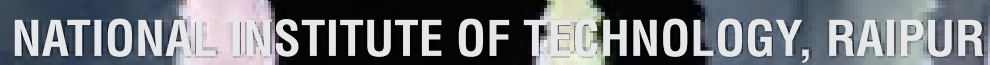




2014-15





IMPORTANCE OF YOGA:

Yoga is not a religion; it is a way of living whose aim is 'a healthy mind in a healthy body'. Man is a physical, mental and spiritual being; yoga helps promote a balanced development of all the three. Other forms of physical exercises, like aerobics, assure only physical well-being. They have little to do with the development of the spiritual or astral body. Yogic exercises recharge the body with cosmic energy.. Removes negative blocks from the mind and toxins from the body Enhances Personal power Increases self-awareness Helps in attention focus and concentration, especially important for children Reduces stress and tension in the physical body by activating the parasympathetic nervous system The aspirant feels rejuvenated and energized. Thus, Yoga bestows upon every aspirant the powers to control body and mind.

Benefits of Yoga: The art of practicing yoga helps in controlling an individual mind, body and soul. It brings together physical and mental disciplines to achieve a peaceful body and mind, it helps to manage stress and anxiety and keep you relaxing. It also helps in increasing flexibility, muscle strength and body tone. It improved respiration, energy and vitality. Practicing yoga might seem like just stretching, but it can do much more for your body from the way you feel, look and move.

International YOGA Day

was first time celebrated on

21st June 2015

NATIONAL INSTITUTE OF TECHNOLOGY, RAIPUR



Learning Today . . . Leading Tomorrow



EDITORIAL

An engineer trying to live off just technical knowledge might not be the one to make a lasting mark against the stone of time but the one who churns out creative ideas from the same technical brain does carve his own niche...

NIT Raipur is such an institute where the little brook of creativity in every individual is carefully nurtured so that the flow never runs dry and we, team LITERATI present before you each year the mighty confluence of all the tiny streams of creativity coupled with experience and enthusiasm... our very own SHILPI.

This year, as always, within the two covers of this magazine, we take a time machine ride to the past year and bask in the moments of glory and pride of NIT Raipur fraternity, share their experiences and learn from them, relive all the unforgettable moments and stroll through the thickets of emotions and expressions of all of us... So... come on its time for a ride... Bon Voyage

Faculty Support



Mithilesh Atulkar
Chairperson



Dr. Manoj Kumar Chopkar
Member



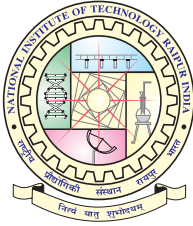
Jaya Dwivedi
Member



Pankaj Dewangan
Member



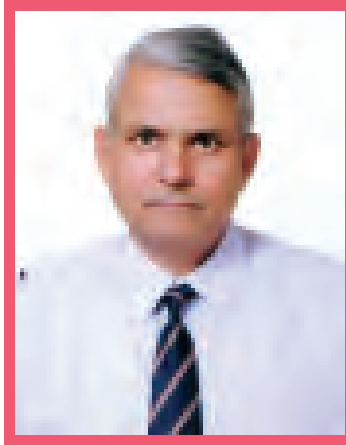
Saiket Majumdar
Member



राष्ट्रीय प्रौद्योगिकी संस्थान रायपुर NATIONAL INSTITUTE OF TECHNOLOGY RAIPUR

(Institute of National Importance)
G.E. Road, Raipur - 492010 (CG)

Phone : +91-771-2254200
Fax : +91-771-2254600
Email : director@nitrr.ac.in
Webside : www.nitrr.ac.in



MESSAGE

Magazines are an indispensable part of an institute which provides an aesthetic platform to the students as well as teaches to showcase their talents in their creative fronts. As a mirror reflects the appearance of a person, the institute magazine reflects the talents of the students and teachers it houses.

In this context, 'SHILPI' - The annual magazine of NIT Raipur plays the role of an ideal institute magazine. The institute is constantly striving in all round development of the students through its endless efforts, and 'SHILPI' is one such endeavor, providing a wide spectrum of literary and artistic talents of the students that culminate into the ambrosia of life and philosophy.

I am completely contented with the members' hard work and commitment and the only suggestion is to implement their innovative ideas to ameliorate the magazine every year.

In future, I wish to see the institute at the pinnacle of excellence accommodating the brilliant young engineers that would make recruitment strenuous for the companies to select students from a bunch of talented freshers. I wish the Literary Committee of the Institute, Faculty and students of the institute all success in their endeavors. My ultimate message to all the students is to work hard to achieve your goals and always be creative and innovative.

(Sudarshan Tiwari)
Director



5th CONVOCAATION 2014

A day which is most awaited by any engineering student has finally dawned. The convocation is a moment of taking pride, cherishing the golden four years and making our well wishers delighted. The convocation brings about all the moments which the student had spent in four years in a mere flash. Wearing that gown and cap has always been a dream for any engineering undergraduate and taking the degree from dignitaries just fulfils the dream in the best way possible. It is a chance to meet your old friends and witness the whole craziness again and bring back yourself from the mundaneness of the outside world.

Graduation Day is one which marks the beginning of a new era of one's life. All the efforts put into the academic life in the college are reaped on this day in the form of a degree which the students receive. Euphoria in the air, happiness and pride on the faces of young engineers moulded by their alma mater by bestowing on them degrees in the form of convocation.



National Institute of Technology, Raipur conducted its 5th convocation which was attended by all the students who had passed the Degree Examination/Post Graduate Examination during academic session 2013-2014 and all the scholars who were to be conferred with the award of degree of PhD to take part in it with their well wishers.

The fifth convocation was graced by the presence of the chief guest, Padma Bhushan Mr. Man Mohan Sharma Professor of Mumbai University, along with Mr. Sudhir Vasudeva, Chairman of ONGC and honorable director of NIT Raipur Mr. Sudarshan Tiwari. This was the first time when an alumnus of the same college provided degrees to the budding engineers of the institute.



Thursday, 09/10/2015

Venue: National Institute Of Technology, GE Road, Raipur, Chhattisgarh

Padma Bhushan Professor Man Mohan Sharma, a renowned Chemical Engineer and Scientist was the chief guest of the convocation which took place on 12th December. In his presidential address, former ONGC Chairman and Chairman of Board of Governors, Sudhir Vasudeva said, that climate change is a reality and soon we are going to be forced to find alternative renewable energy solutions. "This may all come too soon and may also be painful if some of you (students) don't devote your talent and energy to find the solution," he said.

In his welcome address, Director of NIT, Raipur Dr Sudarshan Tiwari highlighted the new infrastructure and facilities available here in the institute. On this occasion, degrees were conferred to 898 passed out students including B Tech degree to 713 students, B Arch degree to 43 students, M Tech degree to 61 students, MCA degree to 77 students and PhD degree to 4 students, said Director Dr Tiwari. The institute will provide degrees to 898 students, silver medals to 19 students along with 19 gold medals.



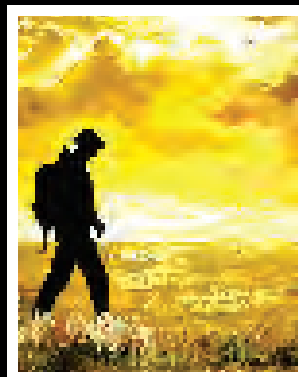
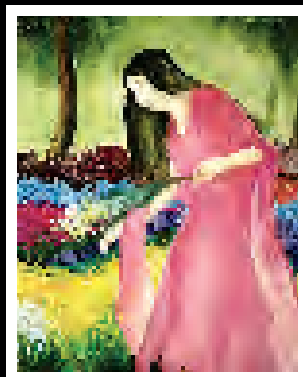
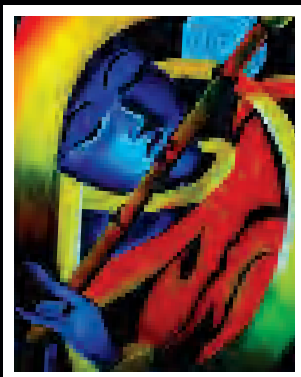
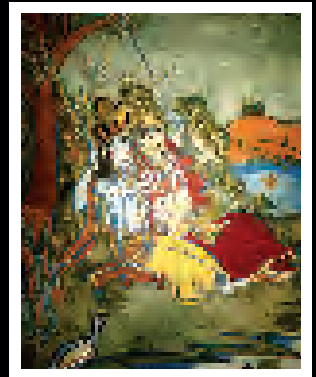
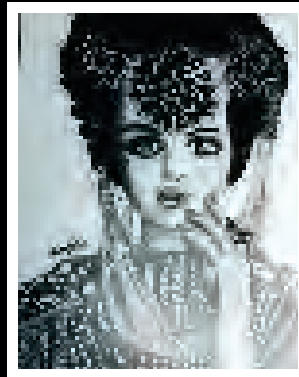
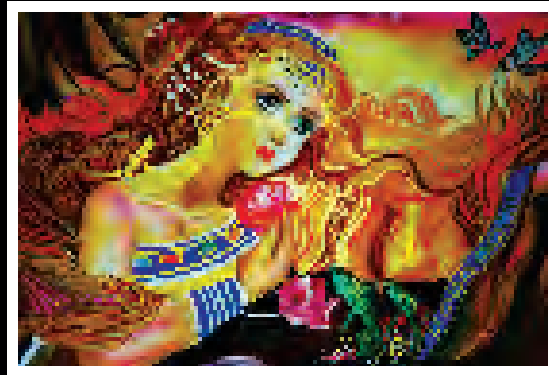
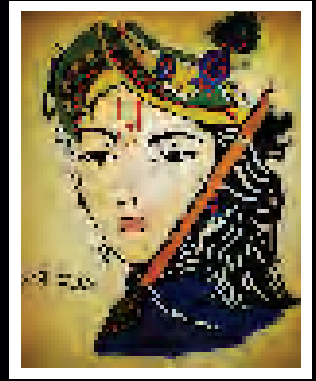
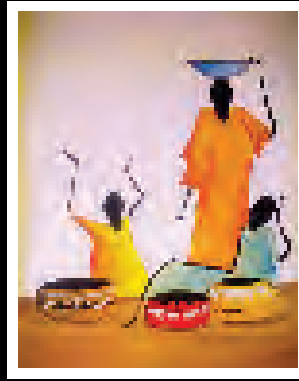


A day which is most awaited by any engineering student has finally dawned. The convocation is a moment of taking pride, cherishing the golden four years and making our well wishers delighted. The convocation brings about all the moments which the student had spent in four years in a mere flash. Wearing that gown and cap has always been a dream for any engineering undergraduate and taking the degree from dignitaries just fulfils the dream in the best way possible. It is a chance to meet your old friends and witness the whole craziness again and bring back yourself from the mundaneness of the outside world.



Graduation Day is one which marks the beginning of a new era of one's life. All the efforts put into the academic life in the college are reaped on this day in the form of a degree which the students receive. Euphoria in the

NIT art gallery






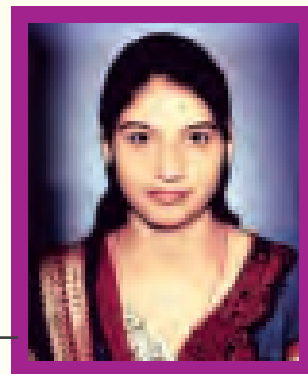
ACHIEVEMENTS | INTERVIEWS





GATE TOPPERS TALK

 **KAMLESH BHOORANI**
Rank-74 (Electrical Eng.)



Q1. When did you decide that you want to attempt GATE Exam as a serious career option?

At the beginning of 3rd year.

Q2. How did you choose GATE over other options such as CAT, private sector jobs etc.?

I was very much determined to get placed in a core company, and wanted to utilise my technical knowledge in core field only.

Q3. Are you aiming at higher education or jobs in public sector?

Job in public sector.

Q4. When did you start your preparation?

I started preparation from the 3rd year, but from the 7th semester rigorous preparation started.

Q5. What was your strategy and how did you stick to it?

Proper time management is the key to achieve your goals. I joined online test series to evaluate my performance. This helped me to know my strong and weak areas.

Q6. How did you maintain balance between GATE preparation and semester studies?

I did this according to the need of time till the 6th semester, but in 7th semester I was more focused for GATE preparation.

Q7. What was the role of various coaching institutes in your success?

I took coaching from GATE ACADEMY RAIPUR, it saved my time a lot in knowing the concepts and important topics. Online test series of MADE EASY was also very helpful.

Q8. Did you anticipate your result, when you were preparing for the exam?

I was sure that I would get return for all my hard work in some way.

Q9. What are your suggestions to the aspirants?

Important thing is enhancing the knowledge, so focus on concepts. For GATE have an introspection, you want to go for it or not. GATE requires a lot of hard work and patience. To perform in that three hours practice is needed.

Q10. What all material did you use for references, during the preparation phase?

I followed GATE ACADEMY notes for network, control systems, analog and digital electronics, signals and systems, maths. And I studied power systems, power electronics, electrical machines from standard books too.

Q11. To which PSUs / institutes have you applied?

I have applied for NTPC, PGCIL, IOCL, ONGC. I got direct admission in IISC and IIT BOMBAY.



D PRAKASH
GATE 267 (Civil)

GATE TOPPERS TALK

Q1. When did you decide that you want to attempt GATE Exam as a serious career option?

It was by Dec. 2014, that I realized I was neither fit for CAT or job (as I wasn't interested in joining field job).

Q2. How did you choose GATE over other options such as CAT, private sector jobs etc.?

I have appeared for CAT (91.4%ile in 7-10 days preparation; got nothing), got placed in ITDC. After giving all these exams, I realised if one aims to prepare for all exams esp. from 2nd year itself, he can easily crack all of them. English and Aptitude is must for placement, GRE, CAT, Civil Services CSAT. Further it will help in 10 questions in GATE, interviews at PSUs and IITs for M.Tech admission. Thus aptitude practice is must. The rest is your technical part, so just go in flow with college studies. Teaching others may help.

Q3. Are you aiming at higher education or jobs in public sector?

First preference is PSUs but at present with lesser seats declared, there is less chance of getting a PSU. So I have applied for M.Tech at IITB, IITD and IITM.

Q4. When did you start your preparation?

It was in middle of Dec 2014.

Q5. What was your strategy and how did you stick to it?

I studied from notes of Made-Easy and Ace. I was conceptually and theoretically strong due to previous studies. In Jan when Made-Easy and Ace were providing discounts I joined their test series and after that most of time was devoted to giving exams. Although my performance at those tests was very poor, I always focussed on taking more tests and reviewing my mistakes rather than going for fat theory books.

Q6. How did you maintain balance between GATE preparation and semester studies?

The syllabus isn't different. So during initial year, just focus on whatever is being taught or is given in syllabus. I attended very less classes at start of 8th Sem.

Q7. What was the role of various coaching institutes in your success?

Yup! I was lucky that GATE paper for civil was tough/ conceptual and not formula based like mechanical and due to that Made-Easy and Ace test series became helpful.

Q8. Did you anticipate your result, when you were preparing for the exam?

No, actually I was under prepared and in very low spirits for truly appearing in the exam as I started very late in Dec End of 2014. So expectations were not high.

Q9. What are your suggestions to the aspirants?

I will recommend if one is serious about GATE first of all go through all previous year GATE paper without bothering about books. Better to refer Made Easy previous year solved question papers with detailed solution. This will help in written exams of placements as well. Then go through ACE or Made Easy Material. Especially focus on Geotech, Highway, Fluid Mechanics, Environment, MOS and Structural Analysis. Also go through Design Codes (IS456 and IS 800) and texts related to design. In Dec and Jan, join test series when there is discount and focus all energy on solving each question in each test even if you don't know it, by dimensional analysis or intuition or common sense. Don't leave any topic uncovered. I never read pre-stressed and dam related questions from any textbook but learnt simple questions by taking test at Made Easy and ACE.

Q10. What all material have you used for references, during the preparation phase?

Text material provided by Ace and Made-Easy

Q11. To which PSUs / institutes have you applied?

At present I have applied to BPCL, ONGC, IOCL, NHA, IRCON, RITES, PowerGrid, OPGC, BARC, etc. Further I have applied to Ph.D. program at IITB-Monash University Research Academy. It would be better to follow multiple blogs and websites which list all the PSUs at one place. One example:
<http://www.engineering.careers360.com/articles/psu-recruitment-through-gate-2015>.



GATE TOPPERS TALK

JAYA JHA

● **Marks-85.02 Rank-1 (Electronics)**

Q1. When did you decide that you want to attempt GATE Exam as a serious career option?

I had it at the back of my mind from the very beginning of my B.Tech course. But, I decided to take it as a serious career option just after the second year.

Q2. How did you choose GATE over other options such as CAT, private sector jobs etc?

I am very much interested in the field of electronics and therefore want to gain as much knowledge in this branch of study as possible. Therefore, I decided to go for higher studies and hence chose GATE.

Q3. Are you aiming at higher education or jobs in public sector?

Higher Education.

Q4. When did you start your preparation?

After 4th semester of my B.Tech., I started preparing seriously for it. I also joined Logic Gate Studies for guidance at this point of time.

Q5. What was your strategy and how did you stick to it?

I started it very early as I said before (after my second year). So, I went slowly but steadily. As a topic was taught to me, I used to read it from the standard books focussing on getting my concepts very clear. My complete syllabus was covered by November 2014 and the only thing left was practicing more and more questions and revising the concepts. Practice is the key to score well in GATE Examination.

Q6. How did you maintain balance between GATE preparation and semester studies?

Our semester exams have similar syllabus vis-a-vis GATE. In even advanced subjects of pre-final and final years, the basics of signals, communication, analog and digital electronics are required for understanding the concepts. So it was not a tough task as GATE syllabus makes your basics clear and prepares you to understand well all the subjects.

Q7. What was the role of various coaching institutes in your success?

The biggest role was played by LOGIC GATE STUDIES mentored by Kishore Kashyap Sir who worked upon my weaknesses to convert them into my strengths. A teacher is said to be the best if he can make the boring subjects turn interesting. He gave me the freedom to contact him any time I wanted, to clear my doubts. Also, Made Easy class notes were very helpful. I also appeared in online test series of Made Easy as well as Ace Academy which provided me a lot of practice and prepared me well for the actual Examination.

Q8. Did you anticipate your result, when you were preparing for the exam?

During my preparation, I had an aim of getting into the Top 50. But while giving the online tests, I realized that I can do much better. I just needed to focus on my weak areas which I did. And after giving the GATE exam, I was sure about getting in Top 5.

Q9. What are your suggestions to the aspirants?

I will suggest the future GATE aspirants to focus mainly on getting the concepts by going through the standard books. After this, one must practise a lot of objective questions including the previous year GATE questions. Appearing in online tests also helps a lot.

Q10. What all material did you use for references, during the preparation phase?

The standard books of various subjects are the best as they build your concepts strong and hence make you ready to solve any question. Also the book "ECE for GATE" published by McGraw Hill Publication and authored by Mr. Kishore Kashyap was very useful as it consisted of topic wise theoretical concepts for quick revision, followed by a lot of practice questions. Apart from these, I also used some practice books and class notes of Made Easy. Online test series also play a vital role. They make you realize where you actually stand.

Q11. To which PSUs / institutes you have you applied?

I have applied for the courses of M.Tech. (Microelectronics) of IIT Bombay and M.E. (Microelectronics) of IISc Bangalore.

Q12. Anything you want to share that might be helpful to the readers.

I strongly believe that nothing is impossible. You just need to believe in yourself, have faith in your abilities and then work hard to make your dream turn reality. I would like to thank my parents, my elder brother Aniket Jha and my NIT Raipur teachers for their support and blessings.



AKSHAY SINGH
GRE Score-331

GRE TOPPERS TALK

Q1. When did GRE seem to you as a serious career option?

I was preparing for CAT from 3rd year but since I also had interest in higher studies in electronics I had thought about taking GRE as well. I decided that if my CAT didn't go well I would give GRE in April, and apply in US universities for Fall 16.

Q2. How did you start your preparation?

I took GRE on 3rd April 2015 and I started preparing in a focused manner from mid-February. I started preparing by taking 2 diagnostic tests and analyzing my strengths and weaknesses.

Q3. Which all GRE sections pose a challenge to you?

Since I had not written in a long while, I had lots to improve in the AWA section. Also the sentence equivalence problems in the verbal section looked difficult at first.

Q4. Which all books and online material, you referred to?

Books: Manhattan prep (Books 1- 8), 5 lb book of GRE practice questions (Manhattan prep), Princeton GRE prep, vocabulary.com, "Word Power Made Easy".

Q5. What was the role of coaching institutes in your preparation?

I had enrolled for GREedge online tutorials. Their verbal section practice questions were good. And in a way they made sure I completed every portion of the GRE syllabus. But I believe one can prepare on his own for GRE especially with the wealth of learning content available for free on the internet.

Q6. Which all universities did you apply to?

Georgia Tech, Minnesota twin cities, Maryland, Umich ann arbor

Q7. Do research publications, internships play any role, when applying for studying abroad?

Yes, they enable you to write a convincing SOP. They might be the most important component apart from academics. They prove to be even more important than your GRE score. Also during internships try to find your area of interest and work on them.

Q8. How should candidates write perfect statement of purpose?

There should be a flow in your SOP. You should do a lot of research about the university where you wish to apply for. You also have to mention the professors whom you'd like to work with. Also you'll have to show interest in their ongoing projects. So, in total you'll have to give a lot of time to write your SOP.

Q9. Importance of Letter of recommendations and whom to approach for them?

Department HOD, project guides, internship guides.

Q10. How did you select your universities?

A lot of sites like stupidsid, edulix, the grad cafe, crunchprep, usnews provide information about the universities. But the best sources are the university websites.

Q11. Any advices to GRE aspirants?

Read a lot and from a varied sources to improve your vocabulary. Always try to remember words by using them in sentences. Do not just memorize word meanings or finish wordlist.



CAT TOPPERS TALK

● **AASHIQ AGRAWAL**
98.09 Percentile



Q1. When and how did you choose CAT as your serious career options?

I started my CAT preparation in the third semester as I was very clear from the start that I want to pursue my career in management field. But it was not until the third year when my preparation started giving results and that was the time I chose CAT as my serious career option.

Q2. How much time did you devote towards CAT preparation?

I devoted all the time I got between CT's and FINAL EXAM as it is very necessary to score good in them. Also I fully utilized my summer vacation. Summer vacation is the period which can completely change your level of preparation.

Q3. What are some common mistakes made by students during preparation phase?

The most common mistake made by students during preparation phase is that they fail to select one career option for them. They continue to change their aim or goal.

Q4. What was the role of coaching institutes in your preparation?

For me the biggest motivation factor is competition. My Coaching institute provided me that along with the necessary direction and mentoring.

Q5. Which all books and online material did you refer to?

I referred all the books given to me by my coaching institute to improve my basics. For making my advanced skills in aptitude and verbal, I referred books by Arun Sharma and Sarvesh Verma. Then at last, to brush up my concepts I referred online material like total gadha, hitbullseye.

Q6. What kind profile should I groom during college, if I am a serious CAT aspirant?

One should groom a balanced profile with good academics as well as required extra curriculums in their arsenal. The first and foremost thing is to maintain a CGPA more than 8.0. Then you should try to get experience of organizing events or working in any committee.

Q7. CAT is one of the most competitive exams in the country, how did you maintain perfect exam temperament?

It is normal to feel excitement before the actual CAT exam but when the exam starts it just feel like another mock test. After giving 25-30 mock tests, I became very comfortable with the CAT exam and it was not very difficult to maintain my temperament. Experience of mock exams is one thing that will sail your ship in the waters of actual CAT exam.

Q8. Any advices to CAT aspirants?

First and foremost advice to all the cat aspirants is to become SERIOUS cat aspirants as preparing for all the exams won't get you anywhere. Second will be to do personal assessment on a daily basis which will help you not only to revise your goals as well as give you a perfect background to judge your preparation. And last advice will be to find your motivation factor. For me it is competition and for you it might be your family or competition or your passion etc.

Q9. Anything you want to share that might be helpful to the readers.

I want to share a very important insight into CAT preparation. That is to never lose hope. I do not scored much in CAT so I lost my confidence that I will do well in XAT. I went unprepared for XAT but still I managed to score 99.3 in XAT. So never lose hope if you have worked hard. It will definitely pay off one way or another.

**SRIRAM KUMAR**

INDIAN NAVY

Q1. What inspired you to join the defence services?

I've wanted an adventurous life, not the typical 9 to 5 office job in some private firm. I always wanted to do something I am passionate about, that would shape my attitude and personality. My job shouldn't be my profession; it must be my passion, and a way of life. I am placed in L&T but I felt that instead of serving a private company, serving the country would be a matter of pride and honour for me.

Q2. Higher studies or a job in PSUs didn't attract you?

I wanted to pursue MBA, but after getting selected in the Navy, I knew this is the job for me. I'll be serving in the Indian Navy for 14 years, after which I might pursue MBA, because I know I have an aptitude for it.

Q3. When did you seriously start thinking about the armed forces as a career option?

I wanted to be a part of this since class 10th. But sometime back I saw a military camp, and soldiers and officers training dedicatedly. That strengthened my will to join the services.

Q4. What is the selection procedure for Indian Navy?

Initially there is an elimination round consisting of group discussion and a personal interview. Clearing that, I was called for the SSB exam. Then I passed the medical standards and am presently awaiting the final All India Merit list.

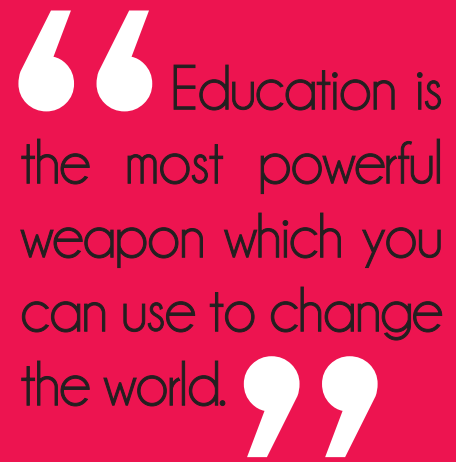
The SSB exam spans 5 days, including a number of rounds. The first day is the elimination round which is a general aptitude written test followed by a group discussion on a picture perception task. On the first day itself, out of 265 candidates who applied, only 61 were selected for the next rounds. This is followed by a psychology test, then a series of interviews and physical tasks, and finally a conference. The exam is not tough; they basically judge your personality and attitude and your desire to learn.

