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# *Mantavya*

*'Giving Voice to Campus whispers'*

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## MESSAGE FROM THE DIRECTOR'S DESK

मुझे यह जान कर अत्यंत प्रसन्नता की अनुभूति हो रही है की डा. अम्बेडकर इंस्टिट्यूट ऑफ टेक्नोलॉजी फॉर हैंडिकैप्ड के छात्रों द्वारा ई- पत्रिका ' मंतव्य ' के तृतीय संस्करण का प्रकाशन होने जा रहा है, एतदर्थ हार्दिक बधाई ।

मौलिक चिंतन एवं रचनात्मक लेखन छात्रों के व्यक्तित्व के सर्वांगीण विकास का मूल आधार है एवं पत्रिका छात्रों की प्रतिभा एवं कौशल की अभिव्यक्ति का सशक्त माध्यम होती है, मुझे आशा है की पत्रिका में शैक्षिक, साहित्यिक एवं सांस्कृतिक गतिविधियों का समावेश होगा, जिससे छात्रों की बौद्धिक प्रतिभा में अभिवृद्धि होगी तथा सृजनात्मक लेखन क्षमता का विकास होगा।

मुझे आशा ही नहीं पूर्ण विश्वास है की छात्र ई- पत्रिका के प्रकाशन में संस्थान कि गरिमा एवं ख्याति का ध्यान रखेंगे, साथ ही साथ शिक्षा के समस्त आयामों का सफलता पूर्वक निर्वाहन करते रहेंगे। मैं ई-पत्रिका के सफल एवं सार्थक प्रकाशन हेतु अपनी हार्दिक शुभकामनाएं प्रेषित करती हूं।

Prof. Rachna Asthana



## MESSAGE FROM DEAN OF STUDENT WELFARE'S DESK

I feel great pleasure in handing the third issue of our Institute's E-Magazine "MANTAVYA".

Over the years this institute has achieved continuous success in serving the cause of technical education. The institute presents a happy blend of traditional and modern technical education, where knowledge is imparted with practical exposure to the students so that they may occupy a better place in the modern competitive world by retaining the beauty of mind, intellect as well as soul.

I feel proud of this entire team of e-magazine who took responsibility of this important task.

My best wishes to the entire team of "MANTAVYA" - the E-Magazine of A.I.T.H.

**Dr. Rajesh Kumar Gupta**

## MESSAGE FROM THE LITERARY SECRETARY



Education is an endless journey of learning, no matter how much or how far you travel, you will never feel exhausted. We the students of Dr. Ambedkar Institute of Technology For Handicapped are honoured to be a part of this institution where we have developed academically as well as enhanced our interpersonal skills through various curricular and co-curricular activities.

'MANTAVYA' proves, how the students have brushed up their lives with the support and care from the faculty, administration and every member of the institution. The e-magazine includes every intricate detail of all concerned activities which includes both creative and informative part written by enthusiastic learners. Working as a team member of MANTAVYA was an enriching experience. The opportunity has given me a chance to learn and understand students and team members. Enhancement in personality and attachment with all the staff members has increased. For me it is not just an e-magazine but a priceless possession, words are not enough to express my feelings for what I have gained on being a part of MANTAVYA.

At the end, I would like to show my gratitude to everybody for their contribution to make 'MANTAVYA' a success. Without your love and cooperation nothing was possible.

"IF WE FEEL TO SHINE LIKE THE SUN THEN ITS REALLY IMPORTANT TO  
FIRST BURN LIKE THE SUN"

I feel, our team really proved itself through its determination and hardwork by combining the individual thoughts and idea representing in a single thread of MANTAVYA, and I hope it will keep on shining like the sun in future too. I feel our efforts paid of, and I hope it will definitely make a way to your heart.

Thank you lord and thank you all.

**TUSHAR SHARMA**  
IT FINAL YEAR



## MESSAGE FROM THE CULTURAL SECRETARY

भारतवर्ष सांस्कृतिक विविधता से ओत-प्रोत है। उत्तर भारत में एक कहावत प्रचलित है कि

**"कोस - कोस पर पानी बदले, चार कोस पर बानी |"**

यद्यपि आश्चर्यजनक है, परन्तु सच है, इसी प्रकार यदि हम अपने सम्पूर्ण देश का विहंगावलोकन करें तो पाते हैं कि कश्मीर से कन्याकुमारी तक, त्रिपुरा से कच्छ तक अनेक भाषाएँ जातियाँ, धर्म, प्राचीन व लौकिक सांस्कृतिक परम्पराएँ आज 21वीं सदी में भी जन-जीवन को प्रभावित करती हैं परन्तु हम अपने राष्ट्र को और राष्ट्रीय गौरव को सर्वोच्च स्थान देते हैं। ये सारे सांस्कृतिक प्रतिमान बड़ी ही खूबसूरती से भारत की राष्ट्रीय अस्मिता से एकाकार होकर न केवल हमें अपने सामाजिक सरोकारों वाले उत्तरदायित्वों के निर्वहन के प्रति सजग करते हैं वरन् भिन्नता में एकता का पाथेय बन अन्य देशों से इतर भारत को एक अलग पहचान दिलाते हैं। वस्तुतः हमारी सांस्कृतिक विविधता एक वृहद् गुलदस्ते जैसी है जिसमें पुष्पवाटिका के सभी फूलों को यथोचित स्थान दिया गया है और उस गुलदस्ते की सबसे मजबूत कड़ी है हमारी राष्ट्रीय अस्मिता जो हम सभी को एक सूत्र में पिरोकर रखती है।

विभिन्न सांस्कृतिक आयामों नृत्य, संगीत अभिनय इत्यादि को संजोए हुए सांस्कृतिक कार्यक्रम। लेखनी से लिपिबद्ध होती हुयी हृदय को चेतना प्रदान करता हुआ साहित्यिक कार्यक्रम एवं छात्र छात्राओं के तकनीकी कौशल का परिचय कराता टेकफेस्ट | इन सभी आयामों को एक सूत्र में पिरोता संस्थान का वार्षिक सांस्कृतिक, साहित्यिक एवं टेकफेस्ट कार्यक्रम "शंखनाद - 2019"

भी एक वृहद् गुलदस्ते का ही रूप है जिसमें संस्थान के सभी पुष्प स्वरूप छात्र छात्राओं के कौशल एवं विवेक को बढ़ाने का हर प्रयास शुशोभित है। आगामी "शंखनाद" के सफल आयोजन की मंगलकामना करता हूँ आशा है की फिर से एक बार शंखनाद संस्थान की ख्याति में चार चाँद लगाएगा एवं छात्रों के बहुआयामी विकाश का सूत्रधार बनेगा।

प्रसन्नता होती है जब संस्थान के सभी सुधी पाठकों, रचनाकारों के सहयोग से "मंतव्य" एक नए विषय-वस्तु के साथ एक नए कलवेर में आप सभी के हाथों और संवेदनाओं को स्पर्श करती है। मुझे आशा ही नहीं पूर्ण विश्वास है कि आपका सहयोग और प्यार संस्थान की इस e-पत्रिका को सदैव मिलता रहेगा। पत्रिका के संपादक मण्डल व सभी रचनाकारों को पत्रिका के तीसरे अंक के सफल प्रकाशन पर बहुत-बहुत बधाई।

धन्यवाद!

