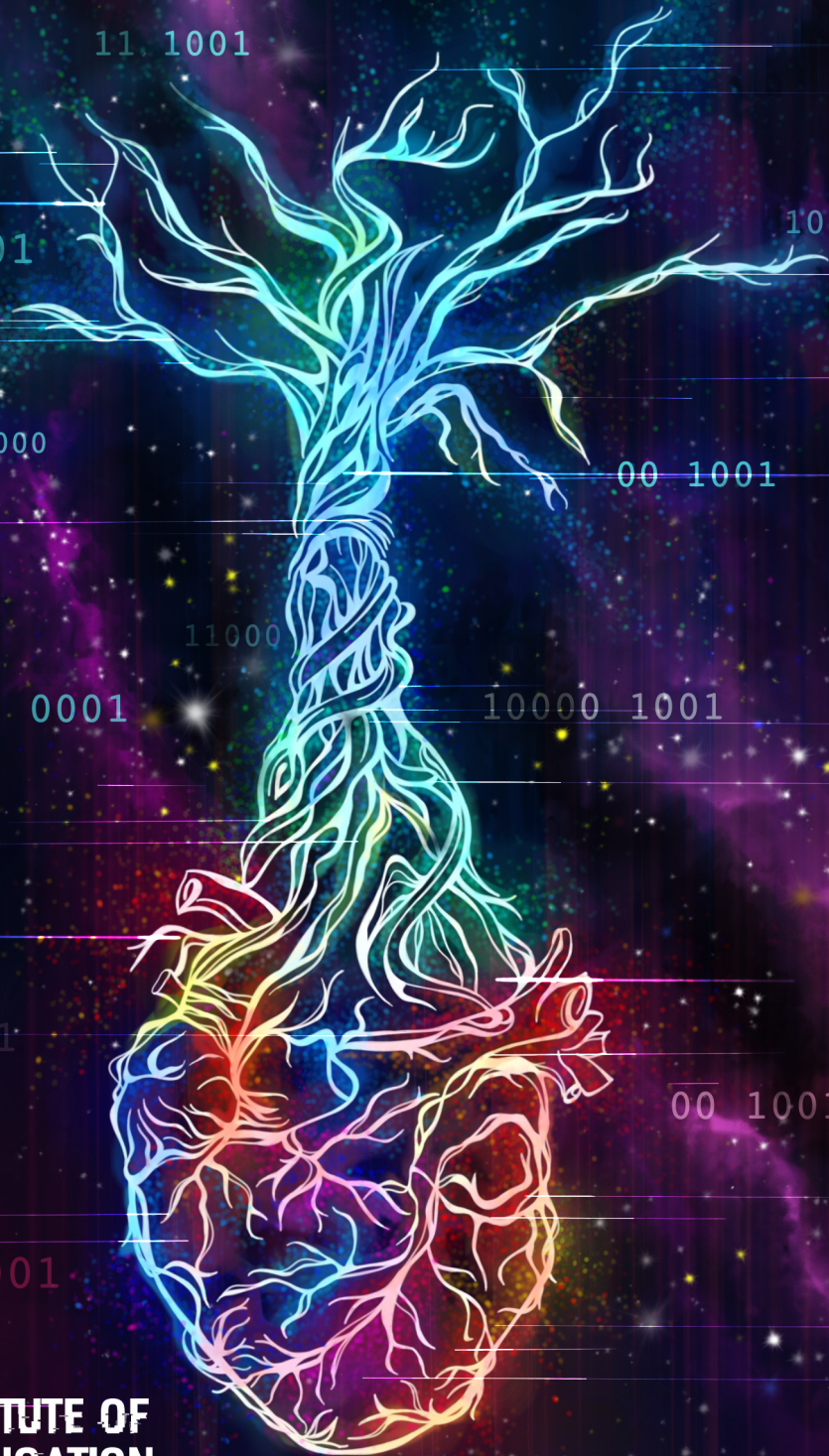


DHWAANI

2021



INDIAN INSTITUTE OF
SCIENCE EDUCATION
AND RESEARCH
TIRUPATI

CREATING INFINITE POSSIBILITIES

ABOUT THE COVER

This years cover page was a result of several stewing sessions and needless to say, the first version did not remotely resemble this. Science and art are not things to be kept at two sides of the spectrum, both grow unto and between themselves often reflecting each other. Nature is the best artist.

The mid portion - the tree growing from the entangled root heart - is a cry into the void, us trying to express ourselves into whatever computable subspace of a binary universe, utterly insignificant maybe, but beautiful nevertheless.

Thoughts arise rarely as something streamlined, more often they are a mixture of ideas and feelings - an unfiltered version of ourselves, which we often purify before putting them out there, hence the muddled colours in the heart and the more or less monotonous and fluid colors in the tree.

The added glitches are for the cool factor (also representing the constant instability which pushes us forward, but oh well).

Hope you find the magazine enjoyable!

- Amisha and Himika.

NOTE FROM THE DIRECTOR

"Dhwani" has emerged as a medium for inner expression of creativity of IISER Tirupati students. During the COVID times when the physical-visual communication has been curtailed on the campus and much of the interoception among the student community has been on-line, Dhwani provides an electronic / digital expression of their creativity. This edition of Dhwani provides an excellent diversion of our mind from the quarantine and physical isolation due to COVID. I am sure the readers will enjoy the creative acts of students which brings freshness of their imaginative thoughts emerging during offline times at home. Wish you all a happy reading of Dhwani created by our artistic students.



Krishna Ganesh, FNA, FASc, FTWAS
Professor of Chemistry and
Director IISER Tirupati

NOTE FROM THE DEAN



It is with a sense of pride and happiness that I write this note for Dhwani 2021. This special collection represents a unified cultural tapestry of IISER Tirupati's students. The student's creativity faces incredible challenges in the face of this pandemic, and yet, we are reminded of their resilience through these works. Dhwani, as its apt name, lights up with exciting blend of various cultures, linguistic diversity, mastery of art, literature, quirky science, intellect and some soul-stirring experiences, all elegantly displayed.

The second graduating batch of BS-MS students leave a trail of their legacy with our institute. They have blossomed into vibrant men and women as they step out to face the world. This year, as more students graduate, a small part of Dhwani will live forever in their hearts.

**Rajesh Viswanathan,
Associate Professor and Associate
Dean, IISER Tirupati**

NOTE FROM CHAIR, COSA

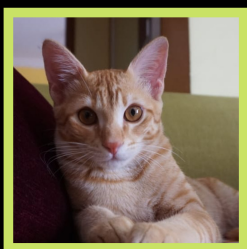
Dear Students,

This year has been exceptionally tough and you have strongly sailed through this. It was not an easy task to stay away from campus, taking online lessons from abnormal locations and locations where there is no Internet connectivity. You have crossed all the hurdles. Although you have stayed away, you have been connected well and efficiently created many new activities. This pandemic has brought a unique opportunity to you, wherein; you have joined hands with students across IISERs. You have initiated inter IISER competitions, inter IISER science magazines, student organized symposiums and many more interesting scientific activities. Hence, after all, the pandemic was a blessing in disguise. Success is when you create a positive opportunity out of calamity! You have done it and proven your internal strength. Students are huge strength to a campus, stay strong and succeed always.



Vasudharani Devanathan
Assistant Professor, Biology
Chair, Student Affairs
IISER Tirupati

MEET THE TEAM



NITYA PRABHANDAM
BS-MS 2019



ANITA D. BARUAH
BS-MS 2019



YASH WATH
BS-MS 2019



AINESH SANYAL
BS-MS 2019



ANJALI SINDHAL
BS-MS 2019



NITHISH G
BS-MS 2019



PREET BHANJAN
BS-MS 2018



NEHA ADARSH
BS-MS 2020



BHAVYA SUBI
BS-MS 2020



ATHMIKA PRAJESH
BS-MS 2020



TEJAS BORKAR
BS-MS 2018



K S. APSARA
BS-MS 2019



HIMIKA DAS
BS-MS 2019



AMISHA BAIJU
BS-MS 2019



GAYATHRI P S
BS-MS 2018



SNEHA PRAKASH
BS-MS 2018



ARYAN PATEL
BS-MS 2019



MANASA UPPALA
BS-MS 2020



SHIVANGI BATISH
BS-MS 2020



SUNANDA BISWAS
BS-MS 2019

NOTE FROM THE TEAM

Dear Reader(s),

We are pleased to bring to you the 2021 version (sixth edition, because all of us like a little more detail) of Dhwani in all its glory but in the backdrop of a plethora of challenges and limitations.

2021 has been an exceptionally challenging year for everyone. The pandemic has affected the lives of different people in different ways (mandatory opening lines). We, as college students, had the disadvantage of not being able to go to campuses for over a year (circumstance still in progress). The very essence of (physical) collaboration that Dhwani holds so dear was partially, if not totally, lost over this period.

What started off as a small venture to share the creativity of IISER Tirupati's students back in 2015, has now grown to accommodate not only a larger community but also evergrowing the grace and art that accompany the people.

This year's Dhwani is a little different from the previous ones. Work on it started online, continued virtually as the pandemic raged, arriving and departing in waves, and even ended wholly under online circumstances. That being said, all of us, as part of the team, have been forced to adapt (for the better(?)) and come up with new and innovative solutions to challenges.

We went forward with the idea that pandemic has pushed people to pursue creative endeavours.

A record number of submissions were received this year! All in all, it was quite enriching to see what we have managed to put together in a year.

We are especially thrilled to present a couple of new features in this year's versions as well.

A three-part interview series called Confab and a portion dedicated to recommendations and reviews of books and cinema (because everyone likes those). We feel that Dhwani 2021 exemplifies the creative and inquisitive nature of the human spirit in the face of darkness.

We end this message on a note of hope, hoping that the end of Dhwani 2021 is the beginning of a new age. An age where we don't take nature for granted, an age where we realise how important sustainability is, an age where we go above and beyond ourselves to embrace the collective human spirit.

We wish you a happy read!

Dhwani 2021 Editorial team.

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A GLIMPSE THROUGH THE FRESHERS FIESTA

LETTERS FROM THE ALUMNI

LUCIFER OF THE CORONA AGE



CONFAB INTERVIEW SERIES

NATURE COMES CALLING
Anusha Shankar

PUMP UP THE JAM
Siddharth Nagarajan

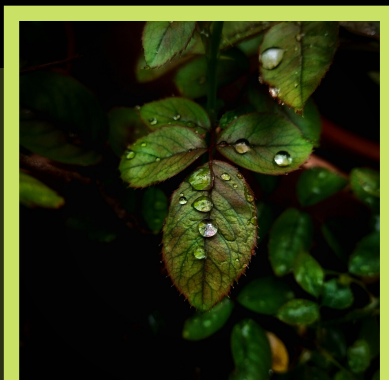
SMILES
K. L. George

WRITING

ARTICLES

BOOK REVIEWS AND RECOMMENDATIONS

MOVIE REVIEWS AND RECOMMENDATIONS



DISPLAY

ARTWORK

PHOTOGRAPHY

DHWANI

CLUBS

report

CHEMISTRY

BIOLOGY

PHYSICS

Schrödinger's kittens

Hello, we're Schrodinger's kittens! While we're doing physics and not napping, we're not doing physics and napping (other cases are non-differentiable so we didn't consider them). We present about, screen and simulate physical systems every meow and then. We organize interesting guest lectures and student talks! We've also got a physics puzzle series hosted online, called project faraday.

COORDINATORS: Aaradhya Vaze, Adil Aman, Arnab Lahiry, Arunangshu Bora (All BSMS 2018)

BSMS
Schrödinger's
kittens

Synergy

Chemistry is thought of as drudgery by most people. Thus, our aim is to portray the right meaning of chemistry. We do this by organizing talks, group discussions, quizzes and engaging students through our instagram page. Topics for talks cover all aspects of chemistry. We encourage students to ask questions to ensure their participation in discussions and to help them enhance their knowledge.

COORDINATORS : Mohammad Shafee (BSMS 2018), Nachiketh Sudarshan (BSMS2019), Rukmini Harale (BSMS2019)

Synergy
THE CHEMISTRY CLUB

MATHEMATICS

Math club

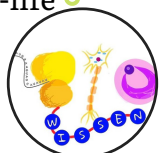
The Math Club provides a platform for all math lovers to interact and discuss mathematics. Most of our sessions are presentations, conducted in classrooms, where a speaker talks about math which they find interesting. We have shifted to online presentations since the coronavirus pandemic and have also started having more casual online sessions with games, discussions centered around math.

COORDINATORS: Shashank V (BSMS 2018)

Bio Wissen

Bio Wissen is a platform for bio-enthusiasts to participate in scientific discussions and get introduced to current research in the field of Biology. We organize discussions, debates, workshops, symposiums, and competitions and student presentations to demonstrate the many exciting facets of Biology. We also invite frontline researchers in Biology to share their research and interact with the students. Hence, we strive to promote scientific interactions and evolve a scientific approach to tackle real-life problems.

COORDINATORS: Sanskar Agrawal (BSMS 2019), M. Nithyassree (BSMS 2018)





Petrichor

ECS

The ECS Club initiated its activities on 20th January 2021. The aim of the club is to spread awareness and provide an insight into the working of the systems that run Celestial Bodies, more importantly, the Earth. We have conducted some online talks since the lockdown.

COORDINATORS : Parth Menghal (BSMS 2019), Prayash Mallick (BSMS 2019)



Birding and trekking

We conduct weekend trips around the campus. Birding/trekking trips to nearby places (Mamanduru Reserve Forest IIT/IISER permanent campus Kapila Theertham, S. V. University, Pulicat lake(Sriharikota)). Apart from the weekly birding and trekking activities, we have also been a part of Tirupati urban diversity mapping and the i-Naturalist project. We also actively participate in GBBC and CBC every year.

COORDINATORS : Anjali Singh (BSMS 2018), Lakshmi M V (BSMS 2018), Sriyukta G Cheeranghat(BSMS 2018)

Q. COMPUTING

QUIISER



QUIISER is the student-run Quantum computing club of IISER Tirupati which promotes Quantum Computation, Information Science, Technology, Physics, etc. The club will provide you plenty of access to workshops/Labs on Quantum Computing and Programming, Talks/Lectures by leading experts and speakers from the Quantum Industry and Academia, and Hackathons.

COORDINATORS : Shubham Kumar (BS-MS 2018), Sushree Swateprajnya Behera (BS-MS 2016) and Akash Kumar Singh (BS-MS 2018)

Breathe

Breathe is the mental health advocacy club of IISER Tirupati. Since 2018, the club has been actively involved in promoting talking about mental health issues and advocating for seeking professional help.

COORDINATORS : PS Vishnuprasad, BSMS 2017

Celestic



The Astro Club organizes stargazing sessions and astronomy talks in the campus. We have a Facebook page where we update information about astronomical events. During the lockdown, we started working with SETI on a project called CAMS, a collaboration between CELESTIC, Horizon IIT Madras, and SEDS VIT Vellore.

COORDINATORS : Swastik D. Shinde, Arunangshu Bora, Shubham Singh (All BS-MS 2018)

Lit club



We're the place for anyone who loves reading and writing in any form. From book discussions to writing competitions to JAMs and debates, we do it all. In addition to this, we play fun literary-oriented games in our regular sessions. One of the games we played last year was Lit Jeopardy, a book/comic-oriented quiz in the vein of the popular TV show Jeopardy!.

COORDINATORS : Chaitanya Chawak (BSMS 2018), Nitya Prabhandam (BSMS 2019)

ASTRONOMY | BIRDING | LITERARY | HEALTH



Anubhuti's primary goal is to promote Indian Cultural Arts and the importance of connecting with them. We consist of a diverse group of students trained in various art forms from across the country. Regular open mics and viewing/listening sessions are held to discuss, perform and appreciate the beauty and intricacies of the Indian Classical Arts. The club has held a number of SPIC MACAY events independently and as part of Virasat series. Online events open to wider audiences are scheduled as a part of the club's activities.

COORDINATORS : Madhumithran.M (BSMS 2019).

Fovea

Fovea is primarily involved in covering the events happening in our institute like - Vivante, Ethnic day, etc. We organize photography workshops and photowalk sessions for the members. We have conducted a photography competition, Lensomnia. We also conducted "Earth is Healing" during lockdown and also an ongoing online photography workshop called "The Fundamentals of Photography".

COORDINATORS : Shivam Kumar (BSMS 2019)



IIC

The IIC (Institute Innovation Council) at IISER Tirupati was formed in 2020, to nurture ideas and startup culture in IISER Tirupati.

IIC organized its first official event that was Ideathon 1.0 which was an intra IISER Tirupati online event. IIC also recently organized the I2P series, to motivate and give the audience an insight into how innovative ideas can be channelized and made into profitable business ventures.

COORDINATORS : Rrejusha P (BSMS 2017), Sanskar Agrawal (BSMS 2019) Akash Kumar Singh (BSMS 2018)

INNOVATION

Rainbows

Rainbows is the brainchild of two queer undergraduates who wanted to create a safe space where discussions about gender and sexual identities would not face the same amount of stigma as it often does. We have a Whatsapp group of LGBT+ spectrum people and allies and discuss topics through Zoom meetings. We have conducted campus-wide surveys to sensitize people and ascertain the outlook towards queer-issues. We envision an inclusive and accepting campus since we strongly believe that having a safe-space is a need to empower marginalized folks.

COORDINATORS : Ditya Saha (BSMS 2016), Susmit Bansode (BSMS 2017)

Jijivisha

We at Jijivisha strive to explore the art of dramatics both on- and off-stage. With a play every semester in either English or Hindi, we try to promote a "cultural" theatre experience. Members of the club meet every weekend to put forth ideas for new plays or talk about interesting theater techniques that we have seen.

COORDINATORS : Serene Rasheed (BSMS 2018), Sushmita Halder (BSMS 2018), Triptesh Kumar Roy (BSMS 2018)

Abhiprajna

Abhiprajna is a national level online quiz competition that started off as a combined effort of all the science clubs of IISER Tirupati. The initiative to organize such an interdisciplinary competition stemmed from the need to do something productive and fun in the days when the world was quarantined. The first edition of Abhiprajna was a wildly successful endeavor with 300+ enthusiastic entries from all around the country and amazing reviews from the participants. We hope to carry forward this tradition in the subsequent years.

COORDINATORS :Shubra Singhal (BSMS 2019), M Nithyassree (BSMS 2018), Swastik Shinde (BSMS 2018), Rukmini (BSMS 2019), Shashank (BSMS 2018), Komal Pati (BSMS 2019)



Chess

We organize tournaments in various formats from time to time. We had started coaching sessions for both beginners and advanced players before the lockdown. So far, five major and several blitz (in online mode during the lockdown) tournaments have been successfully conducted.

COORDINATORS :Prameya Garge (BSMS 2019), Ambareesh Shrivastav (IPhD 2018)

Ars Gratia Artis

The arts club houses a colorful array of amateur artists. We have conducted online discussion and tutorial sessions during the pandemic by adjusting art to the digital platform. We have also conducted an arts contest, 'Ars Gratia Artis', during the same period. The novel Instagram page, Ars Gratia Artis, has, in a little less than a year of its conceiving, received more than 130 entries.

COORDINATORS :Himika Das (BSMS 2019), Arnab Lahiry (BSMS 2018)

Comedy club

One of the newest clubs of IISER Tirupati, the comedy club aims to promote stand-up comedy in the campus. We conduct open mics and help budding comedians in developing their material.

COORDINATORS :PS Vishnuprasad, Ishita Amar (BSMS 2017)

Dance

The dance club started in 2019. We used to gather on Friday evenings for some fun dance tutorials. Some of our members represent IISER Tirupati at IICM and other dance competitions for which we have sessions ranging from simple tutorials to intensive training. We are also involved in theme and story creation, costume designing, song editing etc.

COORDINATORS :Haritha K Sasi (BSMS 2018), Namita Chutani (Integrated PhD Biology 2018)



Unnati

Unnati is the student-run social outreach arm of IISER Tirupati. A cloth donation-drive, book-donation drives (resulting in the establishment of a library in SOS) have been conducted over the years. We have been conducting several online interactive sessions and talks with SOS children, faculty kids and other school students since the lockdown. An essay competition for school students has been our most recent activity.

COORDINATORS :Hrudya Sundaresan (BSMS 2018), Preet Bhanjan (BSMS 2018), P. Gayathri Vinod (BSMS 2018)



Movie club

We screen a diverse range of movies of all genres and languages on every Friday, as well as on other special occasions. We know a dose of refreshment is must to keep students going and charged up. We encourage students to give us suggestions of movies/series/shows that are fascinating to watch.

COORDINATORS: *Sunanda Biswas* (BSMS 2019)

Sports club

The sports club takes care of all the sports activities at our institute. The club's main activity is to ensure regular sports practice among the students to prepare a strong contingent for representing our institute at Inter IISER Sports Meet (IISM). The club conducts Unity runs (marathon), which are open to all members of the IISER T community to ensure a balance between studies, health and work.

COORDINATORS: *Adithya S*, (BSMS 2017)



Shemushi

Shemushi, the quiz club of IISER Tirupati, has been active since 2015. We conduct quizzes every Friday. The themes for the quizzes are selected from science, technology, history, certain pop culture topics, current events etc. We start each academic year with a grand Independence day quiz. We also conduct a purely science based quiz on science day (28th February) and end the academic year with a quiz completely related to IISER Tirupati.

COORDINATORS: *Mrigaraj Goswasmi* (BSMS 2017), *Tejas Borkar* (BSMS 2018), *Nitya Prabhandam* (BSMS 2019)



OUR

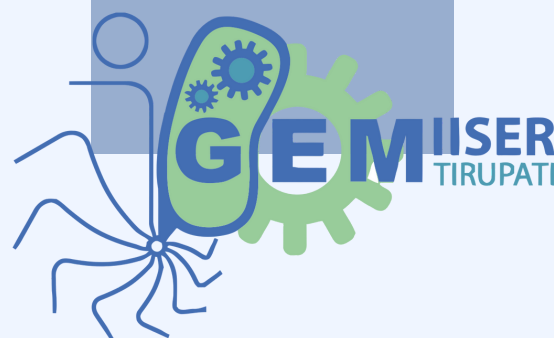
TO JOURNEY

ANOTHER

GOLD

- Purva Athul Naik, BS-MS 2018

Back in March 2019, there was an email from one of my seniors about iGEM, the International Genetically Engineered Machine. It's an international platform where young minds from across the globe design synthetic biology-based solutions to tackle real-world problems. I still remember how exhilarated I was; I had already decided that I will try my best to be a part of this one-of-a-kind competition. The 2019 team introduced us to iGEM, the competition, its aim, purpose, requirements, and the whole process. They had set up the stage for us and passed on the baton by winning GOLD. The mountain of expectations from us was rising, and the time, decreasing. I soon met a lot of people, eager, excited, inspired, motivated, and full of vivid ideas. Our journey of iGEM wasn't easy, rather filled with unexpected, unforeseen, and even unfortunate incidences, but the fruits were sweet. Till November 2019, we were brainstorming ideas but couldn't reach a consensus. Most of the ideas, no doubt incredible, had to be discarded either due to feasibility and time crunches. Or they had already been implemented in some of the past projects. During this period, I realized how important it is to be a critique and give constructive opinions.



