



# National Institute of Technology Raipur

*Shilpi*  
2020





# 2020 - LIVING A YEAR





# 2020 - LIVING A YEAR





# DEDICATION

## The COVID-19 Warriors

*Today, when the world is still in the state of combating the pandemic and getting back on its track from a dead stop brought on by the coronavirus, the words of Stephan Ambrose, “It would not be possible to praise the nurses too highly”, speaks even louder. In the current scenario, this phrase highlights the selflessness of not only the nurses, but also the medical professionals, policemen, postmen, NGOs, garbage collectors, media reporters and sanitation workers. Furthermore, these “covid warriors” displayed their conscientiousness in numerous dire situations. From monitoring the lockdown guidelines, to working for 10-12 hours wearing PPE kit, from relentlessly sanitizing the residential areas to conducting thousandths of covid tests per day, the covid warriors have been sticking their neck out since the outbreak of Covid-19. There were few times when the health officials and the police force had to confront violence of some misguided individuals. But that did not deter them from responding to their call of duty. Even more, many of the covid warriors had to stay away from their families for months and quite few of them lost their lives in the service of humankind. As more dangerous stages of Covid 19 approached, the steel nerves of these warriors grew stronger, as much again. Regardless of the rolling out of Covid-19 vaccine, our covid heroes are not slacking off and continue to carry out their responsibilities.*

*Therefore, in admiration of their patience and their commitment to the welfare of mankind, we should not simply label them as heroes, but perform our duty as well. By maintaining social distance, wearing a mask, using sanitizers, avoiding social gatherings, eating healthy food, exercising and registering for vaccination on time would assist in not only bringing down the numbers of Covid patients, but also the working hours of our warriors. After all, little drops of water make the mighty ocean!*



## MESSAGE FROM THE DIRECTOR



I trust that you are taking care of yourself and your family as well!

It gives me immense happiness and pride to present the 2020 edition of 'SHILPI' the annual magazine brought out by the Literary Committee of NIT Raipur.

National Institute of Technology Raipur has emerged as the Best Technical Institute in the state of Chhattisgarh, with the 67th NIRF rank in the Engineering Institutions category in 2020 and a rank in Band 'A' (11-25) in the ARIIA Ranking 2020. The institute is constantly striving for all-round development of students through its endless efforts, and 'SHILPI' is one such endeavor, providing an opportunity to members of the NIT Raipur fraternity to showcase their wide spectrum of literary and artistic talents that culminate into the ambrosia of life and philosophy.

The year 2020 was an unprecedented year due to the COVID-19 pandemic in the country and across the globe. Despite the crisis, the institute administration has remained committed to keep the momentum going on all the fronts, while adhering to the safety precautions for well being of the community as our top priority. I applaud the efforts of our students, faculty and staff who continue to demonstrate their rigor and agility even during the testing times, and the sustained publication of 'SHILPI' is yet another example of it.

I extend my heartiest congratulations to the Literary Committee and to all those who have invested their valuable time to elevate this magazine to new heights. I wish the readers a delightful reading.

Stay Safe and Healthy!

[Dr. A.M. Rawani]  
Director  
NIT Raipur

# EDITORIAL

*Hope, is the thing with feathers,  
That perches in the soul,  
And sings the tune without the words,  
And never stops, at all...*

And what a bird it is!

It was the beginning of March 2020, when the cold hands of a pandemic touched our doors, when its icy fingers invaded our society, we all were scared. Everyday we woke up, we would look at the newspaper with a hope that was crushed every morning. But human spirit is miraculous, we held on to the hope, no matter how thin the string was. This year the hope took many forms. From learning a new skill, to indulging in one's hobbies, learning a new language or learning how to cook. What drove each one of them, was a simple thought that always had a beginning similar to "When everything will be alright..."

2020 will go down in the annals of history as the year when the resilience of making stood at the face of existential danger. A year fraught with tragedy, a year where many lives were lost, but also a year where humanity stood above it all. This was also the year, when we learnt of things that hold the most value to us, and also learnt to let go of the patterns that did not serve us. And above all, it was a year where God descended as our frontline workers who stood their ground for the rest of mankind.

We at Literati have dedicated this issue of the annual college magazine to all frontline workers and doctors who stood against all odds. They stared into the eyes of death, but not for a moment had let their composure waver.

Literati salutes all those brave hearts...