Q5. Your message to our young aspirants?

Actually a job in the armed forces is much underrated and it seems full of risks. But that is not so. I myself will be posted as a submarine engineer. We are not soldiers and sailors and armed forces don't stand just for that. There's pride and honour in working for the nation, and this is a country's backbone. Besides, we get a good salary with perks, if you compare it to other jobs in this aspect.

Also, every person has a fascination towards defence services at some point of time. But it fades away as we are not provided with the right platform. I feel armed forces should be called for campus placements in our college so that students here get appropriate exposure. And, I personally would say that all those who wish to aim high and have a dream of going into the defence sector, go for it!





“ Education is
the most powerful
weapon which you
can use to change
the world. ”

- Nelson Mandela



ENGLISH CORNER



MY FIRST DESIRE

In the very corner of my mind
You come to me as if a dream
You make me realise what I am
You make me feel what I can
Slowly and silently you whisper in my ears
In a voice very similar to burning desire
I want, I wish, I need nothing but you
You are the song of my unsung crew
I know, getting you is not that crucial
But, without you my life is no more beneficial
I'll try my best to have you beside
As I am the sea and you are my tide...

VISHAL KUMAR
Metallurgy 4th Sem

THIRD EYE OR THIRD FAULT

It has been a very long time, I am torn between the values of society and myself. They say it is either man or woman, but what about me? These were the words of an agitated and helpless boy..no no no..a girl...no no no.. I am still confused because none of the funniest languages could help me in solving the dilemma of the word which would suit it. And that was the moment when I realized the seriousness of the problem.

No words of consolation were enough for the awkwardness that she faced from the day she was born. Whose fault was it? His? His parents'? God's ? He was lucky enough to be blessed with such supportive parents. In our society, people generally deject such children, which is the base of all the misery caused to them. God is considered good and equal for everyone, he created you, he created me, he created them, hence he cannot be blamed. And then, when I gave it a deep thought, I realized it is me-you-us who make them feel guilty for what they are.

Though they are awarded all rights of freedom but suffocation of stares and humiliation never leaves them alone. But the more heated, the more stronger. The best example for the quote was set up by Madhu Kinnar, the first transgender mayor of the city of Raigarh . When they can be given recognition in other countries why not in ours? Most of us never question or think much about our gender, but it's an essential part of our identity. And given the endlessly diverse ways people experience their gender, their bodies, and their masculinity or femininity, it's a wonder there are so few words to describe it. Except there are actually (at least) dozens of gender terms, and Facebook is now offering its users numerous options to present their gender identity to their Facebook friends in the same way they do in the real world.

Yet in dilemma, trying to analyze, is it jealousy or hypocrisy or inferiority complex that we are not ready to accept the truth of mankind.

AYUSHI BHOJASIA & PRIYANKA AGARWAL
8th sem elx and telecom



The unfulfilled DESIREs

I want to ride with pace
Because life is a never ending race
I was born intelligent
Even then so negligent.

Winning is a habit so is losing
But losing in your interest is winning
But after that, it is killing
We end up comparing.

I am the child of God
I have to think broad
But internally there is an everlasting pain
I feel I have nothing to gain.

I want to jump higher than Burj khalifa
But am not able to find floor to take off
Realities are unreal
Things have become ideal

I am the storehouse of talent
Then why do I have to go like an ant
I am multitasking
Still I am asking

The things for which I am late
Standing out of open gate
Unbounded boundaries on the head
Literally making me mad

Anxiety is flowing like a river
There is fear at each and every corner
I am drowning in stress
I am not able to come out of this distress

Every statement is a challenge
Every hobby is a beginning
Time is less for the change
Passing time is staring

I have to now become introvert
So that everything is covert
As sunshine follows sunset
Defeat will follow success

UTKARSH GAUTAM
4th Semester, Metallurgy

TWIST 'N' TURNS

You have to have luck
With a mile more to go
A crooked road
It's a vicious circle.

A heart of gold
Bears silent witness
To the kindness trait
Of being a good observer.

Your enchanted eyewitness
Do you know what I mean?
Invitation to contraction
Of the life lived sweet and fragile.

I'm in your corner
Read between the lines
Go forth and forward
To where the beauty lies.

DINAKAR TIWARI
Mining 2nd year

IMPULSIVE PROPHECY

After a long struggle he had come,
Pounding his legs in such a way as if playing a game.
Laughing some, smiling some,
More and more, was referred as darling.
Staring at him I was taking tension.
He survived or died, why should I mention,
After pondering on this dilemma for a while,
I decided to leave the place and bade good bye.
While I was on my way home,
The day had gone and the sky was on.
Still pondering over the matter, walking silently,
Should I take this matter seriously or lightly.
Half startled accidentally I made a prophecy,
His life was going to be hard not easy.
And now after a plenty of years of mine,
Today I see him from my window just behind.
I see him laughing, glittering, and singing a song,
And today I still dare if my prophecy is going to be wrong...

SHASHI PRAKASH
4th sem, Mining



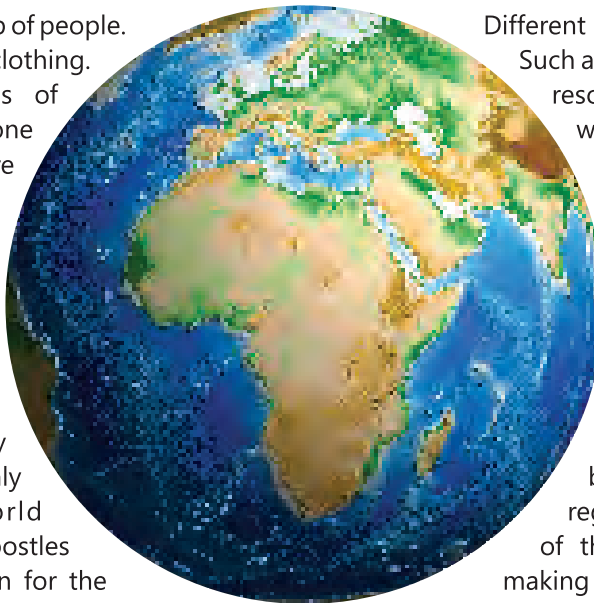
DARK TRUTH

Sitting on my chair and pen in my lips;
I thought about someone taking a sip.
Someone very friendly, someone near to you;
She is just around me as well as in your view.
She changes her color and her shape too;
I know it's strange but that's the truth.
It may be your present or it may be your past;
She remains with you till your body lasts.
Umbra and penumbra are her different allies;
But the interesting part is she doesn't take a side.
Just like a mirror, she imitates too;
Different from outside, but she is truly like you.
Like arrow and bow, we make a great combo;
You might have guessed correct, she is the shadow

SHASHI PRAKASH
4th sem, Mining

DEMARCATED WORLD

This world is a motley group of people.
rites, doctrines and even clothing.
for biasing on grounds of
ping the prevalent tenet on one
We know that civilisations were
slavery by the powerful
civilisation was mauled and met
just because the Spanish
Americans. Loathe for power,
always pummelled the weak
from this? Only acrimony and
have subdued. We can't satiate
in the world if we are resented by
to lead blissful lives. So, I staunchly
equally loved in this world
colour or affluence. We need apostles
where equity blooms. Yet again for the
inculcate the world with equity in us and



Different shades of epidermis, vernaculars,
Such a discrepancy gives enough reason
resources for sustenance and in
which is puny.
obliterated or plunged into
hegemony. The whole Aztec
its doom by the Spanish Empire
wanted to subjugate the
money and resources has
and what has anyone achieved
animosity from the ones they
ourselves with all the affluence
all others. Rather we all need love
believe everyone should be
regardless of their religion, tenet,
of this ideology to create a world
making of these apostles we need to
embrace it.

G ADITYA
Civil

A Fall Night's

Sleep usually constitutes my daily hours of blissful ignorance, for I seldom have any dreams and even less that I can actually remember or think about later. But today I did have a dream. It was a dream unlike any other. Was it just a dream?

In my dream came Ma Durga. I wasn't surprised actually. Being this time of the year it is actually her or her homecoming that I think of all the time. Five days of uninterrupted festivities on the pretext of her annual homecoming thrills me like many others.

But this time she looked different, having only 2 hands for one- she is supposed to have 10. She looked wearied out—I thought the travel must have been tiring. She did not look her usual radiant self either—on closer inspection I found tear tracks on her cheeks. Now, I was concerned, I sat beside her and asked her what was wrong, though quite fearfully—she was divine, see... Then she looked at me and THAT gaze literally smouldered me. WRONG—she shouted, stifling a sob, I am wrong, YOU are wrong, everybody is wrong. I sat there patting her hands at an utter loss of words.

When she had calmed down enough, she started speaking. "I was an image of strength. I was created to reflect the combined strength of the entire universe to ward off demons. I reflect YOUR strength. Do you see how weak I have become? It actually reflects your weakness. Strength of the fairer sex had always been mental—the strong willpower, the never lose attitude and not physical brawn. By cashing on this strength only we spent millennia. But today... today everything is being snatched away, courtesy your weakness."

By this time she sounded positively loony. Also I could not fathom what 'I' had specifically done to invite her wrath. I am just a girl next door with mild manners, mild temper, with the universal attitude of as long as it is not happening to me I am not interested.

"THIS is what is wrong", she said as if reading my mind, "with you and everyone else. When was the last time you protested against what was wrong? This is how you forgo your strength. This is how you throw away your strength and with it MY strength."

"All these events of violence against women—all the mud throwing on each other—it all boils down to you. All you do is plead, you ask for mercy, you expect the other half of population to know their limits. At the end you raise just your voice against them, use some choice words and make way for some juicy gossip."

"From this moment on you will take the baton in your hands and make all the wrongdoers face the music on your own in your own way. Raise your voice and also your fist, knees and legs to attack the modern demons. It's not YOU, always remember. Bring back your hidden valour and give me back my strength," she pleaded.

Then she left and I woke up from my dream or may be from a most instructive lesson. I intend to put it to reality, to return our internal, inherent Goddess to her full strength, dignity and honour.



NANDINI BANDYOPADHYAY

4th Sem Electronics and telecommunication



ACCEPT YOUR IMPERFECT SELF



Sometimes you really need someone who can understand you in silence, who accepts you the way you are, someone who appreciates the 'real you' and can feel your pain and insecurities. Everyone is in need of a close friend but does that mean you have to be a hypocrite? Do you really have to pretend to be accepted by people? Do you need to change yourself so that people start liking you?

In today's competitive scenario you need to be an extrovert but that does not mean being someone you don't like to be. I have seen people trying to smile at jokes they are not comfortable with or exaggerating even a small event, boasting and bragging about their 'fun' just to find approval and acceptance amongst their so called 'friends'. Just because people don't approve you it does not mean you lose your worth. You are still as beautiful and as original as you were. You don't require people's judgement. Who are they to assess you? Only those who appreciate your inner beauty are worth being respected and it's only they who deserve you. Hypocrites might gain temporary attention but they are incapable of making long term relations. They can never win respect. Fake people are the ones who always betray.

There are different kinds of people and different people have different choices. Some people talk more and some people find pleasure in silence. They speak only when required. Some people feel bored when there's no one around, others like to be alone and spend time with themselves. Some like partying and hanging out frequently, others do it occasionally. But are these the only means of enjoying? There are people who enjoy music or sketching or may be even studying or reading books. They live their passion and this is what makes them happy. Do you always need to prove that you are happy? Not really if you are. Some people might be introverts but this does not make them socially isolated or liable to 'mystery'. It's

just that they have a different way of life. It may be that they don't socialize the way others do but they are perfect in their own way.

The most important part is to be happy with yourself. What really matters is how you see yourself as a person. If you know exactly who you are then there is no requirement to please anyone but you. You don't have to be extra nice to

people so that they like you. No one can demoralize you unless you allow them to. It's your life, your choice. You have the right to live it the way you want to. You can not let people take on your life. You don't have to be perfect for anyone. Just 'be original and embrace your imperfect self'. Accept the way you are...

AYESHA QUERAISHI

Electrical Engineering, II Sem

Attention Deficit Disorder

- A Common Syndrome

This is how it manifests itself:

I decide to water my garden.

As I turn on the hose in the driveway, I look over to my car and decide it needs washing.

As I head towards the garage, I notice mail on the porch table that I picked up from the postman earlier.

I decide to go through the mail before I wash the car.

I lay my car keys on the table, put the junk mail in the recycling box under the table, and notice that the recycling box is full.

So, I decide to put the bills back on the table and take out the recycling first.

But then I think, since I'm going to be near the postbox when I take out the recycling paper anyway, I may as well pay the bills first.

I take my cheque book off the table and notice that there is only one cheque left.

My extra cheques are in my desk in the study, so I go inside the house to my desk where I find the cup of coffee I'd been drinking.

I'm going to look for my cheques, but first I need to push the coffee aside so that I don't accidentally knock it over.

The coffee is getting cold, and I decide to make another cup.

As I head toward the kitchen with the cold coffee, a vase of flowers on the worktop catches my eye – the flowers need water.

I put the coffee on the worktop and discover my reading glasses that I've been searching for all morning.

I decide I better put them back on my desk, but first I'm going to water the flowers.

I put the glasses back down on the worktop, fill a container with water and suddenly spot the TV remote control. Someone left it on the kitchen table.

I realise that tonight when we go to watch TV, I'll be looking for the remote, but I won't remember that it's on the kitchen table, so I decide to put it back where it belongs, but first I'll water the flowers.

I pour some water in the flowers, but quite a bit of it spills on the floor.

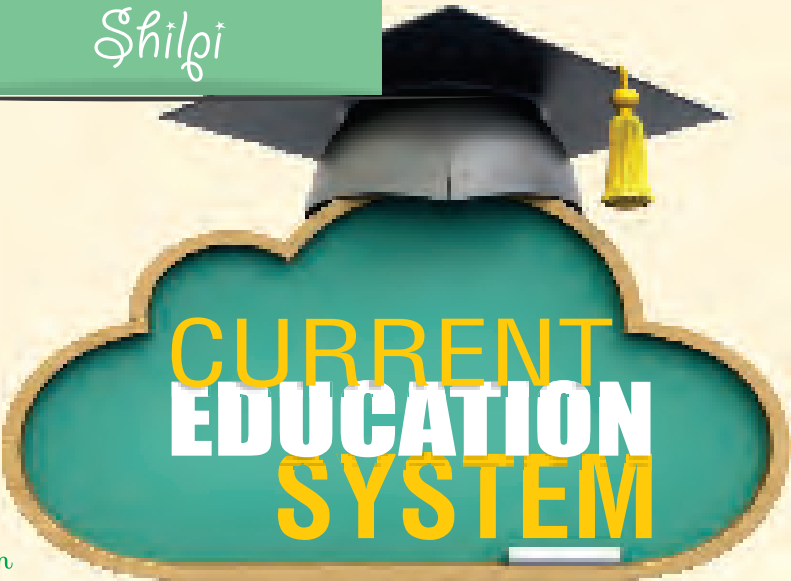
So, I put the remote back on the table, get some towels and wipe up the spill.

Then, I head down the hall trying to remember what I was planning to do.

At the end of the day:

- The car isn't washed.
- The bills aren't paid.
- There is a cold cup of coffee sitting on the counter.
- The flowers don't have enough water.
- There is still only one cheque in my cheque book.
- I can't find the remote.
- I can't find my glasses.
- And I don't remember what I did with the car keys.
- Then, when I try to figure out why nothing got done today, I'm really baffled because I know I was busy all damn day, and I'm really tired.
- I realise this is a serious problem, and I'll try to get some help for it, but first I'll check my e-mail....!!!





CURRENT EDUCATION SYSTEM

*The ability to make correct decision
To know right from wrong with precision
Ignorance and negativity to dissolve
Into a better human, making us evolve
Simple as that, it's no complex relation
One which dispels darkness, that's education*

Education they say is a noble profession. "Tamso ma jyotirgamaya"! Means from darkness lead us to light. Ancient picture of Indian education system which comes in our mind is the strict austere environment of gurukul, watchful eyes of 'aacharya', celibate students clad in orange, eyes full of devotion and curiosity etc. That was a perfect example of an efficient education system. Who hasn't heard about Eklavya chopping his thumb off, with a smile on face, as a 'tuition fee' (Gurudakshina actually! A word too spiritual to be felt by the ignorant maligned minds).

Current education system, it seems is slowly turning into a business, a transaction, a safe place to invest money (with good probability of handsome returns). Exorbitant fees levied by coaching institutions, glare at the pathetic commercialization of education.

Even our curriculum lacks in a practical approach. Rote learning is vicariously encouraged and practical approach, silently beheaded. No wonder 60-70% of products from engineering colleges have been found to be unsuitable and a majority of them remain unemployed.


The gruelling mountain of syllabus tramples the possibility of building a conceptual foundation and creates multitudes of Mr. and Ms. 'know-all-but-understand nothing'.

Lab records are often copied data from previous year notes or from friends. Even practical exams are conducted in a light mood. On top of it is the current grading system where it would take even a stupid person lots of hard work (playing, wasting time etc.) and negligence if he wishes to fail.

I have known my friends who are happily amazed with their board exam results, surprised at the fact that they passed. It is a very sorry state indeed.

My suggestion is to develop a practical based approach of education involving activities and experiments which will develop the 'thinker' in a child. Evaluation should be strict. 'Failing' in exam should not become an extinct word. Practicals should be conducted in a stricter environment. Assignments should be ones invoking a need to exercise one's mind.

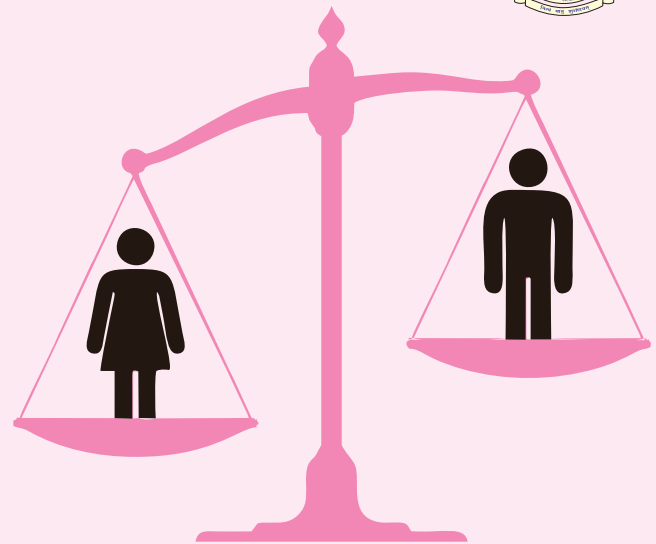
While the situation seems cloudy and stormy, the ray of hope is still intact. They say every cloud has a silver lining. Here the silver lining is as dense as the cloud itself. Hope still remains & will smile.



*While the storms, seems bad
The system seems losing all good it had
While the tempest of corruption, subdues the spirit of education
All is not yet lost
A firm hope that education will evolve at any cost
Einstein's, Newton's & Galileo's, India will make
When education won't be, just for its sake
When every ounce of ignorance will be gone
Education system of India, will experience a new dawn.*

P. LALIT NAIDU
Vth sem, Metallurgy

Feminism & Female Chauvinism



"Feminism is the ability to choose what you want to do"

The above quote by Nancy Reagan, former first lady of United States of America, highlights the very essence of feminism. For generations, opinionated women have often been disgraced, primarily because of patriarchal mindset of the society. As a part of liberal progressive society, I too support gender equality in all spheres of life.

Every movement has a fanatic side. The modern feminists turn out to be often critical of men as a whole and rather being advocates of equality, they quest for development of a matriarchal state. In last two decades, developing countries like India have identified the importance of women and to suit the purpose various social and legislative reforms have been introduced. But as seen lately, feminism has become more of a fad rather than an ideology. This has given rise to huge number of female chauvinists and a range of pseudo-feminists. The above mentioned people are advocates of a society, where rules exist only for men. The idea is absurd and often people have taken critical view of the same, subsequent to which, now feminism is seen as pejorative.

The question underlying is, "Why is this so"? Is it so hard to tell, that women and men are equal in all respect and supremacy of any one over other is not acceptable. Often feminism is used as a political tool and even as a marketing campaign. Naomi Wolf in her book 'The Beauty Myth' highlights how images of beauty are used against women. Drawing clues from the book, one can realize that organizations have started to use feminism as means to fit their own purpose. Recently a video of a famous Indian actress

was in news for its view on feminism. It was heavily criticized and disparaged, not because society is anti-feminist but because the video failed to create demarcation between sensibility and incongruity. The video was sponsored by Vogue, a famous fashion magazine. Immaterial to the fate of video, Vogue grabbed substantial number of eye balls and I personally see it as a PR exercise. If they were really concerned about women empowerment, they should have invested in teaching women to stand up against atrocities and provide them legal counsel.

The correct idea of feminism is very well understood and practiced by Sheryl Sandberg, COO of Facebook. In her book 'Lean In', she highlights that there will be equality only when fifty percent of women hold offices and fifty percent of men take care of home. She has strived to achieve the same with her series of initiatives, especially for corporate work place.

Due to ever increasing political opinion in favour of 'modern day feminism', often serious laws such as IPC 498(A) and IPC 354 are being misused and have developed into means of criminal intimidation. I do not suggest diluting the aforesaid acts, but care has to be taken, that they are not used to destroy an innocent man's life.

Though feminism is a fiddly concept, I have tried to provide a balanced view. The abstruseness of feminism is very well explained in words of Aaron Allston:

*"Feminism is sort of like GOD. Many people profess to believe in it,
But no one seems to be able to define it to everyone's satisfaction."*

MUKUL GARG

6th Sem, Civil Engineering



LIVE Vs LIFE LESS

Friends v/s cell phones

It is so funny that every time I sit in classroom, my bag rings and its Veer or Ruby calling, "Can you mark my proxy?" or "Party in the evening." Today's youth have found themselves a new friend named cell phones.

Carrie Underwood has correctly quoted, "My cell phone is my best friend. It is my lifeline to the outside world."

They are with you every time, they are with you in your low and high, they are with you when you need them, and they are your TRUE FRIENDS.

They capture your happy and sad moments. Your friends are far yet near. It entertains you through songs, games, surfing, chatting and video calls. It rescues you from boring lectures. When you are alone they are with you.

But today's over enthusiastic youth has forgotten that every coin has two faces. Our friend is good but possesses some negative qualities.

One look at an email can rob you off of 15 minutes of your focus. One call on your cell phone, one tweet, and one instant message can destroy your schedule, forcing you to move meetings, or blow off really important things like family, friendship and love.

So finally it's a sign off by me and one thing. "Every friend is necessary but within limits." So those who sit with their friends but are only with their cell phones, those who think that their phones are their life, beware because : FRIENDS WITH LIFE ARE MORE IMPORTANT THAN FRIENDS WITHOUT!!

TANYA AGARWAL

IT, 1st semester



What is life if full of care?

What is life if full of care? I sat by the window, watching small kids spilling out of their houses running across the street, busy enjoying the spring of their life, too busy even to attend to the small scars they got. Then the thought of another kid occurred to me, a kid I once saw in a cancer hospital, the kid I only knew by face for his face was so pale, his body lifeless yet his eyes so full of life, a kid as innocent as the kids playing on the street but diagnosed with a disease which left him deprived of all the joys of childhood. I wondered what plans god had and why it was in the lives of some people that providence had willed such sufferings. I wondered if I had done anything in the past eighteen years of my life so religiously so as to lessen an inch of all the sufferings in the world. I had been so busy growing up that I forgot that my near and dear ones were growing old too and that my life wouldn't have been so full of care without them being a part of it. Life is uncertain and time is fleeting and the secret of life lies in making people around you happy because that is the best thing you could do to them. So now every time I see a little kid approaching, I do search my pockets for toffees or be it two two-rupee Munch which I get as a change from the canteen, 'cause I know there is so much of suffering around the world which my love and compassion can ever compensate for.

Adya Aradhana

2nd sem elux & telecom





FUTURE OF DEMOCRACY IN INDIA

Abraham Lincoln had rightly said that "Democracy is of the people, for the people and by the people" meaning democratic government is government of the people, working for the welfare of people and elected by the people. Every democratic setup has three basic institutions which are : judiciary to give justice, executives to implement decision made by leaders and legislature (parliament, state assemblies) to make law, take decision and further the fourth can be added as media. The co-ordination between these four pillars of democracy plays a very crucial role in bringing stability to the country.

Today, India holds the title of being the world's largest democracy. Despite the fact that India has extreme poverty, malnourishment, naxalism , poor track record of human rights, women insecurity and vulnerability of minorities .And for all this, the institutions of democracy are responsible.

If we start with the judiciary , it itself is accused of causing delay in providing justice. One of the reasons behind this is high vacancies. Apart from that the judiciary is also accused of having corrupt judges, nepotism, lacking infrastructure, lawyer-judge nexus and judicial activism to get publicity. However, in the future we see key role of judiciary in maintaining the federal structure, change in appointment procedure of judges, introduction of jury system, use of IT to reach rural area as well as continuation of judicial activism from time to time.

Then come the executives who are supposed to execute decisions but are currently infamous for incompetence, red tape behaviour and working under the influence of powerful people. But at the same time we see new generations of executives coming from rural areas rather than metro cities, evolution of e-governance, better training and restructuring of several organizations thus we can expect that this will improve the functioning of executives.

Last but not the least , comes our political class facing charges of nepotism, use of money and muscle power, criminalization of politics, using hate speeches to incite mob and most of all infamous

charge that is corruption. But with the improvement of other institutions we expect improvement in this too with accountability before public, internal democracy, giving tickets to honest candidates, and giving fair representation to women and minorities.

Apart from these three main institutions we also have media getting corporatized , rise of paid news cases , businessmen becoming editors, biased news and mishandling of critical issues. But recently we have also seen anti paid news campaign being launched by media channels, collaboration of channels with think tank thus expecting a mature print and electronic media in future.

When Panchayati Raj system was introduced everybody had great expectations but just like others it has also become a source of corruption, spreading superstition, supporting honour killings and resisting women empowerment. However with the provision of one third of the seats being reserved for women, separate reservations for backward classes and increase in participation of lower groups we still expect it to be more successful in near future.

In a democracy not only the proper functioning of all the institutions is required but also proper synergy and coordination among them. Face off and confrontation of institutions can even lead to dictatorship as we have seen in Pakistan. Apart from that, face off between states and centre is also a matter of grave concern but however there are mechanisms which are in place to deal with such situations like centre, state and concurrent list mentioned in our constitutions and courts at different levels for arbitration.