“They had set up the stage for us and passed on the baton by winning GOLD. The mountain of expectations from us was rising, and the time, decreasing.”



Dr Raju Mukherjee



Prof BJ Rao



Prof G Ambika

By January 2020, we decided to work on a specific project, and with the help of Dr Raju Mukherjee and Prof. BJ Rao, we stamped on it. We then laid a rough plan of the required experiments and also set out deadlines for the easy task, etching our boundaries. At every stage, we understood how important it is to believe in our idea and also convince others about it.

The next mammoth task ahead of us was to find a dedicated team! A team had to be a bunch of people from different fields who would be working together for 7-8 months, keeping the interests of the team ahead of the interests of an individual. Through this, I understood how important team management is for any successful project. There is this famous quote by Pooh, “It’s not the journey or the destination that is important, but it’s the company”. We did have a war of words, but soon we had a team, dedicated and focused. Our next goal was to gather funds for our project. We wrote emails to many people, including researchers in the field and industry experts, to seek their guidance and sponsorship.

By the start of February, we started working in the lab. This was one of the most hectic periods. We had to manage both academics and iGEM. Mid-sem was on its way, and so were the preparations for iBEC. We had to show preliminary results with the complete proposal to be eligible to apply for iBEC. I, being a Biology enthusiast, learned a lot in this period. My seniors and classmates in the team taught me many things and always encouraged me to try things myself, and also try new things which I wouldn’t have tried otherwise. This has helped me to grow and develop new skills which will stay with me forever! We worked in the lab for almost 10-12 hours a day, for multiple days a week, during the night. It was super hectic, with an altered sleep cycle, but super fun too. All of us loved working in the lab, had endless fruitful and fruitless conversations, debates, discussions, and also, post-work selfie was a must.

As we were gearing up for the experiments to go in a full flow, we faced a severe blow when a nationwide lockdown was announced. We were asked to leave the campus on short notice, putting all our lab work on an indefinite halt. We were losing hope, wondering if we would even be able to participate. But then, iGEM came to our rescue with a new competition plan that allowed us to finish our project remotely. And then we buckled up again, started preparing with increased dedication. We shifted gears and made our project modelling-based. This wasn’t as expected, as we did not have sufficient experts for this transition. We then welcomed one more member to our crew, Jenocristina. She not only helped the team in modelling, but also in making awesome animations for the videos we submitted later.

During the months of May and June, we got the opportunity to interview many experts in our field. Dr Abdul Gafur, Dr Vishwanadham Duppatla, Dr Sangram Bagh, Dr V Bala Subramanian, and Dr Raghunath Ramabhadran. These people pointed out loopholes, guided us when we faced difficulties, and encouraged us to take the project forward and complete it, even post-iGEM. This boosted our energies and gave us a sense of satisfaction, with the responsibility of making this project a success.

These interactions also helped us understand the importance of communication between the team members and with others, especially due to the COVID situation. But all of us held together as a team, adapted quickly, and started improving upon each and every aspect of the project from home.

In due course, we were meeting teams across the globe, discussing ideas, and helping each other; we met iGEM Ionis Paris! This team was working on a similar project to ours and was openly delighted to work with us. During our first meet, we realized they were in need of a kill switch module, which we had already with us, and we in turn, were in need of few lab results, which they had access to. Thus filling the holes in each of our projects, there came a perfect year-wide collaboration! Along with designing and carrying out lab experiments and collaborating, another important aspect of iGEM included science education. This required us to spread scientific knowledge to different target audiences.

As a part of this, we could get the opportunity to be a part of the Agastya Biology workshops. We conducted two such workshops, one with PMILP Dhruv Tara and the other with NVS Navodaya gifted children. Tejas, a team member, got a chance to interact with the school students of MR International School, in collaboration with the Manav Rachna iGEM team. Another team member, Yogeshwari, got a chance to interact physically with school students in Nivdunge, a remote village in Maharashtra. Overall, we had an incredible experience, interacting with young minds. We also wrote research articles and reviewed articles written by other teams as a part of a collaboration with teams across the globe. This gave us the experience of working with scientific literature, proposing, writing, editing, and reviewing.



Omkar Mohapatra
Team Leader
Project Design | Wet Lab | Wiki
(Web Design)



Tejas Vandeo Borkar
Student Advisor
Wet Lab | Communications,
Collaborations & Social Media |
Outreach



Abhinaba Mazumder
Wiki (Web Design) |
Sponsorships



Amogh Desai
Project Design |
Modelling | Wet Lab |
IHP



Jenochristina J P
Wiki (Web Design) |
Modelling | Content
Creation (Videos)



Purva Naik
Wet Lab | IHP |
Creatives



Purva Shripad Damale
HPLC-MS | Literature
Survey | Content Writing



Shubhrika Jain
Wet Lab | Content Writing,
Editing and Creation |
Communications and
Social Media



Srividya Vyjayanthi T
HPLC-MS | Literature
Survey | Content Writing



R Raajalakshmi
Modelling | Wet Lab |
Creatives



Uddeshya Pandey
Wet Lab | Modelling | IHP



Ved Mahajan
Modelling | Wet Lab |
Sponsorships



Yogeshwari Asaram Kshirsagar
Wet Lab | Outreach | Creatives

all of us held together as a team, adapted quickly, and started improving upon each and every aspect of the project from home.

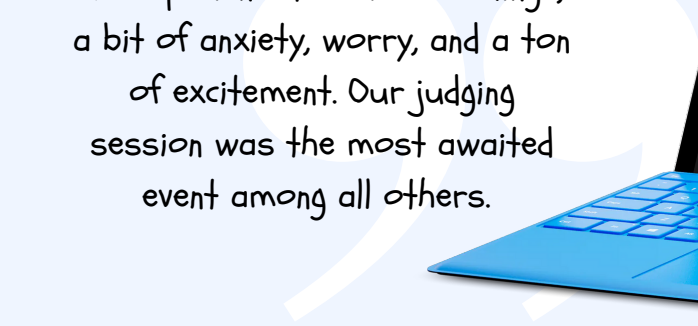
organized an All India iGEM meet. We discussed and presented their ideas with them. It was a nice experience, not only in discussing about our project before the start of the ending phase of our project. We shared our surveys, lab experiments data, and our progress on our wiki page, project promotional materials that would communicate our project. Even though the pandemic continued, the giant iGEM event. A schedule was laid out to ensure that all teams could actively take part in the

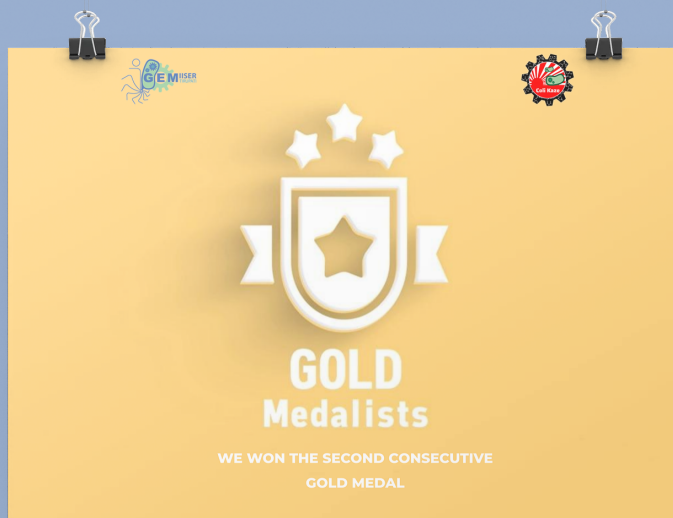
As the date to the D-day neared, we experienced a mix of feelings, a bit of anxiety, worry, and a ton of excitement. Our judging session was the most awaited event among all others. We had prepared for it with several mock presentations and question sessions. We had 5 minutes to effectively convey 10 months of our work. On the evening of November 16, after a brief introduction of the project by us, the five judges asked us questions.



e way. In the end, we could sense
aces. And then came the 22nd of
Mer would have waited for - the

“As the c





All our efforts, sleepless nights, and the work of all others who helped us were going to be tested today. As the clock struck 7, the event began; with racing hearts and adrenaline rushing, we all joined the watch party. The event started with talks and soon proceeded to the nominations for the Grand prize. The grand prizes for all three categories were awarded, and the medals distributions started with Bronze! The names of the teams which won Bronze were scrolling, and Woosh! Our name wasn't there, a sigh of both relief and concern. Again, with Silver, our name wasn't there. And now, the GOLD awardees, the anxiety at its peak with infamous goosebumps, the whole journey of almost a year was scrolling down my eyes as the names were scrolled.

And boom! We won GOLD! For a moment, I couldn't believe it, the satisfaction of our hard work being recognized with such honour is incredible. And our journey of iGEM did not end here; we just got a beautiful beginning, a lot of new things ahead of us to be done, irrespective of being as a team or as an individual. I am sure all of us had a memorable journey, a journey that made us better individuals, taught us to think differently, and above all, to be prepared to face all the challenges that come our way and to never lose hope.



IN MEMORIAM

memoir



Earlier this year, the family of IISER Tirupati lost a gem from its crown and we lost our former coordinator and one of our most active members. Omkar Mohapatra was a familiar name to everyone in the club and all of us looked up to this positive, vibrant, hardworking and dedicated person.

In an attempt to honour the memory of this amazing person, we collected statements from the people closest to him and compiled it to write an article in memoriam. We hope this article helps all of us remember the extraordinary person that Omkar was and keep him alive forever in our hearts:

Omkar was a good friend and an amazing person to work with. He inspired me with his hardwork and his larger than life personality. The last thing I worked with him on was an Ideathon for battling COVID. He initially had an idea that we didn't go ahead with, but the teams that won had a very similar idea to his. I'm sorry we didn't go with your idea Omkar, our team was otherwise so strong. It was an honour to work with you and think of ideas together. Whether it were 3 am iGEM experiments or a last minute Bromosomes report or a group presentation or paper discussion or just coursework, it was great to do it with you. I can still hear you say, "Ay bachhi! tu itni dukhi kyu hai?". I wish I knew what kept you happy all the time. I wish I had gone to KFC with you and had chicken. I wish I could be even half as motivated as you were towards biology, and science in general. Thank you for being a friend Omkar. I'm grateful that we crossed paths, and I will miss you.

Ishita Amar, BSMS 2017



“

He is the guy who used to make plans for trips, take us to restaurants, love cricket and volleyball more than anything. Has a great dream of doing PhD in Germany ...Above all he is my friend, losing him was heart-rending. Without you Omkar, eating Maggi, chicken, going to BBQ, trips will NVR be same again..... nicknames given by you will always stay close to my heart. Sayonara Omkar, thanks for everything.... One day we will meet again to go to BBQ once more.

A friend from hostel

I once saw him in the TV room, seated in the first row, supporting the Indian team with so much of energy and enthusiasm despite one big neck pain belt on him. I didn't know him personally but I knew that he was a senior. It's unbelievable and not fair for such a lively person to depart from this world. I pray to the almighty to provide the strength to his family to bear the immense pain. Rest in peace, Omkar brother.

Nithish G S, BSMS 2019



Bio Wissen has known Omkar as an enthusiastic speaker, an organiser and as an inspiring coordinator. His drive kept the club going and it's activities a lot more fun and informative. His vast knowledge on subjects matched with his curiosity to learn more, made him the ideal research student and his willingness to impart his knowledge to his peers and juniors made him the ideal club member. His demise has left a hole in the club that cannot be filled by anyone else and we will forever cherish his memory.

Team Bio Wissen

“Omkar was always lovely to hang out with. He was jovial, fun and knew how to enjoy the fullest. The one thing I remember and associate the most with him is his absolute love towards non-vegetarian food and never missing out any opportunity in mocking me for eating 'ghaas-phoos'. The hostel corridors would be very silent now, without his frequent banter. We will miss him barging into our rooms, late at night, hunting for hidden snacks. His love for cricket, passion for biology, movies and TV series, and finding that sense of joy, fun and happiness in anything and everything, was his trademark.



I would like to share this particular incident, which occurred during one of the food festivals. It was a South Indian food festival, I don't remember which. To say that he was annoyed with the food arrangement would be an understatement. First thing was that the food was completely vegetarian, and on top of that, there weren't any rotis, or curries, or any of the common north Indian dishes. The only item he probably liked was the pineapple curry. While I was seated opposite to him, I asked him how the food was, and he made this face, and probably said something, which I have forgotten. That face was the most hilarious reaction I have seen from anyone towards the food which I actually liked.

Adithya S, BSMS 2017

A COLLABORATION WITH SETI

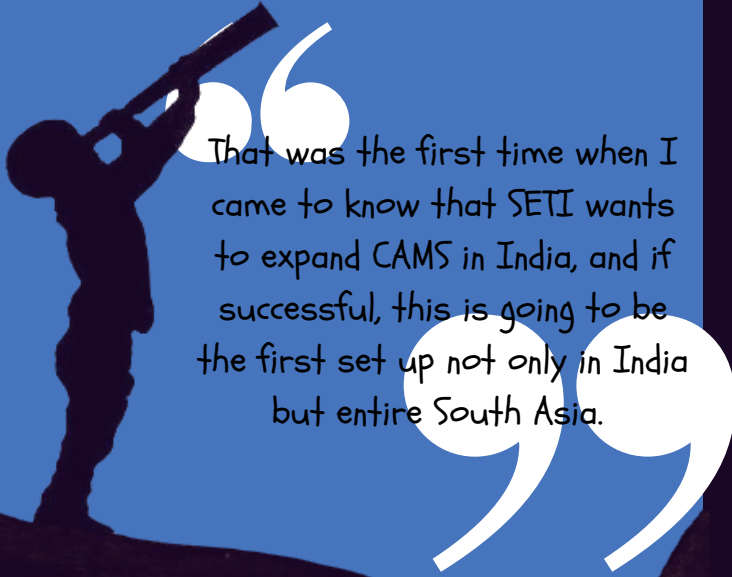
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report

Swastik D. Shinde, BS-MS 2018, CELESTIC Coordinator

I'd say 2020 will go down as the best year in the years CELESTIC has been active. If I go back and think about what we achieved this year, working from our respective homes makes me feel like it was a dream. It was a year when CELESTIC managed a collaboration with an internationally recognized institute like SETI, and this is a very proud moment for all of us. The story behind this is so interesting, and I would like to share it with all of you.

It was the month of August. I just had finished checking the Abhiprajna prelims theme round answer sheets when a batchmate contacted me asking that the head of IIT Madras Astronomy club wants to contact me and asked for my email ID. While thinking about why she wanted to contact me, I sent my email ID to her. Just a few days later, I got an email from her asking if we want to contribute to a project called CAMS, which will be a collaboration with SETI. I was totally blown. The first thought that came into my mind was, "Ohh my God! Is this a dream? Is it really happening?" We, me, Shubham, and Arunangshu, had just taken over the club as the official club coordinators a few months back, and getting an opportunity like this was a dream come true. That was the first time when I came to know that SETI wants to expand CAMS in India, and if successful, this is going to be the first set up not only in India but entire South Asia. I thought, this is a huge opportunity, not only for the club but also for the institute, and decided I have to contact the Faculty head of the club, Prof. Jessy.



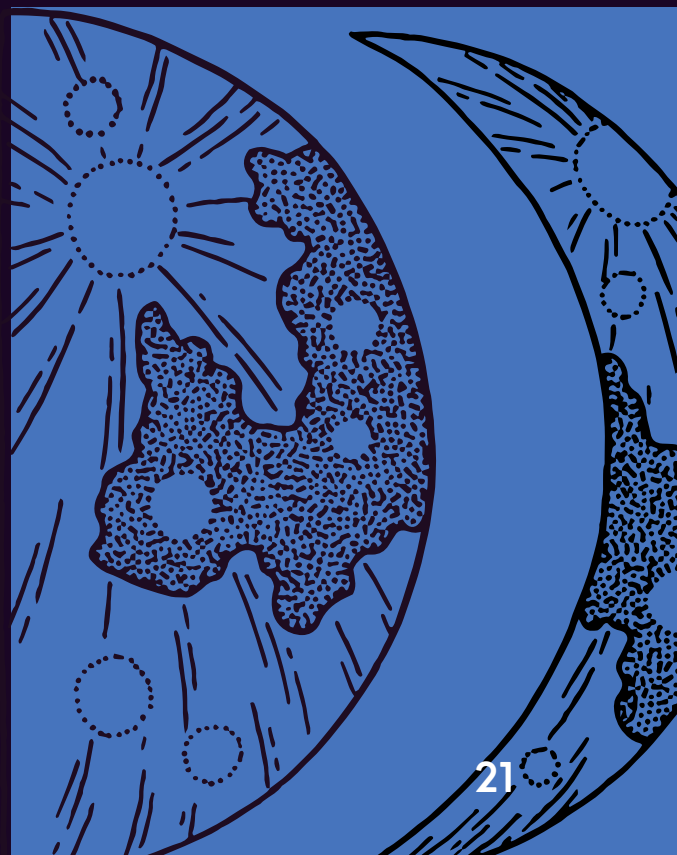
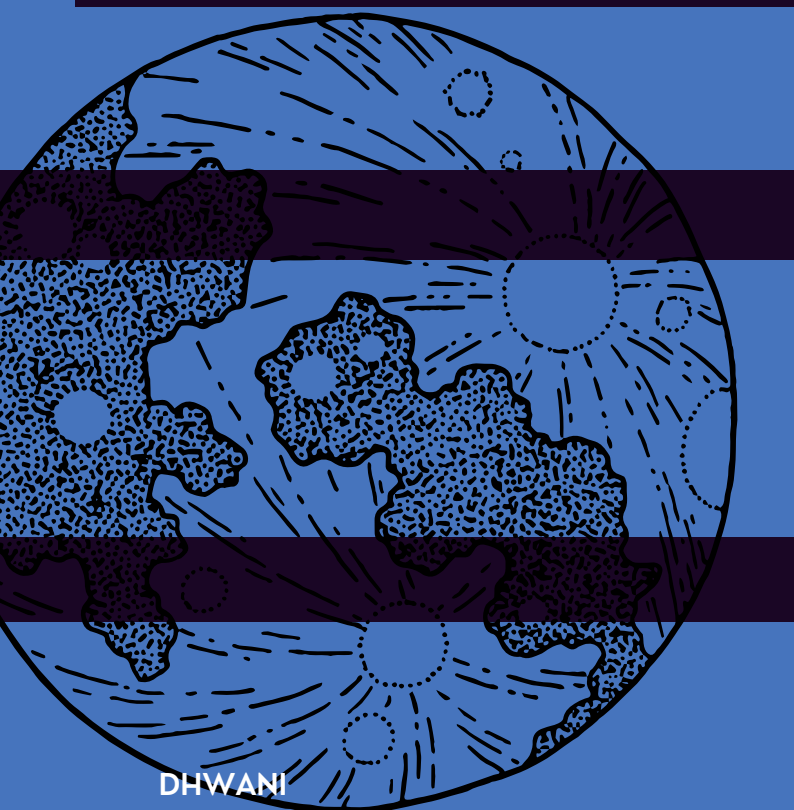
That was the first time when I came to know that SETI wants to expand CAMS in India, and if successful, this is going to be the first set up not only in India but entire South Asia.

We started gathering more information about the project to propose it to the institute. That needed a few email conversations with the IIT Madras Astronomy club, Horizon's head, and a meeting with Ms. Siddha Ganju, a programmer from the CAMS team. We also got in touch with SEDS VIT Vellore as a third station, and later they joined the party. When we had enough information, we decided to contact the director to approve funding for the project, and we got the project and funding approved. Here, I am proud and glad to inform you that we were the first team to get the funding approved.

After that, things have started moving pretty fast. Ms. Siddha selected Sahyadri Krishna, a BS-MS 2017 student, to work on the software needed for the project. SETI is planning to do a fundraiser, for which they collected interviews of three heads of the club, one from each institute, me being one of them. We have collected information about the hardware required and are looking for a vendor. Also, another problem is we all being at our homes. We are waiting for the institute to call us back to start working on the hardware.

But before finishing, some information about the project. The name CAMS is a short form of Cameras for Allsky Meteor Surveillance. It works on observing the meteor showers and fireballs, classify them, find out which meteor shower the observed meteor is a part of, if it is a new one, find out its radiant and also the comet from which it is originating. It is a pretty new program. It uses high-quality cameras to observe the meteor showers, then uses an ML algorithm to do all the classification work mentioned above. We plan to have the setup on top of one of the buildings of the main campus. This is going to be a long-term project. So, when we people leave, the later batches have to be ready to take it over.

So, yeah, this is a very proud moment for all of us. I have always wanted to do something like this, and now that I have got a chance, I am eager to make this a huge success. We look forward to getting back to the institute, set the instruments up, and start gathering the data as the first set up in South Asia.



A GLIMPSE THROUGH FRESHERS FIESTA

report



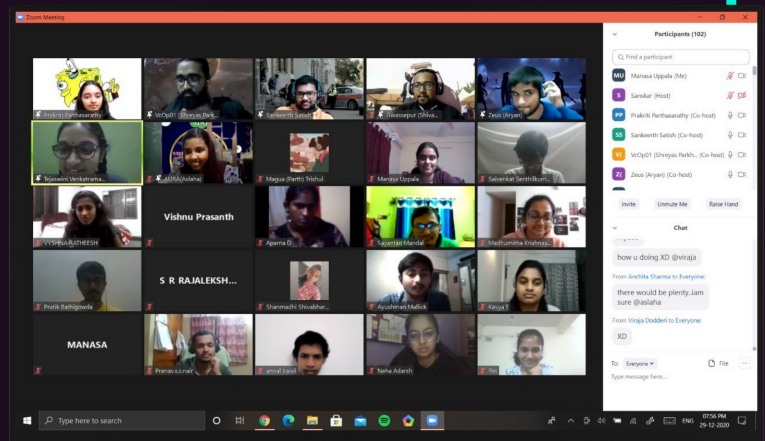
Diyana Muhammed P
BS-MS 2020

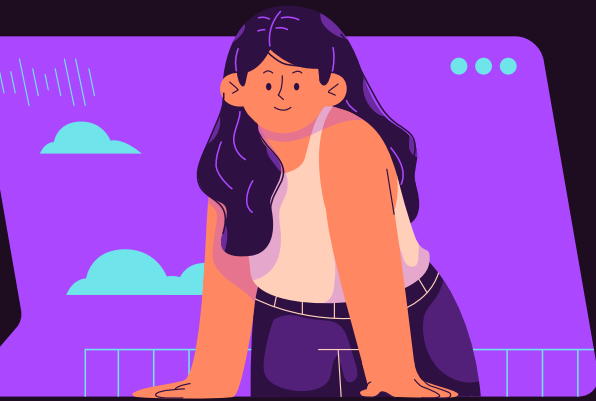
After the dread of examinations, even when the pandemic haunts the world, we are truly blessed to grab a novel experience, the so-called 'FRESHER'S DAY'. Like a newborn star in the universe, our eyes were filled with awe, our hearts throbbing, and our brains adorned with apprehensions. Even though the exhilaration of stepping into a new world begins with the first day of college, the real ice-breaker is the 'Freshmen Welcome Party'.