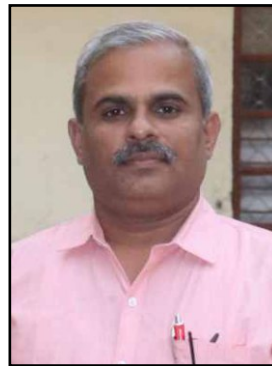
# FACULTY SUPPORT



**Dr. Sanjay Kumar**  
**Chairperson**



**Dr. Ebha Koley**  
**Member**



**Dr. Anoop Tiwari**  
**Member**



**Dr. Saikat Majumder**  
**Member**



**Yeddy Vijaya Babu**  
**Member**



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# The 10<sup>th</sup> CONVOCATION

## The 10th Annual Convocation

was held on Sunday, 1st December 2019. The venue was its very own Permanent Campus, NIT Raipur. The occasion was graced by Mr. Abidali Neemuchwala, Chief Executive Officer (CEO) and Managing Director (MD) of Wipro, and the alumnus of Institute (B.E. from erstwhile Govt. of Engineering College, Raipur in 1990) as the Chief Guest of the ceremony. Also in attendance were other dignitaries from the academic world, industries and the government apart from Chairman, Board of Governors NIT Raipur and Director, NIT Raipur Prof. A. M. Rawani.



Over the course of a long and distinguished career, Mr. Abidali has served for 27 years in the global IT industry. The function was presided over by Dr. A. M. Rawani, Director and Acting Chairman of Board of Governor (BOG), NIT Raipur, who presented the

Presidential address and the Institute's report highlighting the key achievements of the Institute. The Chief Guest Mr. Neemuchwala addressed the gathering and congratulated the graduating students. It was followed by the award of degrees by the Chairman of the Senate.



A total of 1122 students including 859 Graduates, 216 Postgraduates and 47 PhDs were presented by Dr. S. Verma, Dean Academics for receiving their degrees. A scintillating medals and awards ceremony was also part of the Convocation, several other medals and endowment awards were also distributed. A sum of 51 medals including 26 Gold and 25 Silver medals were presented to the meritorious students by the Chief Guest and the Chairperson of Board of Governor. The coveted Institute Gold Medals for obtaining the highest CGPA amongst all the