SHIVENDRA VERMA  
IT FINAL YEAR



## MESSAGE FROM THE SPORTS SECRETARY

It gives me immense pleasure to know that college is bringing out the third edition of the magazine "MANTAVYA". This is one of the important initiatives in the promotion of academic, creative, cultural, sports and other activities being undertaken by the college.

I am sure that these articles and write ups in the magazine would inspire the students to become excellent human beings.

As a former Sports Secretary of the college, I feel honored to share my views with you all, I personally think that each one of us should have a keen interest in at least one sport which will in turn keep you fit and healthy. To ensure this, college organizes a mega sports fest "AAVEG" each year in the mid of February which gives platform to our talented students to showcase their skills. As per my personal experience from the last year's event, it not only provided a platform to those who participated in the fest but also enhanced the management skills of those who got involved in the management team. There are a lot of things you will learn from AAVEG.

At last, I just want to say all the best to those who are going to be a part of AAVEG, either in the form of participants showing the true sportsmanship or as managing the mega event for the upcoming year. So just enjoy, learn, achieve, but don't bother even if you are at winning or losing side because-

**"Win or lose you will never regret working hard, making sacrifices, being disciplined or focusing too much.."**

**UTKARSH SRIVASTAVA**  
CSE FINAL YEAR



# WELCOME FRESHERS

BY ANURAG PANDEY  
IT 2ND YEAR

This is an August gathering where each one of you has earned their place and it is with pride, that we invite you ,our fresher students of session 2019-2023. You are welcome to express your feelings and we also extend a hearty welcome to all of you. Our institute Dr. Ambedkar Institute of Technology for Handicapped has always been admired among this engineering crowd. We believe that your presence will ensure that the reputation and glory of our institution flies more, not only in our nation but in each and every part of this wide world. A warm welcome is never incomplete without warm words. It is a feeling of great pleasure that we are welcoming all of you.

If you have taken even a single glimpse of your surroundings, the feeling is surely to be deeply felt. You will get to know that the institute's alumni are on such a great position today, who used to sit on the same benches you are sitting today, they used to spend their free time in same library where you visit today.

We have created a strong prototype and is emerging as a strong institution where student's contribution is essential not only in academics, but also in sports and extracurricular activities. I feel proud that our institute has been in limelight in the progress of each student since its inception and has tremendously grown with every passing year. I wish you all the the best for your journey ahead.

# REPUBLIC DAY

This Republic Day We Celebrated By Forming  
A 7500 sq Feet Human Map Of INDIA



Freedom in mind, faith in words, pride in our hearts , memories in our souls, let's salute our nation on our 70th Republic Day. With solemnity and grandeur at its acme, we celebrated this occasion in our college.

The ceremony began with the hoisting of the Indian tricolour, the pride of the Nation by our Respected Director Ma'am Dr. Rachna Asthana. The program was followed by the parade carried out by different branches(IT, BT, CS, CH & EL) headed by the band in our playground. There was a formation of human map of India by AIThians in 7500 sq. ft. area which was a moment of pride for all of us . Then came the spectacular performances of the students in different events of dancing, singing and poetry which stole the hearts of the audience.

The power and energy exhibited by the physically challenged filled the occasion with colors and shared their commitment and dedication. The call off to this auspicious festivity was done by a speech from our Revered Director Ma'am which highlighted the dignity of being a citizen of a Republic. A vote of thanks was tabled by the anchors in the end. Students moved to the dorm to start a stress free day, savouring the sweets distributed.

Below are some glimpses of the event.







नारी  
को सम्मान  
मिले

न चाहता हूँ मैं सीमार्यें !

न प्यार की, न श्रृंगार की !

न शक्ति की, न अधिकार की !

न मित्र की, न परिवार की !

प्यार की डोर बँधी नारी से है,

सहजता का श्रृंगार नारी से है,

शक्ति का आधार नारी से है,

रिश्तों का प्रमाण नारी से है,

जीवन की सूक्ष्मता नारी से है,

फिर क्यों ?

सीमाओं में बँधी ये नारी है !

नारी को भी मिली, क्या ये आज़ादी है ?

अब इन दायरों को भी विस्तार मिले,

आधी आबादी को पूरा अधिकार मिले !

आँखों में जिसके खुद के सपने नहीं,

ऐसी नारी को सम्मान से संसार मिले !

नारी के सम्मान की याद बस 8 मार्च !

जब कुछ सार्वजनिक मंच सजाये जायेंगे,

कुछ महिमा-मंडन हमारी संस्कृति के नाम पर,

अगले दिन फिर वही गलतियां दोहराये जायेंगे,

गलियों गलियों बेशरमी का मुखौटा लगा कर,

सीटियाँ बजाते , संस्कृति का माखौल उड़ाएंगे !

फिर संस्कारों की रक्षा सिर्फ 8 मार्च ही क्यों ?



## उसूलों पर कब तक टिकी रहूँ

सलीका सीख रही हूँ जीने का,  
उसूलों पर कब तक टिकी रहूँ,  
वो करते रहे वकालत लेते इम्तेहान मेरे सफ़ीने का,  
हाँ कतरा हूँ तन्हा मैं उस दरिया का,  
पर आता मंज़र अपने हवाले करने का,  
खेल-तमाशा देखने आए थे भेष जो रखकर,  
मैंने भी शीश झुकाकर भरम दिया उन्हें जीतने का,  
खोखलें हैं तेरे वार इस खामोश चिराग पर,  
तेरी खुशनसीबी नहीं बस शौक है मुझे इस मुक़द्दर में जीने का,  
मेरे खिलाफ क्या जाओगे तुम, खुद से नज़र क्या मिलाओगे तुम,  
एहसास होगा जब तुझे रुसवाई में मेरा तेरे साथ खड़े होने का,  
बदला लेने का अपना मिजाज़ ही कुछ अलग है...  
हाँ खुद को संभालना सीखा है, आसरा दिया है खुद को  
गूंगो की महफ़िल में खता कि जो मुक्त किया अल्फाजों को,  
जिम्मेदारी है कुछ मुझपर,  
तो बेफ़िक्र मेरू मैं कैसे रहूँ,  
सलीका सीख रही हूँ जीने का,  
उसूलों पर कब तक टिकी रहूँ,  
उसूलों पर कब तक टिकी रहूँ ।।

**Akshita Singh**  
**BT 2nd year**



*A Burning Desire*



Some glimpses of our auspicious sports festival  
'AAVEG-2k19'







## BLOCK CHAIN TECHNOLOGY

Block chain is an open ledger that isn't owned by anyone and is used to make financial transactions although its decentralised nature means that people, businesses and government can use it for recording all sorts of information exchange. In other words its a new form of decentralised database.

In this there is no one person or organisation incharge of the entire chain. In fact it is open and everyone in the chain can see the details of each record - "the block". Each block is stamped and encrypted ; the person who can edit the block is the one who owns it. Owners gain access to their blocks through a private key that only they have. When there are changes to an individual block, everyone's distributed block chain is updated and made to sync in real time.

**Here is a list of things that will help you make better sense of this technology:**

1. Bitcoin, a money exchange system, pioneered block chain technology, and the person or team behind the service is known by pseudonym Satoshi Nakamoto.
2. Block chains can be public (like the Internet) as well as private (like the Intranet).
3. Only 0.5% of the world's population is using block chain today, but 50% of the world's population or 3.77 billion people use the Internet.
4. There is significant investment by tech giants such as IBM and Microsoft in block chain technology.
5. The global block chain market is expected to be of worth \$20 billion by 2024.