As Lucy from the netherworld (our guide throughout the fiesta) had recounted, our emotions were ambiguous. We were excited, nervous, enthusiastic, and maybe even hysterical at some point. As the pandemic has driven us all to meet virtually, how well we can experience the beauty of unity and the spirit of IISER, Tirupati was undoubtedly doubtful. But it behoves me to mention that even the poster of the Fresher's Day had set all our hearts ablaze, like the Hell of the seven sins!

Our jamboree began with an informal overture, but yeah, on the very first day seniors pursued to be the gemstone in our hearts, they were all magnificently cool. And guess what they bonded us all together like a super-glue by concocting some truly entertaining online games and events. It was a tremendous opportunity for us to learn from each other.



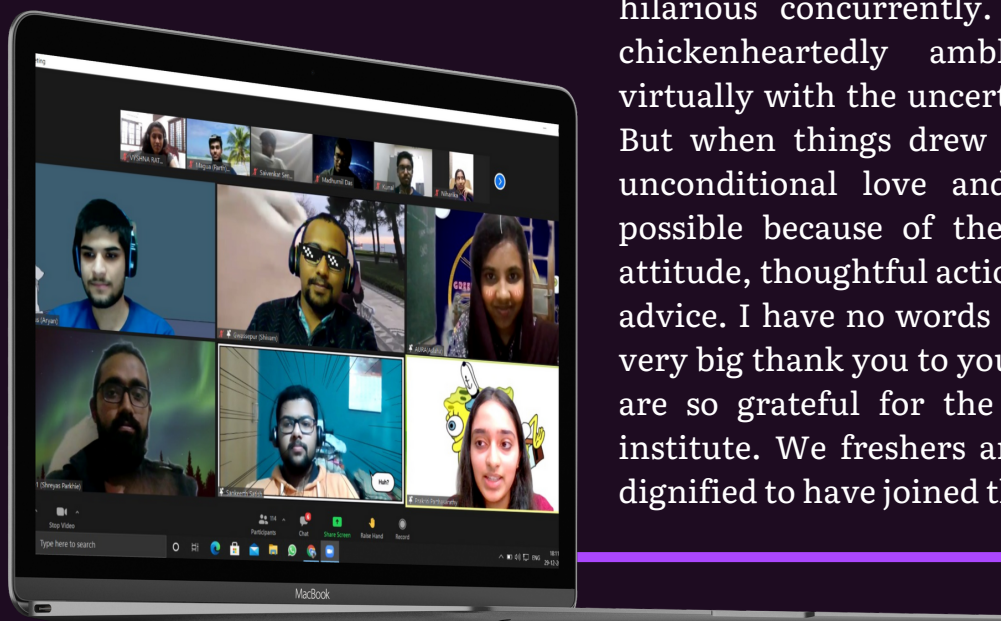


"Even though the exhilaration of stepping into a new world begins with the first day of college, the real ice breaker was the 'Freshmen Welcome Party'"



There were a series of episodes titled the Seven Deadly Sins. Madhumitha Krishnaswamy nailed the food quiz and held the bouquet of Gluttony. Madhurnil Das certainly fought to become the Shah Jahan of the BSMS 2020 batch by revealing his mastery in pick-up lines - the Lust event. Wrath - the game of Anger was conducted as a JAM, and Arjit Shankar Banerjee proved himself to be the Angry man through his tricks and tactics. Pratik Bathigowda won the game of gamers - Sloth event. Through her limitless skill and capability in the world of art, Manasa Uppala wore the crown of the Pride queen. Adithya Panigrahy followed the trail of the treasure hunt to become the Greedy person. Then lastly arrives Envy - a game of luck. Sakshi Gupta was luckily destined to be the luckiest person. I would appreciate it if she tries her luck in Las Vegas.

The whole series was absolutely amusing and hilarious concurrently. Like a little lamp, we chickenheartedly ambled into this college virtually with the uncertainty of what lies ahead. But when things drew to a conclusion, we felt unconditional love and care. This was made possible because of the kind gestures, friendly attitude, thoughtful actions, and our seniors' right advice. I have no words to express except to say a very big thank you to you all, my dear seniors. We are so grateful for the affection shown by the institute. We freshers are all feeling blessed and dignified to have joined this united family.



LETTERS FROM THE *Alumni*

We caught up with some of our alumni on some tidbits about their time at the institute. Here's what they have to say..

PARTH RAJAURIA

In this article, I write about my experience after graduating and give some advice to my juniors. Before starting, let me give a short introduction of myself. I am Parth Rajauria, currently working as a Data Engineer in the 6th Energy Technologies Pvt Ltd. I graduated in 2020 with Physics as my Major and my MS-Thesis is on Quantum Machine Learning. That's all one needs to know.

EXPERIENCE AFTER GRADUATING

Like almost everything in life, there are two sides to it. On the upside, I enjoy my work, I enjoy the salary I get (a big hike compared to INSPIRE Scholarship), and I certainly don't miss the anxiety-filled mid-sem and end-sem exam days. I also love the fact that I don't have to wake up at 7:00 am to attend lectures and, of course, no more Quantum Field Theory Assignments. On the downside, in a corporate job, there will be frustrating days, like when your code doesn't work or you are struggling to get the job done. Unfortunately, there is no escape from it, unlike that chapter you skipped before your end-sem exams, thinking what's the worst that could happen, I might get a grade less, that's all. Turns out you can't do that in a corporate job. One must keep struggling till the problem is solved; the only escape is to quit the job(given that your peers can't help you).

I also miss playing sports at IISER, the free sports facilities, the library (one can't keep downloading books, you know), and offline conversations with my wonderful friends and teachers.

ADVICE TO JUNIORS

I believe self-awareness is the key to decide what career one should choose. In my first 4 years of BS-MS, my career plan was constantly changing (based on what the last person convinced me to do). At the start of my 5th year, I realized that although I am good at learning Physics from books and solving problems, I hated reading tons of research papers and solving tough problems.

So, I decided not to pursue PhD and prepare for a Data Scientist role instead. Luckily, my MS-thesis involved a lot of Machine Learning, so I don't have to spend much extra time preparing for the job. Now my advice to you is if you are planning to do a PhD because you want to make money, or because you want to travel Europe/US, then just don't do it

.One must do a PhD because one wants to contribute to solving a science problem, to find the mysteries of nature, and to make the world a better place. Money shouldn't be your priority. Finally two little pieces of relationship advice:-

1. Don't be desperate to get into a relationship. It's always better to be single than to fall into a toxic relationship, don't give in to peer pressure. Being in a relationship doesn't imply you will be a happy person; on the contrary, it might screw up your grades.

2. Don't fall into one-sided love. That's a recipe for unhappiness. I know few people who endured many bad days by expecting a lot. If someone accepts your proposal, good. If not, then go do your pending ecology assignment (Note:- There is always an ecology assignment). The point is to move on and don't be pushy. You will be doing yourself a favour.

That's all from me. Have great years ahead. Cheers !!

ABHIJEET BEHERA

Currently, I am a research scholar (Ph.D-JRF) at CDFD Hyderabad in the laboratory of transcription biology.

It was a great time spent in IISER Tirupati during my whole five-year journey of integrated BS-MS course. One of my best memories in IISER Tirupati was when we 2015 batch were all alone with only a few faculty members in our first year, and we went trekking to the nearby hills. Many more memories are there, but I can't describe all five years' memories in just a few lines. Being an active sportsman that IISER Tirupati raised me, I would like to motivate all my juniors to participate in games and sports activities that will keep you healthy.

Finally, all the best to everyone for your bright future.

Stay safe, stay healthy!!!

*Missing you all
Your lovely brother,
Abhijeet (Tiki)*

KAUSHAL PILLAY

One of my favourite memories from my undergrad days is the end of Vivante 2017. For months we had worked so hard to set up an event that lasted only three days, three very exciting and exhilarating days. And then, once the party was over, I remember just plonking on the ground with my friends, having just a couple of bottles of water to pass around. We were the final customers at the ice cream stall if I remember correctly, and it was a poignant moment sitting in silence at the end of it all. It was as if a storm had passed and we were finally sitting at peace.

CHIRANJEEVINS

My family never let me go to a sleepover and spend a single night in the home of my closest friends. But they were perfectly fine with letting me share a room with two complete strangers for the next 5 years of my life. My time at IISER was exactly like that, being exposed to the things my parents always protected me from with a bunch of people I knew nothing about. When I was finally away from home, I realised that I was no longer bound by the strict rules of my family, but was now bound by the less strict rules of the Institute. These new freedoms that I discovered let me have experiences I could hardly imagine. Here are a couple of paragraphs of my true personal experiences in no particular order and absolutely out of context because such is college life.

Ordered a stack of pizzas taller than my shortest friend for the whole hostel. Spent 8 hours travelling on a bus to watch a 90-minute movie with my friends. Got 5.5/30 in a physics test and still was above the class average. Asked my professor, who co-discovered an antimatter particle, if he thought he was a smart kid in college (he was). Found my classmate sleeping in a fetal position on a table in a classroom at 5 in the morning. Turned the hostel corridor into a water slide when it rained too much one day. Carried my heavy friend with a broken shoulder down a waterfall and watched an animal attack my animal-loving teacher on the same day. Was permanently banned from a special restaurant because my friends and I laughed too loud. Got ambushed by over 10 forest guards with guns who thought I was a red sanders smuggler. Got ambushed by over 10 IITians without guns who wanted to continue the little dance I had with one of their friends earlier in the day. Randomly woke up and climbed 3550 steps up to Tirumala by myself because I needed to clear my head. Formed the 1st rock band (possibly 1st) in Tirupati and made it to the papers. Travelled alone from Kodaikanal to Mandi to deliver a package and listen to birds. Spent over 24 hours alone in a tent in the rain/snow at 3500m above sea level. Travelled to 3 IISERs and a NISER because I was better at putting a ball in a hole than most of my classmates. Got 4 Puma tracksuits for walking funny with my friends along a track. Mastered the art of sharing a room with a person without ever talking to them. Had a roommate leave because he didn't like the way I redecorated the room. Travelled 90km east to Sriharikota to watch a rocket launch because I liked Physics, and went there again to watch flamingos because I like Ecology too. Walked on Marina beach all night long to hunt for turtle eggs, hatched some of them and released them into the ocean. Became 'DJCJ' every once in a while and played music at freshers parties, room parties, college festivals, teachers' cars and football tournaments. Took my special friend for coffee at sunrise but met our teachers on the way and went on a double date with them instead. Found over 50 species of birds over 3 days the weekend before my mid-semester exams. Woke up at 6 in the morning every week for a month to watch Game of Thrones with my friends in the TV room.

Spent a whole day making a 100x PVC pipe telescope with my friends and saw the rings of another planet that night. Publicly told a world-renowned expert in his field that his work is stupid. Eventually became his friend, showed him the library books that he ordered for our library and had him tell me to download books illegally instead. Had a Nobel laureate give me the stink eye when I came into the lecture hall at the end of his talk because I was busy listening to my local string theorist tell me that the Nobel prize is overrated. Realised that my teachers are humans too, and bumped into them at my favourite special restaurant. Went from eating a whole biryani by myself and staying thin, to sharing one biryani with my special friend and getting fat.

Watched a YouTube tutorial and dissected a snake killed by the security guard. Kept a dog skull and rabbit poop in my room because my special friend thought it was cute. Had a rat jump on me from the restaurant ceiling and bite my hand. Went rat hunting with my friends in the middle of the night in the hostel. Spent a month in the Himalayas luring rats into cages in the name of science. Had teachers use food to lure me into working in their labs. Modelled nuclear collisions in the LHC, 16 years of rainfall patterns over the Indian Ocean and several months of forest sounds in the Western Ghats on my 4GB Ram laptop. Ran my code on 5 different computers in the computer lab all day because the workstation my professor ordered was stuck in transit. Kissed my 32GB RAM 10th gen core i7 processor workstation goodbye and forgot to tell my roommate of 5 years that I'm leaving forever. Travelled 3 days on a train just to lose 7-0 in a football game, and 30-1 in a basketball game. Randomly decided to take a 24 hour bus ride with my friend to attend a science festival in a city whose local language neither of us knew. Went on an all-expenses-paid trip to Punjab in winter just because I sang a 2 minute Kannada song for Doordarshan. Watched a director of a huge cancer institute in America start a talk in IISc by saying something along the lines of "I applied for a PhD here but you didn't think I was good enough. Look at me now. Ha ha ha."

By the time I defended my thesis, the world was in the darkest period of the pandemic. I was graduating into the worst job market since the birth of Gen Z. Doing a PhD or a research project in India or abroad was out of the question because colleges were either closed or unreachable by any form of transport. The conditions weren't optimal to chase my dreams. With dreams off the table, I only had nightmares to choose from. And I chose the worst - going back to school. It did have a silver lining though, because this time I was going to be on the other end of the classroom. I sometimes felt that my choice of job didn't stand up to the expectations of the Institute. Only after I got my first job did I realise that it wasn't as bad as academia forced me to believe, and in many cases, it was better. Getting a job wasn't easy, though. It took me 30 days and more than a hundred applications to get 3 job offers. All of them were in the education sector. I picked the one closest to my house. I spent the lockdown gaining weight and teaching experience while making a quick buck. International schools paid well, particularly during school holidays when I was paid not to work. As for the teaching itself, it was really fun. The students and I bonded over shared interests like video games, Tiktok, YouTube, cycling, other boring teachers, and the problems of still living with your parents. I tried everything to keep the students engaged and entertained through online classes, but holding a student's attention, no matter how old or young, is always difficult. With all the free time I had after class, I took up 3 other part-time jobs tutoring kids, but I was still bored in the times between work. I guess that's what I miss most about college. Always having something to do.

As for my future, I don't think about it as much as I used to in college. That's the mental comfort a stable job and a steady income can give you. Maybe I'll go do a PhD, or maybe I'll go do an MBA, or maybe I won't do anything else. No one's going to force me to do anything. If there is any lesson I learnt in college, it is this. 'Just do what YOU want'. It's just you and only you that can give meaning to your life. So go take whatever course you like, take that ecology internship, join that rock band, talk to that friend you want to make special, apply to that job, write that essay, mail that professor that inspires you, pick up that hobby, start that blog, just do it. Cause if you don't, all you'll have in the end is a perfect CGPA and a couple of boring stories.



Lucifer

OF THE CORONA AGE

Shubhra Singhal, BS-MS 2019,
On behalf of team "SARScastic COVIDnates"

The term "Lucifer" means "light-bearer" in Greek and that is exactly what our idea was about. To become a beacon of light in the dark times of pandemic where the number of tests conducted was outnumbering the number of testing centres and developing fast and efficient testing methods for COVID-19 was everything people were talking about.

Our institute's Indian Innovation Council (IIC) Unit saw the opportunity in the obstacles posed by the COVID-19 pandemic and announced IISER Tirupati's first-ever Ideathon 1.0! The competition asked students across batches to form teams of 3-4 and come up with innovative ideas to combat the pandemic ranging from PPE kits to vaccine targets. Teams were asked to submit their proposal to the institute and then present them in front of the judges in an online setting. The most innovative and feasible ideas would be given the prize money and a chance to work with researchers at IISERT and work on their idea further. Our idea was given the first prize for its novelty, feasibility and usefulness at the given time!

The idea for this project was to develop a diagnostic test kit for COVID 19 that can give results within a few minutes using the Fluorescence properties of bacteria. The project was inspired by the recent developments made in the GFP gene (the gene responsible for fluorescence) as a reporter gene in labs around the world. These fluorescence genes get triggered by the presence of a stimulus and this can be used to detect the presence of a specific protein. This project will begin by inserting the GFP (Fluorescence) or Lux (Bioluminescence) in E.coli using standard laboratory procedures. Protein synthesis will be initiated in these cells to express these genes in E. coli. Human ACE-2 is the receptor-binding site for the SARS-COV-2 in the human epithelial cells.

We had identified literature expressing the human ACE-2 in E. coli and we hoped to express it as a membrane protein of E.coli so that the virus binds to E. coli. We have also identified a homolog of human ACE-2 in the bacterial system and kept it as a backup if the ACE-2 can't be produced in functionally good yield by the bacteria. The SARS-CoV 2 has a protein called the Envelope or E protein. This protein along with the 7a protein has been shown to bring about membrane permeability changes of the E.coli. The antibiotic Hygromycin B generally does not enter E.coli cells, but when the permeability changes it can enter the cells. HB, once inside the cell, stops the protein production of the bacteria.

The bacteria expressing the receptor will be grown in a petri dish along with HB. Thus when HB enters the cell, it will stop the production of GFP protein and reduce the fluorescence shown by the bacteria and that would indicate that the sample is positive for SARS-Cov 2. This is because the human ACE-2 binds specifically to the SARS CoV-2 virus.

The expression of Human ACE-2 in bacterial cells posed a problem because it is a eukaryotic protein and requires Post- Translational Modifications which are not possible in a prokaryotic system like the E.coli. So we proposed baker's yeast as an alternative for a better yield of ACE-2, as it's a eukaryote.

We presented our idea to the judges including Prof. Vijayamohanan Pillai and Prof. BJ Rao. They gave us amazing insights on how to improve this project. They helped us understand the basic fundamentals and how this test kit can be made in a much efficient way than we have proposed.

With the new insights gathered on that day, we are hoping to work in a lab soon and get our test kit ready for the challenges that lie ahead. Overall, it was a new experience for all four of us and we learned a lot along the way. The thrill of researching your idea, writing proposals, and presenting it to the world is unmatched and is the dream of every aspiring scientist. We thank the institute and IIC for letting us get a little taste of that dream through Ideathon 1.0 and hope to participate in many such opportunities in the near future.

Confab

2021

The idea of the Dhwani 2021 Interview Series was to get an insight into the lives of people involved in radically different lines of work. Our objective was to get a flavour of their unique lifestyles and life experiences, and to highlight how different yet connected their (and our) lives are.

These interviews were very informal and we thought it apt to name the series Confab (/ˈkɒnfab/)- an informal conversation.

For this year's version, we chose people involved in ecology, social work and music who were kind enough to agree for the interviews.

The social work and ecology interviews were hour-long sessions done over Google Meet.

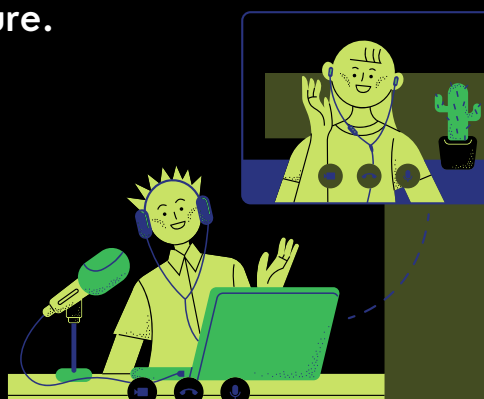
The interview with the musician involved an email conversation where he sent in typed responses to our questions.

Each interview involved a number of students who were involved in the question-forming, conducting of the interview and transcription.

The COVID-19 pandemic has derailed the lives of many. Moresoever, it has made us realise how big a role social connections play in our lives.

This is an attempt to host meaningful conversations over virtual mediums with these wonderful people in the hope of a physical meeting in the future.

We hope you enjoy it!



NATURE COMES CALLING

Confab

SPILL THE TEA WITH ANUSHA



ANUSHA SHANKAR

Anusha Shankar is a postdoctoral fellow at the Cornell Lab of Ornithology and is currently working on a project studying hummingbird transcriptomics- I'm looking at gene expressions in different organs of hummingbirds at different metabolic states. She was previously a postdoctoral fellow at the University of Alaska, Fairbanks, studying depressed rats. She did her PhD on hummingbird physiology, looking at whole animal energetics after having done her Masters from Pondicherry University in Ecology and Evolution. Anusha is a NatGeo Explorer.

In your blog you talk about wanting to become a pilot and a stage actress when you were younger ([link to blog post](#)). Were you into exploration and wildlife as a child? And what made you pick this field?

When you look across the course of a career, it's not like there are these doors available to you and Matrix-style, I choose this door. It's like I'll take one step in this direction and then another step and you just keep going and suddenly you are like, 'I'm an ecologist!' I definitely didn't know that this was a career option. I never really watched Nat Geo and Discovery as a child; I don't like watching sports and wildlife channels. I'd rather do it than just watch it.

So, I grew caterpillars to butterflies and released them and went and rescued a bird once in a while. At the Bachelors level society makes us choose an option, you have to choose a door eventually at some point. So, I chose a Bachelors in zoology. I was also thinking about a Bachelors in psychology, that was definitely a tough decision. But I was interested in behaviour overall-human and animal behaviour. I did volunteer in a couple of organisations and internships and got into it slowly with time. At every point, I had to assess- "Is this where I want to go?", "Is that where I want to go?"

I think that my interest in acting is really useful when I give so many talks now. I have to appeal to audiences by projecting my voice sometimes and using a lot of facial expressions. There are ways to integrate all of your interests in whatever you choose to do.

So it was more of a gradual realisation rather than being a sudden lightbulb-moment, right?

Yeah, for sure. I definitely find myself waiting for lightbulb moments but they don't really happen that often. Within science when you're trying to find something out, it never happens in an instant. You produce a graph, you question it, produce another graph, question it and you're like, 'Is this a real result?' It is such an iterative process. I think it's unreasonable to expect lightbulb moments to shape your life.

You talk about there being no routine as such when you're in the field. So, how would you describe a typical field day to be like, what does it consist of?



I haven't been to the field since 2016 or something, it has been 5 years! (laughs) I am a field ecologist and I miss it! I'm hopefully going to go in June. I used to study hummingbirds' daily energy budgets (what they're spending energy on at different times of the day). So, half the days I would have to wake up really early and half the days I would stay up all night to watch them sleep.

So, depending on which day it was, I would wake up really early to go mistnet and trap birds and put them in a metabolic chamber, where we pull the air from the chamber to measure their breath to see how much CO₂ or O₂ is in it. That'll tell us how much energy they're spending on whatever they're doing at the time.