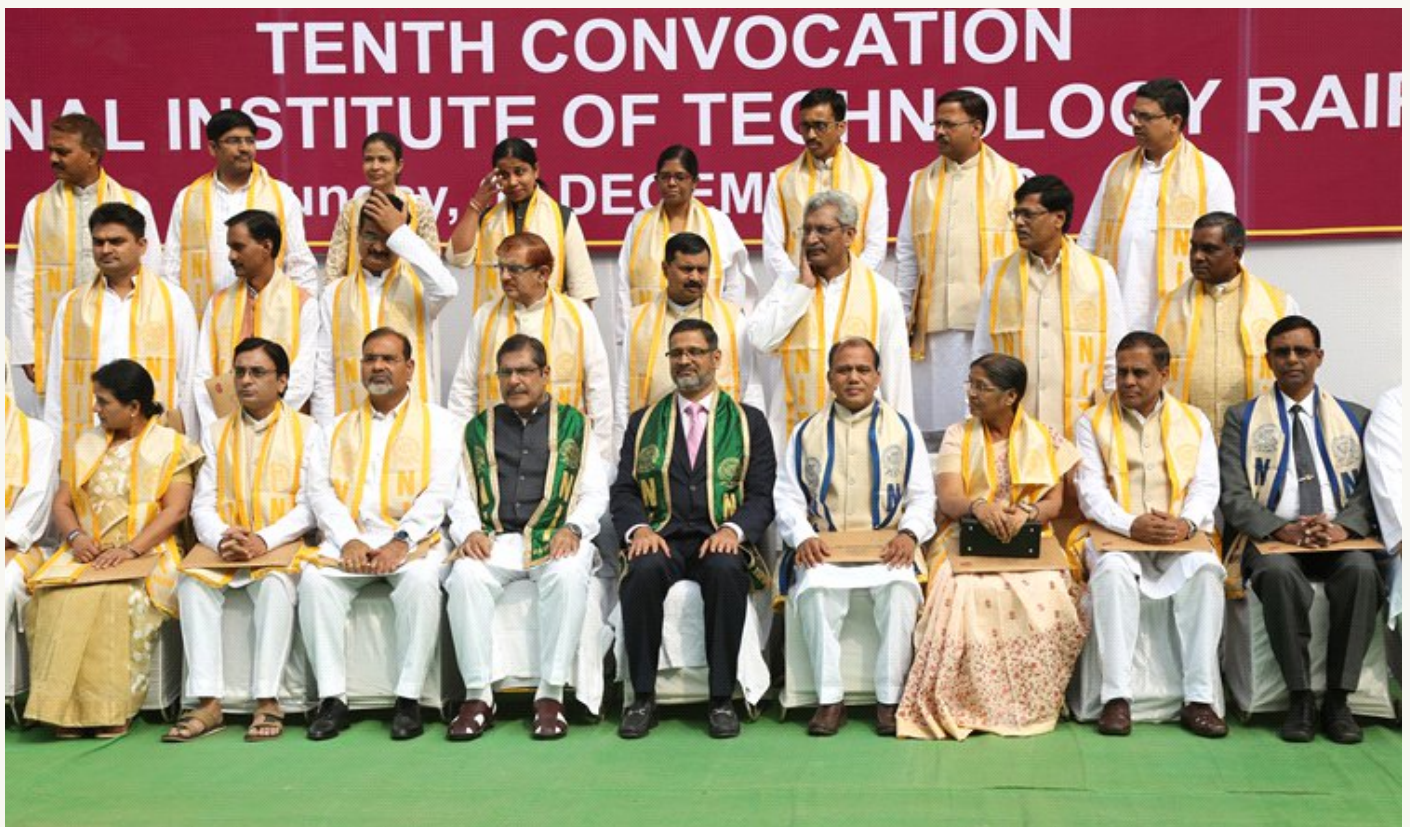


graduating students in the year 2018-19 were jointly awarded to Ms. S. Goyal and Mr I. Singhal, the Department of Computer Science and Engineering. The graduates were awarded their certificates and were charged by the Senate and the Director.



The students and the audience were then enthralled by the rousing speech of the Chief Guest, Mr. Abidali Neemuchwala. He appreciated the efforts made by NIT Raipur. He emphasized contributing back to the community being essential. He shared his top-five lessons and values of life as integrity, continuous and immersive learning, embracing failure, respecting intuition and taking risk, and acting with humility, empathy and humanness. In his brief and captivating address he inspired the graduates, students and faculty of the Institute.

The ceremony ended with the vote of thanks proposed by Dr. M. Atulkar, Registrar (Officiating), NIT Raipur.





# Topper's Talk





## Prince Jain

CSE 2020  
CAT Percentile- 99.77  
University - IIM Ahmedabad

### 1) Why did you choose to pursue CAT ?

In order to gain an overall perspective of running a business and managing people, I decided to pursue MBA. I chose CAT because it allowed me to study in the best B-Schools of the country.

### 2) What would be the best strategy as per you to score well?

Practice Practice Practice. Don't wait to complete the syllabus to start giving mocks. CAT examination is all about getting into rhythm and mock papers help you do that.

### 3) What would be the ideal time to start preparation and what would be the best way to prepare, is it via coaching or self study?

Dedicated preparation of 6 months is more than enough. I will say Coaching is better because it helps aspirants give a direction.

### 4) Is CAT not a suitable option for students from regional language medium schools?

I don't think so. CAT checks the aptitude of an individual which is in no way correlated with the language background.

### 5) Are the scholarships/stipends available for studying sufficient, considering the high payment of fee?

There are ample of scholarship opportunities. Both institutions and corporations come to provide adequate support and ensure no deserving student is deprived of learning.

### 6) How are the B school admission interviews?

The main qualities which interviewers look for have to be confidence and communication skills. They want to assess whether or not you will fit into a B-school culture, and these skills are an indispensable part of it.





## **Amrita Mishra**

CSE 2020  
CAT Percentile- 99.64  
University - IIM Calcutta

**1) When did you decide to go for the CAT exam in spite of the fact that you are pursuing your particular branch at NIT Raipur?**

4th semester

**2) Why did you specially go for CAT over GATE, GRE or any civil service examination?**

I was interested in Management and I wanted to stay within my country, close to my loved ones

**3) There would have been times that you feel stressed and wanted to give up! How do you cope up with the stress and get back on the track?**

I spoke to my friends, went out with them. A good support system is important. I have a habit of journaling, so that immensely helped me throughout my preparation.

**4) When did you start your preparation? Did you attend any kind of coaching or sign up for any mock examination modules?**

I started my preparation in 4th semester. I joined AB Classes in Raipur and followed diligently what my mentor (Abhishek Gupta sir) told me.