To conclude we can say that the future of Indian democracy seems to be bright. All Indians should be very proud of being a part of world's largest democracy but at the same time we should learn from the mistakes that we had committed in the past. We should give space for critics to criticize. India is the younger country in the ageing world and we can use our demographic dividend to achieve economic growth and prosperity by maintaining the true values of democracy.

AYUSH CHANDAK
6th sem Mech



How Much Sleep Do College Students Really Need?

"... .. Oh, sorry. I must have dozed off". Being sleep-deprived can do that to a person, especially college students. And whoever said college students had to choose between grades, sleep and a social life clearly missed the "We'll do it all anyway" memo. But it's harder than it looks. Homework piles up; friends find other friends; your bed becomes the dinner table. Living this way causes you to miss out on the better things in college, like a friend's 36-hour multi-themed party.

Of course, keeping a consistent sleep schedule is a challenge. And we get it; lack of sleep is worse than when Chipotle runs out of guacamole. It can throw your body out of whack and leave your head feeling fuzzier than three beers into a Friday night. But getting too much sleep can cause the same problems. Luckily, there are heroes who charge us up: naps and caffeine.

The power nap is the college student's little piece of heaven that helps them tear through the day. " 'Power naps' have been shown to benefit functioning. Naps that last less than 30 minutes, even six to ten minutes, have been shown to reduce tiredness and improve performance and learning with lasting effects." But make sure your naps stay short. Sleeping for 20 minutes only to actually wake up three hours later is a day breaker. It'll throw your sleeping schedule off-balance, and leave you more disoriented than a freshman walking into the wrong class.

So what about caffeine? It's the key ingredient to many students' success; it'll give you the energy you need to finish that 10-page paper; and those 100-page readings become a breeze. Better yet, you can flavor your caffeinated beverages to your liking. Mochas, vanilla lattes, green teas and frappuccinos are just the beginning.

So caffeine jitters your mind, and the long naps leave you groggy beyond belief. Nothing seems to keep you up past that 2 a.m. wall. The best course of action for when you really need to pull an all-nighter... Find an activity that'll keep you going. "If I'm super exhausted, then I'll get up and walk around every 15 to 20 minutes to keep myself awake". Sleep requirement can vary drastically from one person to another. When it comes down to it, just listen to your body. So if you only need six hours of sleep per night, go for it. Ten or more? Be my guest. Grab a blanket and nap at the library; drink a few cups of coffee; just figure out the best time for you to sleep and reap the benefits.

SHIVAM SHARMA
6th sem, Meta



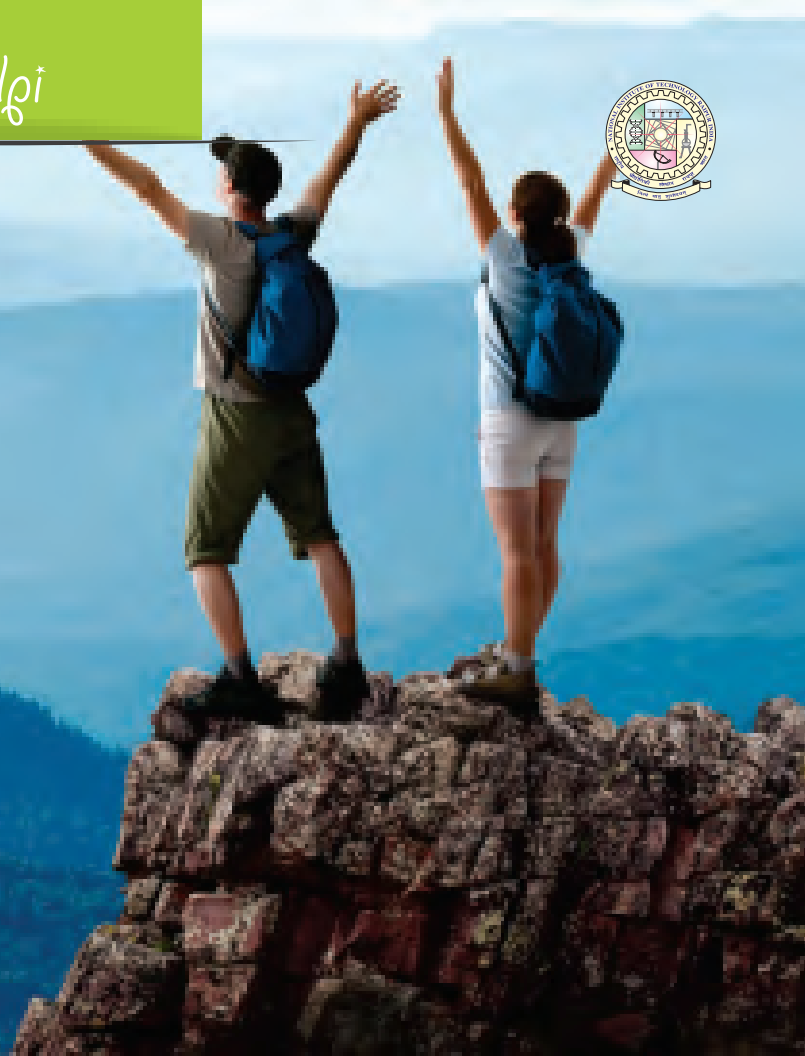
If you think you are beaten, you are
If you think you dare not, you don't,
If you like to win, but you think you can't
It is almost certain you won't.

If you think you'll lose, you've lost
For out of the world we find,
Success begins with a fellow's will
It's all in the state of mind.

If you think you are outclassed, you are
You've got to think high to rise,
You've got to be sure of yourself before
You can ever win a prize.

Life's battles don't always go
To the stronger or faster man,
But sooner or later the man who wins
Is the man WHO THINKS HE CAN!

RATAM MAHENDHER



Got a call from my heart to bid a
good bye,
To that year in which I had
experienced low and high.
All together were 365 days which I
had lived,
Many went with me but few
deceived.
It was the year when I explored the
vastness of my syllabi,
Perfectly scary and not less than a
Tsunami.
It was the year when I realised what
competition meant,
I only realized it when I failed without
any hint.
It was the year in which I remained
untouched for the most with my own,
The only reason for this separation
was that I had grown.....

SHASHI PRAKASH
4th sem, Mining



THE

DISAPPOINTMENT
APPREHENSION
COURAGE
HOPE
BOREDOM
SURPRISE
DETERMINATION

SHAME
FRUSTRATION
ACCEPTANCE
DECISION
FEELING
LOVE
DREAM

CONTENTMENT
LOVE
DREAM

PAIN
NOSTALGIA
OBSESSION
FAITH
DREAM

REASON
PAIN
NOSTALGIA
OBSESSION
FAITH
DREAM

REASON
PAIN
NOSTALGIA
OBSESSION
FAITH
DREAM

REASON
PAIN
NOSTALGIA
OBSESSION
FAITH
DREAM

All a partly shaded circle could bring to my mind was LIFE. The implication of a part being shaded and other being non shaded represent the different phases of life. The continuous beating of hammer on the rooftop above my head distracted my mind, but no sooner did my brain tell me that it is such a beautiful topic and YOU can't be distracted at all. In our life there are various phases, some in which we find ourselves happy and others when we feel sad. Similarly this is a phase representing the time when a person is filled with mixed emotions of being gay and unhappy simultaneously. In this phase a person enjoys when people around them are enjoying but the enjoyment diminishes as soon as we are out of the fun. Something philosophical which I can recollect from the wordings of my father *"You have done good deeds throughout a part of your life, when people around you praised you; but one mistake will overpower all your good deeds"*. Actually what he meant was that in a circle of white background a black dot is enough to blemish your picture.

BUT IS IT REALLY TRUE?? At one point you have done deeds which are worthy of praise but one mistake bows your head down into the dust of insult. No, it is not, it is not what the world thinks or tells you, it is what you think you can become. The black portion can represent any type of difficulty, may be poverty, disability etc. But is this the end?? I would like to quote myself *"There is no end until you end"*.

People are more concerned about the solution these days; yes, they should be. I am here with a solution which I myself tried and yes it does work. I won't suggest something I have never tried. Feel your miseries and think *"Are you the one who is worst"*. Ask yourself as many times you want, with the thundering beat of heart you will feel NO every time. So its time for every one of us to pat ourselves looking into the mirror and say that YES I AM THE BEST. It's not that the darkness completely evades from our life, but it gives us confidence that darkness is slowly evading away from our life. And a day will come when there will be a change from darkness towards light. The reader might think why am I not filling a person's life with happiness, why is there a portion so small and so dark. It's very well understood that too much of anything is not good. A treaty of sorrow and happiness must not draw any comparison in a person's life. Feel the inborn voice because it's always divine. Live life to the fullest till you reach your end.

VISHAL JODHANI
2nd sem, Metallurgy



During a conversation, legendary author F Scott Fitzgerald once told fellow writer Ernest Hemingway, "Let me tell you about the very rich. They are different from you and me" to which Hemingway responded shrewdly, "Yes, they have more money."

There really seems nothing that can stop the rich from getting richer - their overall wealth touched \$53trillion globally, with 2 million new entrants joining the ultra high net-worth individuals (UHN) club. When it comes to India the number of UHNIs has gone from 62,000 in 2010-2011 to 117,000 in 2013-2014, with their combined net worth going from ₹45 trillion to ₹104 trillion in the same periods. This figure is only expected to sky-rocket in future with the number of UHNIs projected to touch 343,000 in 2018-2019 and their worth likely to hit ₹408 trillion.

HOW DO THEY INVEST?

There are very few things as interesting as knowing what Ultra High Net worth (UHN) people are up to. For investment, they hang on to their first love: REAL ESTATES. There is a reason why unsold housing stocks and skyrocketing rentals are two sides of urban reality in most Indian cities and towns – REAL ESTATE is where the well-heeled are making their MONEY, apart from gaining success in their primary business. Despite its inherent illiquidity, many HNIs have been drawn to real estate like moths to flame. It's because "equity is driven by foreign investors, while real estate is driven by local factors."

WHERE IS MONEY PARKED?

Only North America shows an inclination to park its fortune in equities, and others show a decided preference for real estate and cash. There is nothing quite like cold, hard cash after all.

	Alternative	Fixed Income	Real Estate	Equities	Cash
GLOBAL	14	16	19	25	27
NORTH AMER	13	18	14	33	23
ASIA	15	18	23	22	23
EUROPE	14	16	23	23	24
SOUTH AMER.	12	20	28	12	29
AFRICA	18	17	25	19	21

WHERE DO THEY LIVE?

Metros Mumbai, Delhi Chennai, Kolkata	Top 16 cities-Bengaluru, Nagpur, Pune, Hyderabad, Ahmedabad	11-12 cities-Surat, Jaipur etc.	Rest of India-Raipur, Amritsar etc.
55%	16%	7%	22%



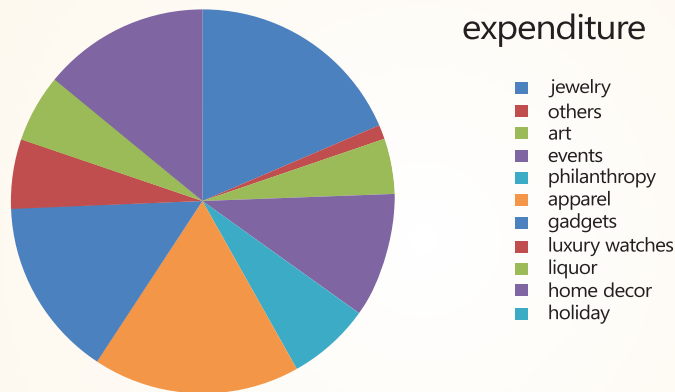
WHAT IS THE ALLOCATION OF INCOME?

The rich prove to be just prudent when it comes to spending - expenses and investments are balanced on an even keel. A large chunk of their investment is redirected to their business, with saving and personal investments equally accounting for the remaining.

EXPENSES-49%	SAVING AND INVESTMENT-51%
Non-discretionary expenses -28	Investment into primary business -20
Discretionary expenses-16	Savings-15
Charity-5	Personal investment-14
	Others-2

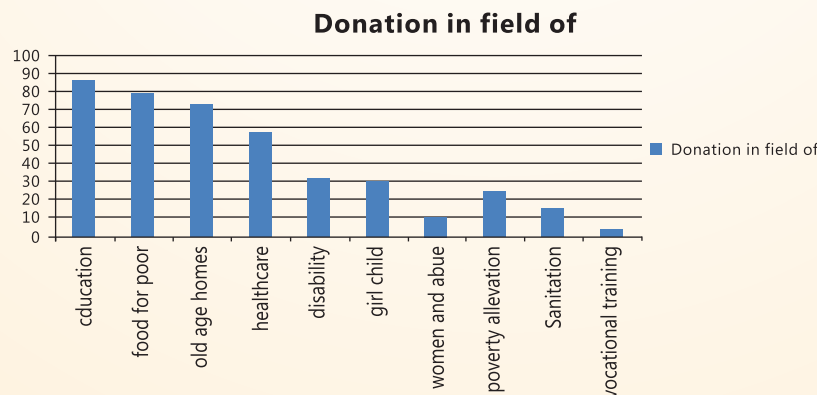
HOW DO THEY SPEND?

When it comes to expenses, a significant chunk 20% goes back to their primary business, of the rest nearly 16% is spent on jewellery, and clothes, holidays, gadgets and home décor all account for equal shares of the pie. The ultra-rich love to live it up while on vacation and spend well-earned money while they are at it, with most of them venturing abroad for shopping trips.



HOW DO THEY GIVE AWAY?

It is heartening to see that a large percentage of ultra HNIs give a high level of importance to philanthropy, with 75 % of them professing it to be very important part of their work. Entrepreneurs and professionals show high degree of personal involvement in philanthropic initiatives. What is truly heartening is the rising graph of projects for the girl child and disabled.



SANJEET RAY
4th sem, Mech



technical



Banana fiber & Pet bottles waste reinforced polymer composites

Since the early periods, the vegetable or animal fibers have been added to the brittle materials in order to increase their ductility and to reduce brittleness. One of the best examples of these attempts is known as mud-brick material. In the production of mudbrick, straw, clay, mud, branches of the vine stalks and fibers may be included to increase the strength during use. In practice, the composite materials are generally planned to develop one or more of the following features: mechanical properties (modulus of elasticity, yield strength, tensile and compressive strength, hardness and impact resistance) [4-6], fatigue resistance, wear resistance [7], corrosion resistance, fracture toughness, high temperature resistance, thermal conductivity or thermal resistance, electrical conductivity or electrical resistance, acoustic conductivity, sound conservatism etc.

Composite Production

There are three basic functions of the matrix of composite materials. The matrix holds together the fibers, distributes the load between the fibers and protects the fibers from the environmental effects. The presence of the matrix will provide an even distribution of the load between fibers. Under a tensile shear load, a good adhesion between the matrix and fibers is required and the matrix must show a high shear strength property. In addition to the properties of the matrix and reinforcing materials, the orientation of fibers and adhesion strength between the matrix and fiber are important factors in determining the strength of the composite structure.

Branch-dried banana stalks are laid, collected, dried in the outer membrane for the separation of the fibers. After waiting 2 days in water, the fibers are removed from the water, leaving the outer surface of lignin and pectin membranes spatula. It is then re-laid to dry. Crumbled dry fibers are separated from the remaining parts of the outer membrane. The dried fibers brought into bundles of 6-10 mm to be cut with pruning shears, then eliminating the dust, and the removal of small pieces of 6 mm are achieved. Banana fiber thickness is 0.3-2 mm. PET plastic bottles used in this study were taken in a mixture of polycarbonate. The used PET fibers were obtained by extrusion from the recycled waste plastic bottles, polycarbonate obtained by extrusion.

Mechanical Tests

Tensile test specimens were prepared according to the TS 1398, and the sample size is given in Fig. 1. Tensile test specimen photo is also given Fig. 2. The tensile tests were performed on SHIMADZU AG-IS brand unit having a capacity of 50 kN.

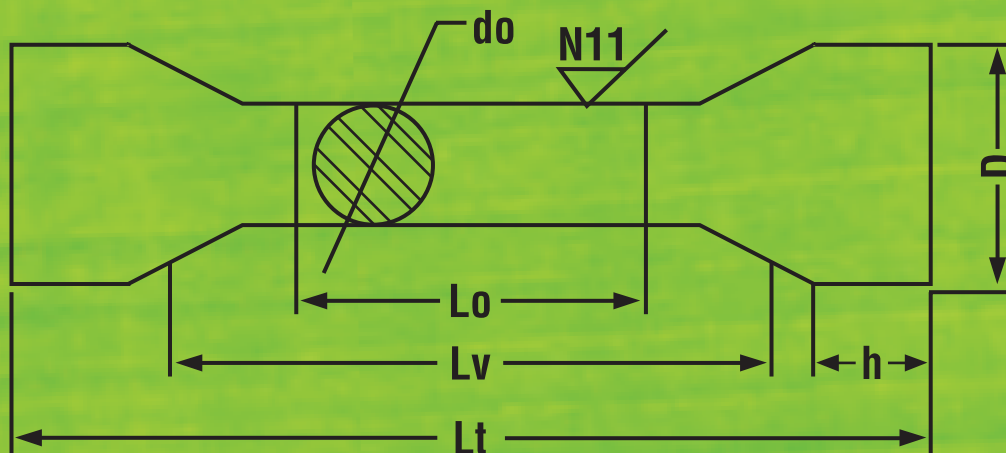


Fig.1 Tensile test specimen dimensions

Tensile test specimen dimensions;

$d_0 = 10\text{mm}$

$D = 12\text{mm}$

$h = 15\text{mm}$

$L_0 = 50\text{mm}$

$L_v = 70\text{mm}$

$L_t = 120\text{mm}$

Result

The prepared composites were subjected to tensile test and the tensile tests results are given in Fig. 3. As can be seen from both the Figure 3 and Table 1, the composite can withstand up to an average force of 0.65 kN tensile load. Average force strength will change depending on the molding pressure.

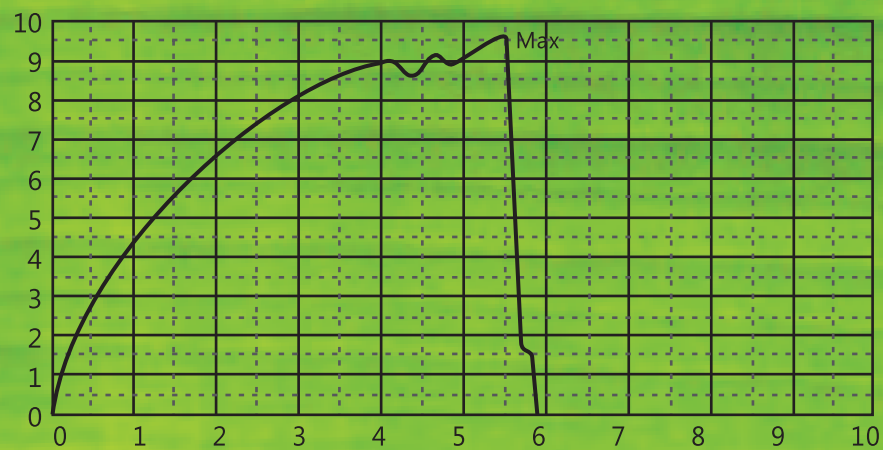


Fig.3 STRAIN - STRESS CURVE FOR THE COMPOSITE

Conclusion

In the light of obtained results, agricultural wastes offer a potential alternative raw material for the forest industry. In the production of polymer composites, agricultural wastes which are results of the burning of fields and forest fires can be used to prevent environmental pollution. If the dies is heated, the sections of the produced samples, plastic fibers and banana fibers will blend well with the expected same as glass fibers.

Ketan Kumar Giri
VI Semester
Chemical Engg.



NAVIGATE THE Chocolate AISLE WITH EASE

Chocoholics rejoice! The amount of evidence in favor of eating chocolate is increasing, so there's no need to miss out this Easter!

Most of the health benefits of chocolate are believed to be because of its key ingredient - cocoa. More and more studies are linking regular cocoa consumption with a slimmer waistline, improved heart health, increased insulin sensitivity and improved brain function. Rich in flavanols - a potent group of antioxidants, and minerals including: magnesium, iron, potassium, calcium, zinc, copper and manganese. A dose of cocoa a day may just help keep the doctor away!

Here's the list of our top priorities when choosing a chocolate fix!

CERTIFIED ORGANIC

Select chocolate products that are certified organic so that you can be sure they aren't genetically engineered (GE). Most chocolate today (even dark chocolate) is GE, unfortunately. Genetically engineered foods have had foreign genes (genes from other plants or animals) inserted into their genetic codes, changing various aspects of the food, from how they grow, how they taste, and how they look. There are mixed reports as to whether consuming GE foods are completely safe to eat. We'd rather stick to what nature has given us naturally!

PURE-STATE

The closer your cocoa is to its natural raw state, the higher is its nutritional value. Ideally, your chocolate or cocoa should be consumed raw (cacao). In general, the darker the chocolate, the higher the cacao. However, cacao is fairly bitter, so the higher the percentage of cacao, the more bitter it is. If you can, opt for a bar made with raw cacao, otherwise a dark chocolate bar made with organic cocoa is your next best option.

MINIMAL INGREDIENTS

The quickest way to know if it's a good choice or not is to check the ingredient list. Keep things simple and choose chocolate with cocoa or cacao as one of the top three ingredients. The higher it is on the list, the more of it is in there! The main components of good quality chocolate should be cocoa or cacao, cocoa butter or coconut oil, and a natural sweetener. Skip the ones with soy products, hydrogenated fats, milk solids, thickeners, humectants and other unnecessary ingredients - they're generally laden with chemicals and artificial ingredients - not health benefits!



LOWER SUGAR

Cocoa and cacao are naturally bitter so to make them more enjoyable, they're often paired with lots of sugar! Skip the cane sugar, corn syrup, fructose, high fructose corn syrup, artificial sweeteners and other refined sugars. When checking the ingredient list, look for naturally sweetened varieties such as honey, coconut sugar or pure maple syrup instead! Typically the darker chocolate you choose, the lower the sugar content, so aim for 70% or more cocoa.

FATS

Fats found in good quality chocolate help to slow down the absorption of sugar, lessening the insulin spike. Ideally, the type of fat in your chocolate bar should be what is contained in the natural plant—cocoa butter. Cocoa butter contains a mix of palmitic, stearic and oleic fatty acids. The primary fatty acid is stearic acid, which is the only saturated fat that favorably affects HDL, without adversely affecting LDL. Unrefined coconut oil is also a good choice, containing medium chain triglycerides (MCT) that can help reduce triglyceride levels. The major MCT in coconut oil is lauric acid, which gets broken down to monolaurin in the body, providing antiviral and antibacterial properties too!

FAIR TRADE

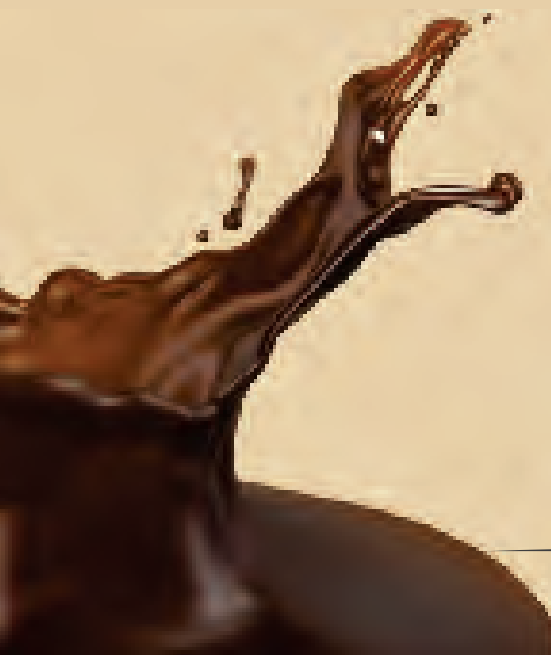
Where possible, choose a fair trade chocolate. Purchasing fair trade products helps to support better prices, decent working conditions, local sustainability, and fair terms of trade for farmers and workers in the developing world.

QUALITY VS QUANTITY

Regardless of its health benefits, you can still have too much of a good thing! There's currently no specific dose determined, but small amounts 1-3 times a day appears to be most beneficial. If you're watching your waistline, be mindful not to overdo the serving size, as the energy from chocolate's fat and sugar content can add up quickly! What chocolate delight will you be enjoying this Easter?

Alok Kashyap

VI Semester, Chemical Engineering





FUTURE OF PROGRAMMING

Ever got tired of writing a code of more than a hundred lines only to compile it, just to discover that it has more errors than the number of lines you wrote? There are three million people around the globe who feel the same. Good news is that you won't have to do it long. MIT researchers have heard your unvoiced pleas for simplicity and are currently working on an innovative concept of programming in common language i.e. English.sss.

