look at my bleeding swollen nose and laughed out loud. After a consultation with the doctor substantiated by a nasal X-Ray, I realized that my nasal bone had caved in and joined the broken bone club of CBS. I spent the next two weeks roaming around ABS with a nasal cast which covered half of my face and made me look like a distant relative of Bane, from the Batman series.

-ASWATHI K SIVAN





# SHOT AT SIGHT



Bhavya Venkatesh



Dwiti Das



Prashant Chauhan



Bhavya Venkatesh



Krishnadev N



Viswajith E.S.



Pinki



Abhishek Howlader



Vivek Chaurasia

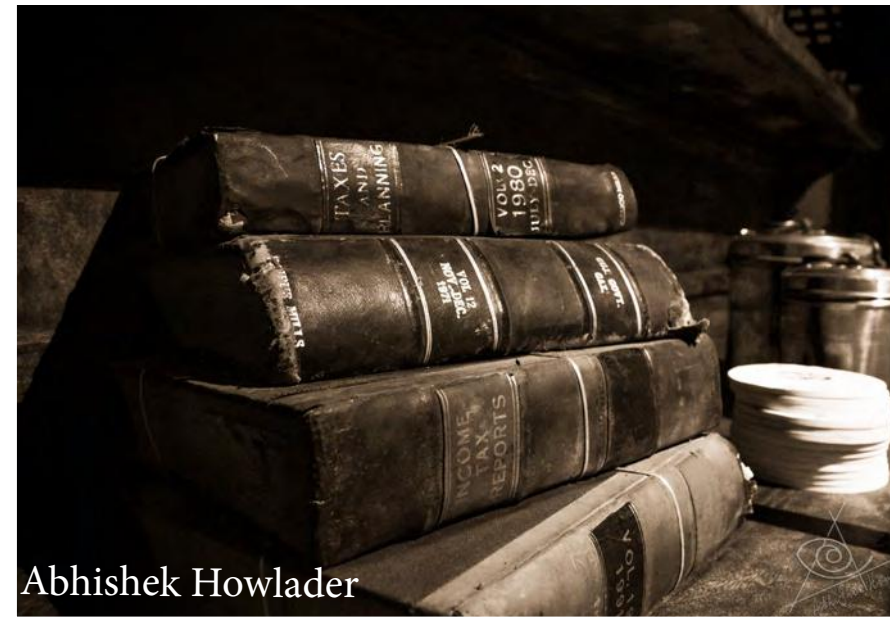




Krishnadev N



Pinki



Abhishek Howlader



Rashmi Chaudhary



Vivek Chaurasia



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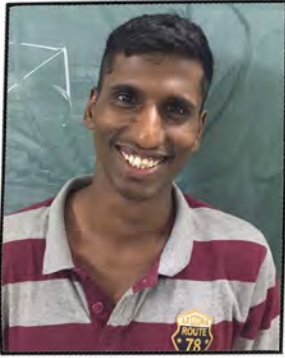
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Vivek Chaurasia



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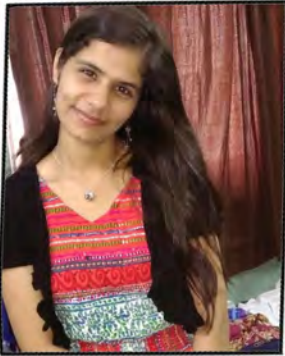
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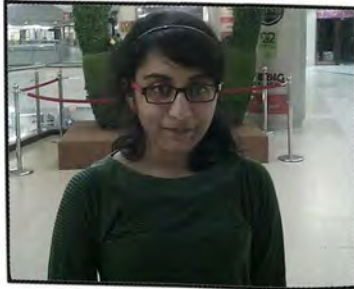
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## Team Novellus 2016