**5) What kind of Hobbies and Interests you have? And were you in any club or Committees in college?**

I love dancing. I have completed my Masters (Visharad) in Bharatnatyam. I'm extremely interested in Writing and Singing also. I was a part of Technocracy, Nrityam and Placement Cell throughout my college life.

**6) Had you thought of any alternatives if you wouldn't have been successful in clearing CAT?**

In my final year, I had received an offer from Deloitte USI. So if I wouldn't have been successful in clearing CAT, I would've worked a full-time job there.

**7) What kind of a profile should one build for a shot at MBA ?**

I think one should build a balanced profile. The most important thing is that you know yourself, your interests and why you're doing what you're doing. In most B-schools, they interview you for the sincerity and dedication you've shown throughout your life till now and if you'll be a cultural fit to their B-School.

**8) Did you anticipate your result? How did you feel after knowing that you have cleared the exam?**

Yes, the answer keys were released one week post CAT and I knew I would clear it. But the percentile was a surprise for me. I was delighted after knowing the results.

**9) What are your suggestions for the future aspirants?**

For CAT, all you really need is enough practice. Practice as many mock tests as possible and analyze them. Get some guidance from seniors or coaching institutes. Don't panic, it's just an exam. All the Best.



## Shubhank Gupta

Electronics 2020  
GATE Score- 811  
Rank- 172  
University - IISc Bangalore

### **1. When did you decide that GATE was the one for you? What made you choose GATE over other career options like CAT, placements etc.?**

At the beginning of my college days, I was unsure whether it is placements or any other exams that I should be aiming for. I started learning programming languages, Machine Learning, web development, and other things. I got bored after a certain point. Then I realized that these are not my cup of tea. In my third semester, I started enjoying the courses, especially microprocessors. The thought of doing MTech had crossed my mind. Then the GATE was the next thing I started preparing for. CAT, of course not, as I am more inclined towards the technical field.

### **2. Which PSU/institute have you applied to?**

I applied to various IITs and IISc for MTech and got selected in IISc in Microelectronics and VLSI design course.

### **3. When did you start your preparations? What was your strategy and how did you stick to it?**

I started my preparation in the 4th sem with my friend Raj. We joined the coaching Institute together and used to discuss different questions and concepts. Most of the subjects were very interesting to study, the rest of the thing was to practice different questions.

### **4. Was it difficult to focus on GATE and semester studies? How did you cope with it?**

Quite difficult to maintain some attendance.

Not focusing much on semester studies helped. GATE studies were sufficient to clear the semester exams, as most of the subjects are common; moreover, if any subject I haven't studied and not in GATE syllabus, a day or 2 was sufficient to prepare for it.

### **5. Which subjects would you feel to be difficult? How did you overcome that?**

Subjects like EMT, Digital communication were very conceptual, and not everyone can teach it very well; rather, formulating it is very easy. My other subjects became very strong at some point in time; then, in the next few months, I spent on these subjects.



**6. Did you attend any coaching institution for your preparation or sign up for any examination module for your preparation? How was your experience?**

I joined a local coaching institute. I got to know some subjects in more depth. Yes, except for some subjects or topics and some other issues, the experience was okay, I guess.

**7. What would you like to suggest to future aspirants?**

Surround yourself with friends having the same goal. Discuss different concepts. If anything is clear to you and not to others, then always explain things to them. Teaching is the best and quick way to learn something. Don't prepare for a particular exam just because everyone else is preparing. That exam might be the way for some people; It can't be the way for all.

**8. Did you anticipate your result when you were preparing for your exam?**

I always tried not to think about results. No one wants to. But at some point in time, the mind converts the current preparation into some numbers. While giving the test series also, the thought of final marks always crossed my mind.

**9. What are your hobbies? Did they assist you in your preparation?**

I have some hobbies like watching Animes, writing poetry, etc. did they help? I can't say. Did they resist? Not really. Hobbies are the things that you do when you get bored. When I get bored with studies and all, my efficiency gets reduced. To be back with the same enthusiasm and energy, I used to do the things that I enjoy the most.



## Sachin Wani

CSE 2020  
GRE Score- 325  
University - University of  
Florida

### 1. Why did you choose to pursue GRE ?

I always wanted to pursue a higher degree in Computer Science. Knowing that the USA offers the best Master's degree in CS, I had already decided to pursue GRE for an MScS degree.

### 2. What would be the best strategy as per you to score well?

I think there should be a balance between the subjects. As GRE consists of Verbal and Quantitative Section, too many students focus on scoring 170/170 in Quants while neglecting the Verbal section. Most colleges focus on individual scores, and hence, I'd recommend maintaining that balance to achieve a good score.