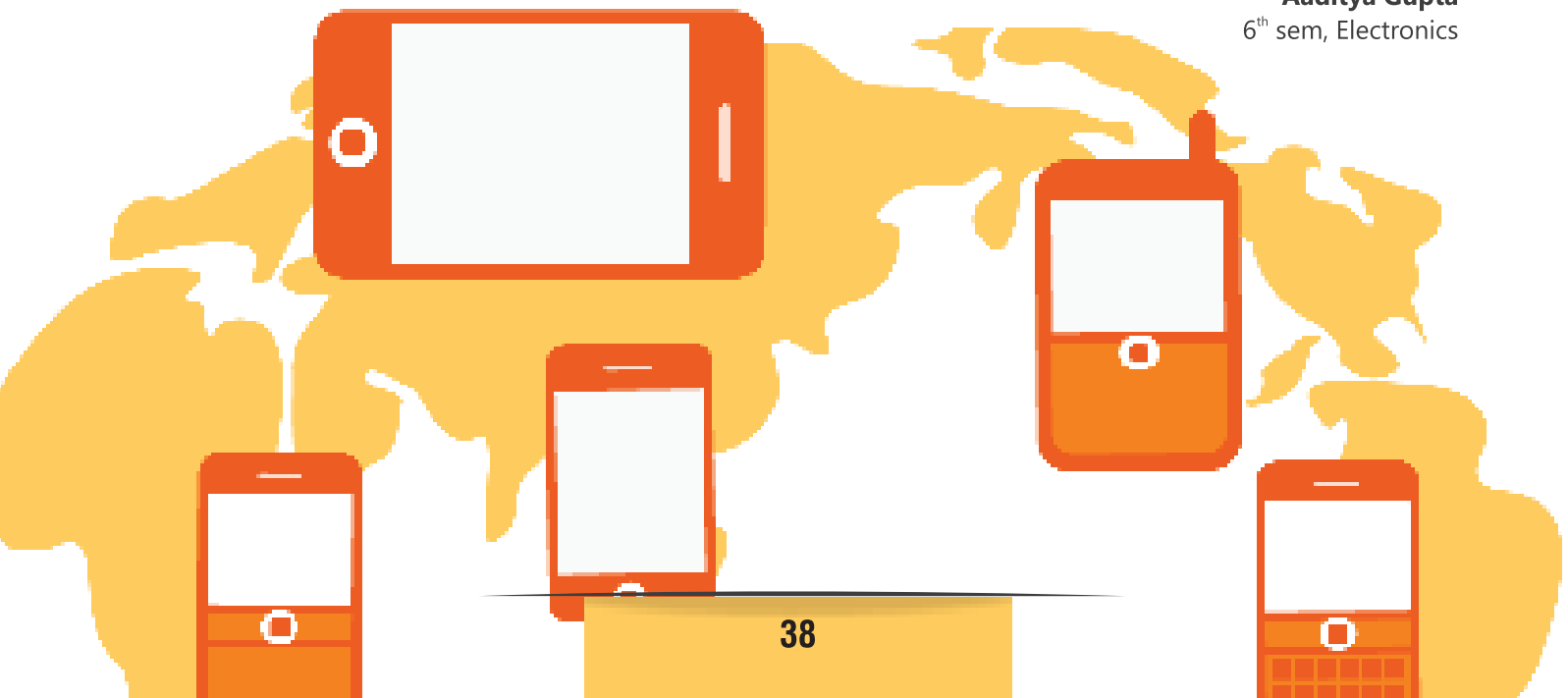
I suppose you are thinking that you don't actually code in other language like English and memorizing a bunch of code words and syntax right? However because of this breakthrough you will be able to code in simple everyday English! Regina Barzilay, an expert in computer science and electrical engineering explains the two primary insights.

One is essentially translating computation tasks into set formalized language. Yet, not everyone thinks the same way. People might use many variations to describe the tasks. So the researchers used the graph structure to map out the relationships between the natural language and computer language so that the computer could understand the many ways it might be asked to perform a task. Any regular expression has an equivalent that does map nicely to natural language although it may not be very succinct or intuitive for the programmer. Moreover, using a mathematical construct known as a graph, it's possible to represent all equivalent versions of a regular expression at once. The system thus has to learn only one straight forward way of mapping natural language to symbols, and then it can use the graph to find a more succinct version of the same.

The second is a bit more complicated. The research team built a system that automatically learnt how to handle data stored at different file formats such as .pdf or .doc files based on specifications prepared for a popular programming competition. Essentially, the team built a system that can use natural language to build input parsers. Input parsers figure out which parts of a file contain which type of data. Without input parsers a file is just a string of zeroes and ones which make your eyes water trying to discern its meaning!

Small tasks such as tweaking a word processing document, spreadsheets can be done using natural language as opposed to specific programming language. The research at MIT and efforts of startups such as IFTTT are crucial to help out get more number of people manipulating the digital morass that we interact with daily and that's only going to empower more people to innovate. So till the time you fully learn the programming you dislike this technology will probably start broadening its applications for the future generation!

Aaditya Gupta
6th sem, Electronics





The Thought Waves

We must have seen the magic, where the conjurer lifts or moves an object without actual contact. It is most of the times an illusion. But can science make this happen? Well I am not so sure, but for time being a thought wave model of matter exist, which might explain how objects can be moved just by thinking. Thought is one of the least understood concepts of nature and human body. Understanding thought in physical terms is very difficult. It can be understood as an elemental mode of entropy increment. Since I am just an amateur metaphysicist, my understanding of the model is empirical in nature.

We must have learned about the different states of matter, but how about a super state? There exists an ultimate state called thought wave state. By the word 'thought', I mean some tinkering in the brain. If thought can make science and mathematics, than it can definitely do something beyond simple abstractions.

I do not want to sound too enigmatic, but my interpretation of thought is much more complex and it involves a lot of quantum physics and deep understanding of brain-waves. Since this article is not a technical paper and I am not definitely an expert, I'll try to present the theory in lay man's terms. Albert Einstein told how energy can be compressed into matter. Now take it to the next level, how about compression of thought waves to form energy? It is actually not as weird as it sounds. If people can prove that energy can be compressed into mass, than is it so difficult to believe that thoughts can be compressed in to energy? By combining this model and Einstein's model, we can actually assert that, by thinking we can create matter. Now if we generate accelerated masses using thoughts, than forces comes into existence. So simply by thinking, I might move a car! This will require utmost level of expertise and enlightenment, but who cares as long as it is fun. Our ancestors must have those thought levels, which enabled them to generate energy and move masses, as depicted in various pre-historic stories. Now a final question that arises is, since only known source of thought waves are brains of organisms, than what was the source of these first brain waves? Simple answer is GOD. At the point where human understanding fails, the reign of GOD begins.

One more interesting conclusion from my version of thought wave model is that our continuous thought process actually increases the weight of the universe. So next time you think too much over a question, stop immediately to save the universe from over burdening!

Mukul Garg
6th semester Civil



AUTOMATIC EMERGENCY BRAKING SYSTEM

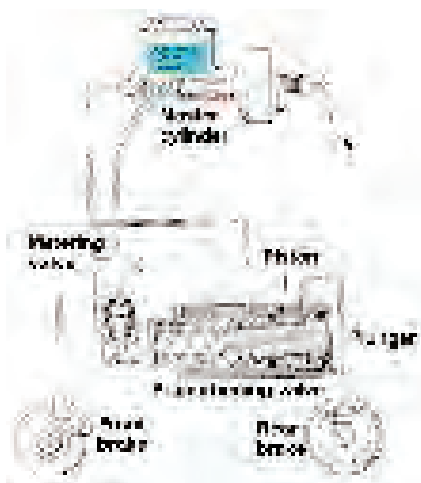
An Automatic Emergency Braking System combines Advanced Driver Assist systems and Electronic Stability Control to slow down the vehicle and potentially mitigate the severity of an impact when a collision is unavoidable.

AUTOMATIC EMERGENCY BRAKING SYSTEM - A BRIEF INTRODUCTION.

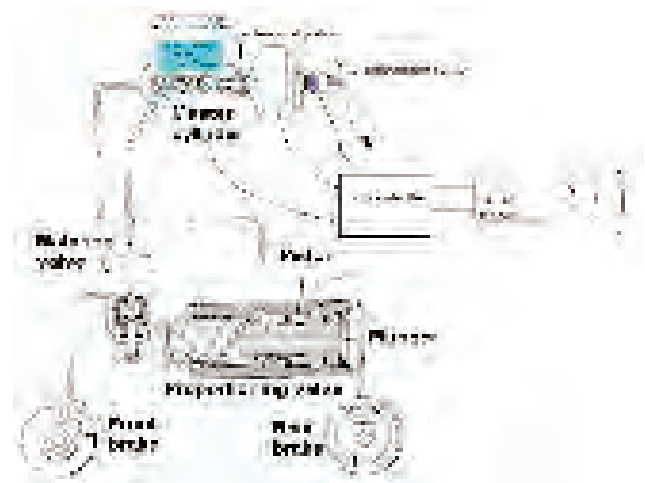
An Automatic Emergency Braking System (AEBS) or Autonomous Emergency Braking (AEB) is an autonomous road vehicle safety system which employs sensors to monitor the proximity of vehicles in front and detects situations where the relative speed and distance between the host and target vehicles suggest that a collision is imminent. In such a situation, emergency braking can be automatically applied to avoid the collision or at least to mitigate its effects. Most Road accidents are caused by drivers who applies inadequate, delayed or no brakes at all to avoid a collision. Some of the most common reasons why drivers fail to apply the brakes on time are distraction, inattentive, sleepiness, lack of concentration while driving, visibility, road surface quality, weather condition, time of day, sudden road obstructions from other motorist and environment, and including seizures/heart attacks. The AEB system is designed to function on different sets of road scenarios. If the driver fails to act on time to avoid a collision, the AEB system will automatically apply emergency brakes with different levels of force using its intelligent algorithm for speed, trajectory, momentum, and other factors to avoid or at least lessen the impact of the collision. Some models will deploy or activate the restraint system ready for impact.

ADVANTAGES:

1. A totally driverless car can be made using this technology and further extending it to automatic steering system.
2. Crashes reduced to a negligible impact speed – AEB has the potential to reduce the impact speed, and hence the severity, in pedestrian crashes, right turn crashes, head on crashes, rear end crashes and hit fixed object crashes. It appears that they may have little or no effect on right angle crashes, but secondary effects that improve drivers' abilities to avoid collisions may be important in this case. Potential benefits appear to be greatest in pedestrian crashes, rear-end crashes and head on crashes.
3. A study in the USA has shown clearly that cars fitted with AEB are involved in fewer crashes than comparable cars without. The frequency of claims was significantly lower for bodily injury, first party (own car) damage and for third party (other car) damage. The biggest benefit seen was in third party injuries - typically Whiplash - where there was a 50% reduction in the number of claims from cars equipped with AEB.
4. Reduced car insurance premiums. Motor cover providers see AEB-equipped vehicles as less likely to have a crash and therefore a less risky prospect to cover. In theory, this means cheaper car insurance for the end user – you, the motorist.



Normal Braking System



Braking System With Proposed Design Aeb's:

Technology Used

The Radar Sensors:

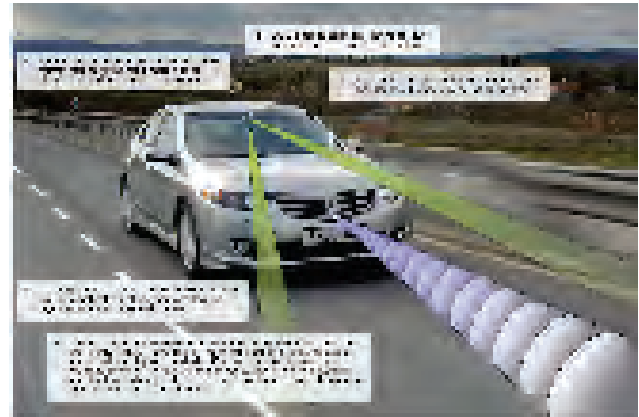
Automotive radar systems are usually situated behind the grille. Radio waves sent out by the radar are partially reflected back by metallic objects, such as cars. By measuring the time the echo takes to arrive AEB can figure out how far away an object is. Radar reflections off moving objects will exhibit a Doppler shift, which allows the system to calculate the speed of the object. Radar works well for long range scanning. In-car systems are able to "see" between 80 and 200 metres down the road and work at speeds of up to 200km/h or even more. Some systems combine or fuse radar-based detection with information gathered by a camera system. Subaru, uniquely, uses cameras exclusively. Its Eyesight system uses two widely spaced cameras mounted high on the windscreen to imbue equipped cars with stereoscopic vision. At these higher speeds, if an AEB-equipped car thinks that a crash is highly likely the system will pre-arm the brakes, and warn the driver via audio alerts, as well as flashing lights and messages on the instrument panel.

Should the driver undertake no evasive action, some systems will prompt the driver one more time by either pulsing the brake pedal or tugging repeatedly at the seatbelt. If the brake-pedal remains unsullied or the steering wheel unmoved, the AEB system will then apply the brakes; usually gently at first, then at maximum pressure if there's still no driver interaction. As with city-based lidar systems, each manufacturer with their own version of radar and/or camera-based AEB markets it under a different name. Mitsubishi calls it Forward Collision Mitigation, Skoda has Front Assistant, Audi's system is called Pre Sense Front, there's also Volkswagen's Front Assist and Lexus models have Pre-Collision Braking, just to name a few.

WORKING

The AEB system will disengage if the system detected that an action was taken to avoid the collision this is determined by piezometric sensor which is placed at the paddles as shown in the figure. Further the idea is moved further ahead by developing the innovation of making the piston of the master cylinder to work under the solenoid coils. This can be done by wrapping the wires around the master cylinder as shown in the figure.

Once the sensor sends and receives the signal after striking the obstacle it can judge the relative distance between the vehicles by noting the time taken



for this (DOPPLER'S EFFECT) and by repeatedly doing this it can also determine the relative speed of the vehicle and obstacle. Once these two things are known to the controller it can judge whether the accident will take place or not. If yes then the different level of forces depending upon the relative distance of the vehicle can be obtained by varying the current through the solenoid as directed by the controller. The piston which is made of metal experiences the LORRENTZ FORCE and accordingly the requisite pressure will develop around the wheels to apply the brakes.

CALCULATIONS

Let us consider a vehicle approaching a bump at a distance of 2m instantaneously at 90km/hr or $90 \times \frac{5}{18} = 25\text{m/s}$.

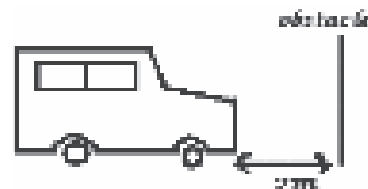
It is impossible for human to react in a time of $\frac{2}{25\text{sec}} = 0.08\text{sec}$

But if an AEBS is installed, reaction time Speed of Light = Total distance travelled

$$= 2 \times \frac{1}{3 \times 10^8} = 2 \times \frac{1}{3} \times 10^{-8} \text{ sec} = 1.33 \times 10^{-8} \text{ sec}.$$

$$1.33 \times 10^{-8} \text{ sec} \ll 0.08 \text{ sec}$$

(with AEBS) (without AEBS)



The brakes are applied within this infinitesimal time interval.



FUTURE

AEB are just the beginning of the revolution in crash avoidance. Advanced Driver Assistance Systems (ADAS), such as AEB, designed to prevent or mitigate different crash types, are entering the market every year. The future will bring autonomous steering to prevent head-on collisions and 'run off road' crashes which are often very serious, or even fatal. As technology develops, we'll also see opportunities to reduce other vulnerable road user deaths such as the junction scenario where a car pulls out in front of a motorcycle. It is important for drivers to remember that most of the ADAS systems currently available are designed to support them only in emergencies, and that the driver remains responsible for the vehicle at all times. In the longer term, we can expect to see systems that will automate normal driving functions in limited traffic circumstances, such as control of speed and steering on motorways, in order to relieve the driver of the driving burden. Eventually, driverless cars will transfer this burden from the driver to the vehicle – but that is a long way off for the mainstream market, with the first fully driverless cars not expected until the end of the next decade. The new world of crash avoidance technologies is on our roads today in the form of AEB, and is already reducing crashes, preventing injuries and fatalities and saving associated societal costs.

Manish Balani
6th Sem, Mechanical



STRESS ANALYSIS OF SPUR GEAR FOR DIFFERENT MATERIALS

Comparison & Analysis of maximum contact stress and deformation generated in spur gear for three different materials steel, grey cast iron and titanium alloy.

INTRODUCTION

Gear: A gear is a rotating machine part having cut teeth, which mesh with another toothed part to transmit torque.

Spur gear: It is the simplest type of gear having teeth parallel to the axis and used to transmit torque between two parallel shafts. These gears can be meshed together correctly only if they are fitted to parallel shafts.

The applications of gear are from tiny wrist watches to huge machinery equipment and in vital elements of mechanism of many machines such as automobile, aerospace industry, rolling mills, hoisting and transmitting machinery, marine engines, and the like. Though these gears have 98-99% operating efficiency they generally fail at the root section and contact point. Tooth contact is primarily rolling, with sliding occurring during engagement and disengagement. So at contact point pitting failure occurs.

In this paper a comparison between three different materials; steel, grey cast iron and titanium alloy; used in spur gear design for contact stress, deformation and factor of safety is presented. The gear model is made in ANSYS modeller and analysis is done in ANSYS WORKBENCH 13.0 software.

Modelling of Spur Gear

The following material properties which are used in our analysis are presented below (from ANSYS 13.0 material library).

TABLE-1: Material Properties

Properties	Steel	Grey cast Iron	Titanium Alloy
Density (kg/m^3)	7850	7200	4620
Young's modulus (10^9)	200	110	96
Poisson's ratio	0.3	0.28	0.36
Tensile yield strength (MPa)	250	—	230
Ultimate tensile strength (MPa)	460	240	1070
Coefficient of thermal expansion ($10^{-5} \text{ } ^\circ\text{C}^{-1}$) reference temperature 22°C	1.2	1.1	0.94

In this study, a torque of 250 Nm is applied on first gear and the other is free to rotate about its axis. Torque is applied individually to steel, cast iron and Titanium alloy spur gears. The spur gear is sketched and modelled in the ANSYS Design Modeller.

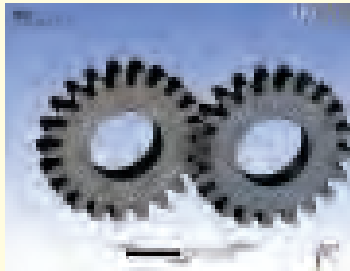
The dimensions of the gears (Huei-Huang Lee 2012) are given in Table 2.

TABLE-2: Dimensions of spur gear

Dimension	Unit	Symbol	Value (for both gears in assembly)
Number of teeth	-	Z	20
Pitch circle Diameter	mm	D	127
Pressure angle	degree	Φ	20
Addendum radius	mm	R_A	69.85
Dedendum radius	mm	R_D	55.88
Face width	mm	B	25.4
Shaft radius	mm	R_S	31.75

Meshing

Fine meshing is done at contact surface to get accurate result.



Fig, meshing in gears

Boundary Conditions

Frictionless supports are applied on the inner rim of both gears to allow its tangential rotation but restrict from radial translation. A torque of 250 Nm is applied on one gear.

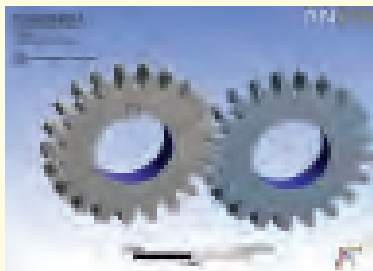


Fig. Frictionless supports

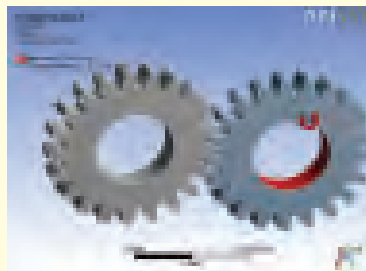


Fig. torque of 250 Nm

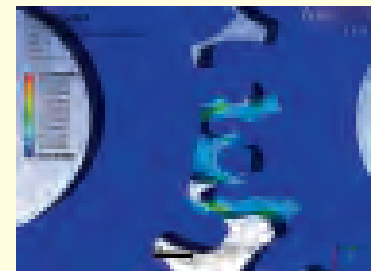


Fig. Stress pattern in steel



Fig. Stress pattern in titanium alloy



Fig. Stress pattern in grey cast iron



Fig. Deformation in steel



Fig. Deformation in grey cast iron



Fig. Deformation of titanium alloy



Fig. Factor of safety in steel



Fig. Factor of safety in cast iron



Fig. Factor of safety in titanium alloy

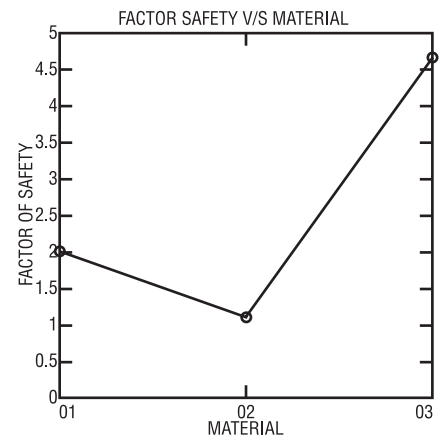
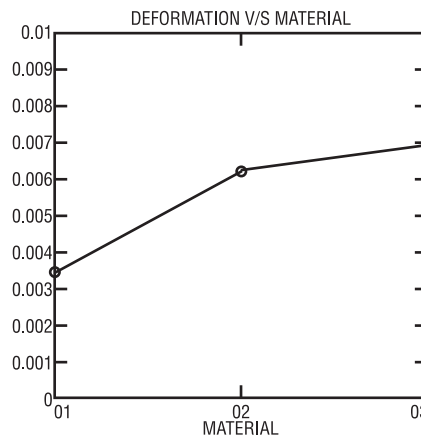
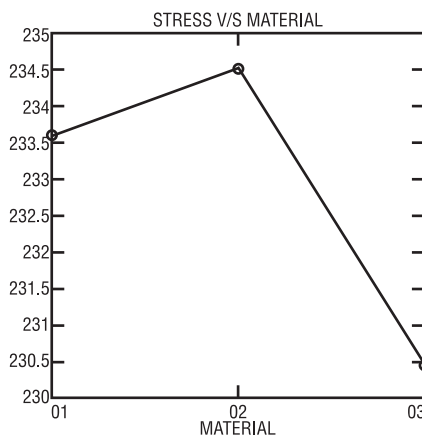


TABLE-3: Analysis Table

Material	Stress (MPa)	Deformation (10 ⁻⁵) (mm)	Factor of safety (minimum)
Steel	233.6	3.3379	1.969
Grey cast iron	234.5	6.08889	1.023
Titanium alloy	230.4	6.8703	4.643

APPLICATION OF SPUR GEAR:

1. Metal cutting machines
2. Power plants
3. Marine engines
4. Mechanical clocks and watches
5. Washing Machines
6. Gear motors and gear pumps
7. Rack and pinion mechanisms
8. Automobile gear boxes
9. Space satellites

CONCLUSION:

Table-3 depicts the deformation patterns of steel, grey cast iron and titanium alloy gears in which the difference in their deformation is negligible. But stress generated in titanium alloy is minimum followed by steel. Factor of safety is minimum for grey cast iron and maximum for Ti alloy.

So we can conclude that Titanium alloy can be used where greater factor of safety is required for the same dimensions. It is mainly useful in space satellite and marine engines where power transmission to weight ratio critical issue due transportation problems.

Sanjay Sahu
6th Sem, Mechanical

CONVERSION OF FORCE INTO USEFUL ELECTRICITY FROM OUR DAILY USE

Conversion of force into useful electricity- A brief introduction

Even from our schools we have learnt that $\text{force} \times \text{displacement} = \text{work}$ and work is a high grade energy. we can generate work and hence energy from force. There are various ways in which we have already done it, like converting the force of tidal waves into energy by passing it through prime mover, energy through dams etc. But in this era where energy crisis are at its peak we need to develop a method which can be used to generate energy from our day to day life and we are perhaps neglecting them and not utilizing them. However if this happens energy crisis will disappear and we don't need petroleum to do everytime and everything for us.

IDEA THAT CAN BE UTILIZED IS :

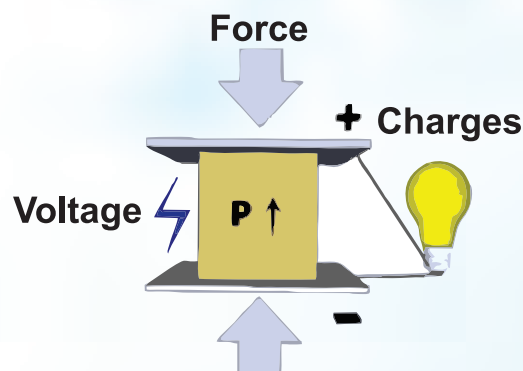
Introduction

Piezoelectricity (also called the piezoelectric effect) is the appearance of an electrical potential (a voltage, in other words) across the sides of a crystal when you subject it to mechanical stress (by squeezing it).

In most crystals (such as metals), the unit cell (the basic repeating unit) is symmetrical; in piezoelectric crystals, it isn't. Normally, piezoelectric crystals are electrically neutral: the atoms inside them may not be symmetrically arranged, but their electrical charges are perfectly balanced: a positive charge in one place cancels out a negative charge nearby. However, if you squeeze or stretch a piezoelectric crystal, you deform the structure, pushing some of the atoms closer together or further apart, upsetting the balance of positive and negative, and causing net electrical charges to appear. This effect carries through the whole structure so net positive and negative charges appear on opposite, outer faces of the crystal.

How piezoelectricity works?

- Normally, the charges in a piezoelectric crystal are exactly balanced, even if they're not symmetrically arranged.
- The effects of the charges exactly cancel out, leaving no net charge on the crystal faces. (More specifically, the electric dipole moments—vector lines separating opposite charges—exactly cancel one another out.)
- If you squeeze the crystal (*massively* exaggerated in this picture!), you force the charges out of balance.
- Now the effects of the charges (their dipole moments) no longer cancel one another out and net positive and negative charges appear on opposite crystal faces. By squeezing the crystal, you've produced a voltage across its opposite faces—and that's piezoelectricity!
- There are all kinds of situations where we need to convert mechanical energy (pressure or movement of some kind) into electrical signals or vice-versa. Often we can do that with a piezoelectric transducer. A transducer is simply a device that converts small amounts of energy from one kind into another (for example, converting light, sound or mechanical pressure into electrical signals).





Day to day application: (most important part)

1. Everytime while travelling through delhi's overpopulates buses or metros we always see people pulling and rushing around, it seems we are wasting some energy conversion technique there. Why cant we use it??afterall people are applying forces whether by pulling the handles provided on the rods for standing support. Or sitting on the seats. Piezoelectric sensors just need displacement or we can say cyclic loading on them each time a person sits and exchanges seats which happens quickly in delhi the piezoelectric crystals fitted below the seats will just convert that force into electricity and stores it in the capacitor this energy can be used either to charge up the batteries in the buses or to use to lit the bulbs which will otherwise require some other source and hence consumption.
2. Railway tracks beneath the metros are always subjected to fluctuating load everytime metro passes over them and that too every five minutes of time so why not fit the piezoelectric crystals beneath the track and generate some energy.
3. The moving wheels of our automobiles, take a point on the wheel each time it hits the road during its period of rotation which is 50 to 60 times a second .we can say that it s nothing but a fluctuating load and hence piezoelectric crystals can be installed there to produce energy
4. We sleep on our beds and take curdles isn't it a fluctuating load and can be used by piezoelectric crystals??
5. Any sort of thing where we apply forces in our day to day lives whether in schools sitting on benches or raining on your houses roof etc., we can apply the concept of piezoelectric crystals to convert these vibrations or fluctuations into energy.