## FACTS ABOUT RUBIK'S CUBE

1. Invented in 1974, it took the inventor (Prof. Erno Rubik) over a month to solve it. If one cube is scrambled for each permutation, then it can cover 273 layers on earth.

2. Over 350 million Rubik's cube have been sold worldwide.

3. It has been calculated that there are 43,252,003,274,489,856,000 possible permutations of Rubik's cube that is 43 quintillion. If you had 43 quintillion dollars, you can spend a billion dollars a day for next 118 thousand years.

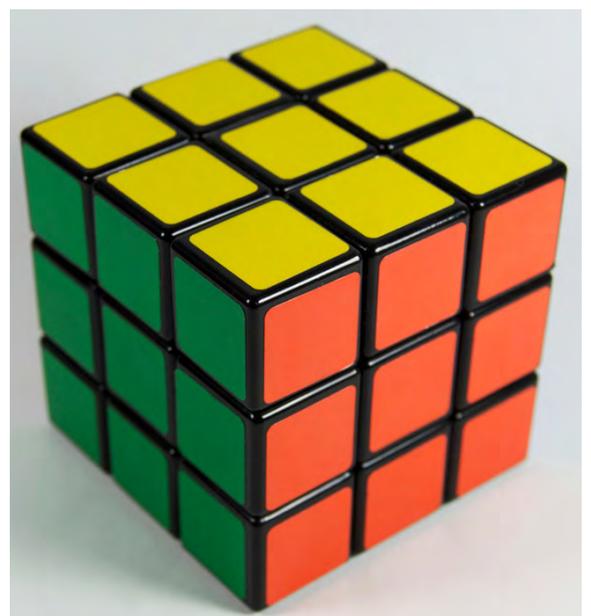
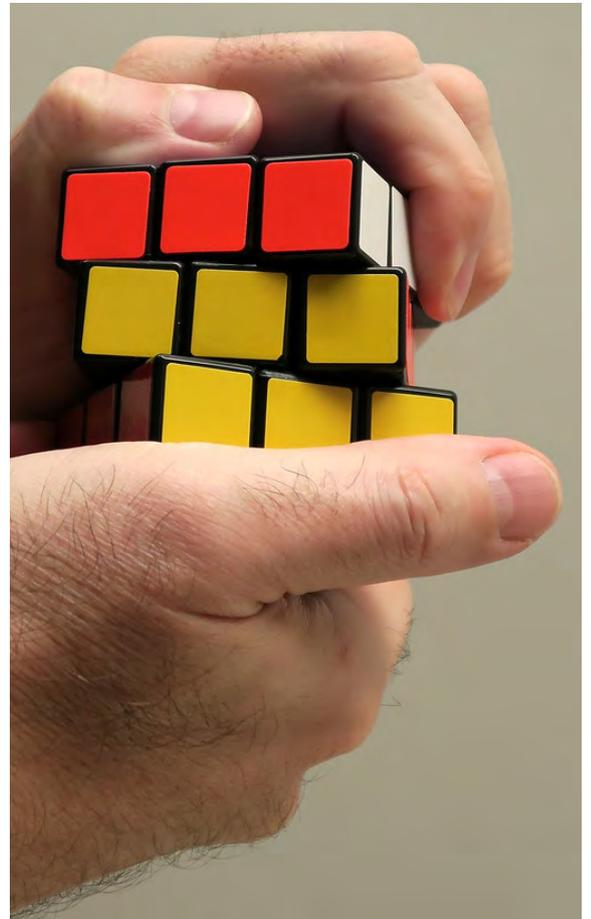
4. If you manage to turn the Rubik's cube once every second, it will take you 1.4 trillion years to go through all the permutations.

5. It can be estimated that less than 5.8% of the world's population can solve the Rubik's cube.

6. The world record for solving the Rubik's cube is 5.55 seconds by Mats Valk.

7. A Robot made of legos solved the Rubik's cube in 3.253 seconds.

8. The largest Rubik's cube ever made is a 17\*17\*17 cube. Kenneth Brandon solved it in 7.5 hours.



# वो बारिश

लाखों ख्वाहिशें लिए, जाने से, अनजाने से  
सुकून दिल का, रौनक जहाँ की  
धारा की स्यामलता मान है, श्रृंगार का  
नीरस जीवन का, शोक समंदर में भी  
कल-कल करती जल प्रापत से  
आती है लुभाती बारिश  
जहाँ की अस्मिता, राम की सीता  
वृन्दावन के कृष्ण, मथुरा की गोपिका  
वसंत का आगमन नाव कोपल का संचार है  
कोयल की कूक और चातक की प्यास है  
नज़र बदली, नज़ारे बदले  
धारा बदली, किनारे बदले  
रही वही तो वर्षा  
वहीं ग्रीष्म, वही सरद, मैं अनुभूति को तरसा

कण-कण में, क्षण-क्षण में  
ममता की छाया में  
सौंदर्य में, सौहार्द में  
गुरुजन के आशीर्वाद में  
वहीं बारिश में भीगने का, माँ की डांट का  
पिता के विश्वास का, यारों की यारी का  
वर्षा की लघु बूँद ही प्यार का सुखद एहसास है  
चिड़ियों का चहचहाना, तरु पथिक की छांव है  
घन बदरा ही मोर का नृत्य और पपीहे की पुकार है  
वही बारिश मेरी तन्हाई में, धूप में, परछाई में  
मन की गहराई में, तुलसी की चौपाई में  
है कहीं ना कहीं समाई बारिश  
मुझे आज फिर याद आई  
वो बारिश



# FEAR

ROACHES, INSECTS, CREEPY CLOWNS,  
SOMETIMES IN MY FEAR I AM SUCKED DOWN.

INTO A HOLE, FULL OF DARKNESS,  
CONSUMING ME INTO THE WILDERNESS.

AND ALL THE NEGATIVE EMOTIONS COME AT ONCE,

WITH COLD AIR ESCAPING MY LUNGS.

THE DARKNESS WANTS ME TO GIVE UP,

BUT MY SOUL LIFTS ME UP.

FOR BEING AFRAID DOESN'T MEAN I CAN'T FIGHT BACK,

BLESSINGS OF MY LOVED ONES KEEP ME SAFE.

AND THE NEXT TIME IT WANTS ME TO FAIL,

I'LL BE READY WITH A LIGHT INSIDE ME TO AVAIL.

AND THE NEXT TIME DARKNESS WILL BE HERE,

I'LL BE WITHOUT FEAR.

**BHANU BHARDWAJ**

**CH 2ND YEAR**



# शिवनाद

PILGRIMAGE TO INFINITY



So here we present you a glimpse of our dreamy, enthusiastic, 3 days long Techno-Cultural & Literary Fest

"SHANKHNAAD 2k19"

Pilgrimage to Infinity

Let's begin with the cultural branch of this magnificent tree...