### 3. What would be the ideal time to start preparation and what would be the best way to prepare, is it via coaching or self study?

I started studying for GRE in March 2019 (when I planned to give it in August 2019). I purchased the Official GRE Books from ETS and started my self-prep. After the 6th Semester, I picked up my pace and began giving mocks available online for free. If you are disciplined enough to keep making a constant effort, no matter how small, you can complete your GRE preparation yourself without the need for a coaching class. Giving mock exams would help you understand where you stand, where you are great, and where you are lacking. Mocks are the best way to prepare yourself for the Marathon that GRE expects you to understand.

### 4. Is GRE not a suitable option for students from regional language medium schools?

GRE, for Indians, mainly relies on getting your verbal scores as high as you can while maintaining the school-level mathematics to score in Quants. It will surely be a difficult task for students from regional language medium schools. I was from a state-board school, English wasn't my forte. I'd recommend starting to read English articles and improve your vocabulary from books like the Barron's Dictionary. I commenced by learning 5 new words a day and picked up my pace day-by-day to learn 50 words a day. GRE Test is more about tackling the exam format and fighting through it rather than knowing it all.

**6. What factors to be considered while selecting the institution and what would be a good GRE score?**

The most crucial factor to consider is your department within the institution. There will be a mid-level university renowned for its particular department, and there will also be a top-ranked university with a mediocre department/subject you want to study. Choose the prior. There are other factors many consider including weather, cost of living, future prospects, etc. There's no magic number to score in a GRE Test that guarantees you an admission. GRE is just one of the many points considered during the admissions process. Having a score of 320+ (with 150+ in each) would ensure that the admissions committee will not reject your application based on your GRE score alone.

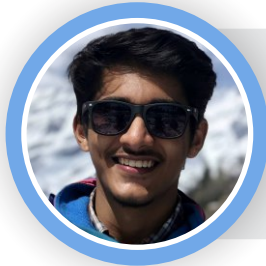
**7. Considering the current the covid - 19 scenario, would there be a decline in the number of seats in foreign universities?**

There would have been a decline in seats for Fall 2021 admission. However, if you're reading this now, you will be applying for your admission way later than 2021. Therefore, there's nothing to worry about. The COVID situation won't affect your chances of getting an admission.

**8. Advice/suggestions for future aspirants.**

Make sure you are ready for your Master's degree. If you are unsure of it, take your time. Don't rush into a decision. Preparing for the GRE Test is going to be one of the most hectic, yet fun learning experiences. Think of it as a hurdle you have to cross before taking the next step: Applying for universities. The first few months may feel tough and you may feel that GRE isn't your piece of cake. Just have faith and confidence in yourself, and you'll do great! All the best!!





## **Gaurav Patel**

Electronics 2020  
GRE Score-312  
University - Purdue University  
West Lafayette

### **1. Why did you choose to pursue GRE ?**

One major factor that motivated me to pursue GRE, is that I wanted to explore and work on my research interests, and doing a Masters/Ph.D. is something that allows for the same, and as far as the US is concerned, GRE is a hard requirement to apply to graduate schools. Also, graduate schools in the US compared to India are much more flexible and accommodating. One can fine-tune his/her coursework and take courses from departments across the University. Additionally, US universities provide better research facilities, fundings(for research-based Masters and Ph.Ds), and Job opportunities. Hence, I thought of giving the GRE test to apply to graduate schools in the US.

### **2. What would be the best strategy as per you to score well?**

The ideal strategy would be to start as early as possible give as many mock tests as you can, the reason being that the gre is less of a test of Knowledge and more of a test of the test-taking ability, and this can only be mastered with multiple and frequent mock attempts. Also, giving the mock tests will help you become familiar with the question-types, develop a test-taking strategy by learning which questions to skip/attempt at first and later return to, adapt to the exam pattern, instill confidence and develop a comfort level while giving the actual test.

### **3. What would be the ideal time to start preparation and what would be the best way to prepare, is it via coaching or self study?**

The ideal time to start preparing for GRE should be to start 5-6 months before your GRE test date. Note that GRE is not a subject test that requires any domain knowledge, it is a standardized test, which tests your quantitative and verbal reasoning. Therefore, 5-6 months should be sufficient enough to get a decent score, however, the preparation time is subjective to a particular individual. Thus, I would suggest the test-taker give a mock test at the very beginning of the preparation to assess his/her level and then accordingly decide the appropriate time required to prepare for the test.