6. Normally everyday we walk 5-10 km a day ,we can use this by installing piezocrystals in the heels of our shoes, slippers as we walk the pressure act on the heel of our shoe into this way we generate electricity and we can use it for charging our mobiles.
7. In Gym and workout areas we use equipments like treadmill there also we waste our energy that can also be used if we use track of the treadmill as piezocrystals.
8. In Pubs and bars people dance at DJ there huge amount of pressure is applied on the DJ floor we can use piezo crystals beneath the DJ floor so that we can harvest that energy.
9. On highways heavy load vehicles pass every day frequently so we can use this by installing piezocrystals in some section of road by this we can generate electricity and it can be used for road lights .This can be useful in areas where transmission of electricity is not possible e.g hilly roads.
10. It can be used as street lights where people walking around generate electricity through their footsteps.



Sushil Kumar
6th Sem, Mechanical

X Mini Engine

A highly effective and very compact engine (The size of engine is equivalent to iPhone 6) unveiled at the SAE (Society of Automotive Engineers) International Small Engine Technology Conference in Pisa, Italy.

What is X Mini Engine?

The X Mini is a 70cc, 1.8 kg spark ignited engine developed by Dr. Alexander Shkolnik, President of LiquidPiston. It is capable of producing 3.5 bhp at 10,000 RPM. The high power density of about 3.3 bhp/kg (in fully developed stage) makes this engine 30 percent smaller and lighter than a comparable 4 stroke engine. The dimensions of X Mini are **6.6"x6.2"x5.4"**. It is capable of working on multiple fuels like diesel, gasoline, natural gas etc. The engine has only two moving parts viz. a rotor and a shaft which results in an optimally balanced condition and thereby making it almost a zero vibration engine. With parts like injectors, fuel pumps, and oil pumps there are no other moving parts, making the X Engine extremely simple and elegant. There are no poppet valves thus making the engine more silent.

How does it work?

The X Mini engine is a non-Wankel rotary engine working on the High Efficiency Hybrid Cycle (HEHC). The HEHC cycle is a newly developed 4-stroke thermodynamic cycle combining the elements of various cycles like Diesel, Rankine and Otto cycles. The cycle elements include:

1. Compression: The X Mini utilizes a spark-ignition (SI-HEHC) version of the cycle with a lower compression ratio of about 9.2 for gasoline engines.
2. A dwell near top-dead-centre forces combustion to occur at nearly constant-volume conditions.
3. Combustion products are over-expanded using a larger expansion volume than compression volume, as in the Atkinson Cycle. This over-expansion minimizes the exhaust turbulence and thus no muffler required which decreases the noise produced during operation. The engine does not contain any valves as the intake of charge and exhaust of flue gases takes place through the two lopsided revolving ports of the rotor.

What is the difference between a Wankel engine and the X Mini Engine?

In a Wankel engine a rounded triangular rotor spins in an eccentric orbit within an oval chamber but in X Mini engine the oval rotor spins in a rounded triangular chamber. The normal engines used today are big in size, heavy, produce more noise, vibration and have less efficiency but the X Mini engine has successfully overcome these issues.

Commercial Model

Currently the engine is only used in the lawn and garden equipments, handheld outdoor power equipments, range extenders etc. But Shkolnik has promised that it would soon be used in mopeds, boats, planes, drones and other vehicles. The commercial model of X Mini will be further advancement to this with a dry weight of about 1.4 kg and capable of producing more than 5 bhp at 10000 rpm. The maximum attainable speed is estimated to about 15000 rpm. It will have 3 fuel injectors and will operate on a compression ratio of about 10.2. This efficiency of this model is expected to be two fold of the prototype. The size declared by the company is 6"x6"x5".

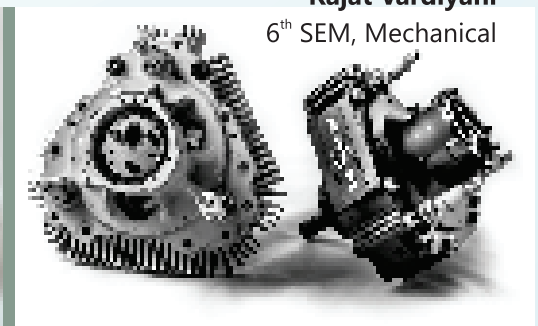
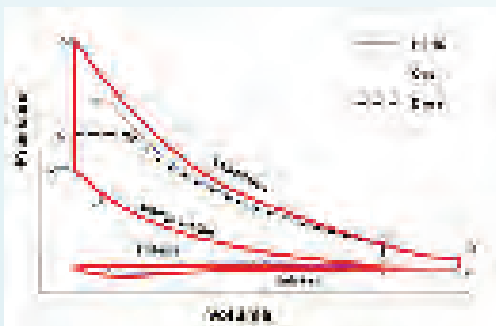
It is thus evident that the journey of innovative engine continues. We have so far successfully reduced the size and we expect a highly efficient engine with negligible losses in the near future.

"It has become appallingly obvious that our technology has exceeded our humanity"

– Albert Einstein

Rajat Vardiya

6th SEM, Mechanical





USB TYPE-C

One cable to connect them all



Look around your house and chances are you that have a least a few devices equipped with Universal Serial Bus (USB) cables. On average, some 3 billion USB ports are shipped each year, by far the most successful type of peripheral connection.

In years, though, USB is getting competition and it now trails behind the new Thunderbolt standard both in speed and ease of use. This is the gap that the latest in USB development, the USB Type-C, finalized just earlier this month, intends to fill.

Before you can understand USB Type-C, however, you need to know the difference between USB Type-A and Type-B, and tell between the various versions of the USB standard. Generally, version refers to the speed and functionality of the USB cable, while the USB Type refers to the physical shape and the wiring of the ports and plugs.

USB Type-A

Also known as USB Standard-A, USB Type-A is the original design for the USB standard with a flat and rectangular shape. On a typical USB cable, the Type A connector, aka the A-male connector, is the end that goes into a host, such as a computer. And on a host, the USB port (or receptacle) where the Type A-male goes into, is called an A-female port.

Different USB versions including USB 1.1, USB 2.0, USB 3.0 (more on versions below) currently share the same USB Type-A design. That means a Type-A connector is always compatible with a Type-A port event if the device and host use different USB versions. For example, a USB 3.0 external hard drive also works with a USB 2.0 port, and vice versa.

USB Type-B

Typically, the Type-B connector is the other end of a standard USB cable that plugs into peripheral device (such as a printer, a phone, or an external hard drive). It's also known as Type B-male. On the peripheral device, the USB port is called Type B-female.

USB Type-C (or USB-C)

Physically, the Type-C port and connector is about the same size as that of the Micro-B USB mentioned above. A Type-C port measure just 8.4mm by 2.6mm. This means it's small enough to work for even the smallest peripheral devices. With Type-C, a USB cable's both ends will be the same, allowing for reversible plug orientation. You also don't need to worry about plugging it in upside down. Set to be widely available starting 2015, Type-C USB will support USB 3.1 with the top speed of 10Gbps and has much high power output of up to 20V(100W) and 5A. Considering most 15-inch notebook computers require just around 60W of power, this means in the future laptop computers can be charged the way tablets and smartphones are now, via their little USB port. In fact Apple's latest 12-inch Macbook is the first notebook that incorporates a Type-C USB as its power port. Going forwards, USB-C will enable storage vendors to make bus-powered (no separate power adapter required) external hard drives of much larger capacity, since it provides enough power to run one or even multiple desktop hard drives.

Type-C USB also allows for bi-directional power, so apart from charging the peripheral device, when applicable, a peripheral device could also charge a host device. All this means you can do away with an array of proprietary power adapters and USB cables, and move to a single robust and tiny solution that works for all devices. Type-C USB will significantly cut down the a amount of wires currently needed to make devices work.

This is the first time adapters are required with USB, and likely the only time, at least for the the foreseeable future. USB Implementers Forum, the group responsible for the development of USB, says that Type-C USB is designed to be future-proof, meaning the design will be used for future and faster USB versions.

It will take a few years for Type-C become as popular as the current Type-A, but when it does it will simplify the way we work with devices. There will be just one tiny cable needed for any device, for both data and power connections.

Why 'X' is unknown

It is a question that we've all asked. The question is, why is it that the letter X represents the unknown? Now we know that it was learnt by us in our math class, but now it's everywhere in the culture -- The X prize, the X-Files, Project X, Mr. X. Where'd that come from?

Well the answer lies in Arabic language which turns out to be a supremely logical language. To write a word or a phrase or a sentence in Arabic is like crafting an equation, because every part is extremely precise and carries a lot of information. Algebra was born in the Middle East, during the Golden Age of medieval Islamic civilization (750 to 1258 AD), and its early form can be seen in the work of Muhammad Al-Khwarizmi and his 9th century book, *Kitab al-jabr wal-muqabala* (al-jabr later morphing into algebra in English). During this heyday, Muslim rule and culture had expanded onto the Iberian Peninsula, where the Moors encouraged scholarship in the sciences and math. That's one of the reasons so much of what we've come to think of as Western science and mathematics and engineering was really worked out in the first few centuries of the Common Era by the Persians and the Arabs and the Turks.

The Arabic texts containing this mathematical wisdom finally made their way to Europe -- which is to say Spain -- in the 11th and 12th centuries. And when they arrived there was tremendous interest in translating this wisdom into a European language.

But there were problems. One problem was that there were some sounds in Arabic that just don't make it through a European voice box without lots of practice. Also, those very sounds tend not to be represented by the characters that were available in European languages. Here's one of the culprits. Letter 'sheen' is one of the letter in 'Arabic'. And it makes the sound we think of as-"sh." It's also the very first letter of the word 'shalan', which means "something" just like the English word "something"- some undefined and an unknown thing. 'al-shalan' is the Arabic word which means '**the unknown thing**'.



1. Sheen (which sounds like 'SH').



2. Shalan (it means something unknown)



3. Al-shalan (the unknown thing)

And this is a word that appears throughout early mathematics (10th century derivation of proofs).



Derivation of Roots

أجزائها

جزء الشيء هو عدد نسبة إلى الواحد كنسبة الواحد إلى ذلك الشيء فإن كان الشيء ثلاثة كان جزؤه ثلثاً. وإن كان الشيء ثلثاً كان جزؤه ثلاثة. وكذلك إن كان أربعة كان جزؤه ربعاً. وإن كان

4. Derivation of roots in 'Arabic' which features 'Al-shalan'- the unknown thing for quite a few time.

The problem for the Medieval Spanish scholars who were tasked with translating this material was that the letter 'sheen' and the word 'shalan' couldn't be rendered into Spanish because Spanish didn't had that "sh" sound. So by convention, they created a rule in which they borrowed "ck" sound, from the classical Greek in the form of the letter Chi (lowercase).

Later when this material was translated into a common European language, which is to say Latin, they simply replaced the Greek 'chi letter' with the Latin X. And once that happened, once this material was in Latin, it formed the basis for mathematics textbooks for almost 600 years.



5. Chi letter (Greek)



6. Letter 'X' (Latin)

But now we have the answer to our question. Why it that X is the unknown? X is the unknown because we can't say "sh" in Spanish. Well that was a little a bit amusing too.

References:

1. TED Talk by Terry Moore
2. Web : <http://todayifoundout.com/>
3. Web : <http://www.twitter.com>

Shashi Prakash
4th sem, Mining



हिन्दी



भगवान श्रीकृष्ण का मुरारी नाम से सम्बोधन

द्वापर में प्राग ज्योतिषपुर में मुरा नाम का राक्षस था। उसकी पुत्री का नाम कामकंटका था कामकंटका ने कामाख्या देवी की तपस्या करके अनोखा एवं दिव्य सुरक्षा का वरदान प्राप्त किया था मुरा ने देवलोक पर आक्रमण करके इन्द्र को पराजित कर दिया और सम्पूर्ण पृथ्वी पर त्राहि फैलाने लगा।

देवतागण भगवान श्रीकृष्ण के पास शरण के लिए आते हैं और प्रभु से आग्रह करते हैं कि प्रभु आप मुरा दैत्य का वध करें।

श्रीकृष्ण बलराम सहित मुरा से युद्ध करते हैं और उन्होंने युद्ध में मुरा का वध कर दिया मुरा का शत्रु होने के कारण प्रभु श्रीकृष्ण को मुरारी नाम से सम्बोधित किया जाने लगा।

जब कामकंटका का ज्ञात होता है कि उसके पिता का वध हो गया है, तो स्वयं युद्ध के लिए आती हैं श्रीकृष्ण और कामकंटका का युद्ध प्रारम्भ होता है कामकंटका माया के प्रभाव से सेनागणों को स्तम्भित कर देती है और श्रीकृष्ण पर महाविद्याओं का प्रयोग करती है अन्त में जैसे ही श्री कृष्ण सुदर्शन को आधा देते हैं तत्क्षण



कामाख्या माँ प्रकट होकर कामकंटका के रक्षण हेतु आती हैं और प्रभु से कहती हैं कि प्रभु इसे क्षमा करें इसे ज्ञात नहीं है आप परब्रह्म हैं आप को आपकी इच्छा के विरुद्ध युद्ध में कोई परास्त नहीं कर सकता है। कामकंटका प्रभु से क्षमा माँगती है तब श्रीकृष्ण प्रसन्न होकर कामकंटका को वरदान देते हैं कि तुम्हारा पुत्र तुम्हारा पुत्र तुम्हारे ही तरह अजेय होगा और एक महान तपस्वी भी होगा।

प्रभु कामकंटका का विवाह भीमपुत्र घटोत्कच से करवा देते हैं। हिडिम्बा श्रीकृष्ण की भक्त थी, विवाह पश्चात कामकंटका के पुत्र को धर्मात्मा बनाने का कार्य प्रभु हिडिम्बा को सौंपते हैं। दादी हिडिम्बा घटोत्कच पुत्र बरबरीक में बाल्यकाल से ही धार्मिक संस्कार सींचने लगी। एक दिन बरबरीक ने मुक्ति के बारे में हिडिम्बा से पूछा तो हिडिम्बा ने कहा कि जन्म-कर्म के बन्धन से मुक्ति पाना ही मोक्ष है।

बरबरीक ने मुक्ति का सरल उपाय पूछा तो हिडिम्बा ने कहा कि यदि प्रभु के हाथों मृत्यु हो जाए तो मुक्ति मिल जाती है।

बरबरीक ने प्रण लिया कि वह घोर तपस्या करके अजेय बनेगा ताकि वह श्रीकृष्ण से युद्ध कर सके।

बरबरीक घोर तपस्या प्रारम्भ कर देता है। बरबरीक की तपस्या से प्रसन्न होकर नवदुर्गा ने उसे इतना बल दिया जो कि उस समय संसार में किसी के पास नहीं था। बरबरीक से प्रसन्न होकर सिद्धमाता ने उसे वासुदेव अस्त्र प्रदान किया और सिद्धाम्बिका से



अपराजिता वैष्णवी महाविद्या प्राप्त की।

महाभारत के युद्ध के प्रारम्भ से पूर्व

महाभारत का युद्ध प्रारम्भ होने वाला था कौरवों और पांडवों के शिविर कुरुक्षेत्र की रणभूमि में सज्ज हो चुके थे। तब एक दिन बरबरीक भी अकेला ही कुरुक्षेत्र की ओर चल दिया। भगवान श्रीकृष्ण आवाहन का वेश धारण करके बरबरीक के समक्ष गये और कहा हे बरबरीक आप युद्धभूमि की ओर क्यों जा रहे हैं। बरबरीक ने उत्तर दिया कि मैं निर्बल पक्ष की ओर से युद्ध करने जा रहा हूँ कौरव पक्ष निर्बल है मैं उनका साथ दूंगा। प्रभु बोले तुम्हें धर्म का साथ देना चाहिए कौरव अधर्मी है।

उसने कहा मेरे पास ऐसी विद्या है जिसके प्रभाव से मैं क्षणभर में युद्ध समाप्त कर सकता हूँ प्रभु ने कहा कि कोई उदाहरण दो तो उनसे पास के ही एक वृक्ष के असंख्य पत्तों पर एक बाण से छिद्र कर दिया।

तत्पश्चात बोला कि मैं अभी पाण्डवों और उनकी सेना को नष्ट किये देता हूँ प्रभु ने समझाया ये उचित नहीं है पर बरबरीक ने कहा मैं प्रतिज्ञा कर चुका हूँ। श्रीकृष्ण बोले तुम अधर्म के पक्ष पर पग रख रहे हो प्रभु क्रोधित हो जाते हैं और सुदर्शन को आज्ञा देते हैं कि जाओ और बरबरीक का वध करो क्षण भर में ही बरबरीक का सिर धड़ से विभक्त हो जाता है। प्रभु अपने साक्षात् स्वरूप में आकर बरबरीक से कहते हैं कि हे बरबरीक तुमने मुझे वध के लिए विवश कर दिया।

बरबरीक ने कहा मेरी यही इच्छा थी मैंने आपको ब्राह्मण वेश में पहचान लिया था। प्रभु कहते हैं मोक्ष का उपाय जो तुमने हिडिम्बा से पाया था और तुम्हारी तपस्या और मुक्ति के प्रति लगन ने तुम्हें मोक्ष के योग्य बना दिया बरबरीक ने कहा कि मैं परमधाम का प्रस्थान करने के पूर्व धर्म और अधर्म के बीच युद्ध को देखना चाहता है प्रभु ने कहा युद्ध कि समाप्ति तक तुम्हारा ये कटा मस्तक जिन्दा रहेगा और तुम युद्ध को देख सकोगे।

महाभारत युद्ध की समाप्ति के बाद बरबरीक के सिर का सत्य से अवगत कराना

महाभारत के महायुद्ध के समाप्ति के बाद पांडव श्रीकृष्ण सहित बरबरीक के समक्ष आये तो बरबरीक का सिर व्यंग्य से हंस रहा था।

पांडव बोले बरबरीक तुम हंस क्यों रहे हो। बरबरीक बोला मुझे सांसारिक लोगो पर हंसी आ रही है। महाराज युधिष्ठिर का अपने मुकुट की उपर अश्वत्थामा की मणि का लगाना। ये सुनकर धर्मराज ने बोले तुमने धर्म की सीख दी है।

पांडव बोले हे बरबरीक इस युद्ध में तुम्हें किस परमवीर योद्धा ने महान पराक्रम और शौर्य का प्रदर्शन किया है बरबरीक पांडवों के कथन सुनकर हँसने लगा और बोला मैंने किसी को भी पराक्रम दिखाते हुए नहीं देखा ये सुनकर पांडव अचम्भित हो उठे।

द्वारिकाधीश श्रीकृष्ण ने कहा हे बरबरीक जो तुमने अपनी दिव्य दृष्टि से देखा है वो इन्होंने नहीं देखा है तब बरबरीक प्रभु से सत्य कहने की आज्ञा पाकर पांडवो को सत्य से अवगत कराता है।

बरबरीक ने पांडवो से कहा इस युद्ध में मैंने श्रीकृष्ण की लीला देखी है इस युद्ध में मैंने श्रीकृष्ण के सुदर्शन चक्र को देखा है जो सभी अधर्मियों का अन्त कर रहा था।

मैंने देखा भीष्म पितामह घायल अर्जुन के बाणों से हुए परन्तु पृथ्वी पर सुदर्शन के प्रहार से गिरे। जयद्रथ के अन्त के समय पर श्री सुदर्शन प्रकट हुआ और उसका वध किया। द्रोणाचार्य और कर्ण का वध भी सुदर्शन से ही हुआ था।

मुझे तो ऐसा लग रहा था कि प्रभु श्रीकृष्ण ने पांडवो के रूप में धर्म को विजयश्री प्राप्त करवाई है। ये सुनकर पांडव शरणागत वत्सल श्रीकृष्ण का गुणगान करते हैं और बरबरीक स्वयं श्रीकृष्ण के दिव्य स्वरूप से समझाता है।



टिमटिमाते तारे, दूर जल रही रोशनी
एहसास दिलाती,
इस अन्धेरी रात में, मैं अकेला नहीं,
चाँद नहीं, रौशनी भी नहीं
साथ ये रजनी घनी ही सही
बीते वक्त के तार बजते, बुनते संगीत कोई
इस अन्धेरी रात में, मैं अकेला नहीं,
कल की तस्वीर, कल्पना के दिवार पर सजी
कहती मुझसे हँसके, बस कुछ पल की ये रजनी
आँख भी मेरे तरस गये, देखने को भोर नई
इस घनेरी रात में, मैं अकेला नहीं।

मैं अकेला नहीं



पतझड़

कुछ सालों पहले
यहाँ से गुजरा था
एक छोटी सी पगडंडी थी
सूखे-मुरझाये पत्ते बिखरे पड़े थे जमीं पर
दूर-दूर तक, घने तनों के बीच
मुझसा कोई न दिखा,
आज गुजरता हूँ अगर
उस राह से
तो ढूँढ़ता हूँ उस पगडंडी को,
दूर दूर तक मुझ जैसो के बीच,
खोजता हूँ उन तनों को
जिनके पत्ते पतझड़ में कभी गिरा करते थे ॥

माधव पटेल
6 सेमेस्टर
सिविल विभाग

आकृति

जब मैंने देखा तुम्हे
विचारों का पुनिन्दा उड़ा
लगा जैसे
तुम्हारे रूप में
समा गई है सम्पूर्ण सृष्टि
कुछ पलों के लिए लगा जैसे
मिल गई मुझे दिव्यदृष्टि
और

ऊर्जा से भर गई मेरी प्रकृति
चाहा मैंने कि
उकेर लूँ विचारों में मैं तुम्हारी आकृति
कागज़ के पन्नों पर
जो है कर रही भ्रमण
मेरे मन के आंगन में
कुछ पल के लिए
तोड़ दिया मैंने कटु यथार्त से
अपना रिश्ता
जिससे साफ़ हो गया
मेरे और कृति के बीच का रास्ता
जैसे-जैसे लकीरें उकेरता गया
बैचेन मन और विचलित होता गया
पशोपेश जद्दोजहद के बाद
पूर्ण हुई अमर अमूर्त कृति
लगा जैसे जब तक रहेगी सृष्टि
अमर रहेगी तुम्हारी आकृति ।

—अंकुर पाण्डेय
एम टेक (द्वितीय वर्ष)
रसायन अभियांत्रिकी विभाग

बिन पानी सब सूँ

ये जल जो शेष, है जल विशेष ।
इस धरा का हर कण-कण विशेष ॥
वारि नीर तीय अम्बु पेय पय ।
जल से ही है जगत सुधामय ॥
जब ग्रीष्म-काल में देव दिवाकर,
और प्रखरता पाता है ।
तब उसी समय मानव को,
जल की याद दिलाता है ॥
ये चेतावनी है दिनकर की,
न सजग हुए तो अंत निकट ही ।
इस धरणी पर चहुँ ओर ही जल है ।
फिर भी मानव घनघोर विकल है ॥
क्योंकि पेय योग्य पानी यहाँ कम है ।
तो कहो कैसे संभव जीवन है ॥
तो हो रक्षा जल-धन की,
इसके हैं सौ गुन ।

है सही कहा कबीर ने भ्राता 'बिन पानी सब सूँ' ॥

—आकाश दीपक पाण्डेय
धातुकर्म



हार मानूँगा नहीं

एक टूटी कश्ती लेकर अकेला
मझधार में ही सही
कातिल लहरों से लड़ जाऊँगा
लेकिन घुटने अपने टेकुँगा नहीं
अकेला घनघोर अँधेरे में
खड़ा हुआ ही सही
लेकिन अपनी मशाल
बुझाने दूँगा नहीं
बादलों की गर्जन
कितनी ही तीव्र सही
आँधी कितनी ही तेज़ सही
लेकिन अपनी जड़ें
हिलाने दूँगा नहीं
जब तक
ध्येय की प्राप्ति न हो जाये
पेड़ कितना ही छतनार सही
लेकिन थक कर चूर हो कर
आराम करूँगा नहीं
सत्य की रक्षा में
अधम के विनाश में
कर्तव्यों को पूरा करने में
उत्त-विउत्त हो जाऊँगा भले ही
अपने बल पर उठ जाऊँगा
लेकिन पीठ दिखाकर
भागूँगा नहीं
एक शूरवीर की तरह
वीरगति को प्राप्त
हो जाऊँगा भले ही

गिरकर
हो जायें मेरे
हज़ारों
टुकड़े
भले ही
लेकिन
परत्येक टुकड़ा
पुनः
उठ
कर
कहेगा

हार मानूँगा नहीं

लेकिन
कायरों की तरह
हज़ार मौतें मरूँगा नहीं
गिरकर हो जायें मेरे
हज़ारों टुकड़े भले ही
लेकिन
परत्येक टुकड़ा
पुनः उठ कर कहेगा
हार मानूँगा नहीं /

अंकुर पाण्डेय
एम टेक (द्वितीय वर्ष)
रसायन अभियांत्रिकी विभाग

कदम तू बढ़ाए जा

एक जिद कर ,एक चाह कर ,,
एक नई अनोखी राह पर ,
दुनिया की न तू परवाह कर ,
कदम तू बढ़ाए जा - कदम तू बढ़ाए जा।

किताबों की जगह बर्तन थमा दी जिन हाथों मे,
सपने भी थे कभी जिनकी आंखों मे,
पर टूट गए उनके सपने, उन दरिंदों के कीलों मे,
उन मासूमों के दिलों में ,अरमान तू जगाए जा ,
कदम तू बढ़ाए जा - कदम तू बढ़ाए जा।

उन अतंकवादियों से तू एक सवाल कर,
हारकर न बैठ तू, डर की हदों को पार कर ,
लाशों की पुल बनाकर क्यों आता है उन्हे मजा,
दे रहा मासूमों को, वो किस बात की सजा,
आतंकियो को इंसानियत की राह पर चलाए जा,
कदम तू बढ़ाए जा —कदम तू बढ़ाए जा।

भ्रष्टाचार का तू विनाश कर ,
उन पापियों का पर्दाफ़ाश कर ,
दिलों मे उनके ईमान जगा तू,
ला ईमानदारी की नई लहर,
आशाओं का एक नया दीप तू
जलाए जा।

कदम तू बढ़ाए जा —कदम तू बढ़ाए जा।

नारी का तू सम्मान कर ,

शिक्षा का नवनिर्माण कर,
लिंग-भेद का भाव मिटाकर,
ला समानता की नई डगर,
नव विचार की ओर अपने,
कदम तू बढ़ाए जा —कदम तू बढ़ाए जा।
जाति धर्म की जहाँ हो रही लड़ाई,
देखों जहाँ, वहाँ हिंसा ही छाई,
न जाने जी रहे किस भ्रम मे ,
ईर्ष्या द्वेष चल रहे परिक्रम मे,
जलते हुए इन जनों को,
मानव धर्म तू सिखाए जा ,
कदम तू बढ़ाए जा —कदम तू बढ़ाए जा।

अंत मे बस एक आगाज है ,
ऐ मेरे दोस्तों ! तुम अपने कदम तो बढ़ाओ

अंधेरे की दुनिया मे ,एक
प्रकाश का दीप तुम जलाओ ,
कथन नहीं ,तुम कर्म बन जाओ
सिर्फ कहो नहीं, वह कर
दिखलाओ
खामोश न रहो तुम ,आवाज
उठाओ
भारत को दुनिया का सरताज
बनाओ।

-आकांक्षा बघेल
कम्प्युटर साइन्स एंड इंजीनियरिंग
(संगणक विज्ञान)
सेकंड इयर (द्वितीय वर्ष)

NIT RAIPUR





जंग जिंदगी

जिन्दगी ये जंग है समर्थ क्या विहंग है,
कालगत ये जाल है कि जाल ही में काल है,
क्षुद्र कैसी प्यास है काल की ये फ़ाँस है,
रात है भयावनी लाश कटी पावनी,
कट कटा किरात है हुम अहा प्रभात है,
कालगत मग्न हैं अंत-निरा भग्न हैं,
मत ठहर बस डहर हर कदम हर पहर,
मोड तीव्र तंग है नग्न खौं निषंग है,
भुजंग काढ फ़न खड़ा फ़डक रहा अंग है,
योगिनी चली कुचल सुरा-मत्त मन मचल,
रोक सको रोक लो परंतु पूर्व सोच लो,
कहर किस कदर भला भाँति यथा सोच लो।
भाँति यथा सोच लो जंग पर लडे चलो
जंग तुम लडे चलो बढे चलो बढे चलो ॥

आह्वान

घर-घर घरघर करती धिरनी
पर थामे जरजर हर तरुणी,
की निर्बल सूखी बाहों पर
अटकी, उफ़! उज्ज्वल मधु भरणी,
को प्रश्रय देने आया हूँ,
मैं उसे उठाने आया हूँ,
एक अलख जगाने आया हूँ.
जीवन की ढलती सन्ध्या में
कातर नजरों से ताक रहे
कुछ अगम अगोचर झाँक रहे,
झाँई पथराई आँखों से
क्या खेल रहे यमदूतों से,
मायावी उन नश्वर कछुवों को,
आलोक दिखाने लाया हूँ
चौरासी लख-एक वैतरणी
को पार कराने आया हूँ,
एक अलख जगाने आया हूँ.
नये वर्ष की नवल उषा में
नये भानु की नत पुंजों पर,
स्थित आशा के धवल शिखर
पर मँडराते तन्द्रा के,
उन्मादी नीरद-निविडों में
मैं प्राण फ़ूँकने आया हूँ.
एक अलख जगाने आया हूँ.