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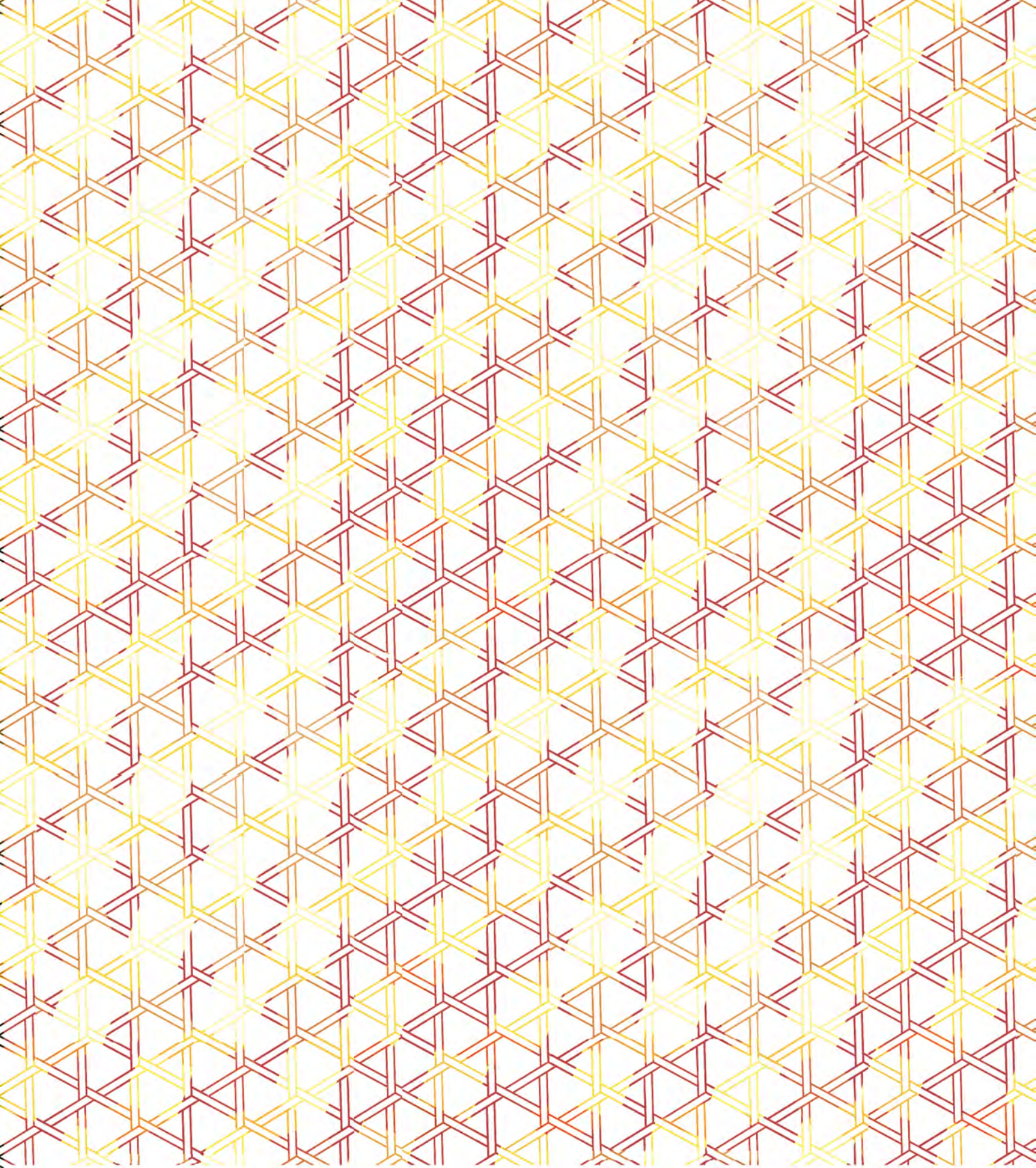


# *In Memoriam*



Prof. S B Patel passed away in December 2015. His presence will be forever missed in our institute.





University of Mumbai- Department of Atomic Energy

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