"THE CULTURAL FEST"

The most awaited competition here was 'Rapping' which captured everyone's attention. Then came the Group Dance competition, Solo Dance competition, Classical Dance and English and Hindi Singing competition. If you think here's the end, wait, now comes the interesting part we had the Stand-Up Comedy as well in which any participant could fill the atmosphere with his humour and the best one was awarded. Apart from it we had Dubsplash where the most trending entertainment apps like Tik-Tok, and Vigo Video were used to shoot a clip by the participants and were uploaded on our Youtube page, the ones getting maximum likes and views were awarded. Next came the Skit and Nukkad Natak which were presented on a social cause. The most beautiful night was the one we all enjoyed on the cords of The Mixtape Band which came to perform here in the campus filling every heart with zest.

Now let's move on to the next branch and that is

"TECHWIZARD"

As the name simply suggests magicians of technology and that's what engineering students are known as. So the most existing part of it was the Robowar and Robo Soccer, seeing different cars transforming in robots on television was a childhood fantasy for all of us and here we could see that live right in front of us. Then came cryptography which originally means the code generation for keeping the information as a secret, so this competition was a big feed for all the coders solving the codes and decrypting the hidden meaning. Then came the circuit design competition where different circuits were designed using the bread board. Different workshops were organized like LFR workshop in which interested students were taught basic robotics and LFR robo-technology by a researcher from IIT Kanpur and workshops conducted by Mozilla & GitHub which was a blow to all the future web developers out there .

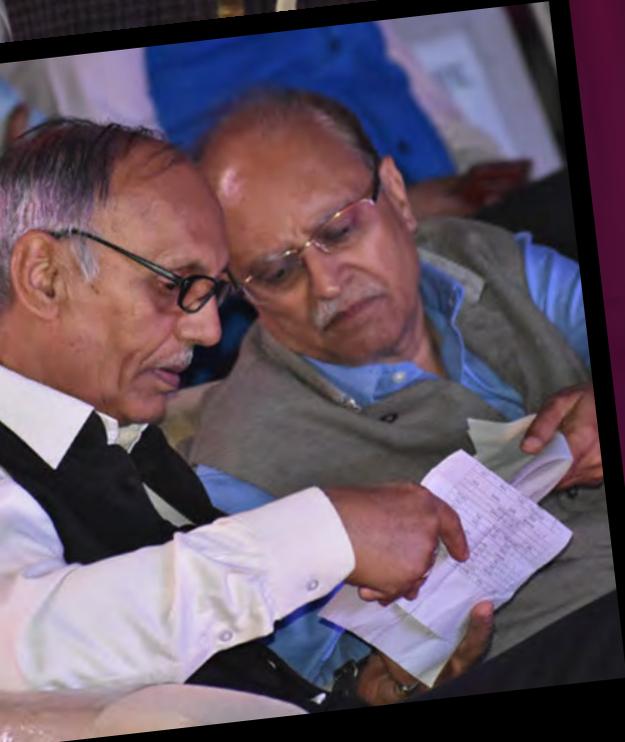


Now let's move on to our Literary section "PARICHAY" the one which was most serene and full of tranquillity. Under this we had various competitions like Debate where different arguments were made on a given topic, Words Worth where different words were made by different letters and the one with the highest count of it was victorious. Spell bee where basics of participants was checked as they had to spell the tough luring words, Youth Parliament where oratory skills were tested, headed by a speaker then came the Art Gallery where Paintings, Drawings and Sketches were put on the display unveiling the artistic skills. Writing Competition and Live Poster Painting Competition. The most thrilling and the speedy one was JAM where participants were given a topic where they had to think on it for 30 seconds and then share their views on it for a minute. Then there was the Mock Shikshatkar in which live atmosphere of the interview selection was created. It started with the Aptitude Test and then concluded with mock interview.

Apart from all these many other competitions took place like PowerPoint Presentation, Live Model Presentation where all the branches presented a live model of their field. Micro-flora Art where designs were made on the culture plate using a microbe, Mock CID best for all those having a spying mind, Treasure hunt for the adventurous souls where they had to bring the clues from all around the city to find the treasure. The last day guest was Ira Singhal Ma'am, IAS topper and present Deputy Commissioner of New Delhi. She motivated us to achieve our aim crossing all the hurdles. Overall in these 3 days we lived our lives to the fullest. Undoubtedly It was full of quest and venture yet adeptness and knack made its way. We learned to manage our things. We learned how to perform as a team and altogether we learned how to sustain this multi-fold world at a time.



SCRIBBLED BY - SALONI TIWARY



# S H A N K H N A A D



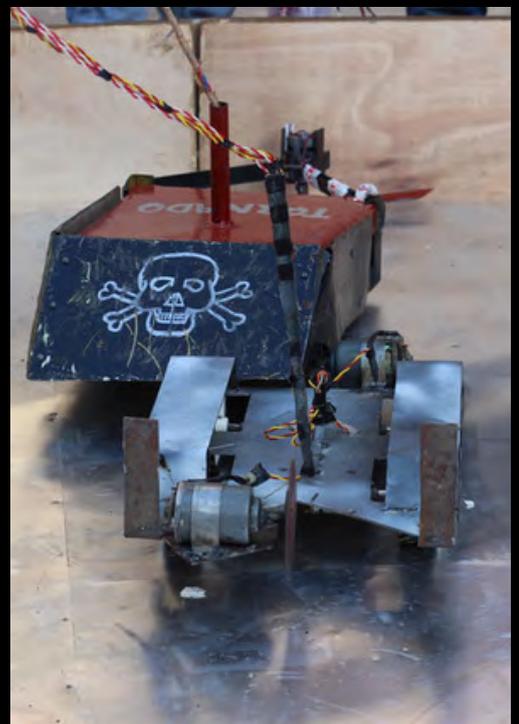
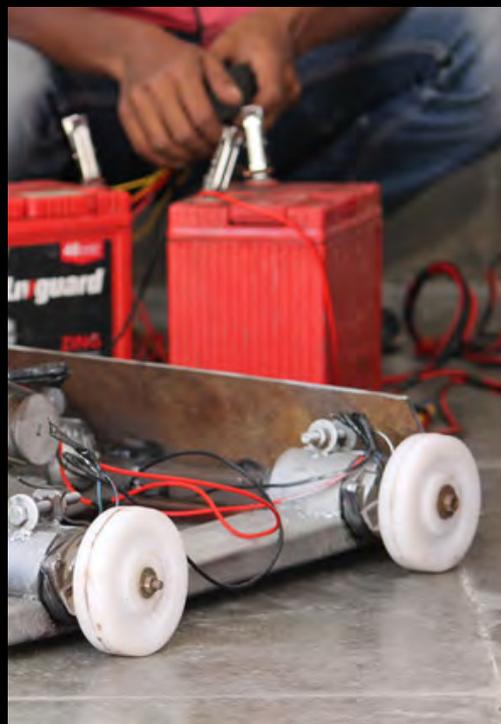
**PILGRIMAGE  
TO  
INFINITY**  
**AITH'S ANNUAL  
TECHNO-CULTURAL  
& LITERARY FEST**  
**MARCH 15-17, 2019**