So, we could measure that for a hummingbird at rest and a hovering hummingbird to model what they were spending their energy on.

Then we would take turns making breakfast or lunch and chill for a bit in the afternoon and then half of us would go do the nighttime study. So, it was a very strange time in many ways because if you're staying up all night but some days you're waking up early, your circadian rhythm really gets kind of wonky.

The other thing that's difficult to prioritise when you're in the field is taking photos and videos that you can then use to communicate your work later. Sometimes we would just take a day or two to just take photos of things.



After having spent so much time in the field you must be having some interesting or slightly dangerous experiences, can you share some of them with us?

S(Laughs) I think very often the thing which scares you most are the people. In remote places, it can be scary when you encounter people if you don't expect to.

But I think one of the scariest was when I was in the field at Robin's (Dr. Robin, IISERT) project with Vishnu on a hill. It was raining and I slipped and fell. We were at a day's hike from the nearest pick-up point. So, I thought, 'I feel like I have partially fractured my hip.' and was supported by people all the way down. We had to go to a hospital and get an X-ray and had to end our field [study] a few days early. This was the first incident.

The other was a very similar experience. My mom came to Ecuador to visit me. We went to the Amazon to see birds. And we were [a] 12-hours drive away from the nearest cell service [and] hospital. And she slipped near a waterfall and dislocated her elbow. I had to hold her hand for 3 hours and they found some guy that fixed bones. He came and popped my mom's elbow back in place and she was perfect. She went to a doctor and even the doctor couldn't tell if it was a dislocated elbow.

Are there any parallels/differences that you can draw between fieldwork in India and abroad?

It depends on the country. I have done fieldwork in a few different countries now. In Alaska, you can be really far from civilization, but they can't allow you to go really far without having a facility like a satellite phone with you. But in India it's like "yeah, yeah you go, you go, you enjoy, you do something, come back," you don't really have a buddy system.

Maybe it's changed now, I haven't done fieldwork in India in 10 years. But I think that the approach is much more adaptive and fluid in many ways, but also restrictive in some ways.

In Ecuador, there're so many small little differences. In India, we do a lot of volunteering and hold unpaid, short positions. But in Ecuador they would never do that, because there are so few people going to university and getting a higher degree that there's a demand for field assistants. So, they always get a monthly stipend.

In the US, there's a mix. There are a lot of paid as well as unpaid positions. I think the structure is different in how institutionally structured the fieldwork is; more in the US, less in India and in Ecuador in some ways.



Do you think it's a funding issue or is it majorly a financial thing?

I think it's the demand and supply, it's the economics of who wants something done and who wants to do it. And there's much more of a demand than supply in Ecuador. There is so much supply in India and not as much demand. So, they can get people to do things for free- I have definitely had positions where I paid to go work there. There are those volunteer positions in India where you have to pay for accommodation and for a lot of your own costs because there's so many of us wanting to get experience.

I think we could guess the answer for this, but do you have any favourite animals of all the animals you've worked with so far and why?

What would you guess?

Hummingbirds?

No! I don't think so (laughs). I mean, they're really beautiful and incredible, and the fact that they exist is insane, but I think lizards, snakes and butterflies really excite me. I still can't really identify all the birds here in the US even though I've been here for 8 years. But when I see a drongo, a rat snake, a Pit Viper or a Red Pierrot butterfly, it makes me so excited. I think just Indian wildlife, in general. I miss it.

We expected it to be hummingbirds since you're working on them. But what pulled you towards hummingbirds and not these reptiles and snakes that you really like?

I think there are two ways to structure your research. It can be question-driven or it can be system and species-specific. I think I realised early on that I was more interested in answering questions than just focusing on one species or one system.



I applied for many many PhD programs in 2 different years- I didn't get in the first year. In the second year, I wrote to around 80 professors and I got into 3 labs finally. One of them studied snakes, one of them studied frogs and one of them studied hummingbirds. And even though I liked those two species' (frogs and snakes) systems better, I chose the hummingbird one because the questions were more interesting to me. I wasn't interested in building an evolutionary tree for coral snakes in Indonesia. It was super cool, but I think the physiology questions and the ecology questions were more interesting somehow.

I was thinking about my PhD as a step in a long training career and I wanted to learn those physiology skills more than I wanted to learn the evolutionary tree building skills from the snakes or the disease ecology from the frogs. I can always come back and study snakes, hopefully in a few years.



Since you've worked with hummingbirds for so long, you must know some facts that no one usually comes across on the internet. So could you give us some?

Yes! (laughs) I do know them well even if they're not my absolute favourite species. I mean they are the smallest birds, they can fly forwards, backwards and upside down, and they just do all kinds of crazy ninja things. I think their use of torpor is one of the things that people don't realise very often. They can just go from having the highest metabolic rates in the vertebrate kingdom to such low metabolic rates.

They are *endothermic heterotherms* - They can generate heat but they can change their body's temperature at different times. So one hummingbird species was found to go as cold as 3°C and their normal body temperature is 41°C. Imagine having that kind of flexibility! You could go to outer space if you could maintain that low body temperature for a few weeks or months. There are animals that can hibernate and save so much energy over time if the weather is really difficult or in food scarce periods and hummingbirds can do that almost every night!

And how exactly did you go about studying these hummingbirds?

There are a few different ways. One of them is called the doubly-labelled water method. So you inject a double isotope of water with Deuterium and Oxygen-18 to the hummingbird's muscle and you let it mix with the body's water. Then, you collect a sample of either blood (for bigger birds) or a urine sample for hummingbirds. Then, we let them go and try to catch the same individual again, 24 hours later to collect a second urine sample. The difference in the isotopes will tell us how much energy they've spent in 24 hours because you lose hydrogen just through your urine, but you lose oxygen through your urine AND your breath in CO₂, and so the difference tells you how much CO₂ you've breathed out in the last 24 hours. So, by studying the difference in the isotopes from the two different days, we can tell how much CO₂ they've breathed out and that's a good proxy for how much energy they've spent in 24 hours because CO₂ is the end product of a lot of metabolic processes.

The other way is with respirometry - which is measuring the O₂ and CO₂ in the breath and that tells you how much energy they've been spending. So you measure the oxygen in the outside air and inside the chamber, and the difference tells you how much oxygen they've consumed or how much CO₂ they've exhaled.

I use modelling if I don't have the answer from experimental work, I can model and try to figure out theoretically what the expectation should be.

The other way is using infrared or thermal cameras to measure their surface body temperature. We get some really nice imagery and are able to look at how the body temperature is different across the surface of the bird. So these are the main methods I've used in the past. Now, I'm going to do gene expression stuff which is completely different. I don't know how to do it at all yet.

Could you elaborate on the seasonal depression in rats (current research)?

I joined that lab because my advisor there studied hibernation in arctic ground squirrels, and hibernation is very similar to torpor, but it's multi-day or multi-week torpor. So, I was really interested in what the mammal people knew and how they approached studying this metabolic state so that I could learn how to do that for birds. But, I didn't end up studying that at all and ended up working on this project on seasonal depression with rats.

Around 9% of Alaskan women and quite a large proportion of men also get seasonally depressed, because in Fairbanks (where I was living), there's only 4 hours of daylight in the winter and 20 hours of daylight in the summer. Your body is going through such dramatic light changes that it can have real mental and physical effects. I was there to study whether these diurnal rodents can be a good model for seasonal depression because most lab rats and mice are active at night (nocturnal). How can you use a nocturnal animal model as a system for seasonal depression in response to light, right?

So over the past 20 years, the Nile Grass Rat from the Nile Valley in Africa has started to become a model for diurnal rodents or mental health research in general, and seasonal depression specifically. I was studying their sleep disruption, carbohydrate consumption and their gut microbiome in response to changes in daylight, in the lab. And I was wondering if I would get seasonally depressed because I'm a tropical animal and I'm in an extreme arctic environment, but I think the summers were harder for me than the winters.

So, do you plan to continue your research on energetics of different animals in the future?

I have started thinking about applying for faculty positions in India. I ideally would like to start a lab where we study energetics questions in different species. I did my Masters on hornbills in the fragmental landscapes in the Western Ghats; I was looking at where they choose nest sites. I think that the tension of fragmentation and animals still trying to persist in those [fragmented] landscapes is really interesting and has a lot of conservation implications. I would love to study the energetics of animals across habitat fragmentation gradients in India. For example, it could be birds, lizards and snakes and there's so much to ask about these methods.



You travel a lot and in one of your TedTalks ([link to video](#)) you mentioned that you got deported once. Could you tell us a little bit more about that incident?

It's an entertaining experience now that I am out of it. I was in Ecuador doing field work and I had field assistants doing some work there. I had to go back to the US for a conference. Then, on my way back to Ecuador, I went from Florida. I landed in Ecuador and they told me, 'You overstayed your trip last time, when [before] you left'. They hadn't told me anything about it as I was leaving.

The embassy said that everything would be fine but they [customs] said that they didn't speak with the embassy much. (laughs) It was very confusing.

But basically, what had happened was that the way they count a year was something that I had misunderstood. I entered on June 8th, the first year and you can stay only 90 days without a visa and it doesn't reset automatically on June 8th the next year. I came in on June 1st the next year and I had to leave before June 8th to get another 90 days. But I didn't [because] I stayed until around June 20th before leaving. So, I had overstayed my 90 days in a year. And it's not a calendar year [so] it's a very random thing to know.

So they sent me back. I had to buy another plane ticket back to Florida, apply for a visa and then go back to Ecuador.

(Sighs deeply) So, figure out your visa issues. If you're not an American and privileged to go (almost) wherever you want without a visa. And I did, but I didn't learn it correctly.

In general, how important do you think collaborations across borders are, especially in your field?

I've been speaking to some faculty in India about how to structure a research programme. I think a lot of funding in India is 'country specific' and they don't really fund you to go work elsewhere. But collaborations are a wonderful way to be able to do that. I have never written a single-authored paper.

I think science is moving towards more and more collaborations. There are so many things we don't know (each of us individually). We can do better if we work with other people. So I think collaboration is the only way I am interested in doing science. I feed off of other people's energy and I think I get so many more ideas when I work with other people. I am taking on this gene expression project because I want to learn how to do it. So, I am in a lab that does genetics and genomics and very often, I don't really know what they are talking about because it's a new field to me. But that's why I am in it. I think there is so much strength to immersing yourself in a field you don't know much about but you want to learn and collaboration is the only way to do that.



Given the times, this would be a pretty pertinent question, but how did the COVID-19 scenario affect, specifically, your work and how did you cope with it?

I was really lucky that I got this position before COVID hit. I applied in October 2019 and I got it in December. This year, they have paused the fellowship that I am on and they are not taking applicants. So, if I had applied one year later, I wouldn't have been where I am now.

So, I have a job. They've extended it for another year to give us more time because of COVID. I am extremely privileged and lucky. I think that's the first realisation with COVID.

The second is that my work has been delayed. I have not seen the inside of any of the buildings in my university and it has been 8 months since I started my position. I haven't gotten to do field work yet. I thought I would do some in December and get started on my project but I am only going to start in May-June. So, things have definitely been delayed but I think it's been a time of a lot of introspection. I have written 6 or 7 grants and applied to one faculty position. I have talked to faculty in India about applying in the future. It's given me time to work on papers that are still left over from previous positions and think about how I want to structure my time and how I want to structure whether I want to have more of a conservation impact or more of a basic science kind of outlook on my research. It's just a lot if you just allow yourself to sit in silence and think about stuff. We don't really get the chance to do that very often without a pandemic. So, it's been a good opportunity to think about a lot of things.

Since you have worked in places like Ecuador and Alaska, what are some of the challenges in working in places like these? And could you tell us a little about the landscapes, the people and the communities there?

I have a lot of affection for both places, but especially for Ecuador. I spent about 12 months there, totally. If I wasn't Indian, I would probably be Ecuadorian. I love that place and the people are so nice, and so warm, genuine, welcoming and supportive. There's a lot of parallels with India (in Ecuador). If you drive around some of the field sites I was at, you could be in Kerala. It's incredible how much convergence there is across these tropical systems, sometimes, in terms of how the ecosystem looks and how people treat their time. It's much more fluid than in the US. It's just fascinating how the tropics are so different from the temperate places. In Alaska, if you get stuck outside in the winter, you could die (chuckles). So, it's a dramatically different situation than in Ecuador where you could just chill a lot of the time. So, the communities and people's outlook on things are structured very differently because of that environment. They are very helpful in a very different way (in Alaska). They spend a lot of the winter getting together and doing things but the conversations, somehow aren't really deep very often. A lot of talking about pets and dogs and TV Shows, which is very different from Ecuador. In Ecuador, it's like India. You get into a cab and they are like, "Are you married? Do you have children?...." Whereas, in Alaska, you could go a year or two without knowing those things about a person.

But, I have gotten stuck in the snow many times while I was driving in Alaska and people would come with their trucks and attach a thing to my car to pull me out of the snow. You can't expect that in some parts of the US. People would just drive past you because it's not their problem.

Ecuador has a lot of different landscapes. It has the Andes mountains, the Galapagos Islands with the penguins and the Amazon [rainforest/basin]. It has the beach and the coast. There's a lot of things you can relate to as you travel around Ecuador. I spent a lot of time in the cloud forests and the high elevation mountains in Ecuador in the Andes. They are just stunning landscapes. You are often very isolated when you are doing fieldwork there. There wasn't cell service or electricity at some of my field sites. But, you wake up in your bed and there is this clouded valley below you. You get up and do your field work and there's hummingbirds buzzing all around you, hundreds of them sometimes. Then, the clouds come in in the middle of the day and you can't do anything anymore and can't see anything because it's just cloudy all the time. It's a stunning country in so many ways. The Galapagos is not what I imagined at all. It's so dry!



Alaska is breathtakingly beautiful. I didn't do fieldwork there but I did drive around to some of the national parks. There was one place in the South of Alaska called Anchorage. When you drive further south from Anchorage, there is a highway and a train track with a railroad thing and the sea has an inlet and there are snow-covered mountains. It's just like how there are so many of these beautiful things in the same place, on this planet. There are whales coming into this inlet as well. It's so surreal that this planet has all of these places in it. It's a real privilege to have been able to go to all of these places. I would never have gone, otherwise.

You've been involved in a lot of science communication and outreach programs. What do you think is the best way to get your message across to people and especially to influence the younger generation and include them?

I think you learn more with practice. [There's] definitely no shortcut to doing it well. I don't really seek out to do talks anymore. I get invited to give them because I have built up a way of giving talks over time. Sometimes, the younger audiences are the least judgemental, sometimes it is a bit scary to give a talk to scientific audiences. But when you talk to a school audience they have no boundaries in the questions that they ask, they are so curious. I never really got a bad question from anybody. Younger audiences can give you such insightful thoughts into your own work because they are not ashamed to ask things and are embarrassed about it being a basic question.

One of the key things to communicating with them is to ask them [the children] a lot of questions. I don't think we do this often enough when we give talks. One of the teachers gave me this tip when I asked them [the teachers] how to make my talks better. The teacher said, ask a question like "How many of you have seen this?" and wait and scan the room. Even if you can't see them, wait for the answers somehow and involve them in the talk. If I can start doing polls and get feedback, that would be an even more involved way.

What advice would you give to people who are really interested in ecology who want to pursue further research in this field? How do we start off?

I think there are a lot of things to keep in mind. If we take the academic route, there is a lot of competition. Because in the US, only 15 to 20% get an academic job. I don't think we know this when we are getting into it. So, it's an ethical conundrum, taking more students if we don't have jobs for them on the other side. So, you have to be open to the job taking all kinds of shapes. It might not be in academia, you might join an NGO at the end of this, you might want to work with the forest service, you might want to be a science editor. You just have to be aware that there are fewer jobs than the number of students that want to take it up.

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Many thanks to Yash, Anita, Ainesh, Harsha, Faizee, Madhumithran, Chiti and Dev for conducting the interview



interview

Confab
7/4*

RAPID FIRE WITH SIDDHARTH

PUMP UP THE JAM

SIDDHARTH NAGARAJAN

Drummer/ music producer from India, predominantly from the stage performance and recording industry. He holds the Guinness World Record for 'Most Drum Beats in a minute using drumsticks,' having played 2109 beats in a single minute. He has also been conferred the titles of 'India's Youngest Drummer' and 'India's Youngest Musician to Record for a film' by the Limca Book of Records. We interviewed him as a part of the Dhvani 2021 Interview Series.

Where do you get ideas for new compositions and projects?

I believe in the concept of source sounding and the electronics, computers or software only supporting what you have in mind. So, my inspiration is mainly from sounds, people and situations I come across in a day. I am actually most inspired by many of the not-really-social-media-famous musicians who make some crazy music.

What's the first thing you do when you get an idea(s)?

A voice note. Today we have our phones, which are always with us, so my voice notes are filled with ideas which I often go through when I am stuck in between song composition ideas.

*7/4 represents a time signature



● ● ● What are you currently working on?

My series of drum-based Indian fusion project Layaatraa: A Drum Siddharth Collective has been up and running for the last one year and I had been working on the next single from this series featuring Naveen Kumar (an eminent flautist from Bombay who has been the person behind most of AR Rahman sir's flute works) and jazz bass guitarist from Berkeley, Guy Bernfeld that was released around a month ago. I am currently working on a few masterclasses and music production projects due to come out soon in a big way!

A common misconception about musicians? ● ● ●

A common misconception I would say [is that] music is often looked at as a passion and not a profession. In my personal opinion, at a closer look, there are thousands of people, including me, [for] which [music] is our bread and butter and yes(!) music does pay bills.

● ● ● A song/piece you enjoy performing the most.

I love the music done by the late Chick Corea and Spain is one song I vibe [to] very well. Another song would be Acid Rain from Liquid Tension Experiment. From the film music scene, I love the Kurban Hua song and Door Na Jaa (little old but extremely tight songs). My current music jams are Sati from Coke Studio, Salim Sulaiman and Nadaan Parindey.

If not for music, what other career would you have chosen? ● ● ●

Other than my drumming, I do run my own production house with a complete audio and video support setup for aspiring musicians and singers to make music and make content. I can't imagine myself doing anything other than music.

What is your favourite musical genre?

As a musician, I don't have a particular genre.
As long as it inspires me, I am cool.

A song you're obsessed with right now?

A song I am obsessed with is the trending Tamil independent song Enjai Enjaami and another film song called Sofia from 99 Songs (the 2019 movie).



Music alone is a tough career call. How does one know that one has what it takes to make it as an accomplished musician?

I believe every career has its own struggles to become prominent, stand out. I believe that taking a lot of advice and learning from all possible mediums is a great way to know your flaws and become better. Hard work and smart work definitely pay.

Which musicians do you love to/would love to perform with?

I follow musicians from a wide array of genres and [it] is extremely difficult to pin [down] a particular person but some of them are artists and bands like Jacob Collier, Dream Theater, Metallica and from India: AR Rahman sir, Santhosh Narayanan, Salim Sulaiman, Amit Trivedi, Ram Sampath, etc.

Who are some of your favourite indie musicians?

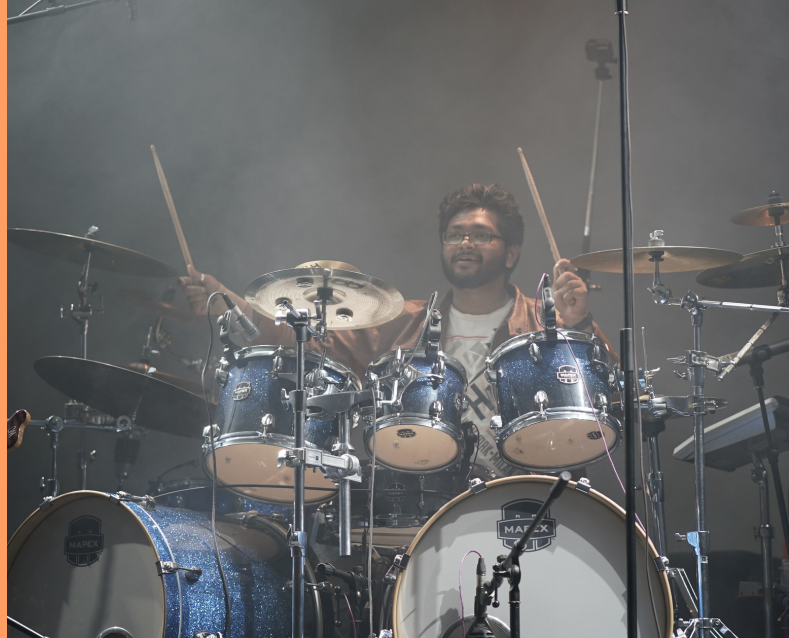
From India: Sean Roldan & friends, Dhee, Thaikkudam Bridge, The Local Train, B Prasanna.

Who do you look upto?

I generally don't have a fixed person or people I look up [to] but I respect and look up to all the musicians who have come the hard way and have encountered all the different checkpoints of the industry and have made it.

Any advice for up and coming musicians?

Advice I would lead with is making your foundation on your musicianship strong and a lot of listening. Don't restrict yourself to a single genre or a type.



What is your take on the current Indian percussion scene?

Our Indian percussionists are one of the finest of musicians around the whole world with an understanding of a variety of technicalities and an ability to understand them. The percussion scene in India is pretty good and has a lot of support from multiple artists. The instrument, by itself, is a support instrument but many of us have broken that barrier [to] bring it to the frontman position which is a big win for India..

How has COVID-19 impacted your collabs, shows and music-making?


Covid has been a big drawback for performing musicians all over the world. I am predominantly from the stage scene and I truly did miss travelling and seeing an audience to perform for. But on the up side, the lockdown situation really helped [me] grow as a musician, I got to collaborate a lot with many amazing musicians across the whole and with barriers of cross country collabs being removed with internet and social media, it has been a pleasure to do a lot of sessions for musicians from outside India as well. I have been a part of many other's albums too and vice versa. Covid-19 really did get me pushing myself to grow as a musician and work on my drumming and music making.



Apart from music, what else do you enjoy doing?

I love to go on drives and mobile photography ... On the other hand, I am a complete introvert and Netflix and relax. How about a mix of both!

Many thanks to Ainesh for coordinating this interview



smiles

K.L GEORGE

Confab

We had the opportunity to converse with Mr. K.L George as a part of our interview series. He is the village director of SOS Tirupati. SOS Children's Villages is a non-governmental organization that provides developmental care and humanitarian assistance to children in need and families at risk.

➤ Can you tell us a little bit about SOS children's villages?