For People Who plan to go for MS/Ph.D right after B. Tech.

I would suggest getting done with your GRE test by the end of your third year, because as you transition into your 4th year you become busy with your internships, projects, placements, etc., hence, at that stage, it becomes hard to take out the time to prepare for the test.

For People who are not sure yet, but want to pursue Masters/Ph.D.(probably after some work experience.) I would suggest the same to them because the GRE score is valid for 5 years. So, it's better to get done with the GRE as early as possible while you have the time. Self-study or Coaching?

Again its subjective to a particular individual. Whatever floats your boat.

#### **4. Is GRE not a suitable option for students from regional language medium schools?**

The GRE verbal reasoning section assesses the test-takers ability to understand and analyze written material of the level expected at a graduate school in a native-English speaking University. Therefore, any person, either from an English medium or a regional language medium background, who wishes to pursue a graduate degree he/she is aiming for needs to satisfy the minimum requirements of the GRE verbal section as decided by the University. So, I don't think if there's a question of suitability, rather its a personal choice dependent on the individual's aspiration.

#### **5. Are the scholarships/stipends available for studying abroad sufficient, considering the high cost of living in that specific country?**

In the context of US Universities

Any funding that a student (Ph.D. or MS ) gets in a University is either by working as a Teaching Assistant(TA) or a Research Assistant(RA). In either case, the stipend is sufficient enough to sustain and save some of the amounts, however, you still need to pay the tuition fees for the courses that you take, for which the students use their stipend amount. On the other hand, there are some Universities that in addition to providing the stipend amount waive off the tuition fees completely, conditioned to holding a RA or TA position, which effectively means that you get paid to study and you are earning from the university rather

than paying tuition each semester. Purdue University graduate school is of the latter kind and therefore I plan to go there. For MS students only a small portion of students get TA/RA positions in the first semester, but starting from the second semester almost every MS student is funded with TAs/RAs. Ph.D. is funded right from the beginning of the program. These TA/RA-based scholarships/stipends are the ones provided by the University. Additionally, there are scholarships available from India, that provide a certain fixed amount e.g. JN Tata Scholarship, KC Mahindra Scholarship to name a few.

### **6. What factors to be considered while selecting the institution and what would be a good GRE score?**

Things to keep in mind while shortlisting/apply to the Universities

1. Ranking of the institute/program
2. Fees(major factor)
3. City / Living cost (this can be a big factor in the US, there is a huge difference in cost of living in different cities in the US)
4. Teaching Assistantship / Research Assistantship (and other funding opportunities)
5. Look at profiles of students who got accepted in the past, if there are any from your own college/university, please reach out to them.
6. GRE cut-offs if the university declares it or else get a sense of the range of GRE scores from 5.
7. Talk to seniors/acquaintances studying abroad, use LinkedIn, Facebook, Instagram, etc.
8. Look at professors who are working in the area that you would like to specialize and get a thesis. Sometimes the University may not be top-ranked, but they may have an excellent research group in a particular area that you are interested in.

#### Good GRE score

Depends on the school/programs you are applying to. 305/340 in GRE may be good enough to get an admit in say a less competitive esoteric MS program in a top-ranked university or less GRE-centric university where more weightage is towards your GPA and Overall profile. While a good score of 325+/340 does not guarantee you admission to a competitive Computer Science, AI, or ML masters program of the Top15-20 universities, where you have applicants from different undergraduate branches/majors. Also, the split of the Quantitative and Verbal sections is more important, some schools might stress on Quantitative above 90%ile while other schools can have 80%ile on both Quant & Verbal.

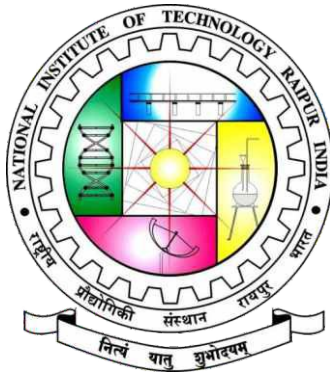


**7. Considering the current the covid - 19 scenario, would there be a decline in the number of seats in foreign universities?**

I am a 2020 pass-out from NIT Raipur and I was supposed to be in the US, enrolled in my masters program in August 2020. However, due to the pandemic and the uncertainty associated with it, I deferred my admit from Fall 2020 to Fall 2021. Also, like me, many students deferred their enrollment term. Therefore, due to the admit deferrals, the fresh batch of students applying in 2021 has a few seats to compete for. Additionally, due to the pandemic, the universities also waived off the GRE requirement. Nonetheless, the top-ranked universities are still giving out admits to deserving students irrespective of their intake capacity. As of now when things have started to normalize, the admission process is expected to return to normalcy from next term.