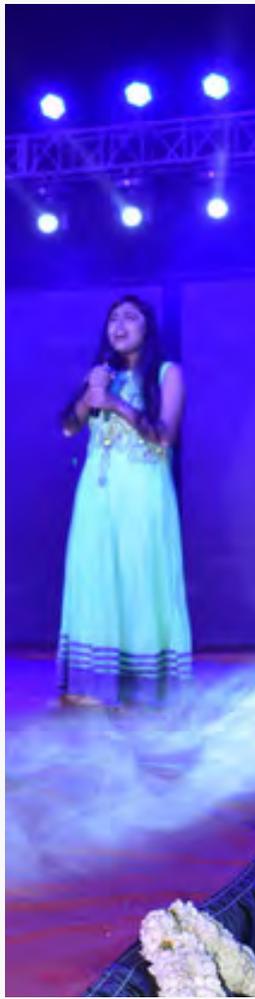




BAND NIGHT

# THE MIXTAPE BAND





**A MOMENT LASTS ALL OF A SECOND,  
BUT THE MEMORY LIVES ON FOREVER**

**शिवनाद  
एक झलक**





# याराना



घर, शहर, परिवार, यार, मीलों पीछे छोड़ के,  
जोड़ा है रिश्ता नया, एक नया याराना जमाया है।

यारी भी तो ऐसी अपनी  
सही-गलत, अच्छा-बुरा, सब में साथ निभाया है,  
माँ की फ़िक्र, पिता की डांट, हर रिश्ता निभाया है,  
झगड़े भी तो ऐसे जैसे, बहनों की हो टकरार,  
हर ऊंच-नीच के बाद भी सलामत,  
हमने एक नया याराना जमाया है।

जब भी हुआ अकेलापन, ध्यान आया, चेहरा यार का,  
जब भी घर की याद आयी, बस एक सहारा यार का,  
हॉस्टल के छोटे से कमरे में सिमटी,  
हमारी कायनात, यारी हमारा आफ़ताब,  
जिसने रौशन किया है ये जहान।

पैसा, हीरा, मोती से उपर यारो की बेशुमारी है,  
तेरी दोस्ती मेरी मगरूरियत है और बाकी हमारी साझेदारी  
है,  
घर वालो से ज्यादा राज़ जानते,  
हंसते-रोते रूठते मनाते,  
हाँ, हमने एक नया याराना जमाया है।

घर, शहर, परिवार, यार, मीलों पीछे छोड़ के,  
जोड़ा है रिश्ता नया, एक नया याराना जमाया है।

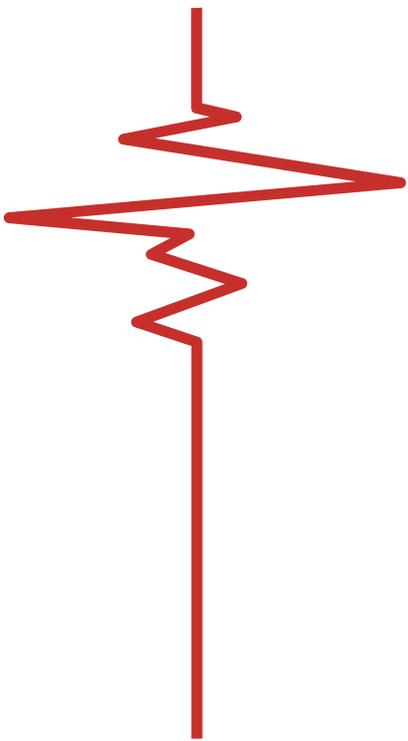
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हर ऊंच-नीच के बाद भी सलामत,  
हमने एक नया याराना जमाया है।



Vartika mishra  
BT 2nd Year

# BLOOD DONATION CAMP

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25-Apr-2019

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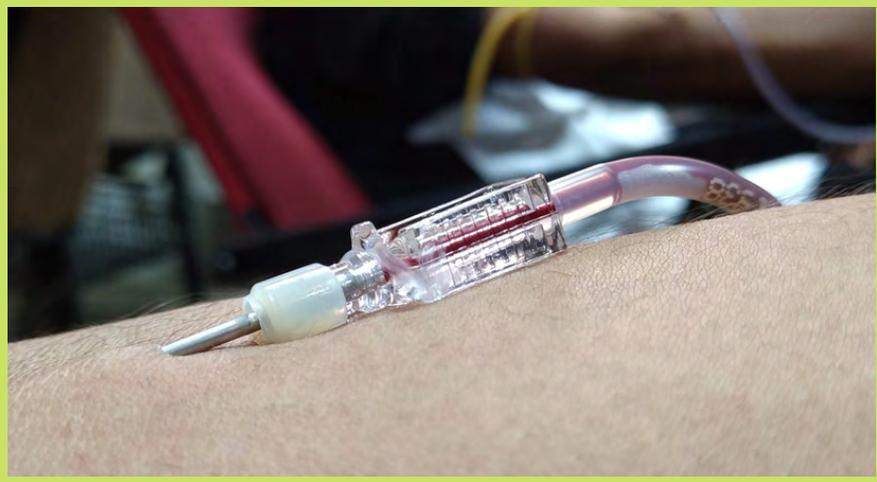
Organised by Student Activity Cell  
volunteered by students

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In Collaboration with GSVM Medical  
College Kanpur

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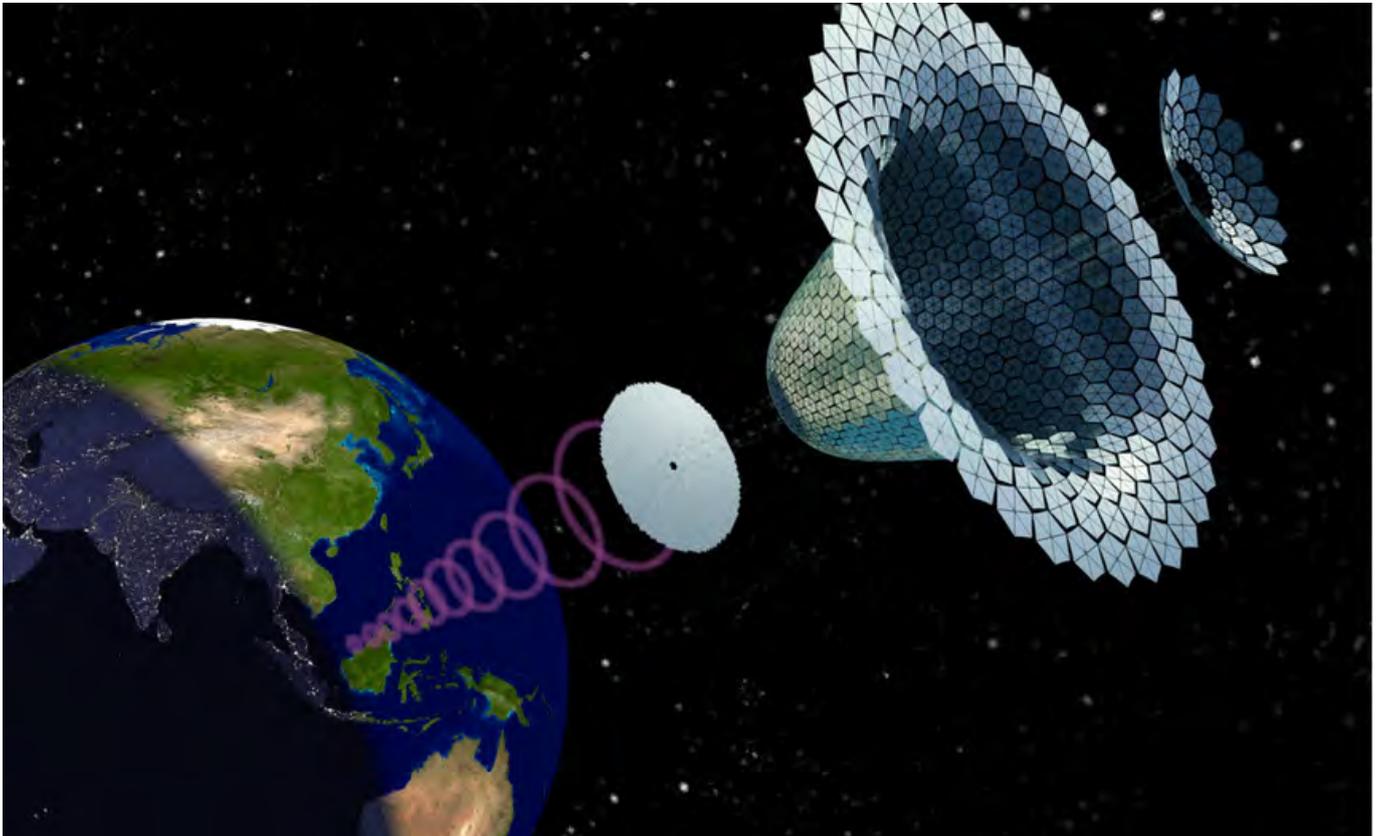