The SOS children's villages of India are a part of an international organization, the SOS International. It is operational in over 130 countries. SOS India has completed 54 years, after starting off with the first village in Faridabad. Now, there are 32 SOS children's villages across India. SOS India works for children who have lost parental care, providing an alternative family care program, a family atmosphere, for the children. We provide a mother. Usually, she is permanent, until her retirement. The children who've lost love, support and care are provided long-term care and other opportunities they lost in their childhood.

There are 4 aspects we focus on:

- A caring mother
- Siblings - in each SOS family there are 8 children. Boys and girls live together.
- A caring environment
- SOS community- this is what we call 12-15 children in a SOS village, which in itself is a community.

Can you briefly explain the journey of the child through the system?

Usually when we get information about a child, our team goes to the spot where the child is. Then, we have what we call a social investigation. This social investigation covers the child's family background, siblings, educational background of the child, the health status, etc. After completing the social investigation, we submit it to the child welfare committee (CWC). They go through the investigation report and they will hear from our side if the child needs care and protection in such a facility.

As far as the government is concerned, even international organizations like the UN have agreed that we need to try to make sure that the children are with their biological parents. But if there is no other alternative, the best option is to provide a family-like environment in SOS. Then CWC will give an order to place the child in SOS. With the government order, we will bring the child to SOS, we call it coming home. We have an admission committee here which comprises 3 mothers, the village director and the staff. Before the child comes to SOS, we will have a sitting and discuss the various aspects of the child and we will look at which mother can handle the child. We look at the child and look at which mother can be the best for that child. Based on that we will place the child under that mother.

The child will be welcomed at the entrance, accompanied by the staff and while the child reaches his/her home, the other children and mother will be welcoming the child and will be decorating the home. It should be exciting for the child, thinking "I'm coming to a place with warmth and love and support." That's the first experience of the child. So that first experience will carry forward [for] the child.

There'll be a lot of follow up activities for the child to cope up with the new environment in the SOS village. We don't want the child to think about the traumatic experience. We want the child to experience love, care and protection. The child should feel that this is a place where I can enjoy my childhood, I get good food, good shelter, good sleep, and more than that love and warmth of a mother and support of the siblings. The other siblings in the family will be finding out, what is it that the child likes? What kind of food does the child like? So they will be providing that kind of (care). Slowly the child will be adopted into the family.

For [first] 5-6 months the child [stays] in the SOS village, we will not enroll the child in any school. We have experts in Delhi who have prepared a curriculum which will be taught by the preparatory curriculum teacher. They (the children) will start from LKG to class 2 or so. Some children take almost a year, some children will be enrolled into a school within 3 months. It depends on the ability and potential of the child, how much the child can grasp and understand and able to cope up with a normal school system. And if the child is able to cope up with the system, one of our objectives is for the age and class to match. So that the child will complete class 10 at the age of 15.

They are admitted to schools and once they complete class 10, we have career counseling, supporting the children in selecting the right stream in their 11th and 12th classes. After they complete class 12, again the same test is there, which supports the child to select the right course.

Most of the time, we send the children to professional courses or job-oriented courses so that they can settle at the age of 22-23. Once the child settles, we also support them to get a good job. We will also ensure that the child gets married and is settled with family. So, these are the milestones we look at for each child that comes into SOS village.



➤ The concept of a 'mother' for each family is very interesting. What role does a mother play in this system?

If we talk about the mother, [the first] criteria for choosing a mother is age group - 25 to 38. Next is that she should be a single lady. Either she is not married, she was married but lost her husband without biological children, or she is divorced without biological children, or even if she has biological children there should be a court order that the child should be with the husband. But she should be a person who has lived in a family atmosphere, who understands the family values and has the commitment and passion to work with children.

We provide 2 years of training for new mothers, called mother training. She needs to understand how an SOS family functions, because it is not like a normal family. 8 children in a family, all coming from different backgrounds, different traumatic experiences, different kinds of behavioural issues. So [she] will need to be able to understand how to handle them. She also needs to understand how to spend the money across different (necessities) - like nutrition, maintenance and other expenses of the family. She'll also need to ensure that the book-keeping and counting system is followed in the family house. She also needs to understand the psychological aspects of the children and how to deal with them. We have people completely dedicated to the training of the mother in Faridabad. After completion of 2 years of successful training, then we will make her (available for the position). Even then most of the time, we will only keep her as an "aunt". Aunt is a person who can replace a mother, whenever the mother is on leave, or if the mother is sick, or if the mother takes a child to the hospital and the child is admitted to the hospital. At that time, an aunt will be replacing [her in] the family house for a temporary period. Only after that we usually make her a mother.

In what ways has the organization helped the children?

The support that a child gets from a family, the exact same support is extended to all the children in SOS in terms of their healthcare, nutrition, education, shelter, etc. Essentially, whatever a child needs, it's completely taken care of by SOS. That is the Family Care Programme.

Like in normal families, the SOS mother takes the children for outings; whatever psychological support that the child needs is provided for. SOS also supports the higher education of the mother along with the children.

We also have another program called Family Strengthening Program (FSP). In every SOS village's surrounding area, we provide support to children from poorer backgrounds. Wherever we have a SOS village, we want to make sure that the children from the nearby community, ones who have lost parental care, don't find themselves in a situation where they have to come to the village. We provide care and support for this. It isn't full coverage, like that for an SOS child. It [is like] a package service with health care, educational support and livelihood support for the mother. It is a 5-years program. A child and mother are taken into this program, [the latter is provided with] an alternate livelihood opportunity, so that after 5 years the mother will be able to support the child.

In other villages they have started a short-stay program. This is for children with conflicts or some problems [due to which] they come out of the family. The government places them for a short stay. These children will stay for 2-3 months and we provide counselling support and try to bring them back to the family.

But there are some children who need long-term support. They enter into the SOS program. In government homes, after [a child crosses] 18 years of age, they don't give services. To provide support and professional and vocational opportunities for them, SOS provides 2-3 years of support to those who complete 18 years and come out of the government homes or alternate child care institutions. That is called the After Care Program.

➤ We have seen that mental health is a serious point of discussion, especially during the pandemic when many activities aren't possible. At times like these, how do you approach the psychological development of a child?

The staff at the SOS village consists of professional social workers

Last one year, March till October/November, the children were only inside the family. Every SOS village, I believe Tirupati is the smallest with 8 acres, has a playground, park, community hall for performances, group games, all the family houses have TVs and computers, all kinds of facilities. Most of the time, all the mothers and children are engaged with the professional staff who arrange many different activities. We also form a network with other professional bodies like JCI, Lion's club, IITs. Some of your batchmates at IISER are also engaged with the children. Clinical psychologists [are] connected online with them.

This provides opportunities to interact with each other. Lots of play and games in the evenings, keep them occupied.

Not a small family—mother responsibility to take care of children

Some children did need psychological support. After contacting[psychologists], they are okay now.

What challenges did the community face during this unprecedented situation; and how is it managing now?

One difficulty was that the children were all held up because all of the schools were closed. Usually children go to school, we take them for outings but now, they are here on campus.

We house around 120 children usually but because all of the hostels and boarding schools were closed, almost 170 children were here during the peak lockdown period. This was a big challenge- with facilities for around 125, we had to take care of 150-70 for a long period of time.

Thirdly, we have computers and separate labs but with online classes, ensuring individual systems for each child was a challenge.

During the lockdown season, with 1 Youth House, 12 families and the staff, provisions were difficult to manage. But we were able to manage because all the mothers had their own kitchen gardens, we could obtain supplies from local farmers. You could say that we turned these challenges into opportunities.

What was your motivation behind joining SOS

Since the last 25 years I have been working with children. I joined SOS in 2014. Before that I was working with another organization which also worked with children, but it was a community based program. I was a member of the Child Welfare Committee in Delhi. It is while I was there that I got to know more about SOS. While working with children, I came across many children who do not have parents. I have seen many childcare institutions where proper care is not given. When I was in the Committee I came to know much about SOS villages, the care, attention and love and the concept of a family which is attached to it. So, that was the motivation for me to join SOS.

Do you have any advice for people who want to work in NGOs full time?

[Working in an] NGO is not just a job, it's a commitment. A normal job is just 8 hours work but an NGO is 24 hours work. It doesn't mean you have to work physically 24 hours, it just means you have to be there.

Like whenever a mother needs something urgently or the child is not well. We cannot postpone such things to the next day. Only commitment and passion drive me to work in an NGO.

Whenever anyone has free time, just come to interact with them [the children]. It really motivates them. Students from IISER and IIT Tirupati used to come here to interact with the children [before Covid-19] and this made their [the children's] English fluent. IISERT students came here last year and taught them math and IIT Tirupati students also came and showed them some experiments and gave the children career guidance.

There are special trainers for such students but children enjoy more with [college] students. This way both children and students maintain contact with one another. And they start dreaming that they also want to go to such institutions.

➤ What are some of your best memories?

I always enjoy myself when I am with the children. The mothers are there in the families but for the boys living in the youth houses, I spend time with them in the evening. They usually ask me questions about my childhood, how my education was, they keep talking to me. Some of my best memories are from here.



Some of the things we may not be knowing about the child's background even if we have these social investigations. Only upon talking to them do we get to know of their many experiences and then we can help.

It is spending time with the children that is most important. It is always about the child. It is not about presents/gifts.

Most of the time adults think that if we give a new dress, some gift, the child will be happy. But from my experience it is about how much I am available to the child, listening to the child.

So, for me, I really enjoy every bit of my life here, being with the children.

Many thanks to Hrudya, Anita, Aiwin, Sunanda, Ritish and Jeno for conducting this interview

QUARANTIMES OF INDIA

CHAITANYA CHAWAK

After a daring escape from the undisclosed location*, the author successfully managed to return to his hometown . . . only to discover that the lockdown had begun again.



Day 1 of lockdown:

Origami!

Day 2 of lockdown:

In the movie Wall-E, Wall-E stands for Waste Allocation Load Lifter: Earth-Class and EVE stands for Extraterrestrial Vegetation Evaluator. (Timestamp- 05:55)

Also, Wall-E says the word 'Eee-vah' precisely 35 times in the entire movie.



Day 3 of lockdown:

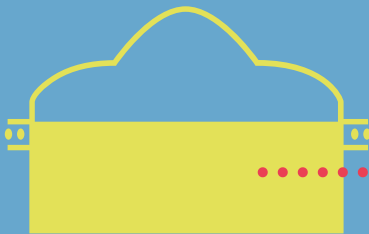
Here's how you can legally skip an entire day.

The Jarvis island (GMT-11) and Line islands (GMT+14) are located on either side of the International Date Line and are physically just about 350km apart.

Let us now assume that we live in London and it is the month of winter (hence GMT 0). Now, if the local time here is Monday, 10:01am; then the time in Jarvis island would be 11:01pm, Sunday. And the time in the Line islands would be 12:01am, Tuesday.

So if you own 'Spirit of Australia' (the fastest boat in the world with a speed of more than 500km/hr), you can easily reach the Line islands from the Jarvis island within an hour, thus effectively skipping an entire day (in this case, a Monday).

* a reference to the 'Life(time) in Quarantine' article from the previous edition of Dhvani.



Day 4 of lockdown:



Pro-tip: If you haven't studied for your exams, just meditate for like 10 hrs. This will (hopefully) give you enough insight to directly 'sense' the questions that'll appear in the exams. GGEZ.

Day 5 of lockdown: ORIGAMI!

Day 6 of lockdown:

All numbers from 1 to 82 written backwards form a prime number.

In short,

8281807978777675747372717069686766656463626

160595857565554535251504948474645444342414

0393837363534333231302928272625242322212019

181716151413121110987654321

Is prime.



Day 7 of lockdown:

She sells sea-shells by the sea-shore.

The shells she sells are sea-shells, I'm sure.

For if she sells sea-shells by the sea-shore

Then I'm sure she sells sea-shore shells.

But sea-shells show some sham show

Now she sells shamed sea-shells

Which shall shame the same shells she once sold.

She shook some sea-shells which showed

That some sea-shells she sold were she-shells.

She shovelled some she-shells by the sea-shore

Now she sold sea-she-shells by the sea-shore.

Should she shove the shamed sea-shells on the sea-shore

She can surely shell more sea-shells that she sold.

She-shells shortly sided with some sea-shells at the same shore

The she-seller should show some shame, they said.

The smart she-seller seemed shook by such sick scam.

Shamed, she stood shook stared by the sea-shells of the sea-shore.

She sensed some short shacks which she self shut

And stopped shelling she-shells and sea-shells to sell by the sea-shore.

DHWANI



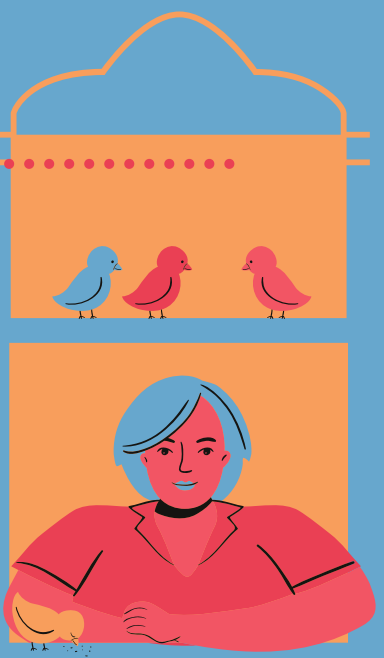
Day 8 of lockdown:

Mom made me join a yoga plus wellness kind of online series. And well, I had to join because I need to survive in my house.

But the instructor made a classic mistake. On the first day, he talked about the profound and amazing benefits of Imagination. And that really resonated with me. So I used this newly learnt ability in the subsequent sessions which all required physical work. I even followed the closing eyes and relaxing strat along with it.

I'm not really sure why, but the instructor did not seem to like this idea of mine and I was warned for 'influencing' his other students too.

~_(\ツ)/~



Day 9 of lockdown:

Imagine you just dropped a rock in a lake.
What sound does it make - 'Boo-dook', or 'Doo-book' ?

Think about it.

Day 10 of lockdown:

oRiGaMi!



A Lay(wo)man's Guide to Burning One's Toast

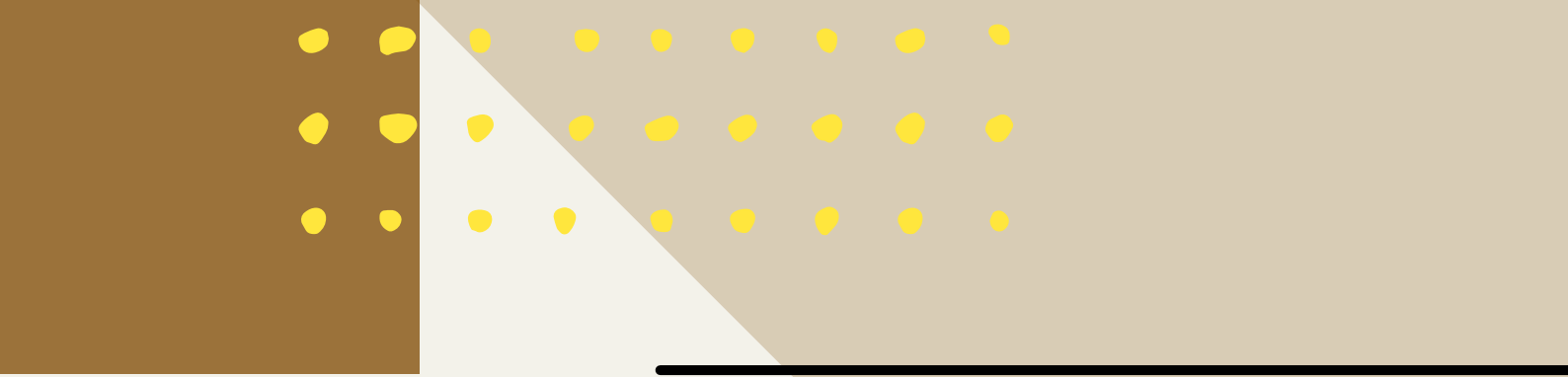
-Anita Dekha Baruah, BS-MS 2019



- illustration by
Sneha Prakash

You can start with stroking
The flames
Gently, so as not to burn their
Tresses.
Five hours, on a weekday, you
May choose to suture
The cryptic teal with orange sequins,
Devouring
Spoonfuls of marmalade
Saving none for the birds.
Do not worry when the old lady,
Who lives across the street, comes
Banging on your door,
One garden geranium stuck to her
Ear
Or even when the smoke billows out, like
A genie from a bottle
Not that welcome but good news
Nevertheless.

Set the pan on the stove, let
It simmer and crackle till the
Teflon starts to smell of
Weekend meals and ocean plastic
Never, never, wrestle with the fire that
Swarms underneath
The one in your voice should be enough.



You need two slices of bread,
(just like the cookbooks pronounce it)
With gunpowder residue that
Got mixed when the baker fought
With a tin can,
The oven preheated to just the right
Temperature
Crisp, as they like to call it.

Dip those slices into a warm cup of water,
(not lukewarm, mind you)
Wipe your forearms with them
Then put them to rest on the surface

The wait is easy, one-
Dimensional
Not worth renouncing
Hum to yourself as you count the
Contrails overhead
Stroking your forehead with those
Oleaginous palms
An old-timer, the texture unfortunately
Reminiscent of a pigsty.
You need only slay four dragons before you
Hear bells ringing
Your feet, half-invisible, already in the
mud
Your sap a crowning glory
As the world burns behind you
The toast smells alike.

“The smoke billows out,
like a genie from a
bottle”

ओरे नए सवेरे रे

- Ajay Yadav, BS-MS 2019

ओरे नए सवेरे रे, कुछ बीते कल की कहानी सुना
है जिंदा जो बचपन थोड़ा
उसका किस्सा-ए-नादानी सुना ।
है हसीन कितनी ये नई सुबह,
पर वह गुजरी शामें में भी न कम जवां थी।
है रसीले बड़े ये नए गीत,
पर वो लोरिया भी क्या कम दिलरुबा थी।
ओरे नए सवेरे रे, कुछ बीते कल की कहानी सुना।
जो नींद लाती थी लोरियां,
उनका किस्सा-ए-बेमानी सुना।
है लोग अपनों से अब चारों तरफ,
पर वो बीते लम्हे भी कहां गैरों संग थे।
है गाथा बहुत रंग मोहब्बत का,
पर वो कल के इश्क का भी कहां कच्चा रंग था।
ओरे नए सवेरे रे, कुछ बीते कल की कहानी सुना।
है नहीं साथ जो अब,
उनकी किस्सा-ए-निशानी सुना।



illustrated by
Himika Das

Will I be this forever?

- Neha Adarsh, BS-MS 2020

Will I be this forever?
Unfit? Immature?
Too sensitive to survive.

Mistake
I am a mistake
Sent by the universe in wrong time
I will never be fit
Never be good enough for them

Or maybe I am a strangled boat
Always searching for my neverland
In this ocean, that bears no land

Every day is a struggle
When I am always back to square
one
When I disappoint every soul
That claims their love for me

Maybe I am a tragedy, an irony
That the universe sent it on earth

But made it feel like hell
Because it shines a ray of hope
Then destroys it
And with it, a bit of me

Pain has its ways
Universe has its ways
Hope has its ways
To disintegrate me
Into oblivion
Bit by bit
Day by day
Giving the pain, the tears
Ever experienced by humanity



- illustration by
Sneha Prakash

Curse, maybe I am a curse
That proves its existence to the time
With pain and anguish

It gives people the steaming tears of anguish
It gives them those lifeless screams
It gives them those lesions at heart
Because its full of them

Do I represent humanity?
Or am I the fruit of their devilish deeds?

My eyes are diseased now
My screams are silent now
My thoughts touch the lips
And fade away into oblivion

No help to call now
As all were followed by that eerie silence

When do I leave lord?
When does my sentence end?
Does it end with time?
Or is it timeless?
An eternity of suffering?

I'm done Lord, it's over
Your mistake, your tragedy, your curse
She leaves now, your Eve
Maybe she's the burden
That draws the humanity back
Maybe she draws her loved ones back,
from their glory
As she's the curse, right?
The devil, who has no right to plead

Her struggle is over, and she has lost
She awaits now
For you messenger, the death
To retrieve her
And disintegrate her, into the oblivion
For that was the plan
Right?

“Pain has its ways
Universe has its
ways
Hope has its ways

IMAGINATION

WINNING ENTRY - Vignettes of the Quarantine - Lit Club event

- Prakriti Parthasarathy, BS-MS 2019



The door was open and the apartment was filled with people when Shazmi reached. She sighed. The UP police weren't quite known for their finesse of handling crime scenes. "Everyone please move aside," she commanded, as she put on her gloves to examine the body slumped onto the sofa. It was of a well-built man in his late forties. She could see an obvious gunshot through his left temple.

The inspector in charge told her it was a clear case of suicide. "There was no need for such highly positioned detectives like you to come, madam," he said sheepishly, "You must have a little trust in the local police as well. This guy has obviously shot himself; we retrieved the weapon from his own hand. Moreover, he even recorded a video of himself doing so, from about 5 hours ago. He was a widower with no children, living alone in this house. Poor guy. Although, I did hear that he was also in a lot of debt, so I don't blame him..."

"He recorded a video of him shooting himself?" she asked.

"Yes madam. Makes our job a lot easier," he replied, sounding proud of himself. "Would you like some chai-biscuit? After all, 6:00 pm is tea ti-"

"When your officer retrieved the victim's phone was the video still getting recorded?"

"Madam it was me who retrieved the phone. It wasn't recording at the time."

"And how long is the video?"

"About 10 seconds."

She sighed again, heavier this time. "Inspector sahib," she said, looking him in the eye, "If the phone stopped recording in 10 seconds, shouldn't there have been someone else present to stop it?"





"Oh of course..." he replied, turning red with embarrassment and realization. "Madam actually," he began explaining, "Modi ji had just announced the lockdown, so we were all a bit distracted. We didn't think logically. It won't happen again..."

"Dismissed," she said, "If all of you are this unfocussed you can go back home right now"

"Sorry madam..." he mumbled, as all the police officers began exiting.

Shazmi didn't care for the lockdown. She had flown from Mumbai to Delhi for a meeting with higher authorities three days ago, and would easily be able to catch a flight back that night before the government restrictions got out of hand.

About two hours before this, Shazmi had suddenly been asked to supervise and report the response of the UP police towards a supposed suicide case in Noida, an area of NCR falling in UP, about 30 kilometres from Delhi. But everyone knew that she had been chosen for this just because she was in proximity to the crime scene. Realistically, this case was much too small for a detective with her achievements and calibre.

She had solved dozens of such cases in her early years as a police officer. The idiot who recorded the crime would have definitely left his fingerprints on the phone. The victim was supposedly in debt. One just had to match the available fingerprints with all the people the guy had borrowed money from. Easy.