ज्वालामुखी

धिक्कार निरा इस जीवन को, मूल्यों में इसके ढल न सका।
सत्य, अहिंसा, दया, धर्म, करुणा, तप को क्यों तज न सका?
मिथ्या, अधर्म का क्षेत्र विशद, बोए जिस पर कुछ मृदुल बीज।
करुणा, दयादि की खाद डाल, ममता की दी थी निरत सींच।
मंजु मंजरी फ़ैलेगी श्यामल माँ का हो स्वच्छ हार।
चमकेगा माँ का ललाट मुक्तामणि मुकुट करधनी धार।

हा! हा! पर विधि की कुटिल दृष्टि व्याप्त अप्रतिहत द्वेष आग।
चल रहे मरुत उनचास सभी खाने दौड़ते हत भाग-भाग।
मायावी वंचक-वह्नि वर्जना का उत्तर बस माया ही
था, इधर सत्य हा! धधक रहा, करुणा त्यागती रही मही।

रहा देखता लगातार,
कंप रहा देह, स्वर बार-बार।
अप्रतिभ स्थिर बना मूढ़,
सोचता जीवन की गाँठ गूढ़,
कैसे सुलझेगी, अंधकार प्रच्छन्न धरा पर
यद्यपि, नहीं सूझता कुछ उपाय मगर।

वीर्य नहीं है शेष राम-सा, कायरता आकंठ भरी।
घुट-घुट कर जीना शेष मात्र, विद्रोह-वह्नि है सुलग रही।
असंतोष के इन ज्वालामुखियों पर बस है बड़ा भार।
नष्ट करें फ़ट, माया और उतारें सुख से कलि के पार॥



जीवन जामुन में

आँख खुलने पर एकाएक
चौंधियाई खुल न पाई,
जोर डाला खुली आँखें,
था पडा अंगारों बीच
जली देह, पड गये फ़फ़ोले,
नेत्रों से बहती रुधिर धार,
जला अनवरत, साथ यह,
अहर्निश धधका संसार.
मैं तो दुनिया से ऊपर हवा में
लगभग तैरता आकाश में
सुखा आँसू शोध आरंभ किया,
पाया यह तो एक तरु विशाल
जिसकी उत्तुंग एक शाखा
की नव-कोपल पर अवलंबित था,
भयभीत हवाई झोंकों से
लगा यत्न पर यत्न करने,
खिसक गुरुवर डाल पकडने,
डाल टूटी फ़डफ़डाया,
बंद आँखें, फ़ंसीं साँसें,
ठोकर पुनः जब एक खाया,
पाया अब खुद को एक और मोटी डाल पर,
कुछ और काले पिण्ड लटके,
मैने सोचा ये भी मुझ-से
गिरे एकाएक हैं नभ से
डाल पकडकर हैं लटके,
अहा! कैसे ये ताकतवर? उठी ईर्ष्या मन में,
प्राणों का मोह हृदय से छपटाए
टूट पडा मैं उस काले पिण्ड पर,

मैं तो नीचे गिरा, अहा!
उसको भी झट नीचे लाया,
बढा आत्म-विश्वास, गया दर्द,
खडा हुआ झाडकर गर्द,
उस आहत पर फिर वार किया,
माँस खाया खून पिया,
वह जीव बेहद स्वादु निकला,
तत-अनन्तर मैं अकेला
था न कोई जीव शेष,
भग्न मैं था, भग्न देश.
एकाएक वह अवलम्ब टूटा,
बडी मोटी डाल यद्यपि
मैं अवनि से आ टकराया,
सहसा फिर कुछ ध्यान आया,
मैं मनुज यह जामुन का तरु,
बना डाला, बन गया मरु,
जीवन का कैसा भी सहारा,
विधि का दिया है, विधि से हारा,
पर माया के मोटे चश्मे के पार
निरा अंधकार दिखता है,
कामना की पूर्ति की जब आशा हो धुँधली
दिव्य ग्यान का आलोक माथे पर चढता है.

अमर दीप जीवारी
सिविल इंजीनियर

सरहद और समाज

मरने का डर उनको होता है, जिन्हें जिन्दगी से प्यार होता है।
जड़े उनकी उखड़ती है, जिन्हे कट जाने का इंतजार होता है।

(१) दूर खड़ा हूँ सीमा पर, माँ ने है मुझे पुकारा।
छोड़ आया हूँ उन्हें, जिनका वर्षों से रहा मैं दुलारा।।
गृहस्थ जीवन छूटा, छूटे सब यारा।
सीमा पर है अब बसेरा, और हाथ मे है हथियारा।।
जान हथेली पे और दिल पे आग लिये, दुश्मनों से अड़ा हूँ।
सब से दूर सब के लिये, आज सरहद पे खड़ा हूँ।।

(२) भूलकर भूख-प्यास, हर दम गैरो को आने से रोकता रहा।
लफ्ज जमीं रही ठंडी में, बदन तपता रहा गर्मी में, फिर भी हर पल मैं जागता रहा।।
इच्छाओं का गला घोटकर, पीडाओं के साथ हमेशा है मुस्कुराया।
राहत की सांसें न लिया कभी, न कभी जमीं को पीठ से लगाया।।
नजरों सामने टीकी है, पत्थरों पे पत्थर बनकर घुटनों के बल लेटा हूँ।
फर्ज है ये मेरा, क्योंकि मैं सिर्फ इस भारत माँ का बेटा हूँ।
रक्षक बनकर, भक्षक के सामने अड़ा हूँ।
सबसे दूर सबके लिये, आज सरहद पे खड़ा हूँ।।

(३) गलियों में मनते रहे दशहरा-दीवाली, मनते रहे ईद।
दिल रुक सा गया है यही, न किया कभी घर जाने की जीद।।
इस सुने मकान मे, यादों के दीप है जलते रहे।
घर वाले मेरे, हरपल मुझे वापस आने को कहते रहे।।
कैसे समझाऊ उन्हें, माँ-बाप के कर्ज से, भारत माँ के प्रति फर्ज बढ़ा है।
आज तुम्हारा बेटा जहाँ है, सामने उसके कायरो का जमघट खड़ा है।।
हाथ में बंदूक थामे, निशाना लिये अड़ा हूँ।
सबसे दूर सबके लिये, आज सरहद पे खड़ा हूँ।।

(४) जरा पीछे पलटकर देखा, सीमा से ज्यादा सीमा के अंदर हलचल है।
चोरी, बेईमानी, लूट, भ्रष्टाचार से मरता आदमी हरपल है।।
सरहद पे सिपाही सोचे, दुश्मनो को मिटाऊ कैसे।।
यहां भ्रष्टाचारी सोचे, इसको मिटाकर पैसा कमाऊ कैसे।।
आंखे लाल हुई ये सोचकर, किसकी कर रहे हैं हम रक्षा।
जहां पानी की तरह खून बहे, नहीं है किसी में भी नियत की सुरक्षा।।
चेहरा शर्मसार हुआ, मन में छा गया आज रोस।
ये कैसा समाज, जहां सब अपना से ही दूर है कोसो-कोस।।

सो चुके है सब भौतिक सुख-साधन, स्वार्थ की गहरी नींद में।
गीता, रामायण, कुरान भी न जगा सका, इनको वर्तमान दिन में।।
हार चुका तुम्हारे सामने, फिर भी गैरो से जीतने अड़ा हूँ।
सबसे दूर सबके लिये, आज सरहद पे खड़ा हूँ।।

(५) तुम प्यासों के सामने पानी लिये हुए, हम सिपाही मिट्टी के घड़े हैं।
तुम्हे तो दौलत ही चाहिए, तुम्हे नजर आया, पीतल में पानी लिये कई और भी खड़े है।।
जरा सोचकर सोचो, क्या साथ जायेगा।
मिटने के बाद, राख भी न बच पायेगा।।
वर्षों की काली कमाई, पल मे ही ढेर हो जायेंगे।
जीवन के अंतकाल में, तुझे सिर्फ अपने ही याद आयेगें।।
इस सुनहरी जीवन में, तुमने कुछ कमाया, ऐसी कोई बात नहीं।
और जो खोते रहे उसका तो कोई हिसाब नहीं।।
मौत का समंदर कभी ये नहीं पूछता, जीवन के किस भंवर मे तुम फसे थे।
सारे जुर्म, धिनौनी हरकत, क्योंकि ये सब तुमने ही रचे थे।।
सब जानकर भी, तुम्हारे लिये आंच रोके अड़ा हूँ।
सबसे दूर सबके लिये, आज सरहद पे खड़ा हूँ।।

(६) गैरो को झुकाया, गैरो को हराया, आज तुम्हारे सामने झुककर कहता हूँ।
न लड़ो, न जलो आपस में, सिर्फ तुम्हारे लिये ही तो दूर खड़ा जीता हूँ।
सिर्फ इतना रहम करो मुझ पर, मेरी कुर्बानी कभी दफन न हो।
देश वासियो और देश के प्रति तुम्हारी चाहत में, कभी कोई कफन न हो।।
तुम जैसे भी हो, हो तो तुम सब अपने।
तुम सब हमेशा खुश रहो, यही तो है मेरे सपने।।
देश के दुश्मनों को, तोड़ने का मुझमे जुनून है।
तुम सब चैन से जीयो, इसी में ही मेरा सुकून है।
जान हथेली पे और दिल पे आग लिए दुश्मनों से अड़ा हूँ।
सबसे दूर सबके लिये, आज सरहद पे खड़ा हूँ।
सबसे दूर सबके लिये, आज सरहद पे खड़ा हूँ।।

मुकेश कुमार पटेल
चतुर्थ वर्ष, जैवचिकित्सकीय



कोई लौटा दे मेरे बीते हुए दिन

टाईम मशीन – एच. जी. वेल्स के साथ भूत और भविष्य का भ्रमण प्रायः सभी ने किया होगा। शिक्षित से आधुनिक बनने के प्रयास में, सरकारी स्कूलों में हिंदी माध्यम में पढ़ते हुए, मैंने भी इसे पढ़ा था। तब नहीं पता था के लेखक की कल्पना में गढ़े हुए यंत्र की जरूरत पड़ने वाली है।

कुछ दिनों से एक प्रौढ़ व्यक्ति यहाँ वहाँ, कभी मुझसे टकरा रहे थे तो कभी दिख रहे थे। थोड़ा अस्त व्यस्त, झुका हुआ चेहरा, हल्की मायुसी होठों में कोई लौटा दे मेरे बीते हुए दिन, किशोर दा का मशहूर गीत। जब भी मिलते यही गीत गुनगुनाते हुए। ताज्जुब है किशोर दा के फैन हो सकते हैं पर एक ही गाना।

पहचान बढ़ते बढ़ते वहाँ तक पहुँच गई कि आलाप भी कर बैठा और पहली ही बार में पूछ बैठा आप किशोर दा के जबरदस्त फैन लगते हैं।

नहीं तो।

गीत तो उनके ही गुनगुनाते हैं।

कौन सा।

कोई लौटा दे

अच्छा वो- हाँ वस यही गीत गुनगुनाता रहता हूँ।

ऐसा क्यों।

एक दबी हुई मुसकान के साथ चुप्पी।

कोई जवाब न पाकर थोड़ी खीज हुई।

कालेज लौटकर अपने वयस्क साथियों से इस घटना की चर्चा की। कोई जवाब वहाँ भी नहीं मिला- पर दूसरे दिन से यह गीत कालेज में मशहूर हो गया। प्रायः हर दूसरा साथी इसे गुनगुनाता फिर रहा है। जवाब कोई नहीं देता। अब खुद से चर्चा करने की आवश्यकता महसूस हुई। पहले तो गीत को फिर से सुना। जब

इसे ध्यान से सुना तो यह समझ आया कि गीतकार अपने उन सुखद क्षणों को फिर से जीना चाहता है, जिन्हे वह बीता चुका है। पर क्या यही काफी था या इससे आगे भी कुछ है।

खुद पर आजमाया तो पाया कि सुखद तो ठीक है पर आज यहाँ खड़े होकर बहुत सारी चीजों के निर्णय में भी बदलना चाहता हूँ।

आत्मचिंतन में दिन बीत गया। रात को अजीब सा सपना दिखा और सुबह वह याद भी रहा। सपने में मैं और मेरे पुराने दोस्त छुट्टियाँ मनाते हुए मिले। सभी उम्र दराज, अपने परिवार के साथ। चर्चा में प्रायः सभी अपने वर्तमान से नाखुश दिखे (सभी प्रतितिष्ठित जीवन व्यतीत कर रहे हैं), और प्रायः सभी की इच्छाओं में अपने भूतकाल में वापस जाकर नये सिरों से जिंदगी व्यतीत करने की इच्छा दिखी।

और यह क्या एक जिन का आविर्भाव। साथ में सभी के लिए एक इच्छापूर्ति का बरदान। फिर क्या था, सभी ने अपनी एक इच्छा – बीस साल पहले जाकर अपनी जिंदगी को दूसरी तरह जीने की मंशा जाहिर की।

जिन्न की ओर से तथास्तु मिला।

और, और मजे ही मजे।

सभी की जिंदगी में एक नया अध्याय शुरू।

पर सत खत्म होते होते सभी की जिंदगी फिर से दुश्वार होने लगी।

और..... और सपना टूट गया।

दुख हुआ जिन्न से न मिल पाने के कारण। शायद कुछ चर्चा हो जाती, दुख का निदान मिल जाता। सपने का अंत न देख पाने के कारण मन और बेचैन रहा। जिन्न और लाईम मशीन दोनों अस्तित्वहीन चीजों का वजूद मन में बना रहा।

तो क्या वास्तव में जाकर अपने पूर्व में लिये गए निर्णयों को बदला जा सकता है। नहीं।

हर एक को वर्तमान में ही जीना है पर वह भूत में लिये गए निर्णयों के परिणामों के आधार पर वर्तमान में नये निर्णय ले सकता है। परिस्थितियों को बदलने के लिये खुद को बदलना आवश्यक है। खुद को बदलने के लिये समझ का होना आवश्यक है। और, गीत – कोई लौटा दे मेरे बीते हुए दिन गुनगुनाते रहे।

डॉ. एस. सान्याल
चंत्रिकी विभाग
एन.आई.टी., रायपुर



धर्म

सुना है धर्म मारता और काटता है
 लोगों को आपस में बाँटता है
 दंगों फसादों की फैलाता है गन्दगी
 अशांत तनावपूर्ण दूहर बनाता है ज़िन्दगी
 इन समझदारी भरी बातों में वैसे काफी दम है
 और धर्म की जितनी निंदा करो उतना ही कम है
 शायद तब मनुष्य कुछ बेहतर जीवन जीता ,रात को निश्चिन्त सोता
 अगर दुनिया में इस धर्म नाम के दानव का अस्तित्व ही न होता
 टीवी देखने से आँखों पर मुसीबतों का पहाड़ टूट जाता है
 तो संभवतः टीवी ही इन मोटे मोटे चश्मों का दाता है
 मुन्हा दिन भर दूरदर्शन देखने में समय गँवाता है
 परीक्षा में फेल हो तो शायद टीवी ही असफलताओं का दाता है
 लाखों प्राणियों का क्षण में ही अंत हुआ था इंसानियत करुणा का बना था कीमा
 जब परमाणु बम से नेस्तनाबूद हुआ था नागासाकी और हिरोशिमा
 परमाणु बम तो विवेकी विलक्षण विज्ञान के प्रसाद है
 जिस देश में ये न हो सुरक्षा की दृष्टि में कहा वो आबाद है ?
 तो अगर चिंतन करें की विश्व शांति पर किसकी बुरी नज़र है
 तो पाएंगे की विज्ञान ही विश्वयुद्धों का ज़हर है
 अनहोनियों के किस्से दिन ब दिन आसमान चढ़ रहे हैं
 साइबर क्राइम के हिस्से लगे दाग दिन ब दिन बढ़ रहे हैं
 आजकल के युवा इतने पथभ्रष्ट है कितनी भटकी सी उनकी गर्मजोशी है
 तो निश्चित ही इन भयानक नतीजों के लिए इंटरनेट ही दोषी है
 कुछ तेज़ धधकती आंच में उँगली पड़े तो बुरी तरह जलती है
 कुछ कांच के टुकड़ों पर उँगली पड़े तो लहू की धारा चलती है
 उस घायल लाइले की माँ जब प्यार से हाथ मलती है
 निश्चित ही कहा जा सकता है " बेटा सब उस कांच और आग की गलती है "
 शायद समझदार लोग ध्वनि विहीन अवाक् हैं

CHRISTIANITY

ISLAM

JAINISM

BUDDHISM

HINDUISM



जब मेरी बातें लग रही उन्हें बेसिरपैर मज़ाक हैं
 की मूर्ख मनुष्य अपनी लापरवाही के भुगतान स्वयं कर रहा हैं
 पर साधक कष्टों का दोष साधन पर ही मढ़ रहा हैं
 ग्रंथालय में पड़े गीता बाईबल कुरान इत्यादि कभी नहीं लड़ते
 और प्रायः मज़हबी नफरत के सौदागर वो होते हैं जो दिल से कभी ये ग्रन्थ नहीं पढ़ते
 धर्म कभी घृणा अविश्वास झगड़े नहीं सिखाता
 कभी भ्रष्ट बुरा गर्त-में-ले-जाता मार्ग नहीं दिखाता
 अगर एक हत्या का दोषी एक विकृत मानसिकता वाला इंसान हैं न कि विज्ञान या
 विज्ञान की देन बन्दूक हैं
 तो धर्म के नाम पर अशांति फैलाने के ज़िम्मेदार चंद लोग हैं , धर्म तो
 प्रेम का संदूक है
 अगर कुछ लोगों को बीमार करने के ज़िम्मेदार अत्यधिक खाद कीटनाशक आदि है न
 की बेचारा परोपकारी तालाब है
 तो समाज में सहर्ष कुंडली मार चुका कलयुग ज़िम्मेदार है , धर्म तो शाश्वत
 ज्ञान का सैलाब है

पी. ललित नायडू
 6 सेम, धातुकर्म विभाग



'अंधरे में'

मुक्ति का मार्ग - गजाननमाधव मुक्तिबोध

आखिर वह कौन सी बात है जो किसी रचना या रचनाकार को कालजयी और अमर बनाती है। लोकप्रियता, नहीं। उसके द्वारा रचित साहित्य की प्रासंगिकता। पिछले 50 वर्षों में अगर हिन्दी कविता का कोई कवि बार-बार प्रासंगिक बनकर आता रहा है तो वह गजाननमाधव मुक्तिबोध हैं। मुक्तिबोध को सार्वकालिक महान रचनाकारों में शुमार किया जाता है। वजह बस इतनी है की उन्होंने जो भी कुछ किया और लिखा वह कालतीत हो गया।

मुक्तिबोध एक ऐसे रचनाकार थे जिन्होंने कभी अपनी रचनाओं से समझौता नहीं किया। छत्तीसगढ़ के छोटे से शहर राजनंदगाँव में रहकर ही हिन्दी साहित्य को एक नई ऊर्जा, ओज, दशा एवं दिशा दी। मुक्तिबोध का जीवन संघर्षों से भरा रहा। उतार-चढ़ाव उनके जीवन में होते रहे। मुक्तिबोध हमेशा सत्ता केन्द्रों से दूरी बनाए रखें। जबतक वह जीवित रहें उन्हें ख्याति नहीं मिली। लेकिन सन् 1964 में 46 वर्ष की अल्प आयु में उनकी म्रित्यु के बाद ऐसा बवंडर मचा जिसने सारे हिन्दी साहित्य को ढक दिया। उनके म्रित्यु के देढ़ दशक तक पूरा साहित्य विमर्श मुक्तिबोध पर ही केन्द्रित रहा। यहां तक की उस दौर में नई कविता का कोई ऐसा कवि नहीं था जो मुक्तिबोध से प्रभावित न हो।

मुक्तिबोध सही मायनों में एक जनवादी कवि थे, बहुत साधारण जीवन जीते थे और यही वजह थी की आम आदमी के जीवन में उनकी गहरी रूची थी। संभवतः इस जीवन ने ही उनको एक व्यक्ति के जीवन संघर्ष, उसकी वैयक्तिकता, उसकी असुरक्षा और अनिश्चिता से अवगत कराया। ये तमाम चीजें जब उनकी आंतरिक बेचैनी से टकराईं, तो हिन्दी साहित्य को एक से एक नायाब रचनाएं मिलीं।

वर्ग की सोच को अद्यतन करने का काम मुक्तिबोध ने किया। मुक्तिबोध से पूर्व उनके जैसी कविता लिखने की परंपरा हमें दिखाई नहीं देती। वर्ग की अवधारणा को नये सिरे से देखने एवं परिभाषित करने का काम मुक्तिबोध ने किया। मुक्तिबोध की रचनाओं में अनवरत विरोध की भावनाएं बनी रहीं, सरकारी तंत्र के नाकामी का विरोध या समाज में व्याप्त आडंबर एवं कुरितियों का विरोध।

मुक्तिबोध की रचनाओं में मनुष्य का हर कोना समाया हुआ है। जंगल में जलावन बीनती माँ, साधारण दफ्तरों में काम करने वाले लोग, निम्न मध्यम वर्ग के लोग जो किसी तरह जिंदगी का छकड़ा खींचते हैं, उस जिंदगी की उब और जकड़न से आजादी पाने को आतुर लोग और परिवार से ईमानदारी बरतते हुए दिन रात खुद को खपा देने वाले श्रमिक, जो अपनी अंदरूनी रुहानी जिंदगी की तलाश में भटकते रहने को अभिशप्त हैं, मुक्तिबोध की रचनाओं के मुख्य पात्र बनें।

मुक्तिबोध को एक कविता लिखने में वर्षों का समय लग जाता था। मुक्तिबोध की कविताओं के लंबा होने की वजह यह थी कि वह कविताओं के जरिये एक पूरी पीढ़ी और सभ्यता की पड़ताल में लग जाते थे। उन्होंने स्वयं कहा भी है कि उनकी छोटी कवितायें दर असल उनकी अधूरी कविताएं हैं।

मुक्तिबोध की दो सबसे प्रखर और प्रसिद्ध रचनाओं की बात की जाए तो वह 'ब्रह्मराक्षस' और 'अंधेरे में' का नाम आता है। ब्रह्मराक्षस कविता में ब्रह्मराक्षस के मिथक के जरिये तत्कालीन बौद्धिक वर्ग के द्वन्द और आम लोगों से उसके अलगाव की नग्न तस्वीरें पेश की थीं।

यह एक ऐसा आईना था जिसमें, जिसमें अपनी शक्तें झांकने में लोगों को डर लगता था।

'अंधेरे में' कविता में उन्होंने सत्ता और बौद्धिक वर्ग के गठजोड़ को बेनकाब किया।

न ई कविता में मुक्तिबोध की जगह वही है जो छायावाद में नीराला की थी। नीराला की तरह ही मुक्तिबोध ने भी अपनी युग के सामान्य काव्य-मूल्यों को प्रतिफलित किया तथा साथ ही उनकी सीमा को चुनौती देकर उस सर्जनात्मक विशिष्टता को चरितार्थ किया, जिससे समकालीन कव्य का सही से मूल्यांकन हो सका।

मुक्तिबोध को पढ़ना और जानना एक दुनिया से गुजरने के जैसा है। मुक्तिबोध को पढ़ते वक्त हम जंगलो, पहाड़ों, गुफाओं की यात्रा पर निकल पड़ते हैं और कविता पढ़ने के बाद जो थकान महसूस होती है उसकी वजह यही लंबी यात्रा है।।

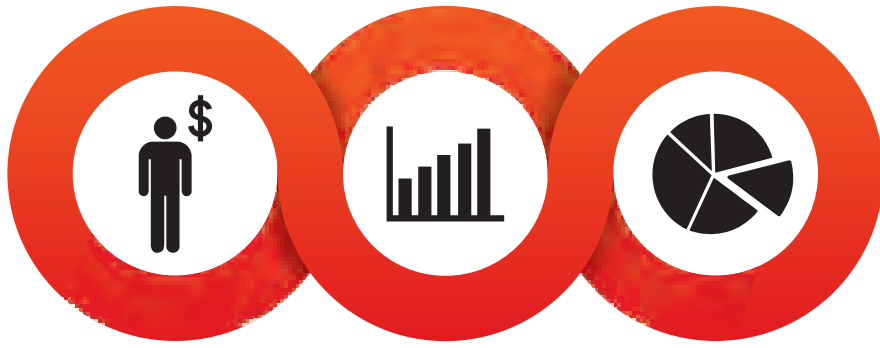
'अंधेरे में' कविता की कुछ पंक्तियां हैं -

'ओ मेरे आदर्शवादी मन,
 ओ मेरे सिद्धांतवादी मन,
 अब तक क्या किया?
 जीवन क्या जिया!!
 उदरभरि बन अनात्म बन गए,
 भूतों की शादी में कनात-से तन गए,
 किसी व्यभिचारी के बन गए बिस्तर,
 दुखों के दागों को तमगों-सा पहना,
 अपने ही खयालों में दिन-रात रहना,
 असंग बुद्धि व अकेले में सहना,
 जिंदगी निष्क्रिय बन गई तलघर,
 अब तक क्या किया,
 जीवन क्या जिया!!
 बताओ तो किस-किसके लिए तुम दौड़ गए,
 करुणा के दृश्यों से हाय! मुंह मोड़ गए,



बन गए पत्थर,
बहुत-बहुत ज्यादा लिया,
दिया बहुत-बहुत कम,
मर गया देश, अरे जीवित रह गए तुम!!
लो-हित-पिता को घर से निकाल दिया,
जन-मन-करुणा-सी मां को हंकाल दिया,
स्वार्थों के टेरियार कुत्तों को पाल लिया,
भावना के कर्तव्य-त्याग दिए,
हृदय के मंत्रव्य-मार डाले!
बुद्धि का भाल ही फोड़ दिया,
तर्कों के हाथ उखाड़ दिए,
जम गए, जाम हुए, फंस गए,
अपने ही कीचड़ में धंस गए!!
विवेक बघार डाला स्वार्थों के तेल में
आदर्श खा गए!
अब तक क्या किया,
जीवन क्या जिया,
ज्यादा लिया और दिया बहुत-बहुत कम
मर गया देश, अरे जीवित रह गए तुम...!