**8. Advice/suggestions for future aspirants.**

One common misconception that many aspirants have regarding MS in the US or any other country is that they believe getting a high GRE score (e.g. 330+/340) will guarantee their admission into a top-ranked University. If you are only focusing on GRE, you don't understand the graduate application process. GRE is more of a filtering criterion than an assessing criterion, US colleges get tons of applications each year, and due to these bulk applications, they use the GRE scores to filter the applicants and generally the Universities don't declare this cutoff. Post this filtration, applicants are compared based on their profiles, GPA, Letters of Recommendation (LoR), and Statement of Purpose (SoP). Having said that, I don't discourage people from preparing for GRE as for a competitive and highly ranked program the cut-offs are also high. GRE is one of the parameters and not the only parameter for admission. Not focussing on GRE was one of the mistakes that I made, as getting a higher score would have increased my chance of getting scholarships from India, which are GRE-centric. I hope the aspirants learn from my mistake.



# ALUMNI ANECDOTES



## Kuhu Gupta

IT 2017

University - Georgia Institute of Technology  
Data Visualization Engineer at Illumio



### **1. What are those few things that you believe we students must do while we are still in college?**

Enjoy each day at the campus. Build friendships and support each other. The friends that you make during your undergrad will stay forever with you. They will be there for you at your lows. Don't follow what everyone is doing because each of us will have our unique journeys, so trust your hard work.

### **2. When it comes to career, should we prefer taking risks or playing it safe?**

There is no black and white. You will always play in the gray area. Some could afford to take risks, and some could not due to several reasons like financial or family obligations. If you can, go for it, and if you can't do everything possible early in life, you can take it later.

### **3. What's the most important change should we students make right now to help us get closer to our career goals?**

Learn Design Thinking. Learn how to solve different kinds of fundamental problems rather than creating an app for anything. We are taught to solve a set of issues but not the process to solve different types of problems. Data Science, Machine Learning is not the end of the world, so don't follow the crowd. There are multiple opportunities out there, and if not, create yours.

### **4. What is the best advice you've received that has helped you be successful in your career?**

Your hard work will never betray you. Learn to communicate your ideas and thoughts.

### **5. What's the most difficult decision you've made, and how did you come to that decision?**

The most difficult thing was not going for placements. I wanted to do something I love- data visualization, and I knew the companies that were coming to placements would not give me that kind of role. I went for a research fellowship in that domain to pursue my interests.

### **6. What is something you wish someone would have told you when you were still in college?**

We have this false idea that you will start enjoying life once you have a job and start earning. Let me tell you; Adulting is hard. Learn time management, how to communicate your thoughts and ideas and most importantly, never stop learning new stuff.

### **7. What is that one book we all must read before graduating?**

The Design of Everyday Things by Don Norman

## Kuldeep Pisda

CSE 2020  
Tech Lead at CodeVector Labs Official  
Director at HappyChases



### 1. When did you decide to start a start-up? What was your inspiration behind it?

I always wanted to do something of my own, but I became more convinced after listening to Aditi Chourasia from Engineer Babu at E-Summit 2016 and decided to not sit in placements.

### 2. Tell us something about Happy Chases

HappyChases is a media publication company, working to create productive content that helps people grow in any of the aspects of life i.e. Economically, Mentally, Physically, Socially and Spiritually.

### 3. Being placed in CodeVector Labs is certainly big. Congratulations on your success!

#### Would you like to share your experience with our readers?

So my friend Vinay and I have already failed once while creating an IT service company back when we were in 2nd year. We started again, this time a bit more focused a bit more specific and a bit more precise. We were good at AI/Data Science. And, we found that there is a lot of gap where we might help the companies, Govt implement AI better.

### 4. How did you manage time in college? How did you balance academics with all your extra-curricular activities?

I used to do internships while in college. I have never celebrated a weekend for the past 5 years. I used to work 24/7, in lunch, on holidays and sometimes I had to leave some classes for client meetings. I used to make sure that whatever classes I leave my percentage attendance never reaches below the defined criteria. After classes I used to work either at home or at the office.

### 5. What business related book has inspired you the most?

There are several books actually, I will list them all.