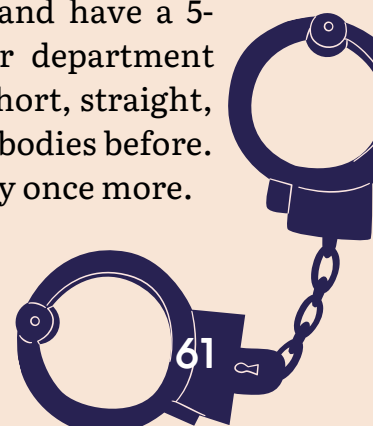
She would contact that useless inspector and give him clear instructions on how to proceed. Within the next two days, the perpetrator would be behind bars. Shazmi would have another solved case under her belt.


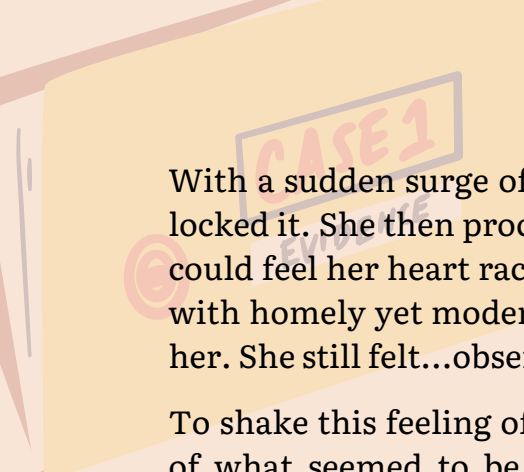
She began making calls for a taxi to take her to the airport, which was about 45 kilometres away. It was already 6:45 pm. With the growing darkness, all the police officers gone, and the large duplex apartment now completely empty except for a dead body, Shazmi began feeling a chill up her spine. Her fingers started dialling faster.

More than an hour had passed. 13 taxi services had been contacted to no avail. Borders were rumoured to get sealed any moment. Nobody wanted to traverse the state border between UP and Delhi, with the risk of not being able to cross it back on time. The lockdown was taking a toll on the public. Flights were getting cancelled. Shops were shutting down. Shazmi began losing hope.

At the three-hour mark, she gave up. She could just take it easy and have a 5-bedroom apartment all to herself for the night, and contact her department tomorrow. She took a deep breath and ran her fingers through her short, straight, jet black hair. "It's fine," she told herself, "You've seen thousands of bodies before. This one is no different. Don't scare yourself." She glanced at the body once more.

It just seemed...eerie. Unsettling. Alive.





With a sudden surge of an almost childish fear, she ran to the main entrance and locked it. She then proceeded to lock all the glass windows and balcony doors. She could feel her heart race and her hands quiver. Something in this large apartment with homely yet modern interior designing and a dead body did not sit right with her. She still felt...observed.

To shake this feeling off, she decided to take a shower. She went to the bathroom of what seemed to be a guest bedroom and turned the tap. The sound of the running water calmed her nerves. At least she wasn't in silence anymore.

She looked at herself in the mirror under the soft orange light above the washbasin. It had been a long day. Kohl was running down her eyes. Her hair looked sticky and greasy. Her forehead was breaking out in beads of sweat.

Despite all this, however, she would be considered as quite the beauty. She had big, dark, expressive eyes, and a long, sharp nose, complemented with smooth olive skin and a tall, athletic figure.

She undressed and checked the water. It was the perfect temperature.

She stepped into the shower and closed her eyes as the water splashed down her chest. She suddenly felt silly for letting her imagination run amok earlier. The monotonous hum of the water soothed her. She stood very still in one position with her eyes shut. Her mind began forming swirls of peaches and purples. She felt at peace for the first time in many hours.

Knock knock.

Someone was at the door. Shazmi didn't move.

Knock knock!

It was louder this time. Her meditation broke. With her eyes still shut, she yelled, "One minute, I'm ins-"

Before she even finished, she realized what was happening. Her blood froze. Her eyes opened wide in shock. The water kept running.

KNOCK KNOCK!

There was no mistake about what was happening now. Shazmi wanted to scream, shout, move, anything. She felt like she had drunk her voice. Her brain felt broken. She had no control over any of her senses. She became immobile.

The next morning, the house was flooded with people. Policemen, senior detectives, forensics, cameramen, all gloved and masked. It seemed as though everyone had forgotten about the lockdown, but not entirely. Herds of neighbours were crowded beyond the yellow tapes reading 'CRIME SCENE'.

Inside, there lay two dead bodies. Both with a bullet to the left temple.

ନିରୋଗ ସୂତ୍ର

- Surya Narayan Sangitra (PhD Physics)

ଆବାଳବୃଦ୍ଧବନିତାଙ୍କୁ ସାଦର ପ୍ରଣାମ
ଆଶାକରେ ଭଲରେ କଟୁଥିବ ଦିନ ।
କରୋନା ଆସିଛି ଆତଙ୍କ ବିସ୍ତାରି
ବିଶୁକୁ ଉଦ୍ଧାର ହେ କାନନ-ବିହାରୀ ।
ଚାଲିଯାଉ ମହାମାରୀ ଶାନ୍ତି ଆସୁ ଫେରି
ପ୍ରଭୁଙ୍କ ନିକଟରେ ଏତିକି ଗୁହାରି ।
ସୁସ୍ଥ ଓ ନିରୋଗୀ ରହିବାର ବାଣୀ
ସରଳ ଭାଷାରେ ଦେଉଛି ବଖାଣି ।
ସୂର୍ଯ୍ୟୋଦୟ ପୂର୍ବରୁ ଶର୍ଯ୍ୟାତ୍ୟାଗ କରି
ଯୋଗାଭ୍ୟାସ କର ନିତ୍ୟକର୍ମ ସାରି ।
ଶରୀର ସୁସ୍ଥ ରହିବ କରିଲେ ବ୍ୟାୟାମ
ପ୍ରାଣାୟାମ କଲେ ହେବ ପ୍ରଫୁଲ୍ଲିତ ମନ ।
ଗଜାମୁଗ, ଫଳମୁଳ, ସବୁଜ ପରିବା
ଖାଦ୍ୟସାର ପାଇଁ ଗ୍ରହଣ କରିବା ।
ଫାଷ୍ଟୁଫୁଡ୍ ଖାଦ୍ୟକୁ କରିଲେ ବାରଣ
ରୋଗ ହେବାର କିଛି ରହେନି କାରଣ ।
ଆମିଷ, ନିରାମିଷ ଖାଉଥିଲେ ମଣି
ଦିନକୁ ପିଇବ ଦଶ ଗ୍ଲାସ୍ ପାଣି ।
ଛଅରୁ ସାତ ଘଣ୍ଟା କରିଲେ ଶୟନ
ଔଷଧର ରହିବନି କେବେ ପ୍ରୟୋଜନ ।
ଖାଦ୍ୟ ଗ୍ରହଣ ପରେ ଶତପାଦ ଚାଲି
ନିରୋଗ ରହିବାର ସୂତ୍ର ଟିକେ ଦେଲି ।



illustrated by
Manasa Uppala

“ସୁସ୍ଥ ଓ ନିରୋଗୀ
ରହିବାର ବାଣୀ
ସରଳ ଭାଷାରେ ଦେଉଛି
ବଖାଣି ।”



In Love with the Sky

Prof. Arunima Banerjee

illustrated by
Himika Das

Have you ever been in love with the sky?

The vast blue expanse eager to
embrace all alike, With its myriad moods
manifest in vibrant hues, Often a palette
of pathos, mirroring the mind.

Have you ever thirsted to drink in the
sky?

The shimmering blue stretch
akin to a river of wine, Delving deeper and
deeper into its fathomless depths, And
getting heartily drunk till the senses give
way.

লৌহ কপাট

Soumyadeep Roy
Research Student, Chemistry (2nd year)

নীল আকাশি ফুল ফুটেছে
বাইরে শুনি শহরজুড়ে,
সেদিকপানে চাইলে নাকি
চোখ দুখানা যাচ্ছে পুড়ে।
যাচ্ছে পুড়ে যাক না সে চোখ --
দেওয়াল দেখে ক্ষুব্ধ বড়ো,
অন্ধ হয়ে পাখনা মেলার
অগ্রাধিকার অধিকতর।
খাঁচায় আছি, শান্ত আছি,
ক্লান্ত আছি কঠিন বোঝা,
মন্ত্রবলে সামলে নেবে
জন্মালো কই এমন ওঝা!
অপেক্ষাতেই মুক্তি খুঁজি
যুক্তি কোথায় কারাগারে!
খুলবে তালা কোন প্রহরে
পাইনি জবাব অন্ধকারে।



illustrated by
Himika Das

THE NEW NORMAL



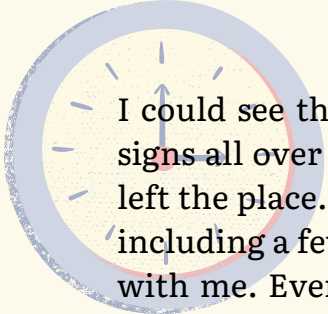
- Anjali Kumari Singh, I-Ph.D. 2018,

It was a beautiful morning. The smell of monsoon was filling the air. As I crept from under my blanket and looked outside the window, I could see that it had rained through the night. I turned around and hid my face in the blanket again, just when I heard my mother lay down breakfast on the dining table. I looked at my phone, and it was half-past seven. It took a lot of effort not to submit to the overwhelming monsoon chills forcing me to stay hidden under the blanket. I woke up with a big yawn. It was yet another day amidst the weeks and months of lockdown since the pandemic took over our daily lives.

It had been seven months. I had lost track of days and dates by then, but I remember that afternoon very distinctly. Because that very afternoon, I had received an email to return to the IISER campus among the students' first batch. That was the first day in the last seven months when I thought, "Are things finally starting to become normal again?"

When I left for the airport, covered from head to toe with masks and gloves and kits and whatnot, I remember fear. After all, I had stepped out of the safety and confinement of my house after seven months. But more than fear, I remember the excitement. The enthusiasm to be back in my hostel room, on the grounds of the campus. I missed it dearly, everything, everyone. I was so overwhelmed with excitement that the fear waned in front of it. After a long time, I was happy. Yes, things are finally starting to become normal again.

I remember the euphoria in the air when I reached the campus gates. I was exhausted, body and mind, changing two flights, covered in protective gear, barely able to breathe, but my soul had just awakened. The campus was as I had remembered it. But something did not feel the same.



I could see that the ground was covered with grass up to my knees. There were signs all over that indicated how deserted the campus had been since we had last left the place. I walked over to the main building to see a handful of people there, including a few faculties. Some of my friends had also arrived at the campus along with me. Everyone was happy to see students finally return to campus. I was so excited to finally be back!

We all had to go through a mandatory 15-day quarantine protocol before starting our daily routine again. Before I could look around enough to let the feeling sink in, I took my luggage, crossed the main building, got my quarantine room assigned, and walked towards the hostel.

"Fifteen more days till it is all normal again," I remember thinking as I walked through the hostel building, entered my quarantine room, and closed the door behind me.

On the eve of the end of quarantine, I could barely contain myself. It was so challenging to be able to sleep. Staying enclosed in a room for a fortnight was not an easy ordeal. It was the light at the end of the tunnel that kept me through. And now that it was finally going to be over, I just could not wait for the night to pass. With the light of the day, I, along with my friends, would have breakfast in the mess, just like old times.

The excitement was shared across the mess as we all were having breakfast together. Although everything felt the same initially, I started to notice that things were not entirely so. There had been a lot of protocols implemented across the campus to keep us all safe. One of which was having tables for two in the mess. Apart from specific rearrangements to our rooms and the mess, social life was not the same as we remembered. With the social distancing norms being implemented and followed, life had taken a major turn. Meetings were almost always online, even when everyone was present only a few rooms apart. Being able to play in groups was not a possibility. All group activities were also held online. Lab hours were organized in shifts so that people do not come in contact with each other frequently. The canteen was not yet open for afternoon snacks. Even a walk near the lake seemed like a luxury we could not afford. We were all residing on the same campus, but we were still separated by the pandemic's seven-month-long turmoil.

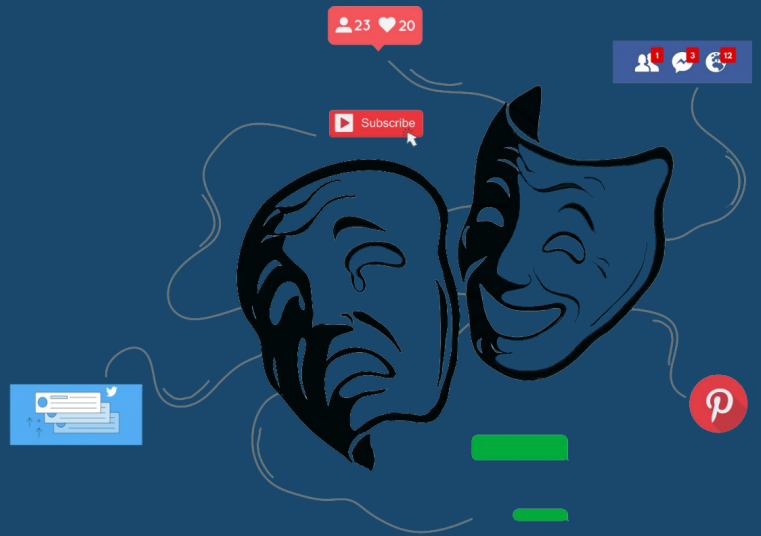
One of the things which saddened me the most was not seeing the Vivante decorations as January approached. Is this how the new normal would look like?

With the arrival of the next few batches of students and the onset of the new year, we have learned to embrace the new normal. Slowly, with the arrival of vaccines and more testing facilities, the fear of the pandemic has also decreased considerably. Things have gradually started to change again. A cup of tea in Tulita is no more distant memory of the past. All this being said, safety is still everyone's top priority. We are slowly and steadily progressing towards maintaining a healthy equilibrium between the old normal and the new normal. As the days pass by and as everyone is slowly trickling back into the campus again, I am hopeful about a lot of things. One of them is that things would undoubtedly become normal again.

Social Media

- Sachin Kori, BS-MS 2019

अब कौन कहेयेसही-गलत?
कुछ खबरी हैकुछ घाटा है।
देती संसार का जान भी ये,
लेती समय का बलदान भी ये।
Insta fbइसका प भी है,
रात मदन क धूप भी है।
Screen सेहोती बातह,
दन रात नकल जातेह।
इसक नया गहरी ह,
आंख मनदया ठहरी है।
अब जीवन का हसा है, तो हसा है,
पर बचकर रहए, यह बत बड़ा कसा है।



illustrated by
Himika Das

चल, आज फिर

-Anjali Sindhal, BS-MS 2019

चल भूल-भुलाकर रंज पुराने
आज फिर घंटों बतियाते हैं
चिढ़ा-चिढ़ाकर एक दूजे को
आज फिर एक बार सताते हैं

चल चहक-चहक कर
फिर रातों को सुबह बनाते हैं
चल महक-महक कर
फिर एक दूजे के ख्वाबों में आते हैं

चल किससे अनगिनत चलते- चलते
आज फिर सरेआम सुनाते हैं
चल सूरज को यूं ढलते- ढलते
आज फिर शाम बनाते हैं

चल शीतल पड़े इस दिल में
आज फिर वही आग चलाते हैं
चल तेरे दिए उन झुमको को
आज फिर कानों में सजाते हैं

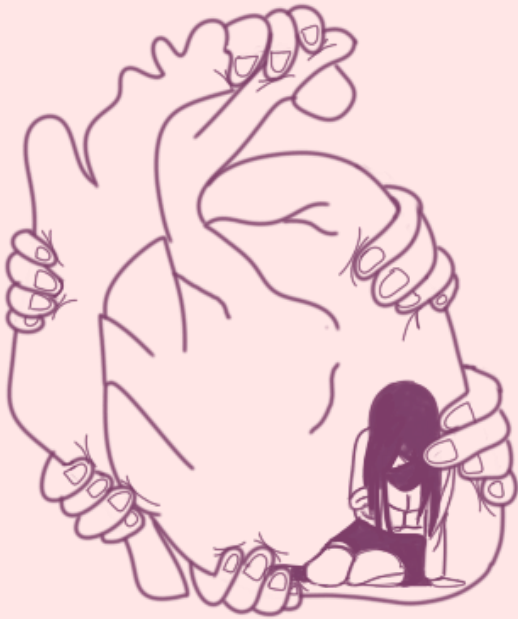
चल रातों को जुगनू बन
आज फिर एक दूजे को जगाते हैं
चल एक बार फिर वही कहानी
शुरू-से दोहराते हैं।



- illustration by
Shivangi Batish

My heart is a brothel

-Anjali Sindhal, BS-MS 2019



Illustrated by
Amisha Baiju

When the horizon engulfs the blazing ball,
With the evening sun scattering its beauty
I often capture people with the clicks of my eyelids
One blink and the whole film starts to get directed
As if it was inscribed to be my sole duty.

I cheer them a glass of
my favourite Bloody Mary cocktail
In an enthusiastic tone
To bring them back to life
To present.
A step back,
I wonder

If I serve as a sanctuary for different beings to be welcomed here
For my heart is a brothel,
people come and go,
but none of them stay.
No. Nowhere near.
Maybe I'm a philanthropist
To the visitors here
Unknowingly.

“For my heart is a brothel,
people come and go but none of
them stay.”

I try to superimpose their "always" and "forever"
With my "maybes" and "what ifs"
In the hopes of not to be forgotten ever,
But sometimes, the lights become too bright or too dull
They seem to ride down the Niagara or fall into the barrel of their own skull.

Sitting by the corpses of your presence
Reminiscing our time together,
I'm forced to believe that
What we had,
Was too good to be true
Or too bad to be a nuisance.

DHWANI

Life

- Prof. G Ambika

Life is just a myriad of tracks and paths,
Crisscrossed, yet spread in varied ways;
Filling the whole in multitude of stages,
Skillfully conceived by the Master Mind.

Once dropped at a point, the voyage starts,
Staggering and swaying till the trick is learnt.
Set for an unforeseen gapless traverse
That stops at a point, with no warning.

At times it is smooth and easily glides
And shifts with ease in happy trots;
But then might turn so rough and steep,
That takes so long to progress an inch.

No way to turn back but to move on
Forward and onward, no stop on the paths,
Chosen from many detours at each forking,
That makes it so select and special for each.

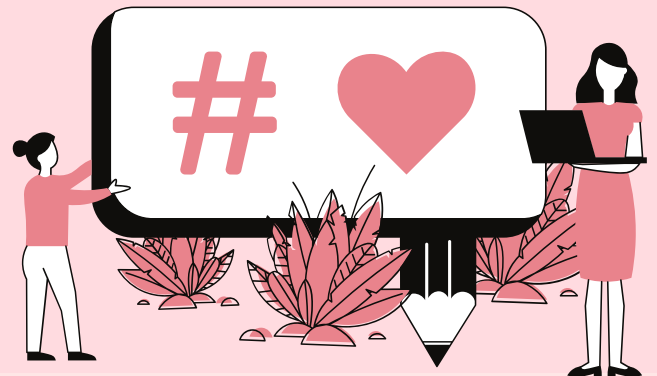
Driven by uncertain forces and constraints,
In the midst of all the dear and near ones,
They meet and move close just for a while;
Yet each alone, in life's own strangest ways.

Crafted and patterned to pure perfection,
All on a gigantic boundless expanse;
Each has a chunk, marked out uniquely,
That stay but briefly on this cosmic design.

Forward and
onward, no
stops on the
path

Illustrated by
Amisha Baiju

DECIEVING DOER



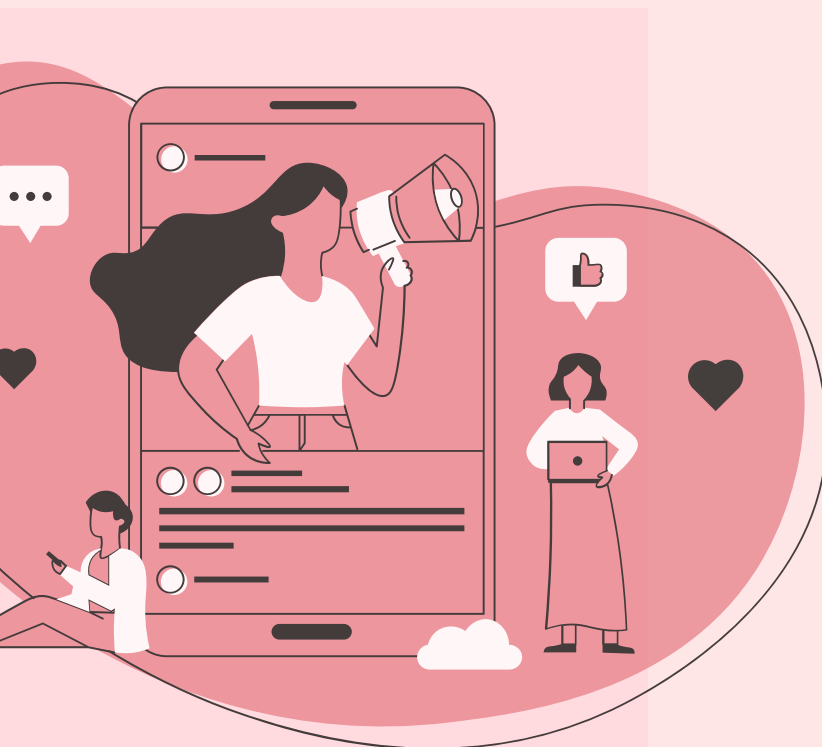
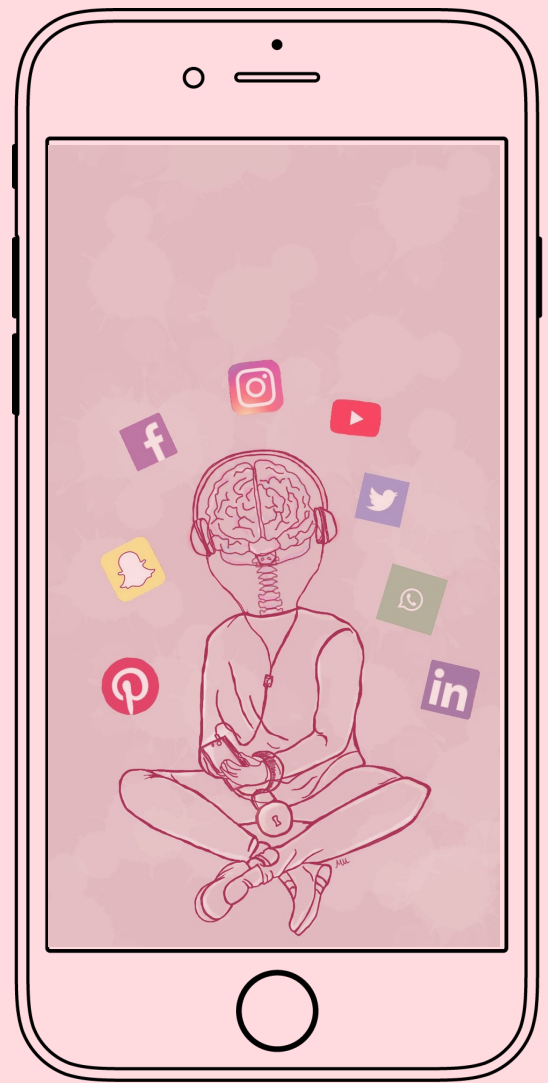
Gaurav Salwan, BS-MS 2020

Remember the time when you were permitted to go out at 4:30 PM when it's only been 4:20 PM? That was the moment you realised how a minute seems to be an hour and how slow the hands of a clock can move. On the other hand, did you realise the same when you were playing and chattering with your friends? No! Time just passed rapidly and an hour seemed only like a minute. Gradually you grew up and those fun events of your life kept on declining. Playing games transformed to sporadic friendly meets. In this day and age, everyone is getting busier each day in their studies and careers.