## CHINA WANTS TO PUT A SOLAR FARM IN SPACE BY 2025

The orbiting station will harvest power directly from the sun



Humanity uses a lot of energy, and while solar power here on Earth is doing a reasonable job to contributing to the electricity mix, scientists have long hypothesized that gathering the sun's energy from space would be a lot more effective. And now China says it's going to be the first to do exactly that, announcing plans to build an interstellar power station that will orbit the Earth at 36,000 kilometers.

- According to China's state-backed Science and Technology Daily, Chinese scientists plan to build and launch small power stations into the stratosphere between 2021 to 2025, upgrading to a megawatt-level station in 2030 and a gigawatt-level facility high above the earth before 2050.
- Without atmospheric interference or night-time loss of sunlight, these space-based solar farms could provide an inexhaustible source of clean energy. The China Academy of Space Technology Corporation claims such a set-up could "reliable supply energy 99 percent of the time, at the six-times the intensity" of solar installations on earth.



China's proposal suggests converting solar energy into electricity in space, before beaming back to Earth using a microwave or laser and feeding into the grid via a ground receiving system.

There are, of course, numerous challenges associated with sci-fi sounding plan. Such a power station would weigh a considerable amount – around 1,000 tons – so getting the gear into orbit will be difficult. Researchers are therefore considering whether the station could be constructed in space using robots and 3D printing. The effects of microwave radiation on the atmosphere will also need to be studied.

But it's clearly not beyond the realms of possibility. There's already a lot of research out there exploring this technology—Japan has been talking about this for a decade, while space programs are constantly growing their understanding of the technology needed to effectively beam power back to Earth. Japan hit upon a solution in 2015 using wireless transmission, while the California Institute of Technology announced last year that it had created a prototype capable of harnessing and transmitting solar energy from space using lightweight tiles.

China has really ramped up its space program in recent times, reaching the far side of the moon and growing the first plants on the lunar surface. Its timescales for this plan may be ambitious, but its quest to become a space superpower suggests this common science fiction dream is closer than ever to becoming a reality.

*Energy can't be created but it can be destroyed.*

*Save it!*





# थोड़ा मुस्कुराया कीजिए

यूं तो ज़माने में हज़ारों गम हैं,  
किसी के पास ज़्यादा, तो किसी के पास कम है  
गम हैं जो ज़िन्दगी में, उन्हें भूल जाया कीजिए  
जब भी मिले फुरसत, तो थोड़ा मुस्कुराया कीजिए...

यादों के पिटारे से कुछ खुशहाल फ़साने खोजिए,  
रोकर वक्त ज़ाया ना करिए, हँसने के बहाने खोजिए  
रोज़ जीने के नये तरीके आजमाया कीजिए  
जब भी मिले फुरसत, तो थोड़ा मुस्कुराया कीजिए...

अंधेरों से क्यों डरना, कल एक नया सवेरा आएगा  
जगमग उम्मीदों की किरण वो साथ अपने लाएगा  
अंधेरों में भी, जुगनू बनकर जगमगाया कीजिए  
जब भी मिले फुरसत, तो थोड़ा मुस्कुराया कीजिए...

# FOUR TECHNOLOGY TRENDS REQUIRED IN IT INDUSTRY

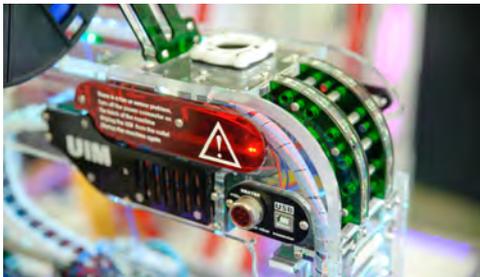
## Internet of Things (IOT)

One of the biggest tech trends to emerge in recent years is the Internet of Things. The Internet of Things (abbreviated IOT) is the idea that all technological devices can be connected to the internet and to each other in an attempt to create the perfect marriage between the physical and digital worlds. How will this impact you? It depends on your industry. For example, for those who work in marketing, advertising, media or business management, IOT could provide a wealth of information on how consumers engage with products by tracking their interactions with digital devices. In turn, this data could be used to optimize marketing campaigns and user experiences.

## Virtual Reality (VR)

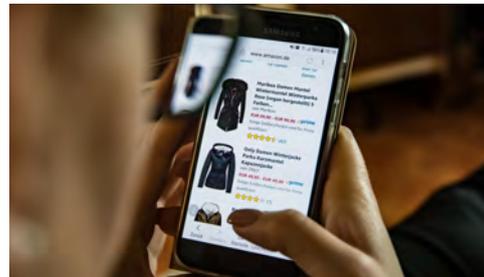
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## Machine Learning (ML)



Another exciting emerging technology is machine learning, which is essentially a computer's ability to learn on its own by analyzing data and tracking repeating patterns. For example, social media platforms use machine learning to get a better understanding of how you're connected with those in your social network. They do this by analyzing your likes, shares and comments and then prioritizing content from your closest connections, serving you that content first.

## Touch Commerce (TC)



Being able to buy anything you want with the touch of a finger may have seemed like a fantasy a few years ago, but it's now a reality. Merging touchscreen technology with one-click shopping, touch commerce allows consumers to buy products easily from their phones. After linking their payment information to a general account and enabling the feature, customers are able to buy everything from clothes to furniture with just a fingerprint.

# Chandrayan - II

Chandrayan-2 is India's 2nd lunar exploration mission after Chandrayan-1. It was developed by the Indian Space Research Organization (ISRO). The mission was launched from the second launch pad at Satish Dhawan Space Center on 22nd July 2019 at 2:43 PM IST (09:13 UTC) to the Moon by a Geosynchronous Satellite Launch Vehicle Mark III (GSLV Mk III). The planned orbit has a perigee of 170 km and an apogee of 45474 km. It consists of a lunar orbiter, a Lander, and a lunar rover named Pragyan, all developed in India. The main scientific objective is to map the location and abundance of lunar water.

On 12 November 2007, the members of ISRO and Russian Federal Space Agency (Roscosmos) decided that they will work together on this mission. ISRO had the prime responsibility to build the rover and the orbiter, while Russians were going to build the Lander for this project. Roscosmos later withdraw their proposal to work together with ISRO in this project because of the failure of Fobus-Grunt, their mission to mars.