निशांत रंजन
4 सेम, खनन विभाग



REPORT'S





Google

Student Club

Google Student Club, NIT Raipur was formed in 2014 under Google Student Ambassador (GSA) Program by Google Inc. Currently in its 2nd year on the trot; it has been successful in ingraining the Google technologies to everyday use of students.

Spread across every continent, covering the entire globe, with the aim to encourage use of various Google products and program; it has achieved a quite good success metrics. The Club is lead by the Google Student Ambassador Prateek Prasad of 3rd year, ET&TC engineering. Along with the proficient team members of Google Student Club, he has been able to organize the most productive and successful events for the students of Chhattisgarh region. The focus was maintained on Android development and skills in digital marketing. One of the many events was a kick start seminar on Android App development jointly organized with Google Developers Group, Bhubaneswar.

The main focus of the event was maintained to introduce the skilled coders to app development. Along with a live app development session, it was a highly interactive event. Students from many colleges enthusiastically participated in the seminar. Other events for digital marketing platform were also organized with a duple aim of familiarizing students with various channels of Google technologies for business marketing along with creating a web presence for local business of the community. Students from every year keenly participated to show their marketing and IT prowess. In the end, it managed to get 16 local businesses online.

One of the paramount objectives for the creation of Google Student Club was development of student's motivation for the field of Android. For this very aim, a subsidiary club called Android Group, NIT Raipur was

formed with a group of 36 students with Riya Singhal of 3rd year CSE as the lead.

The students were picked by their interest in contributing to Android. The aim was to give rigorous training in App development and UX designing to these students, therefore leading to development of quality apps.

So far the Android Group has been successful in its attempt and has produced many apps with 3 already on the Playstore. By this time, it has been fruitful in achieving its aim. With a small and efficient team, it has managed to create some high-quality events and brainstorming sessions. One of the key targets of the club has been to change the mindset of incoming students. The work culture of Google has been the utmost importance for the club.

With people using only the surface of Google, it becomes inevitable to explore the depth of this invaluable gift to internet.

Sanskriti

"Never tell people how to do things. Tell them what to do and they will surprise you with their ingenuity."

Quite not the citation for the cultural committee of NIT Raipur but the above quote is not less than being it. The enigma and charm of Culture has amalgamated thoughts, imagination and people, we at NIT Raipur are nourishing this by SANSKRITI – the Cultural Committee as we are known. Driven by this zeal Sanskriti-the cultural committee of NIT Raipur flaunts its teamwork and untiring contribution to the cultural events and various others occurring in the college prefaces.

Round the year we knit the beads of our carol in patriotism as in Republic Day and in Independence Day, our real steel in Engineers Day, future memories in alumni meet, cultural workshops and the much awaited Eclectika-the annual fest. This fills us with the inevitable enthusiasm needed along with academics.

We, Sanskriti- the Cultural Committee vow to keep this light lightened as always with all the support from our respected teachers, beloved teammates and most importantly the crowding folks. And will always keep spreading the youth in the campus heading towards growth.

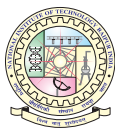
Engineers Day

This day is celebrated to respect Visvesvaraya. He is held in high regard as a pre-eminent engineer of India. Engineer's Day is dedicated to those without whom every machine would not be made. Engineers apply techniques of engineering analysis in testing production. A series of events including Quizzes, Debates, and Nukkad Natak brought out the true spirit of sport in all the engineers.

DANCE WORKSHOP

Sanskriti organized Dance Workshop in various dance forms like Hip Hop, Western Contemporary, Indian Classical etc. Under the banner of Eclectika, the workshop commenced with some extraordinary moves by the students.





INTERACT CLUB

"If you are working on something exciting that you really care about, you don't have to be pushed. The vision pulls you"
-Steve Jobs

Interact club which is a common name in college today, was started with a vision. A vision to enhance the quizzing culture that was absolutely non-existent in our college, a vision to carve a place for NIT Raipur on the Quizzing stage of Central India. Right from its inception in April 2013 it has never looked back.

It was started as a Facebook group and NIT Raipur embraced it with all heart. Today there are 2500+ members in the group not only from NIT but from regional quizzing heavyweights like IIM and HNLU also. The quizzers of NIT regularly participate in online quizzes which range from topics like Business, Sports, History and India to Harry Potter. The most fascinating thing is that it is totally user driven. Anybody can organise a quiz anytime.

Apart from online presence a lot of quizzing has also taken place in the campus itself. THE TECHONOMIC QUOTIENT 1.0 and 2.0 has become the flagship quizzing event of AAVARTAN with participation from various colleges. I-QUEST the Annual Mega Quiz of NIT Raipur was organised for the first time in Eclectika 2014 and for the second time in 2015. Both time there were more than 500 participants. Prelims were conducted in IIM, HNLU, PIETECH etc. HNLU emerged as the winner both times showcasing truly exceptional quizzing skills.

Events conducted in 2014-15 :

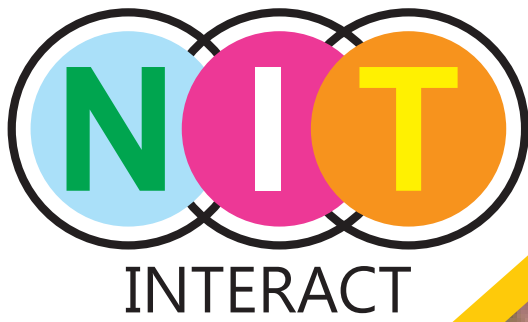
- 1) Engineer's Day Quiz - Winners : Prasun Sinha and Rajashekhar Marthi (NIT Raipur)
- 2) The Techonomic Quotient 2.0 (**Aavartan 2014**) – Winners : Pranjal Kishore and Siddharth Madhvan (HNLU Raipur)
- 3) I-Quest 2.0 (**Eclectika 2015**) – Winners: Prerana De and Kunal Bindra(HNLU Raipur)

Enthusied by the on campus quizzing, our students have also started making their presence count in the National level quizzing competitions like Tata Crucible and Chhattisgarh State level Quiz organised by IIM Raipur.

Two years back the idea of having a quiz club in our college struck the minds of Sangeet Vijay Sagar and Tarun Kaushik. Sheer dedication towards quizzing and a will to do something for their college enabled them to realise their dreams. All the budding quizzers are invited.

www.facebook.com/groups/interactnitr





I-Quest 2.0 prelims Eclectika 2015 (Ever seen E-Hall so bustling)



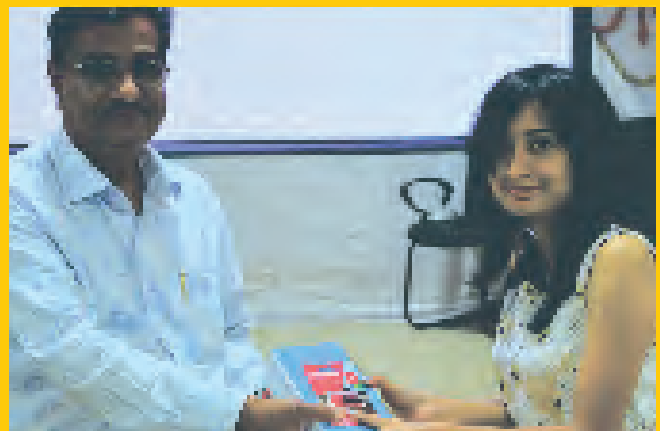
I-Quest 2.0 Second Runner Up (IIM Raipur 2015 batch Gold Medalist, Tata Crucible 2015 Winner) Eclectika 2015



I-Quest 1.0 in progress Eclectika 2014



I-Quest 1.0 Celebrations-First ever quiz of NIT Raipur Eclectika 2014



I-Quest 2.0 Winner (HNLU) Eclectika 2015



AAVARTAN 14' REPORT

AAVARTAN 2014-2015, the TECHNO-MANAGEMENT FEST, was a great success which would not have been possible without continuous and endless efforts by members of Technocracy and E-Cell and support from our respected teachers and most importantly, the crowd. It included a very fantastic exhibition VIGYAAN and gathered a huge participation, not only from Chhattisgarh but also from other states. The seniors and experienced professors appreciated the innovation and talents among us and hoped for a much bigger attempt next time.

Aavartan conducted different competitions and events over a wide range of Technical and Management Fields: Vigyaan - National Science Exhibition, Campus Events, Online Events (Web Based), Guest Lectures, Workshops and Tech Shows.

The fest was taken to a different level by the mega campus events which had a mass participation.

- ROBOWARS, the mega event, which gave the chance to make a mechanical warrior and fight with other robots to prove their supremacy.
- October Sky was not just a rocket Making competition but required dexterity in aiming your rocket too.
- The other mind blogging event was SHERLOCK HOLMES, where teams were required to use their intellectual and observation in its best possible way.
- Pipe-O-Mania required students to make straw tower which can open up to certain height.
- Cross n Fold, bridge making competition, gave the participants to try out their practical knowledge of mechanics where we deal with weights, forces and trusses.
- Techonomy Quotient, an exciting and enthralling event which showcased the knowledge in general current affairs, science-tech and business management and so on.
- E-Summit, a management event where we invited speakers from across India to share their ideas and experience, and motivate our students for becoming entrepreneurs.
- Wall Street, where we gave a real time experience of the "foreign exchange" and "stock market" giving virtual money and real time data. The one who predicts market well and makes maximum profit wins the challenge.
- Connect The Dots, where students from different colleges discussed the key issues related to entrepreneurship and business and came out with new and innovative ideas on how to start a business, what are the problems faced and what can be the solution for that.
- B Plan, created a business plan with new and innovative ideas wherein the best feasible and practical plans were provided funding for implementation by Venture capitalists.
- Ad-O-Holic, the ad making competition where participants exhibited their marketing skills while unleashing the creativity within them by making an

advertisement of the product given to them at the moment.

- Cricnomerica, an utterly novel event which unveiled the art of bidding in many which indispensably called for quick decision making and a mind with managerial skills.
- HR-Sutra, a mock placement event which provided platform to improve communication skills and have an experience of real interview. The judges were generally HR's from big companies.

Google has been an inexplicable part of our ONLINE life. In association with GOOGLE STUDENT AMBASSADOR COMMUNITY, Aavartan organized SMASH AND BASH. It helped in knowing Google and its products well.

No fest could be completed without coding event which was PRO CODING, an event sponsored by Sensible Computers. This competition was aimed for students to test their programming skills.

Various online events were running on www.aavartan.in from a week and were a great hit attracting masses.

- Photobuzz- online event on Photoshop editing.
- ThinkTank- Share your views on any topic and win the event.
- Mathematicia- Online Math quiz.
- Picture Puzzle- Online puzzle solving game based on pictures.
- CodeMania- Online coding challenge in association with Hacker Earth.
- Sporticia- Online sports quiz.
- Technicia- Online Science quiz.
- Kleos- Online Treasure hunt.
- Coderworld- Online Coding event.
- Wikilinks- Online event using wikipedia links to connect the start and the end.

The second day had the final rounds of most of the events and the day had much more thrill and fun, all eagerly waiting for the winners of various events. It continued with the same zest and fervor. Tron Dance was organized in the evening which made the audience spell bound.

Overall.... the fest AAVARTAN 14' was a huge success and is expected to reach much more heights in the coming years.



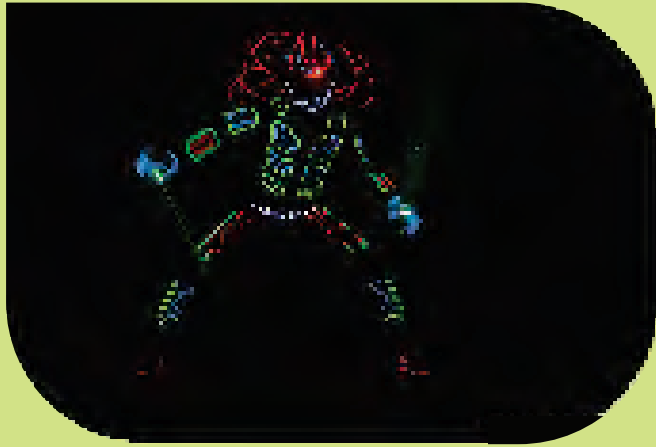
Click!

CLUB

"I dream, I frame, I live, I Click"

Click Club, the photography club of NIT Raipur set its feet in 2011, has now successfully completed its fourth year of existence. The Club always has its presence in all the major events of NIT, freezing the moments for times to come. The shutters got into action in events such as Eclectika, Aavartan, Shruti, Samar, Samar, Independence and Republic Day celebrations, Alumni Day to name a few. This year, Click Club was the exclusive photographer of Annual Alumni meet at Raipur and Bhilai. The annual photography workshop witnessed its highest participation ever and had an exclusive session on Fashion Photography. The club has successfully organized Pixellane 4.0, the photography exhibition which saw a high footfall and was one of the major attractions of Eclectika. To quench the photographic thirst of its members, the club headed to Boramdeo and Chilpi Ghati and captured the beauty of nature and tribal life. Ever since its inception, the club has carried forward the pledge of nurturing photographic talents in the enthusiastic individuals and continues to follow its motto.

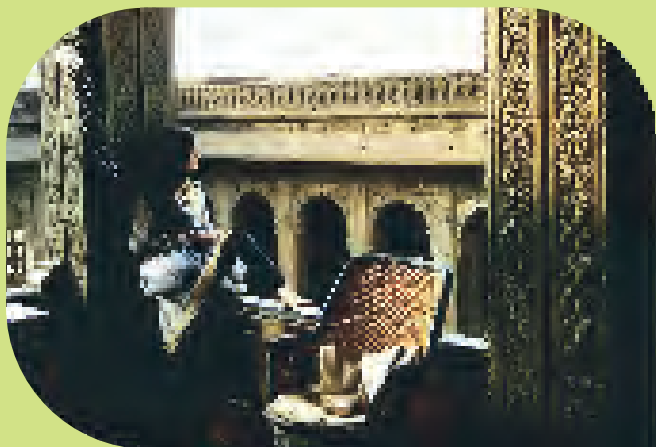




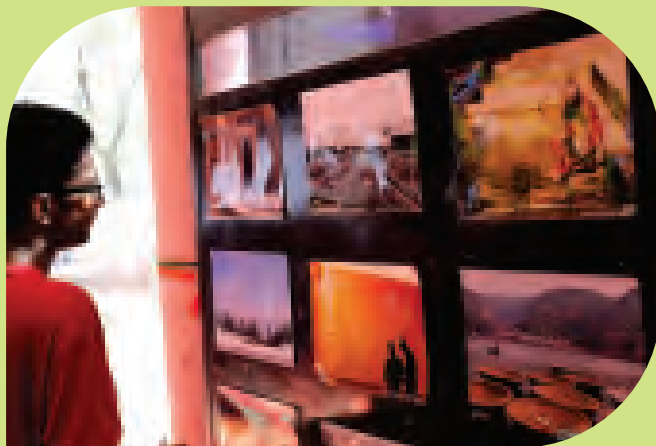
NIT, CLICK CLUB



MRIDUL GUPTA



NIKITA BOKDE



NIT, CLICK CLUB



VIKASH KUMAR



Literati

Literati – the literary committee of NIT Raipur is a body of literary enthusiasts actively involved in realising all kinds of creative pursuits. The committee plays a major role in inculcating the literary bend of students as well as faculty members by conducting various seminars and events in the annual cult fest, Eclectika, as well as publishing the annual college magazine, Shilpi.

Creativity knows no boundaries; the committee's endeavours are appreciated by the college's crowd holding varied tastes, and speaking different languages. Shilpi encourages enthusiastic writers in all genres – be it in English or hindi languages, or technical articles, or even work of art such as sketches, caricatures and the likes. The magazine is a perfect blend of interests in literature and beyond.

Through Eclectika, we provide the perfect platform to showcase budding talents.

Fourth Pillar – Democracy stands on the three major pillars of legislature, executive and judiciary; media is considered the fourth pillar of democracy. This journalism based team event tests your ability in article writing, as well as news reporting. The winning and runner- up teams were –

1. Kuhu Gupta and Shraddha Mohanty
2. Shubhrita Tiwari and Harsh Bhagwani

Hansard – Hansard is the traditional name of the verbatim transcripts of parliamentary debates in Britain and many other Commonwealth countries. This is an event that creates an atmosphere of a parliament among the participants.

Jam It – This event is for those who use their annoying habit of interrupting and correcting people. It is about speaking on a given topic in Queen's perfect English and jamming others who falter on their way. The winners and runners- up were –

1. Aakarshan Avinash
2. Anuja Jain

Legal Eagle – This is an event depicting a mock court scenario in which two opposing teams confront each other to defend their case in a legal court environment. The winning and runner- up teams were –

1. Gokul Gopakumar, Maitreya Ghorpade, Parul Tripathi and Shivanshu Pandey
2. Rudresh Ghildiyal, Shreyansh Bhandawat, De Vivek and Amit Shah

Role It – In this role- playing event participants are given roles of famous personalities and based on their virtues and beliefs, two participants speak on debatable issues. The winning and runner- up teams were –

1. Shubham Dabir and Dinkar Tiwari
2. A Ankit Rao and Ishant Sahu

Spectacle – The very first of its kind dramatics competition. In the era of the versatile and power- packed nukkad natak, Spectacle brings back with it the long- forgotten subtlety and appeal of stage acting. The winning team comprised of the participants –

Mohit Sharma (best actor - male), Ananya Sen (best actor - female), Divisha Gupta, Shivangi Bhandari, Parag Patidar, Shubham Kumar and Shriya Gupta

Spell Bee – Everyone knows the importance of spelling, especially in a generation where people 'typ lyk dis'. Spelling cements the connection that is shared between sounds and letters. Crowning personalities who are impeccable in spellings can use this ultimate spelling platform to flaunt their skills in this exciting arena. The winners and runners- up were –

1. Sriya Kathur
2. G Taruna Goude

Writopia – Writing – a journey into the imagination which can uncover something within us that we are unaware of; feelings that may remain hidden unless given expression through the magical art of writing. Writopia lets that hidden talent of creative writing of students breathe on paper.

Sahyog

THE MENTORSHIP CLUB

Make a difference each day you live,

Open your heart and learn to give.

So give your best and do what you can,

Because we are responsible for our fellow men.

Sahyog was formed with the prime motive of providing students with a platform to showcase the issues they face in regular college life. As a result, a group of students always took the initiative to come up with a solution, whenever needed.

Glimpses of working of SAHYOG:-

- **Interaction with First year students-** The newest members of the institute are always found to be confused and misguided into the wrong path. We assigned them student mentors, whom they can directly contact in case of need. They were asked about their problems- personal as well as cumulative- which were tackled in a strategic and planned manner by Head Coordinators and Faculty In charge.
- **On demand classes on various subjects to provide a better insight.**
"Only a student can understand a student's mind". Various classes and doubt sessions were organized on subjects such as Applied Mathematics, BME, BEE, Programming in C, Engineering Graphics etc.
- **Confidential Counseling**
"Human mind is very uncertain and immature, sometimes loses the power of decision making." Many of us face problems which no one understands. We gave a small try to provide the basic help when required without even being noticed. We believe in serving the students with trust, understanding, motivation and strong belief.

- **Blood Donation Camp in collaboration with Red Cross Society and Alumni Association GEC-NIT Raipur.**

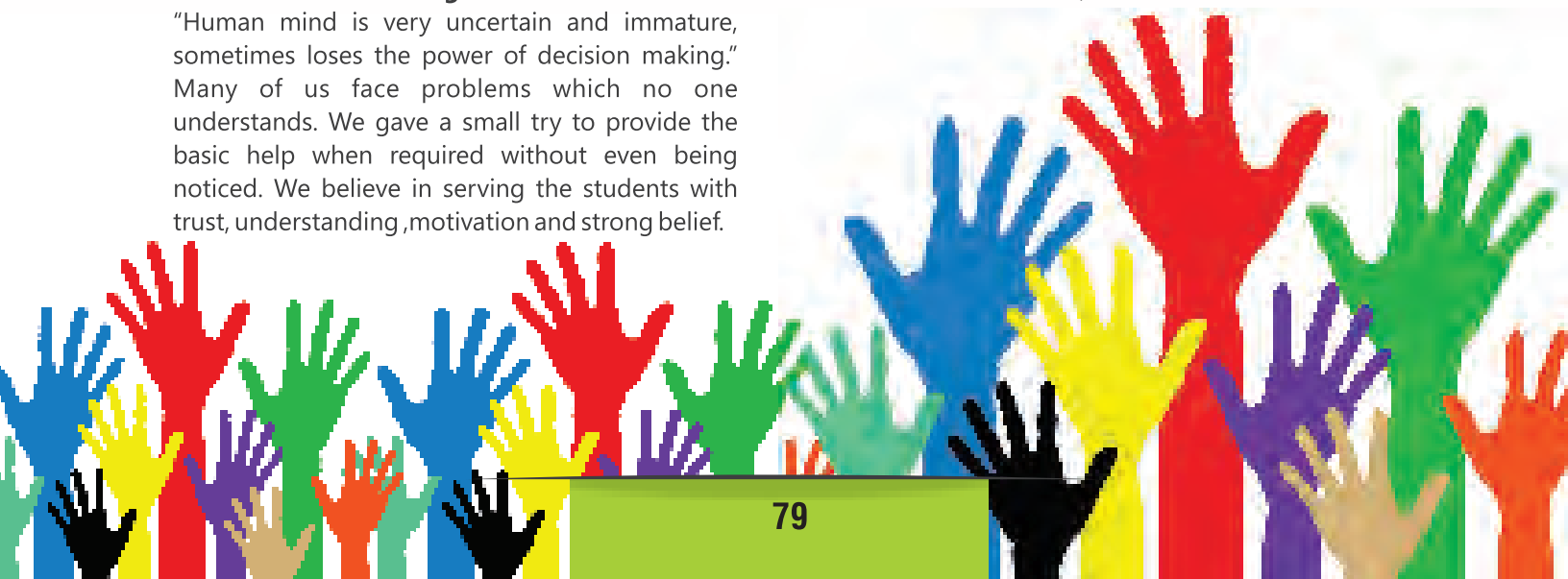
The camp was one of a kind. Prior to the camp, the event was promoted by performing a NUKKAD NATAK on Awareness of Blood Donation. As a result of it, as many as 295 people participated in the camp and went with a belief "Kar ke dekho, Accha lagta hai".

- **An event in ECLECTIKA'15 to promote unity.**

Sahyog hosted a team event "KAI PO CHE" where students participated enthusiastically and hence, we prove everyone that we stand together. As we always say, "United we stand, divided we fall".

- **Career Counselling Workshop**

They needed it- We delivered. Sahyog successfully conducted a two day workshop on various career options describing each and every aspect of placements as well as competitive exams such as GATE, CAT and GRE. The hosts were students who excelled in the respective fields. Under the spirited guidance and motivation of Dr. R.K Jade, this movement is trying to make college lives better. Hopefully, with further support and enthusiasm, Sahyog grows leaps and bounds and the shades of this tree reaches a greater extent- providing a better environment, a better tomorrow.





If religion separates us,
politics divide us and
languages group us,

then music is the only greatest blessing of God that unites us.