Meeting with friends has become a scarce juncture. But Social Media allows us to stay in proximity with our friends and family. It has helped us being in touch with people we generally can't meet. Consequently, we started interacting with some unknown people. We tend to impress some while not others. It forces you to post something that impresses them.

Humans have always been amenable. Be it getting a job done or just scrolling somewhere. Yes, you estimated it right! I am peculiarly talking about social media addiction which is a truly hyped issue. When we upload a new photo of ourselves on social media that's a moment when our mind is very vulnerable of what others think of this new profile photo or this new post. And so, when we get new likes and comments on it, we consider that as our reward. Knowing this, Facebook can actually message us and say "Oh, you have got new likes on your post!" which will indeed make us feel good about ourselves.

Interaction with social media and our cell phone releases some amount of chemical dopamine in our brain. Dopamine is a neurotransmitter which makes you feel happy, just like when you're rewarded. Dopamine is the exact same chemical that makes us feel good in different addictions like smoking, drinking and gambling. In other words, it's highly addictive. As our generation is going through tense situations, we don't have a coping mechanism to deal with the anxiety it brings with it. So, when significant stress starts to show up in our lives, we don't turn to a person to talk to, we turn to social media which offers a temporary escape from our anxiety. This is the easiest way to get a dopamine surge so that we feel rewarded and happy and mask ourselves from the reality.



We're good at showing how smart and strong we are by putting on filters, which induces a sense of happiness. And a viewer seeing this starts believing this by comparing himself with all these beautiful people and concluding things like he's not that good-looking or he's not that happy so he must be doing something wrong. This creates a sense of dissatisfaction in us that we need to combat every day. Considering the fact that social media has brought all of us closer, its imprudent usage in our day to day lives is also cleaving us by fabricating a rivalry amongst ourselves.



WISH TO BE A LITTLE



princess

Dr. Sreenivas Chavali

With gleeful eyes full of dreams
She was a sweet little princess
Gifted so much was she
Always got more than she wished

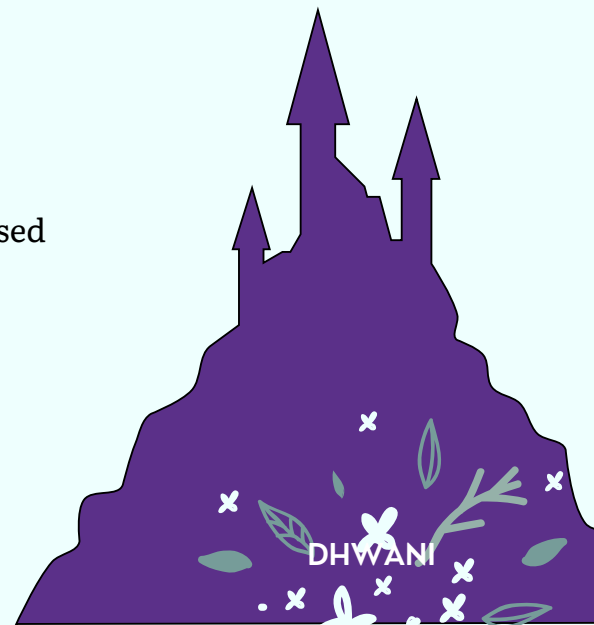
She wished for a doting mother
But the queen had unnatural expectations
She got something grander than a never-satisfied mother
An adoring grand mother
Gifted so much was she
Always got more than she wished

She wished for butterfly wings
To merrily flutter around to her heart's content
She got something massive than flimsy quills
The wings of an ostrich
Gifted so much was she
Always got more than she wished



She wished for a prince from a nearby kingdom
And spend her life with her dears
She got something expansive than a proximal settlement
A home beyond seven seas
Gifted so much was she
Always got more than she wished

She wished to be the queen of the faraway territory
And exhilarate the world
She got something herculean than alleviate the distressed
To tirelessly serve her king
Gifted so much was she
Always got more than she wished





Gifted so much
was she.

She wished to mother a little prince
And realize her wishes effortless
She got something precious than a junior king
Two sweet little princesses
Gifted so much was she
Always got more than she wished

She wished at least her girls realize their dreams
And live joyous and contented
She got something enormous than a compensation
Disappointments multiplied twice
Gifted so much was she
Always got more than she wished

With sanguine vision filled with determination
She set out to make her girls realize their dreams
Gifted so much was she
Always got more than she wished
She dreamt to be a little princess
And works for realizing that of two

किसान

-Yogeshwari Asaram, BS-MS 2018

दुनिया भर का अन्नदाता, हूँ मैं परेशान,
पैसा नहीं, मेरा सम्मान ही है मेरा शान।

रात को दिन , और दिन को रात करता हूँ,
मेरी मेहनत से ही अन्न सबको दिलाता हूँ।

शिक्षा होंगी कम, लेकिन नहीं हूँ मैं मजबूर,
कमाई होगी कम, लेकिन खुशियाँ हैं भरपूर।

मेहनत से फसलें उगानेवाला,
खुशी से सबको खिलानेवाला,
मैं हूँ किसान, मैं हूँ किसान ,
सबका जीवन करना चाहता हूँ आसान।

चाहता हूँ , थोड़ा आपका साथ,
तो कर सकें प्रगट हमारा देश हम एक साथ,
तो क्या कहते हो, बढ़ाओगे मेरे साथ अपना हाथ??



- illustration by
Shivangi Batish

STALK THE AIRPLANES

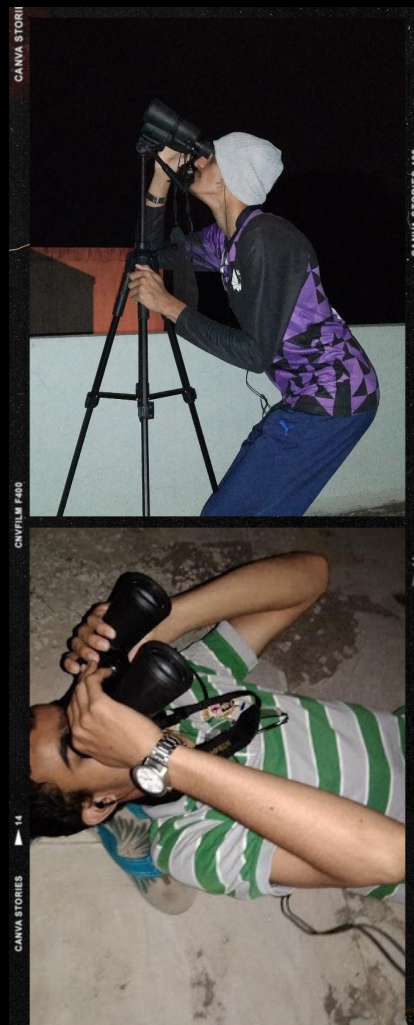
Swastik D Shinde, BS-MS 2018

A lot of people ask me what I do getting up so early in the morning. Well, most of the time, I go to the terrace. Now, those who do not know me might get confused. I go to the terrace to enjoy the dark, starry skies. One can call me an astronomy nerd. Staying at home for a year- no college, no friends, and no football, would've killed me. Thankfully starry nights came to the rescue. So, this is my experience gazing at the stars.

After spending about three months getting bored, I got my parents to buy me a pair of binoculars, and this is where the journey begins. I got a chance to observe the comet Neowise, which visited us in July. Other than that, the Andromeda, Pleiades cluster, the Orion nebula, moons of Jupiter, rings of Saturn are a few of the objects I managed to observe through the binoculars. I also observed Jupiter and Saturn's great conjunction, which happened on 21st December 2020.

The most spectacular, however, is the moon. One can observe the craters which look beautiful. Another fun thing that I did was stalk airplanes! It is a fun thing to do if you want to pass your time and there is nothing other than the usual stars and constellations to observe. I also had a chance to see a fireball and the Geminids meteor shower.

So, overall, 2020 was a fun year for me. But I look forward to getting back to the institute and observing the skies with other astronomy nerds like me. Till then, don't waste your time getting bored; stalk the airplanes.

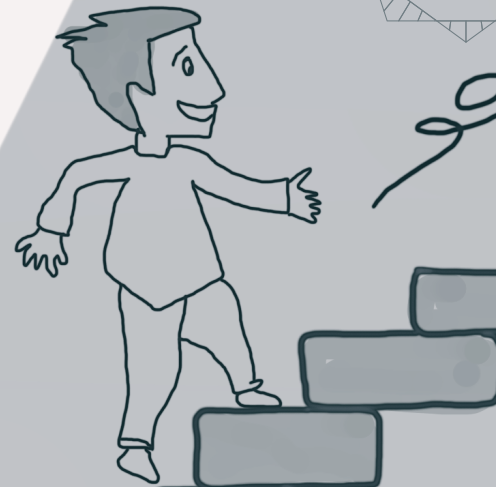




MIRAGE

-Arathy Venugopal, BS-MS 2016

An Endless stretch
Hard and baked in the Sun
Kept on glaring at me for hours...
Embellished by nothing of its own,
But mere illusion.
Isn't it resembling our life?
The thought bringing a moment of zeal...
You always see an air of joy about others
How perfect things are, you wonder
And ponder over your misses...
The nearer you get to them,
The mirage of false perceptions
Give way to coherent ones...
It dawns on you that
Life is equal just to its pupils,
That the hurdles of life nourish you
And mould you into someone stronger.



- illustration by
Apsara K P

“The mirage of false
perceptions
Give way to coherent
ones”

Healing

-Manaswini Manisha Mohapatra, BS-MS 2018

When she wanted to share,
Everyone were like we care.
Tears were seen in her eyes,
For we could hear her silent cries.

She forgot the difference between day and night.
Mostly found in her room holding a pillow tight.
She was like a warrior without a shield,
Standing in the middle of battlefield.

To get over of this bad memory,
She started to write everything in her diary.

After few years of struggle,
Finally, she closed her chapters of trouble.

Now her smiles sound like the chime,
This happiness came along with the time.
She enjoys herself while dancing and singing.
As we all know that time can heal everything.



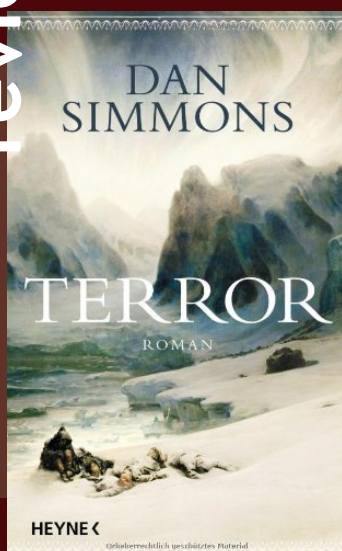
- illustration by
Manasa Uppala

“Now her smiles sound like the
chime,
This happiness came along with
the time.”

Books for the Ages

Curated and managed by The Literary Club IISER Tirupati

review



THE TERROR

AUTHOR : Dan Simmons

GENRES : Historical Fiction, Survival Horror

The Terror is a 2007 novel by Dan Simmons. The novel deals with Sir John Franklin's lost voyage to the Arctic to find the fabled Northwest Passage. The novel falls squarely in two distinct genres (according to me): Historical Fiction (not alternate history) and Survival Horror, and it excels at both.

The grim, icy, freezing hellscape of the Arctic pack ice makes for a brilliant setting for a Survival Horror story.

Although it can be a bit difficult to deal with the huge cast of characters that the story has, all the major ones are properly fleshed out and have enough complexity of character to satisfy even the snobbiest of book nerds out there. The story balances historical fact with the made-up elements surprisingly well, and as long as we don't really know what happened to Franklin's party exactly, it provides as good an explanation as any.

REVIEW BY :

ABHINABA MAZUMDER, BS-MS 2017

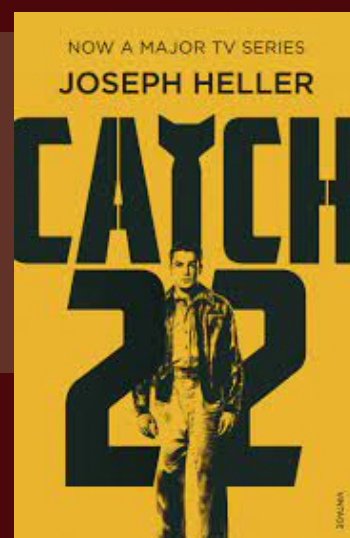
CATCH 22

AUTHOR : Joseph Heller

GENRES : War, Satire, Humor

Set in the times of WW2 and in Europe it tells the trying times through the eyes of an allied soldier Yossarian. It's a very proficient satire book with a lot of details in each page. There are times you are soaking in all details and arranging them in your mind, and there are times you are rolling around in laughter (never read it in Delhi Metro).

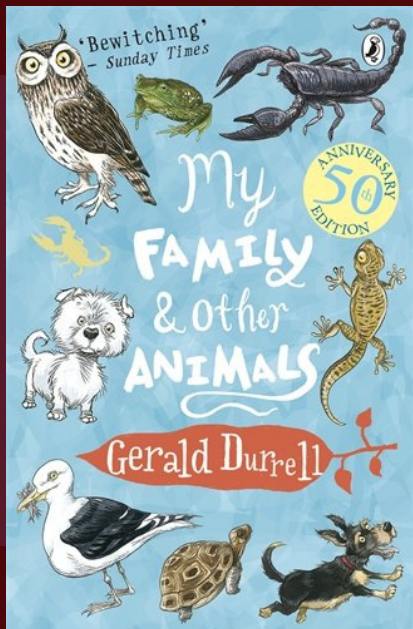
All-in-all a book that will never let you down, a read for the lifetime and characters you will have a hard time forgetting.



REVIEW BY :

PARTH S MENGHAL, BS-MS 2019





MY FAMILY AND OTHER ANIMALS

AUTHOR : Gerald Durrell

GENRES : Autobiography, Comedy, Drama, Novel

This book is an autobiographical novel (ingrained with fictional elements, of course), set in the time when The Durrell family had had enough of Britain and had gone to Corfu (Greece) for an extended stay.

The events in this book happen when the author, Gerald Durrell, was at the impressionable age of 10, so getting to explore everything from the perspective of an innocent child is really fun! (and explore we will, as young Gerry was a very inquisitive child!) The language is easy to understand and the story is recounted with such humour that it will put us, the readers, right in the middle of the drama in this eccentric family. Gerald Durrell was interested in wildlife from a very young age, as evident from this book, so this is a solid and fun read for nature enthusiasts as well! Will recommend this to anyone who is looking for a nice, peaceful read.

REVIEW BY :

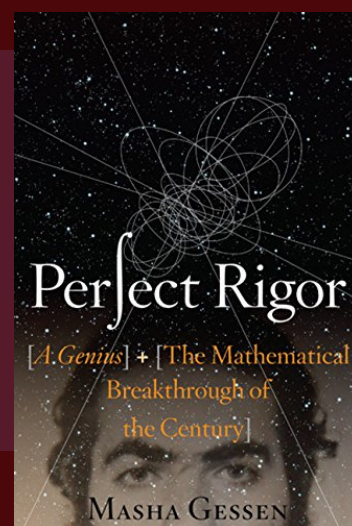
ARNAB LAHIRY, BS-MS 2018

PERFECT RIGOR

AUTHOR : Masha Gessen

GENRES : Biography

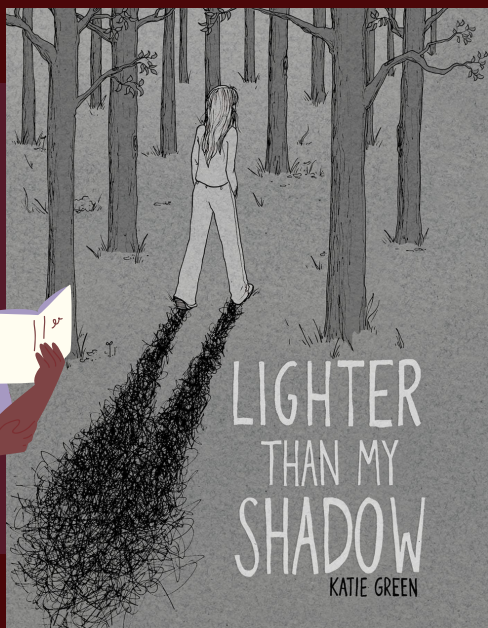
Perelman is a Russian mathematician, most famous for declining a million dollars after solving Poincare Conjecture. The book documents Perelman's childhood in Soviet Russia, at the same time explaining the state of scientific subjects during the Soviet regime, how mathematicians formed a society to survive, how children were discouraged from excelling because they might leave their peers behind, how World Wars helped survival of maths in Soviet Union. It also talks about how the mathematical community took the result and the elaborates on the Fiasco surrounding that. Suffices to say it's a hell of a read, not a boring biography.



REVIEW BY :

ABHINAV JHA BS-MS 2018





LIGHTER THAN MY SHADOW

AUTHOR : Katie Green

GENRES : Comics, Biography, Autobiography, Graphic novel, Autobiographical comics

This is a story about recovery. The author illustrates her whole heart out in a beautiful way. It gives voice to people who are guilt ridden because of depression. Guilt that manifests because they have a 'pretty normal life and are blessed'. That they are ungrateful for what they have and hence they are in depression. It is a pointer that mental illnesses do not have direct connection with our surroundings. It beautifully portrays the internal struggles of the protagonist and an internal cue in the mind of someone who is suffering from a mental illness. How they struggle to live a daily life and are unable to express themselves. How to be brave and ask for help.

This book is the perfect balance between an amusing comic and a seemingly dark story that reflects the realities of life. How can one accept themselves and still not settle for anything less than they deserve. That with courage and compassion for oneself, one can defeat a prolonged health hazard that once seemed inescapable.

REVIEW BY :
NEHA ADARSH, BS-MS 2020



Top Recommendations

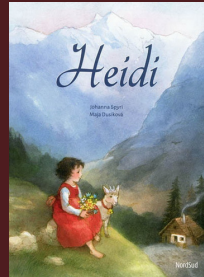
CLASSICS

Tess of the d'Urbervilles
THOMAS HARDY

A Tramp Abroad
MARK TWAIN

Don Quixote
MIGUEL DE CERVANTES

Heidi
JOHANNA SPYRI



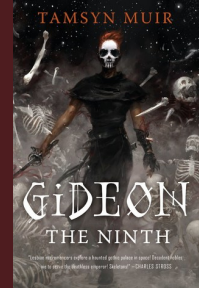
FANTASY

Chronicles of Ancient Darkness
(6 book series)
MICHELLE PAVER

The Last Dragon Chronicles
CHRIS D'LACEY

Gideon the Ninth
TAMRYN MUIR

The Night Circus
ERIN MORGERNSTERN



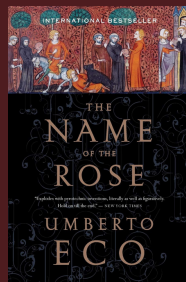
HISTORICAL FICTION

The Remains Of the Day
KAZUO ISHIGURO

The Name of the Rose
UMBERTO ECO

Fall of Giants
KEN FOLLET

Gargoyles
ANDREW DAVIDSON

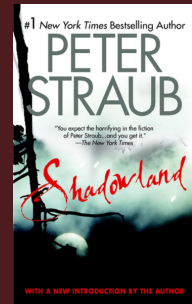


The Silent Companions
LAURA PURCELL

Shadowland
PETER STRAUB

NOS4A2
JOE HILL

The Ruins
SCOTT SMITH



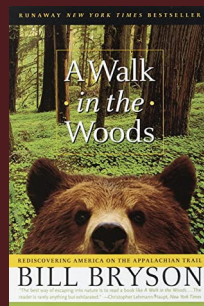
HUMOUR/SATIRE

Bring Back the King- The New Science of De-extinction
HELEN PILCHER

A Walk in the Woods
BILL BRYSON

Bijnis Woman
TANUJA CHANDRA

Guards! Guards!
TERRY PRATCHETT

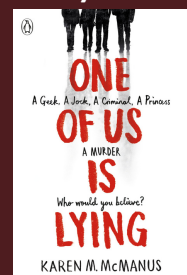


The murder of Roger Ackroyd
AGATHA CHRISTIE

The woman in the window
A.J. FINN

One of us is lying
KAREN MC MANUS

The Solitaire Mystery
JOSTEIN GAARDER



MYTHOLOGICAL FICTION

The Once and Future King
T H WHITE

Sita: An Illustrated Retelling of Ramayana
DEVOUTT PATNAIK

Gods of Jade and Shadow
SILVIA MORENO-GARCIA

Circe
MADELINE MILLER

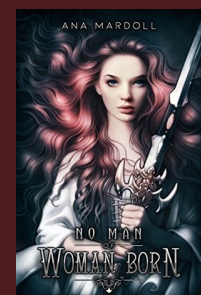


Aristotle and Dante Discover the Secrets of the Universe
BENJAMIN ALIRE SÁENZ

No Man of Woman Born
ANA MARDOLL

Openly Straight
BILL KONISBERG

Giovanni's room
JAMES BALDWIN



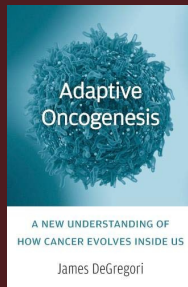
POP SCIENCE

**The Cosmic Code: Quantum Physics
As The Language of Nature**
HEINZ PAGELS

Adaptive Oncogenesis
JAMES DEGRIGORI

**The Incredible Unlikelihood
of Being**
ALICE ROBERTS

Never Enough
JUDITH GRISEL



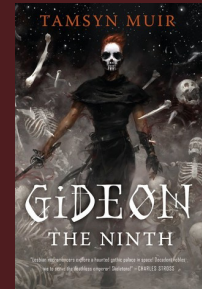
SCIENCE FICTION

Mutation
ROBIN COOK

Children of Time
ADRIAN TCHAIKOVSKY

Artemis
ANDY WEIR

Babel-17
SAMUEL R DELANEY



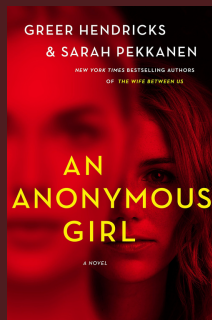
THRILLER

Master of the Game
SIDNEY SHELDON

Relentless
SIMON KERNICK

An Anonymous Girl
G HENDRICKS AND S PEKKANEN

The Kill List
FREDERICK FORSYTH

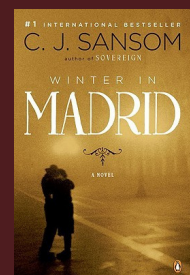


Reading Lolita in Tehran
AZAR NAFISI

Farewell to Arms
ERNEST HEMINGWAY

Winter in Madrid
C J SANSOM

Refugee
ALAN GRATZ



ROMANCE

Can You Keep A Secret
SOPHIE KINSSELLA

The Bride
JULIE GARWOOD

Gone with the Wind
MARGARET MITCHELL

The Gift
CECILIA AHERN

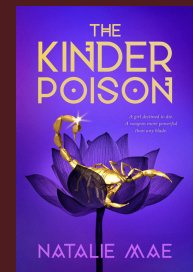


An Ember in the Ashes (series)
SABAA TAHIR

The Kinder poison
NATALIE MAE

Children of Blood and Bone
TOMI ADEYEMI

Goodbye Days
JEFF ZENTNER



MANGA/MANHWA

Fullmetal Alchemist
HIROMU ARAKAWA

The Beginning After the End
TURTLEME

Attack on Titan
HAJIME ISAYAMA

Berserk
KENTARO MIURA



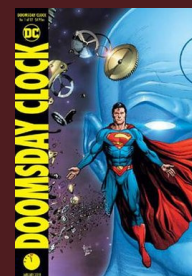
COMIC/GRAPHIC NOVEL

Doomsday Clock
GEOFF JOHNS

Invincible
ROBERT KIRKMAN

The Arrival
SHAUN TAN

Nimona
NOELLE STEVENSON



Movie Must Watch

Curated and managed by The Movie Club IISER Tirupati

review

SOUL

DIRECTED BY : Pete Docter

GENRES : Animation, musical

Soul is a movie released by Pixar in 2020. The film deals with the question "What makes life worth living?". The soul was supposed to have a theatrical release, but due to the pandemic, it was released on Disney Plus.