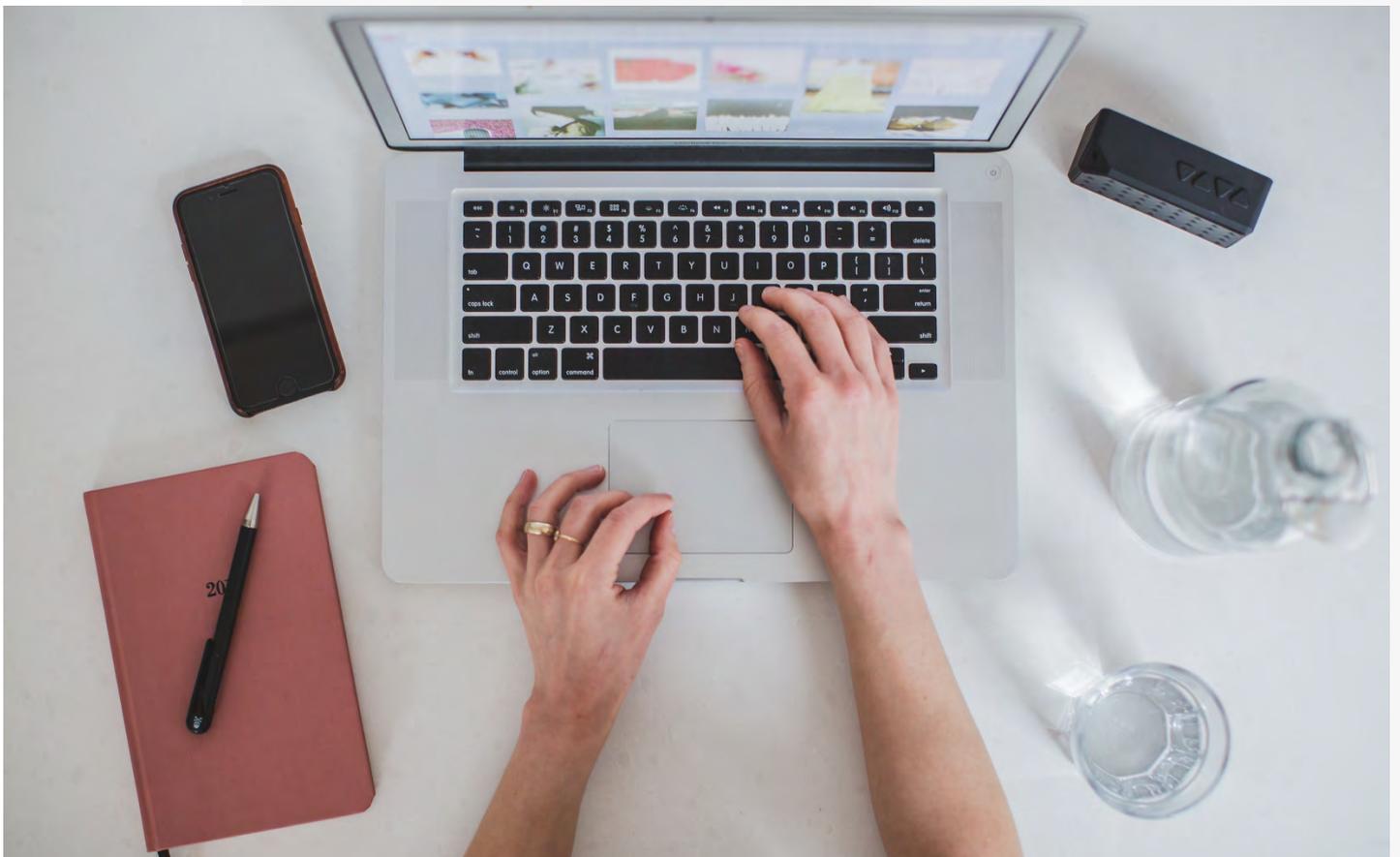
Later, India decided to develop the lunar mission independently. However, there were many European countries who were interested to work with ISRO on this project but ISRO denied. Initially, ISRO was about to launch Chandrayan-2 on 14 July 2019, 21:21 UTC, with the expected landing on Moon on 6th of September. But because of some technical issues ISRO postponed the launch and then the new launching dates of Chandrayan-2 were announced to be 22nd July 2019. The primary objectives of Chandrayan-2 are to demonstrate the ability to soft-land on the lunar surface and operate a robotic rover on the surface. Scientific goals include studies of lunar topography, mineralogy, elemental abundance, the lunar exosphere, and signatures of hydroxyl and water ice.

The launch of Chandrayan-2 was successful and it will land on the south polar region of the Moon. The launch of Chandrayan 2 illustrates the prowess of our scientists and the determination of 130 crore Indians to scale new frontiers of science. It was a great moment of proud for all the Indians.

' जय हिन्द '

TIME TO BRUSH-UP YOUR GENERAL KNOWLEDGE

DO YOU KNOW ??? ?? ?



---

**PREPARED BY**

ADBHIT KUMAR  
IT 2ND YEAR

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# WHAT IS RED SANDERS AND HOW IS IT USED ?



**PTEROCARPUS SANTALINUS, WITH THE COMMON NAMES RED SANDERS, RED SANDALWOOD, AND SAUNDERSWOOD, IS A SPECIES OF PTEROCARPUS ENDEMIC TO THE SOUTHERN EASTERN GHATS MOUNTAIN RANGE OF SOUTH INDIA.**

It is a rare kind of sandalwood that is in high demand in international market and costs around Rs.1,500 to Rs.2,000 per kg. The major markets for the wood are China, Japan, the Middle East, Sri Lanka, Bhutan and Nepal. There is an unsubstantiated belief that Red Sanders can absorb nuclear radiation. Its primary use, however, is decorative and ornamental.

---

# WHAT IS A SWIFT CODE?

SWIFT Code (Society for Worldwide Interbank Financial Telecommunication)

or BIC (Bank Identifier Code) is a unique identification code for a particular bank. These codes are used while transferring money between banks, particularly for international wire transfers. The Swift code consists of 8 or 11 characters.

SWIFT Code Format : AAAA-BB-00-YYY

First 4 characters - bank code (only letters)

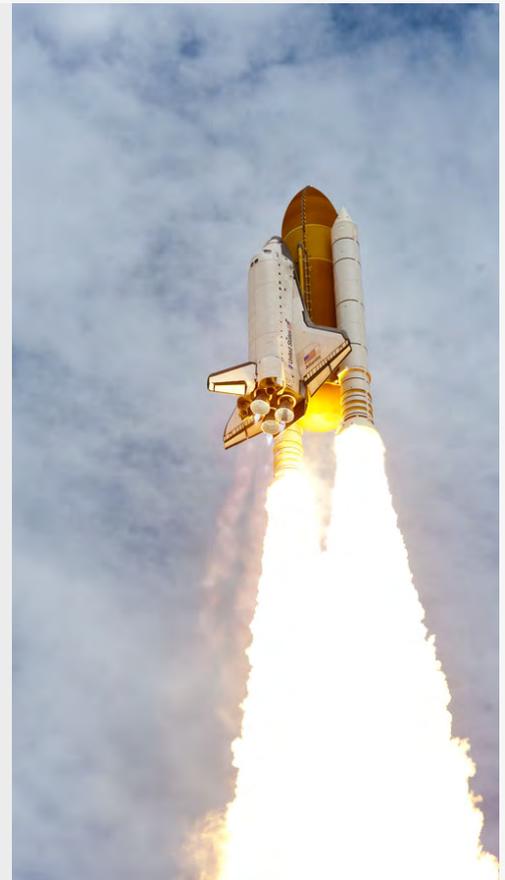
Next 2 characters - country code (only letters)

Next 2 characters - location code (letters and digits)

Last 3 characters - branch code (optional).