Completely oblivious to chilly winds of an autumn eve, a crowd of thousands cheered for Shruti 2014, the annual music fest of NIT Raipur on 11th of October. With a promising audience with even more promising spirits, Shruti 2014 kicked off with a marvellous start with the encouragement of the Director, faculties in charge, Mr. Ayush Khare and esteemed faculty of NIT Raipur.

Beats were timed, strings were tuned and the audience fell in love with music all over again to soothing notes of piano played for as the singers set the stage on fire lifting the audience to an altogether parallel universe-high on melodies. The eve started off with Lord Ganesha's blessings as the team delivered a power-packed performance of Shankar Mahadevan's 'Gananayaka'. The audience swooned as they time-travelled into the beautiful era of the 90's while the team Raaga recreated the magical notes of A.R. Rahman. Melodious tunes of Hindustani sangeet spoke volumes about Indian myth and culture. Whether it was the funky Western hip-hop beats of 'Invincible' or the witty Qawwali of 'Ude Jab Jab Zulfe' and 'Parda hai Parda', the Raaga team left no stone unturned to cover every genre of music.

Reminiscing and humming to evergreen songs of Lata Mangeshkar and Kishore Kumar as well as captivated by soulful melodies of Arijit Singh in 'Galliyan', the audience incessantly applauded to the songs 'Lag Jaa Gale', 'Mast Magan' and a very moving performance of 'Kholo Kholo Darwaaze'. The song 'Aahatein' and 'Ishq bulaava' left the audience asking for a 'once more' of the mind-blowing performances. With every performance, the energy and zeal in the atmosphere shot up with only sky being the limit. The team's many hours of long practice paid off as, like a perfectly drawn picture, the evening concluded with hearts beating and people dancing away Bollywood style to desi rhythm of 'London Thumakda'.

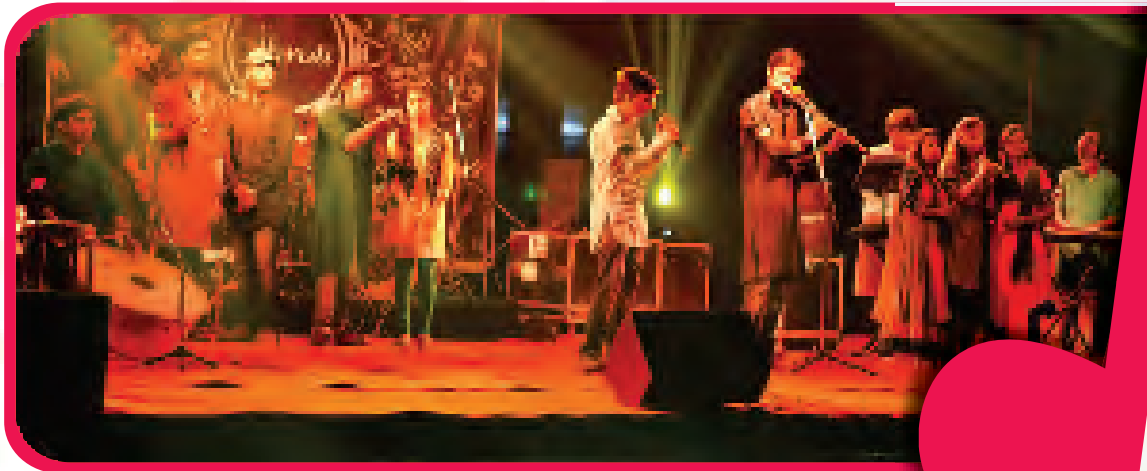
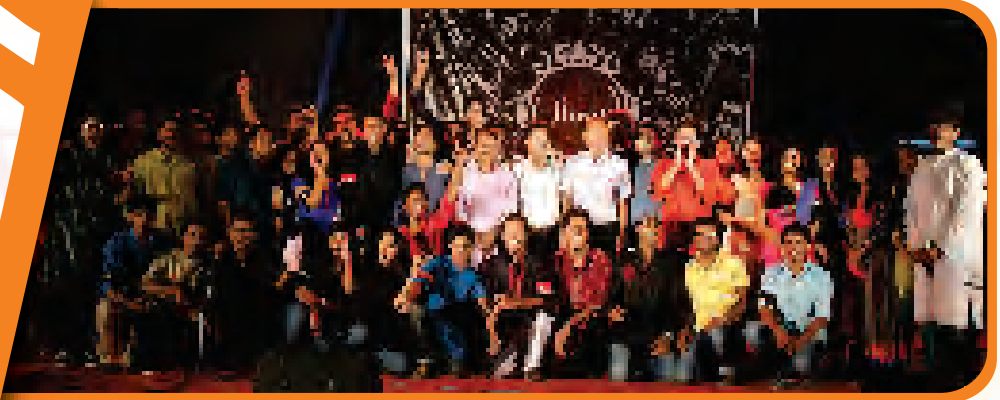
"After silence, that which comes nearest to expressing the inexpressible is music." The air was filled with many warm, nostalgic memories of the final year students as they relished the final moments of the night with embraces, group hugs and 'smile please' expression hanging in the air, bringing a peaceful closure to the eve.

RAAGA CLUB

"Raaga"- is not merely a word defining a part of classical music, it's a musical world of our very own institute that has captivated number of hearts. It was founded in 2010 and since then, interest of people in this club has gained momentum in a short span of time. Being a bunch of versatility, Raaga has attracted all kinds of music lovers. Looking at the response of people towards this musical club; Raaga has also extended a step to inculcate a musical atmosphere in the campus; by providing various kinds of tutorials after the college hours. "Aashyien"- a successful theme track for Eclectika'12 has already conquered hearts of listeners by providing a soothing melody. The growth of this club is tremendous. People do not only like it, but are also trying to be a part of it, and the increase in the number of applicants is the proof. "Raaga is surely a bookmark in the book of musical history of NIT Raipur.

VANDANA VISHWAS CONCERT

Organized by Raaga Club and Alumni Association. Indo-Canadian architect-musician Vandana Vishwas is an exponent of South Asian genre of World Music in North America. She was an All India Radio artist before she left India, and specializes in composing, arranging and singing North Indian classical music based expressive song forms such as Ghazals, Bhajans, Geet and Thumri. Vandana released her debut music album 'Meera – The Lover...' in 2009, which is a musical story of the sixteenth century Indian poet Meera Bai. Her sophomore music album 'Monologues', released in January 2013 is a collection of contemporary Ghazals, Nazms and light Thumris. Vandana released her single 'Samarsiddha' in July 2014, which is the theme track for identically titled Hindi novel authored by UK-based novelist Sandeep Nayyar, published by Penguin India.





WANDERLUST

Annual tour of group Literati

"Travelling – It leaves you speechless and turn you into a storyteller"

A group like that of Literati, which has great inclination towards art in its every form, needs a perpetual source of inspiration. What could be a better inspiration than visiting a place of scenic beauty? With this thought in mind the Literary Committee organized its first ever field trip. Factoring in time and distance, Vizag sprang up as a very good option. After weeks of planning and deliberations, the group finally sat out on a two-day trip to Vizag. It is an industrial town in Andhra Pradesh, greatly appreciated for its natural beauty.

Day one was scheduled to be utilized for exploring the city while day two was reserved for Araku Valley, a scenic place in vicinity of the city. We reached Vizag on third of April. After having quick breakfast, we sat out to explore the city, grasping its exquisite culture. Our search landed us on hill tops, which offered breathtaking view of entire city, at a glance. We found our way to various temples and relinquished their architectural beauty and felt spiritually enhanced.

Towards the evening with sun about to set, we hit the beaches. They are often appreciated for their tranquility and aesthetic appeal. As we lay on the cold sand and witnessed giant waves roaring at us, we realized how small a creation we are and how powerful the nature can be. Charged by the fervor, we raced against the waves and let ourselves float in brackish beauty of the beach. After getting ourselves drenched and misty sea waves gushing through our clothes, we finally decided to leave the place.

We were more than excited and ready to see more of the beautiful city. We headed our way to Kailasagiri. It is one of the prominent hill top parks with panoramic sea view on the East Coast. The divine view from the hilltop accompanies devotional overtones as the Lord Shiva and Goddess Parvathi sits ever so peacefully as if at the Manasa Sarovar in the great Himalayas. The startling view from the ropeway cabin that took us to the Kailasagiri hill top was very rewarding. The entire city was lit up, with distinguished golden industrial lights towards the end of horizon provided a picturesque view of urban Vizag with sun kissed beaches in the back

drop. After feasting on traditional south Indian food, we retired for the day and recalled all the delightful sights we captured in our minds.

The next day we sat out to visit Araku valley. The gently meandering road, offered a panoramic view of nature's best creations. Our first stop in the valley was to observe coffee plantations, spread extensively over acres of land. This coffee has earned Araku its distinctive identity and at the same time has provided employment opportunities to various local tribes. Moving ahead we stopped through Ananthagiri hills, which offered rich view of nature's beauty. Wandering through the high rise hills of Araku valley, we made stops at Padmapuram Gardens, Tribal and Coffee museum. There we got to delve into tribal culture and rich aboriginal civilizations that have occupied the region for centuries. We were fortunate enough to witness authentic tribal dance.

Our last stop for the whole trip, led us to Borra Caves. The Caves, one of the largest in the country, at an elevation of about 705 m distinctly exhibit a variety of impressive formations ranging from very small to giant irregularly shaped stalactites and stalagmites. The caves were inhabited by pre-historic people, millions of years ago. The rock formations have given rise to strange formations often attributed to various Hindu deities. The cave itself houses variety of animals including fulvous fruit bat and golden gecko. The caves also houses temple of Lord Shiva, which makes it prominent spiritual destination. The beauty of caves was enchanting and was appreciated by each member of the group. As the sun was about to set, we retreated through the fog laden valley. This ended our Vizag tour.

Vizag is popularly called city of destiny. I believe lots of people have made their destinies here. Whatever may be the reason, for those couple of days, we lived every moment of our stay. From enjoy the local delicacy 'bonda' to riding the waves; each aspect of the trip was very full filling. Our journey does not end here. We have every reason to believe that our 'wanderlust' will take us to more interesting places in future. Hope we get richer experiences in the future, as someone has said:

"Travelling is the only thing you buy that makes you richer"

ZEST

WORKSHOP – EMBEDDED SYSTEM DESIGN

Organising company – IndEyes InfoTech Pvt. Ltd., Noida

Duration – 2 days, Date – 2nd and 3rd April, 2015

For ETC/EE/CSE/Biomedical students of 2nd and 3rd years

CAREER COUNSELLING SESSION

Organisers

Sahyog – the Mentorship Club and Department of Training and Placement

Duration – 2 days, Date – 28th and 29th March, 2015

For all students, included group counselling and individual sessions

DAY 1 – PLACEMENT COUNSELLING

Our Speakers

P. Rajshekhar	placed in	Analytic Quotient
Ujjwal Lingham	placed in	Musigma
Mohana Roy Chowdhary	placed in	Musigma
Siddharth Roy	placed in	JSW
Amit Mahendru	placed in	Infosys

DAY 2 – CAT COUNSELLING

Our Speakers

Aashiq Agrawal	(98.09 CAT, 99.30 XAT)
Arushi Jain	(IIFT 99.81 converted, XLRI converted, CAT 95.19)
Sajal Mittal	(98+ CAT)

GRE COUNSELLING

Our Speakers

Shashwat Pandey	(GRE 316, TOEFL 102, Purdue, CMU, Georgia Tech, Univ of Houston, Univ of Washington Seattle)
Siddharth Singh	(GRE 310, TOEFL 94 Missourie Univ of science and tech, Univ of North Carolina Charlotte)
Anshul Nogariya	(GRE 321 Penn state univ, Arizona State)

GATE COUNSELLING

Our Speaker

Aabhas Singh Thakur (GATE rank-216)



हिंदी पखवाड़ा

2014-15 (01 सितम्बर-13 सितम्बर)

भाव भरी, अनुभाव भरी, सद्भाव भरी, सु-आनंद-समासा! भाग्य- भगीरथी भद्रजनों की, भारतवर्ष की भगवद् -भाषा !!

संस्थान में हिंदी के प्रति रुझान को बढ़ाने हेतु राजभाषा प्रभाग ने 01 सितम्बर से 13 सितम्बर के दौरान हिंदी पखवाड़ा का आयोजन किया। इस वर्ष छात्रों ने विभिन्न कार्यक्रमों में बड़ी संख्या में हिस्सा लेकर यह दर्शाया कि हिंदी के प्रति उनके रुचि में वृद्धि हुई है। राजभाषा प्रभाग द्वारा आयोजित कार्यक्रमों की एक झलक निम्नलिखित है-

1. तात्कालिक भाषण (01 सितम्बर) - समकालीन विषयों पर आधारित इस फ़ैज तियोगिता में छात्र-छात्राओं ने रुचिपूर्वक निर्धारित विषय पर समाधान सहित अपनी बात रखी ।
2. समूह चर्चा (01 सितम्बर) - विभिन्न सामाजिक मुद्दों पर परिचर्चा के लिए छात्रों को इस प्रतियोगिता ने मंच प्रदान किया, जहाँ वे समस्या एवं समाधान पर गहन चर्चा करते नजर आये ।
3. हिंदी प्रश्नों को समेटती इस प्रतियोगिता में छात्रों का रुझान सराहनीय रहा। यह प्रतियोगिता दो चरणों में संपन्न हुई ।
4. कविता लेखन (03 सितम्बर)- हिंदी पखवाड़े का सबसे सफल कार्यक्रम कविता लेखन प्रतियोगिता रही। इसमें छात्रों ने अपनी कविता शैली का बखूबी प्रदर्शन कर निर्णायक मंडल एवं श्रोताओं का मन मोह लिया।
5. शिक्षक प्रश्न मंच (05 सितम्बर) - शिक्षक दिवस के अवसर पर आयोजित इस प्रतियोगिता में गुरुजनों से छात्र प्रश्न करते नजर आये।
6. निबंध लेखन (11 सितम्बर) - इस प्रतियोगिता में छात्र विभिन्न मुद्दों पर अपनी अभिव्यक्ति का सफल प्रदर्शन करते दिखे।
7. रंगमंच (13 सितम्बर) - अपनी भावनाओं को प्रदर्शित करने का सबसे मनोरम माध्यम होता है रंग मंच। इस प्रतियोगिता में प्रतिभागियों ने नाटकों के माध्यम से सामाजिक कुरीतियों पर कटाक्ष किया। प्रतियोगिताओं के संपन्न होने के पश्चात पुरस्कार वितरण समारोह का आयोजन गणतंत्र दिवस समारोह में किया गया, समस्त विजेताओं को संस्थान के निर्देशक डॉ. सुदर्शन तिवारी द्वारा पुरस्कार एवं प्रशस्ति पत्र प्रदान किया गया ।



gogreen

REPORT 2014-15

Modern technology owes ecology an apology. It may be an anonymous quote, but there is an underlying truth in the quote. The modern man, well equipped with things around him extracted from nature has forgot his major responsibility of conserving the nature.

WE CARE THE GREEN MOVEMENT NIT RAIPUR, established with the motto of serving the environment has been successful creating awareness among students and also in the city regarding the need for environmental protection.

The inspiration and guidance given by the Prof .Incharge, Mr. Samir Bajpai helped us achieve greater heights in various fields such as energy conservation, Eco-friendly practices, discarded reusable products, a visit to the sanctuary.

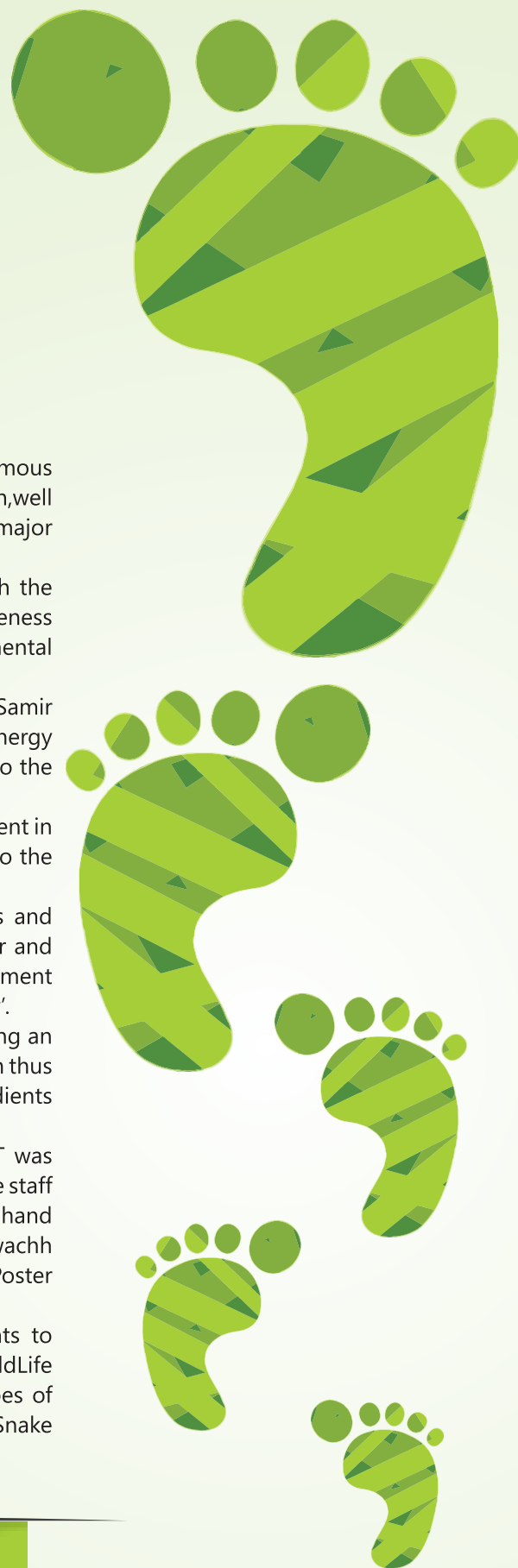
The main motive of this club is to create an eco-friendly environment in our campus and to create awareness among the students so that they do the same at their personal level.

In this academic year, the club has come up with several ideas and thoughts which were applauded by the students and staff of NIT Raipur and attracted the NGO's outside the college like 'Chhattisgarh Environment Conservation Board (CECB)', 'Think India' and 'Chhattisgarh Wildlife Society'.

The evergreen event "GANESHA RETURNS" which includes making an idol of Ganesha from clay and natural colours has seen a huge participation thus spread the motto of reduced usage of artificial colours and other ingredients that harm the nature.

Modi Government's prestigious campaign of SWACHH BHARAT was inaugurated on Oct 2nd 2014 with GoGreenClub as the main mentor. All the staff and students took an oath of striving for a better environment, gave their hand and became a part of the Campus Clean held on that day. As a part of Swachh Bharat Campaigning, 3 events namely Green Doodle Show, Online Poster Making and Best Out of Waste, which saw a huge response.

One of the prestigious achievement was a trip for 40 students to Barnawapara Wild life Sanctuary which was sponsored by Chhattisgarh Wildlife Society. It was a two day trip which included a seminar on different types of birds, nature walk into the forest, cultural event at night, dinner in forest, Snake Rescue by NOVA NATURE CLUB.





In the Technical Fest, AAVAR T A N , problem statements related to Greenery of Earth were also included ,where students exhibited different models as per the statements given.

A campus clean-up was held to get an overview of the main pollutant of the campus and their wastes which earned a great response. The wastes collected and are sent to recycling.

remediation were also

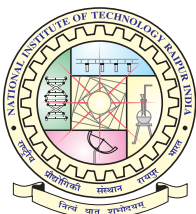
In the cultural fest, Eclectika, WE CARE THE GREEN MOVEMENT has organised three powerful events which received a splendid applause from the campus.

Best out of waste includes the conversion of waste materials into a product which can be used Green journalism which included a video presentation round. Greenopedia is an environmental quizzing event.

We Care the Green movement in collaboration with 'Chhattisgarh Medicinal State Board' during Eclectika 2015 has displayed a wide range of medicinal plants with the students and as well as to professors for three days which was visited by students all over the city.

All these events and their success boosts us up and raises our spirits to set our goals higher and higher and keep achieving them. The team members of the club during its formation take an oath to give each one's maximum to work as a team and to achieve an eco-friendly campus





SHORT TERM TRAINING PROGRAMME ON

MATHEMATICAL MODELING IN SCIENCE AND ENGINEERING

(July 02-06, 2014)

Under TEQIP Phase-II

Organized by

Department of Mathematics, National Institute of Technology Raipur
Chhattisgarh - 492 010, INDIA

REPORT

The Department of Mathematics had organized a one week Short Term Training Programme on “**Mathematical Modeling in Science and Engineering**” under TEQIP Phase-II during the period **July 02-06, 2014**. The STTP started on 02th July 2014 at 10: 00AM with inaugural function. The inaugural function was presided by Prof. Sudarshan Tiwari, Director NIT Raipur. Welcome speech was given by *Dr. Sharada Nandan Raw*, Co-ordinator, STTP and address speech to the Department and STTP was given by **Dr. Arvind Kumar Sinha**, Principal Co-ordinator, STTP. Dr. Ravindra Sharma, Registrar, NIT Raipur was been delighted on the importance of TEQIP fund.

The eminent experts *Dr. Manish Kumar*, Birla Institute of Technology & Science, Pilani Hyderabad Campus, *Dr. M. K. Singh*, *Dr. Rajnesh Kumar*, Assistant Professor, SRMU Lucknow, *Dr. J. K. Singh Vijayanagara Sri Krishnadevaraya University* Bellary, Karnataka, *Dr. G. Naga Raju*, Assistant Professor, VNIT Nagpur, *Dr. Arvind Kumar Sinha*, Principal Co-ordinator, STTP & HOD of Mathematics, NIT Raipur, *Dr. Sharada Nandan Raw*, Co-ordinator STTP & Assistant Professor NIT Raipur, *Dr. M. Krishna Prasad* Assistant Professor NIT Raipur, *Dr. Sujit Kumar Samanta*, *Dr. Deepmala Sharma*, Assistant Professor NIT Raipur, and *Dr. Nilesh Kumar Thakur*, Assistant Professor NIT Raipur had delivered their lectures in this STTP covering various aspect of Introduction and Basic concepts of Mathematical Modeling, Mathematical Model and its Applications; Mathematical Modeling of Distribution Warehouses Technologies; Mathematical Modeling in Distribution Theory and Wavelet Analysis; Advanced Optimization Techniques; Magneto Hydro Dynamics Problems; Crypto-graphical Modeling, Modeling of Significant Boolean functions; Dual Concept in Modules; Introduction to MATLAB and its application in real world problems.

In this STTP, *Dr. Manish Kumar* gave the talk on the topic Distribution theory and its application in real world problems and he also presented a model on wavelets for security purpose. *Dr. Rajnesh Kumar* delivered the lecture on Mathematical Modeling in Fraction Differential Equations and its applications in Science and Engineering and also discussed how to solve Fraction Differential Equations. *Dr. J. K. Singh* delivered the lecture on Magneto Hydro Dynamics and its application in real life problems. *Dr. G. Naga Raju* took the lecture on Wave in Conservation law: Modeling and Solution technique. *Dr. Arvind Kumar Sinha* gave the lecture on Mathematical Modeling of dual concepts in Modules in Algebra. *Dr. Sharada Nandan Raw* delivered the talk on Introduction to Mathematical Modeling in Advanced Ecological Systems. *Dr. M. Krishna Prasad* delivered the lecture on introduction to MATLAB and also discussed the how to solve the real world problems with the help of MATLAB. *Dr. Sujit Kumar Samanta* delivered the lecture on Nonlinear Optimization theory and practices, *Dr. Deepmala Sharma* gave lecture on Boolean functions for Cryptography and *Dr. Nilesh Kumar Thakur* took the lecture on Mathematical modeling on Ecological systems.



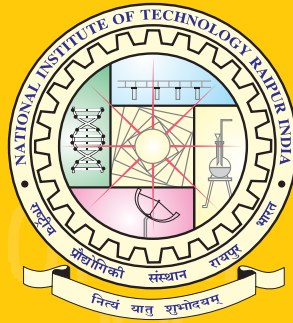
In spite of busy teaching schedule about 29 participants from various institutions from all over India had registered for the STTP. All the participants learnt many creative ideas about Mathematical Modeling. All the participants praised the organizing committee for nice conduction of the STTP in their feedback.

The valedictory function of the STTP conducted on 06th July 2014. The valedictory function was presided by *Prof. S. Sanyal*, TEQIP Co-ordinator NIT Raipur. He congratulated the Department of Mathematics for successful conduction of this STTP and also suggested that this type of programme is very much useful to the faculty members, research scholars and students and this type of activity must be organized by Department in future. This programme was very much appreciated by *Dr. G. Naga Raju* and he suggested that this type of programme must be organized by Department in near future. He also congratulated to the Department of Mathematics for successfully conduction of this STTP.

Overall the STTP was very much successfull.

Dr. Arvind Kumar Sinha
Assistant Professor & HOD (Mathematics)
PRINCIPAL CO-ORDINATOR

Dr. Sharada Nandan Raw
Assistant Professor (Mathematics)
CO-ORDINATOR



NIT

DEPARTMENTS

APPLIED GEOLOGY



BIOTECHNOLOGY



CHEMICAL ENGINEERING M.TECH



CHEMICAL ENGINEERING



CHEMISTRY



COMPUTER SCIENCE



CIVIL ENGINEERING



ELECTRICAL ENGINEERING



nit

DEPARTMENTS

ELECTRONICS & TELECOMMUNICATION



HUMANITIES



INFORMATION TECHNOLOGY



METALLURGY



MATHEMATICS



MECHANICAL ENGINEERING



MINING



PHYSICS



TRAINING & PLACEMENT OFFICE







TEAM SHILPI



LITERARY COMMITTEE

CREDITS

English - Shivam Sharma, Ritvika Reddy, Nandini Bandyopadhyay, Shruti Kaushik, Ayesha Queraishi

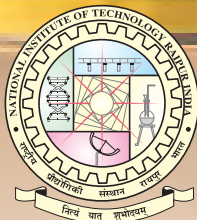
VoxPop - Siddharth Chaudhary, Mukul Garg

Reports - Rishabh Gupta, Ruchita Tamghade

Hindi - Peeyush Varshney, Aditi Nivsarkar, Nishant Ranjan, Abhiram Shukla, Akash Deepak Pandey

Technical - Neha Verma, Amit Goswami

Front Page - Neha Verma



NATIONAL INSTITUTE OF TECHNOLOGY, RAIPUR