The movie begins with Joe Gardner (voiced by Jamie Foxx) having the most incredible day of his life, but he dies due to a fall (not a spoiler, as it was shown in the trailer itself). His soul is on his way to the "Great beyond", but he doesn't want to go there, and he ends up in the "Great Before" a place where unborn souls are given a purpose.

There, he is paired with 22, a soul with no passion, and they accidentally end up on Earth, with 22 inside the body of Joe. So, a journey of Joe and 22 follows where Joe must help 22 find a purpose in life, and the journey is portrayed beautifully in the movie. Jamie Foxx and Tina Fey portrayed Joe and 22 really well. Also, Trent Reznor, Atticus Ross (Reznor and Ross composed the non-Earth scenes' score, it sounds absurd, but watch the movie and you will know) and Jon Batiste (Batiste composed the Jazz parts in the Earth scenes) did an excellent job with the soundtrack. As usual, the animation is fantastic (It's Pixar, what else you expect?). My take: The movie is worth the 924 MB of data meant for "online classes".



REVIEW BY :
MRIGARAJ GOSWAMI, BS-MS 2017

THE GREAT INDIAN KITCHEN

DIRECTED BY : Jeo Baby

GENRES : Drama/Comedy



The movie "Great Indian Kitchen" starts with "Thanks Science" instead of the age old "Thank God" putting out strong and clear messages from that moment onwards. From the genre of movies which talked about women empowerment, this movie stands out with the absence of abusive, or cruel male roles. Each and every character resembles someone in our family and subtle cruelties of patriarchy and how it affects a women's emotions are portrayed in the realistic way possible.

From showing a life that always went just as hero's love interest, to questioning the unjust religious practices against women the movie makes you question everything around you.

REVIEW BY :

HARSHA JAGADEESH, BS-MS 2017

BLACK SAILS

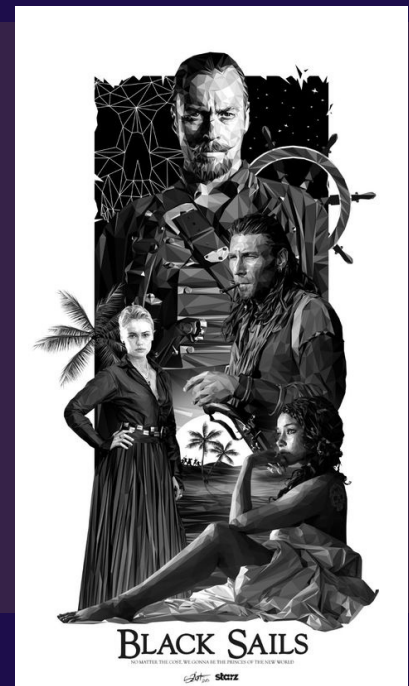
DIRECTED BY : Jonathan E. Steinberg

GENRES : Adventure, Historical Drama

Black Sails was created as a prequel to Robert Louis Stevenson's Treasure Island, and follows Captain Flint, his relationship with Long John Silver, and the rise of Silver's legend. Don't go in expecting standard Pirate fare though, because Black Sails excels in examining the cardinal sin of greed. As with any story that calls itself a prequel to Stevenson's work, characters' growth and motivations take centre stage. Many names from Treasure Island return, some historical figures are added in, as are some new characters.

All of them, though, remain interesting and captivating enough to make you wish for entire seasons of their back stories. Although the CGI may look a bit lame/video-gamey at times, the show is fantastically well researched and does a very bang up job of setting up the stage for the events of Treasure Island.

PS: Insert lame pirate pun of own choosing.



REVIEW BY :

ABHINABA MAZUMDER, BS-MS 2017



Top Recommendations



PAAVA KADHAIGAL

- tamil anthology film

2020

DIRECTED BY : Sudha Kongara, Vignesh Shivan, Gautam Menon, Vetrimaaran

GENRES : Drama

- must watch

RECOMMENDED BY

AISHWARYA LAKSHMI M G, BS-MS 2017

anime series -

MONSTER

2004

DIRECTED BY : Masayuki Kojima

GENRES : Animation, Crime, Drama, Mystery, Thriller

adapted from the Manga: Monster by Naoki Urasawa

RECOMMENDED BY

ABHINAV JHA, BS-MS 2018

Inspirationally Nihilistic -



LUPIN

- French TV series

2021

DIRECTED BY : Louis Leterrier, Marcela Said

GENRES : heist type

- Fantastic

RECOMMENDED BY

ABHISHEK S PAWAR, BS-MS2020

American television series -

THE MANDALORIAN

2019

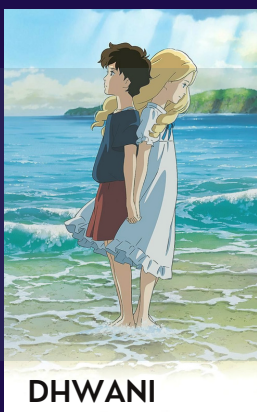
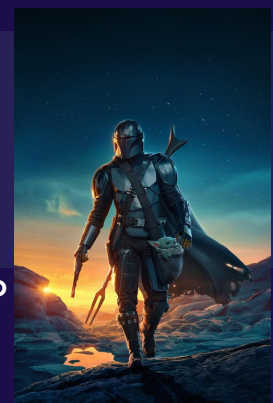
DIRECTED BY : John Favreau

GENRES : Space fiction, action, adventure

RECOMMENDED BY

FAIZEE ALI KHAN, BS-MS 2019

Aesthetic, Unique, A worthy sequel to the OT [Star Wars] -



WHEN MARNIE WAS THERE

2014

DIRECTED BY : Hiromasa Yonebayashi

GENRES : Animation, Drama, Family, Mystery

adapted from the Novel-When Marnie Was There (by Joan G. Robinson)

- This final film of Studio Ghibli is definitely worth a watch.

RECOMMENDED BY

AJEYA ROY, BS-MS 2019

- Anime movie

ADMIT ONE



87

124334-4697

artworks

artwork



WINTER BLOSSOM- An oil painting on canvas that reminds us of how beautiful change can be

• Manasa Uppala, BS-MS 2020

• Aditya Panigrahy, BS-MS 2020



The poetry of the Earth is never dead."

- John Keats

Arnab Lahiry, BS-MS 2018



"The game is afoot!"
An inverted sketch of
Sherlock Holmes (BBC)
coloured digitally.

Buddham saranam gacchami,
Dhammam saranam gacchami



Camelia Dutta, BS-MS 2020

Sumedha Kesavan, BS-MS 2020

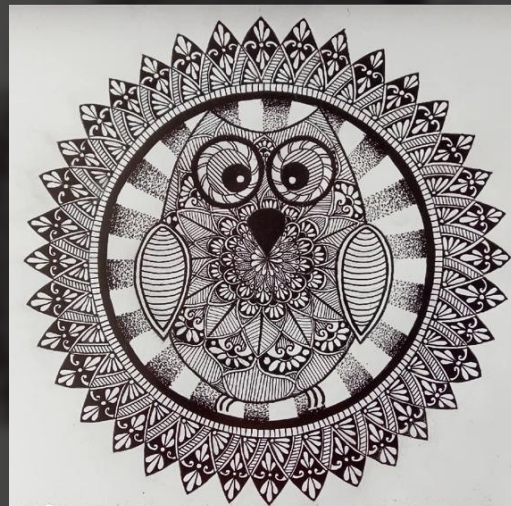


• Suman Sahu, BS-MS 2019



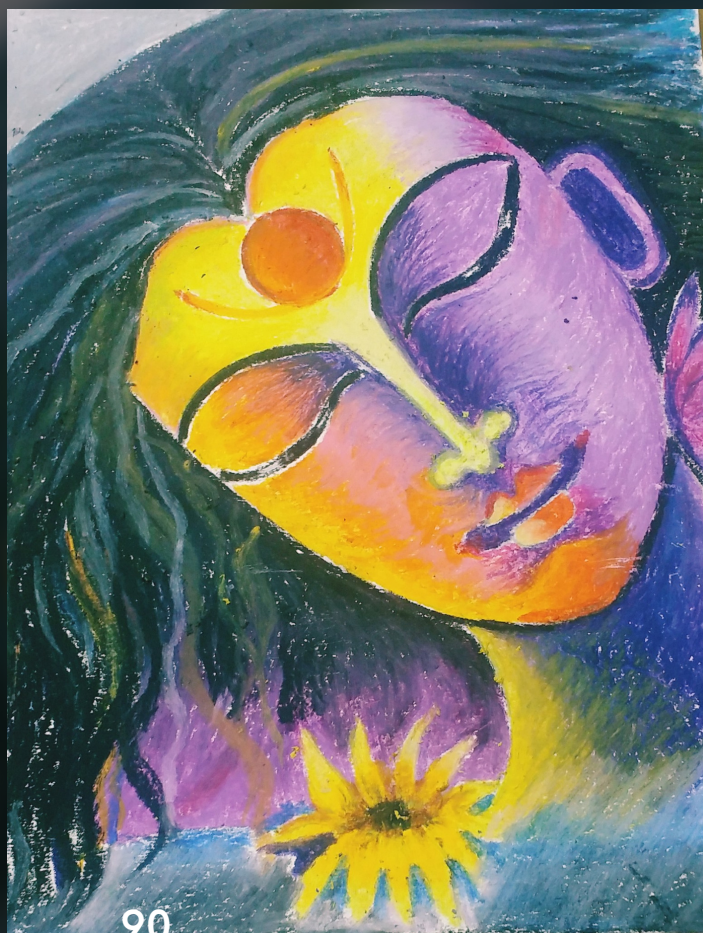
Keep reaching out, there are inner battles within every nonchalant gaze.

In some parts of the world, seeing an owl is a good omen. So here I am perched on top of a beautiful mandala for you to relish.



• Vaishnavi Varadarajan,
PhD

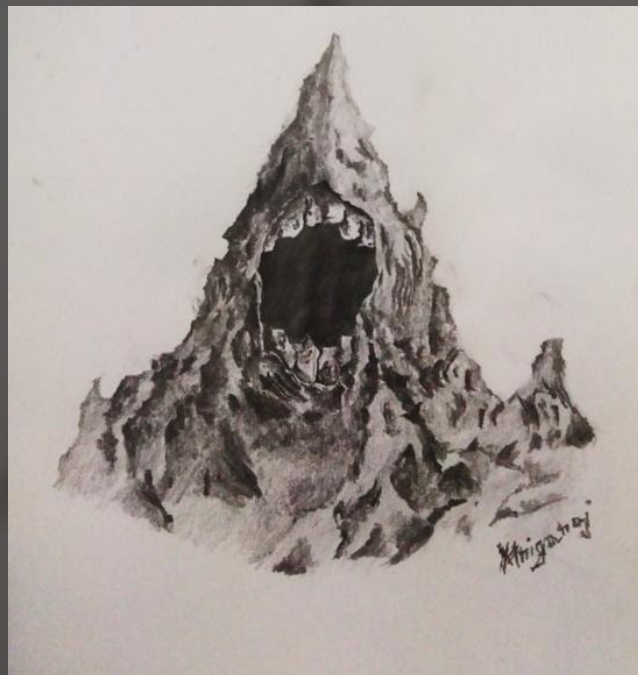
Prof. Arunima Bannerjee •



90

DUSK

Sound of perseverance (RIP Chuck)



• Mrigraj Goswami,
BS-MS 2017

DHWANI

Athmika Prajesh, BS-MS 2020



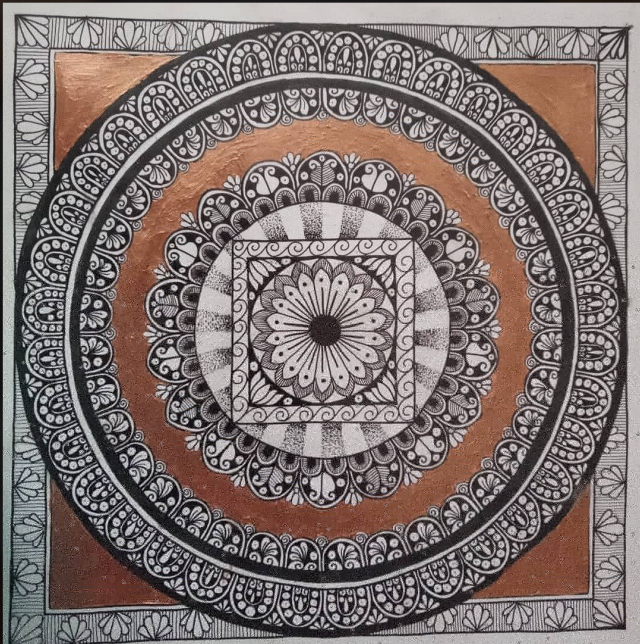
White charcoal sketch of a tiger made on black paper, then coloured digitally.



REVELATION

Arnav Lahiry, BS-MS 2018

Vaishnavi Varadarajan, PhD



Being a square keeps you from going around in circles.

Elegance is glowing inner peace



Sakshi Gupta, BS-MS 2020

*Arnab Lahiry,
BS-MS 2018*



"In time, they will join you in the sun, Kal. In time, you will help them accomplish wonders."

An inverted sketch of Superman, coloured digitally.

In the web of dreams



*Swarada Deshpande,
BS-MS 2020*

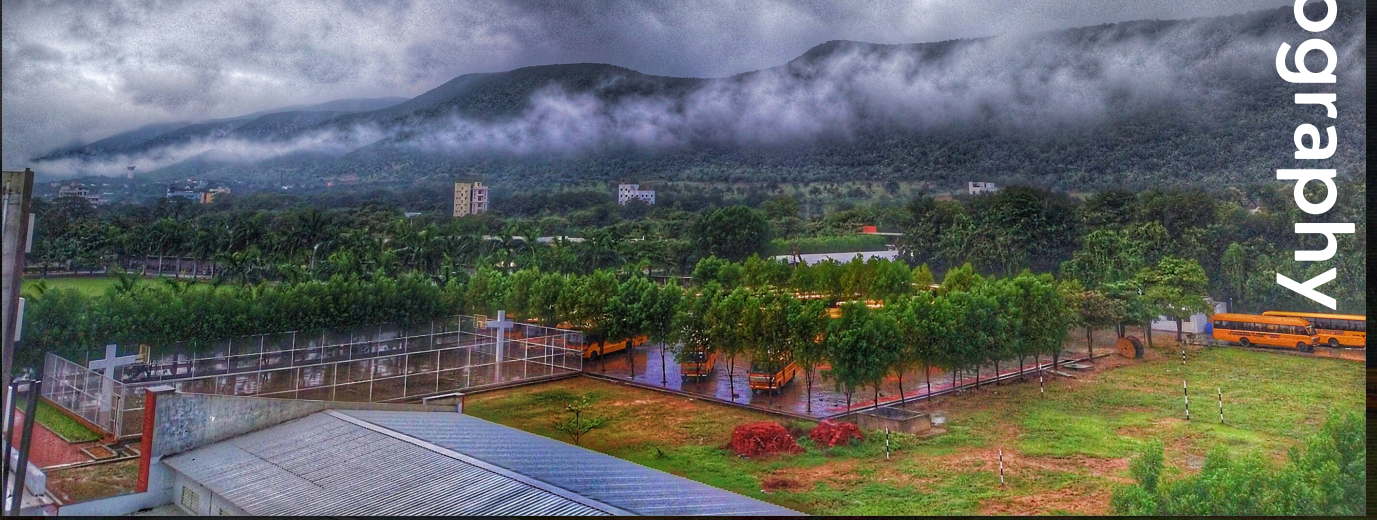


*Yogeshwari Asaram,
BS-MS 2018*



photography

photography



what happens when a wave of clouds meets the immovable mountains?

• Mayur Bajaj, iPhD 2018

• Debasish Sadhukhan, PhD 2018



converging towards the light

Debasish Sachukhan, PhD 2018



Let us celebrate the happiness of togetherness

Mayur Bajaj, iPhD 2018



A glint in gloom

Debasish Sadhukhan, PhD 2018



if the path is beautiful. let us not ask where it leads

Gayathri Vinod, BS-MS 2018



"Over every mountain, there is a pass, although it may not be seen from the valley."

Aryan Patel, BS-MS 2019



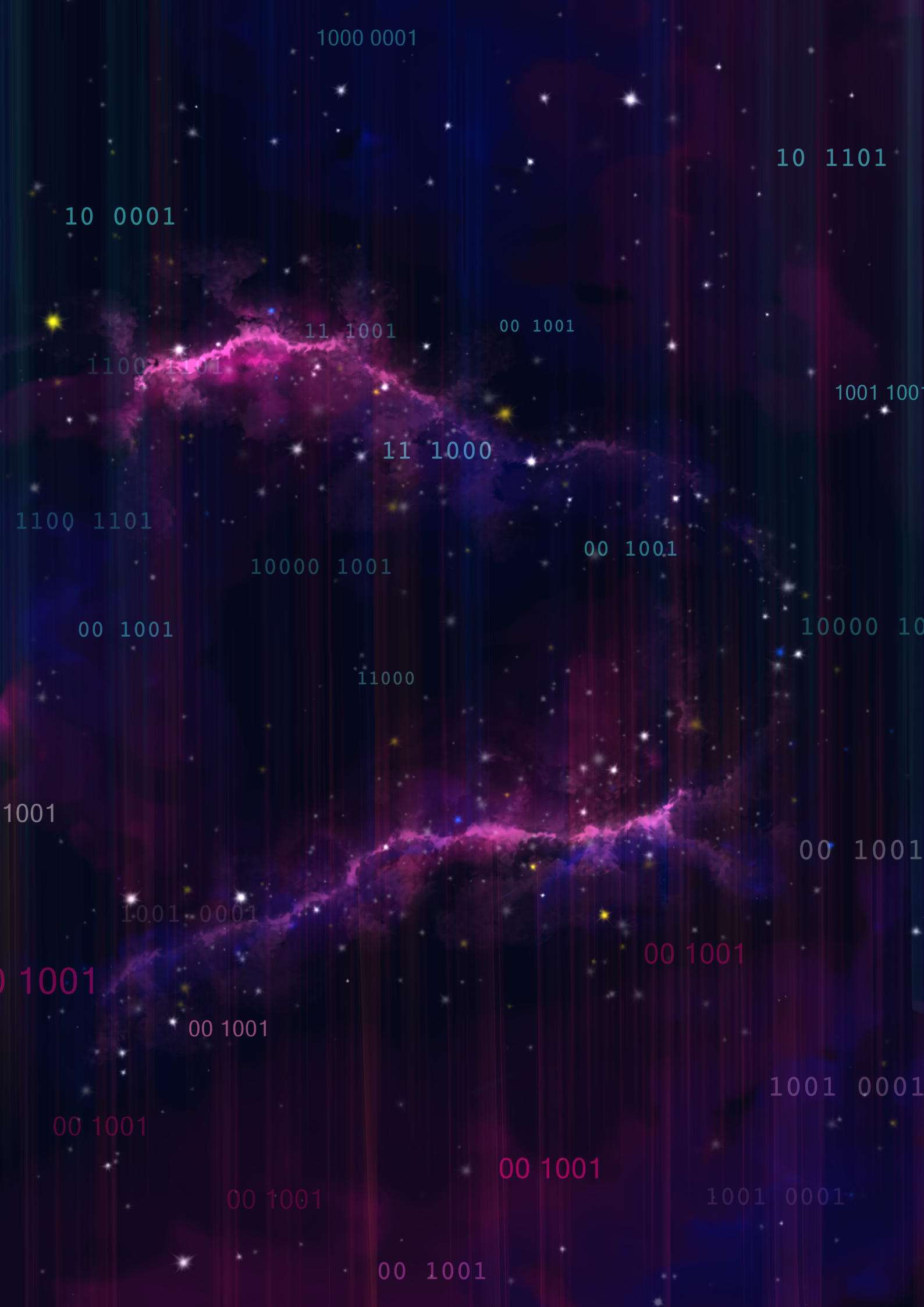
©Aryan Patel

symbol of unconditional love

Debasish Sadhukhan, PhD 2018



another day full of hope yet to begin



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10 0001

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1100 1101

1001 1001

11 1000

1100 1101

10000 1001

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