## WHICH FUEL IS USED IN ROCKET?

The primary performance advantage of liquid propellants is due to the oxidizer. Several practical liquid oxidizers (liquid oxygen, nitrogen tetra oxide, and hydrogen peroxide) are available which have better specific impulse than the ammonium per-chlorate used in most solid rockets, when paired with comparable fuels.





# WHAT IS INTERNET PROTOCOL?

**THE INTERNET PROTOCOL (IP) IS THE PRINCIPAL COMMUNICATIONS PROTOCOL IN THE INTERNET PROTOCOL SUITE FOR RELAYING DATAGRAMS ACROSS NETWORK BOUNDARIES.**

Its routing function enables internetworking, and essentially establishes the Internet.

IP has the task of delivering packets from the source host to the destination host solely based on the IP addresses in the packet headers. For this purpose, IP defines packet structures that encapsulate the data to be delivered. It also defines addressing methods that are used to label the datagram with source and destination information.

Historically, IP was the connectionless datagram service in the original Transmission Control Program introduced by Vint Cerf and Bob Kahn in 1974; the other being the connection-oriented Transmission Control Protocol (TCP). The Internet protocol suite is therefore often referred to as TCP/IP.



## WHAT IS IUCN RED LIST AND WHAT DOES IT CONTAIN?

The IUCN Red List of Threatened Species (also known as the IUCN Red List or Red Data List), founded in 1964, has evolved to become the world's most comprehensive inventory of the global conservation status of biological species. It uses a set of criteria to evaluate the extinction risk of thousands of species and subspecies. These criteria are relevant to all species and all regions of the world. With its strong scientific base, the IUCN Red List is recognized as the most authoritative guide to the status of biological diversity. A series of Regional Red Lists are produced by countries or organizations, which assess the risk of extinction to species within a political management unit.

## WHAT IS OXIDATIVE STRESS?

Oxidative stress is an imbalance between free radicals and antioxidants in our body. Free radicals are oxygen-containing molecules with an uneven number of electrons. The uneven number allows them to easily react with other molecules. Free radicals can cause large chain chemical reactions in our body because they react so easily with other molecules. These reactions are called oxidation. They can be beneficial or harmful.

Antioxidants are molecules that can donate an electron to a free radical without making themselves unstable. This causes the free radical to stabilize and become less reactive.



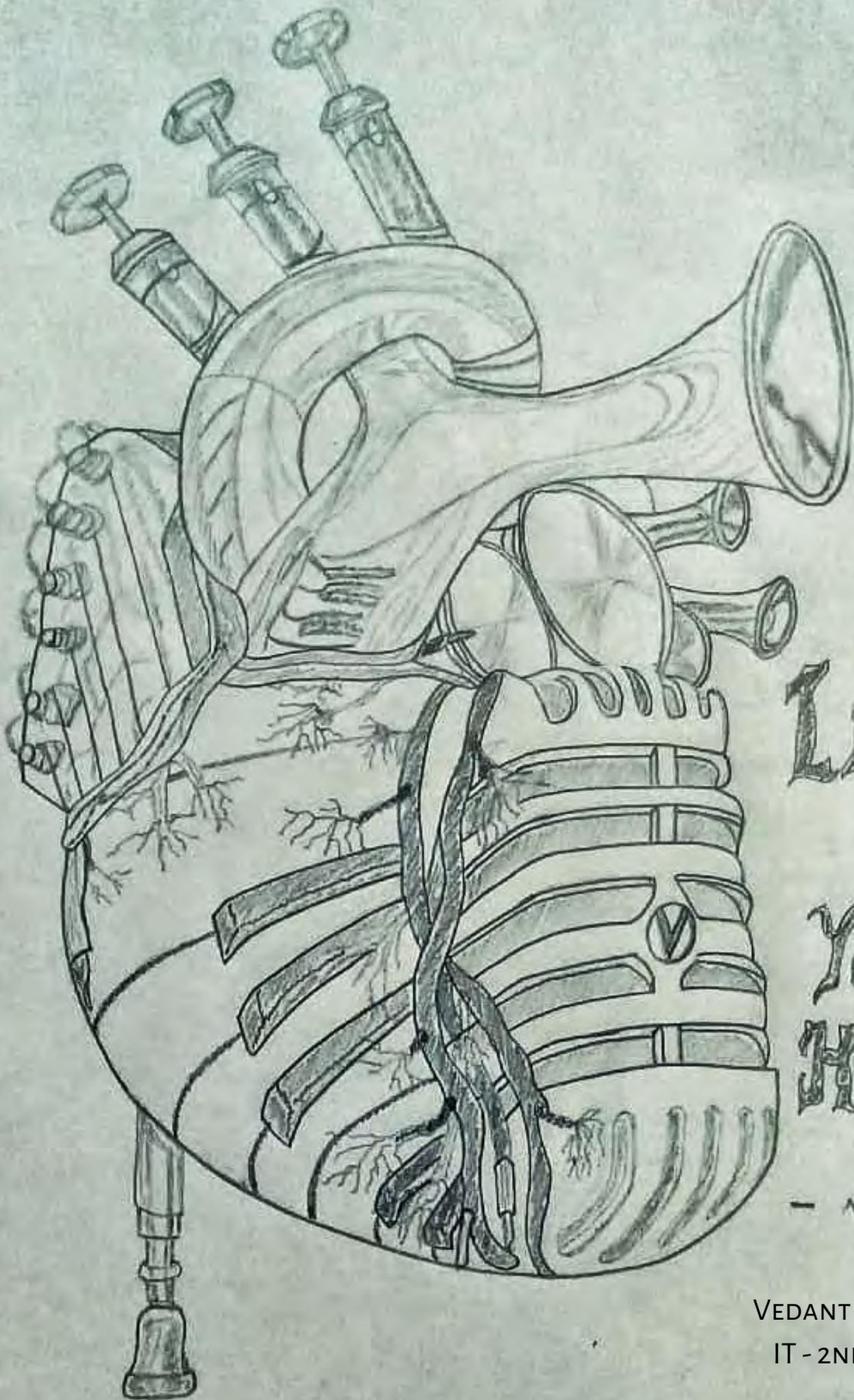
# INDEPENDENCE DAY

This independence day, like all previous years, we had the flag hosting ceremony and tree plantation carried out by the faculty and students.

The ceremony began with speech by Dean of Student Welfare, Dr. Rajesh Kumar Gupta, followed by Director Ma'am and next, a small cultural program was organised by students consisting of singing, poetry and speeches. The event concluded with sweets distribution.







Listen  
To  
Your  
Heart

- Vedant  
Sonkar

VEDANT SONKAR  
IT - 2ND YEAR



**DR. AMBEDKAR INSTITUTE OF TECHNOLOGY FOR HANDICAPPED**

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