AirBNB

Alibaba: The house that Jack Ma built

Who says Elephant can't dance

PS: I can't rank them as 1,2 and 3

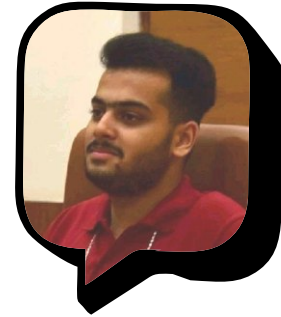
### 6. Finally, what is your message for our aspiring entrepreneurs?

Keep working, there are days when we feel like quitting but this is the time when you have to praise yourself and get going. Procrastinate less and do more. Often people will doubt or won't praise you, even your family might not support you. But that's OK. Why will someone? Prove yourself and keep working. Always remember that the first person to back you is you only. If you get going you might reach somewhere which is better than standing still right?



## Samveg Thaker

CSE 2020  
Software Engineer at Microsoft  
Co-Founder and CEO- Zenitech Techware



### 1. What business-related book has inspired you the most?

Leadership and Self-Deception.

### 2. How successful have you been finding investors for your venture?

NA. Not looking for investors right now.

### 3. Where do you see your startup in the next five years?

To be India's biggest Mental Health Startup.

### 4. What is your greatest fear, and how do you manage fear?

There is no greatest fear as such. I am a common man and fear few things from time to time. Best way is to remain calm, maybe try a breathing exercise and think through that with logic.

### 5. How do you market your business, and which tactics have been most successful?

Amrita Mishra takes care of it all. She is a brilliant Digital Marketeer and she keeps experimenting with the strategies. Our Doodle Competition was a great success recently.

### 6. What is the unique selling proposition of your company?

We are truly anonymous. We have great counsellors, those who are not only with us for money but actually want to help others. Above all, we have the greatest team who work with great discipline and enthusiasm.

### 7. How do you manage a full time job and a startup at the same time?

Well it takes a lot of discipline and motivation. It requires consistency and sacrifices. Above all, I am not the only one doing that. There are 1000's of other people and especially my friends who are contributing in a similar way. The best part about it is, the cause. Whenever we derail, there is one thought -  
"The feeling of saving even SINGLE LIFE, is worth all the efforts!"

**Vaibhav Shukla**  
Biomedical 2017  
Content Writer & Actor, TVF



### **1. What made you choose a career in the entertainment media industry after doing engineering?**

When I was in the first year of my college, I had a chance to witness Mood Indigo, IIT Bombay, and I saw a play there. I was super-effected by that to know how people grow so confident once they start doing theatre/Nukkad Natak! During the second year of my college, a batchmate of mine, Prakhar Sharma, asked me if we could do these theatres, Nukkad Natak in our college? We founded the Dramatics Club of the college - Abhinay. Since then, I have witnessed those changes that have led me to be a “Confident”, “Motivated” and “Happy” individual today from that introverted boy. It was only because of these 4 years of stage plays that I thought why not to give the entertainment media a shot!

### **2. How did you prepare for your goals to be in the content industry?**

My college life was on for about a year even after graduating. Spent time with friends, and was very careless about my career. I moved to Delhi, took a workshop to escalate my career in the acting and writing direction, actually to see where I stood in that crowd of artists. It was organized by a DU society. Out of a blue, I decided to cut myself from everybody, took a break of about 6 months straight while living alone in an apartment in Delhi. I was having contact with only three friends of mine and my family. I explored the writing field the most in those times, learnt how to write a script, took feedback from people in the media industry I knew, realized that I could write for long long times and was certain then that this is what I was going to do for the rest of my life.

### **3. How did you go into TVF?**

I explored numerous digital media industries in Delhi in those 6 months. I went to them, talked with every level of managers if there was vacancy for some role/script writing, how small or big. I didn't realize but was gradually growing a network with like-minded people. By that time, I had started giving auditions for some various Mumbai shows. I got a chance to give auditions for a Tata Sky TV show - “Review karengi Indiawaale!” and cracked it. I went to Mumbai, and shot some 20 episodes for it. By the time I came back to Delhi, one friend of mine had cracked the “Scriptwriter” role at TVF! He introduced me to how one could aim and prepare for TVF. Six scripts of mine were rejected and finally I got a chance to be at TVF as a “Writing intern”.

### **4. How has your journey at TVF been so far and who has/have been your inspiration?**

I joined TVF on 17th August, 2019 and was hired as an intern writer. I wrote around 7-8 scripts in a span of about 3 months. We, as interns, worked for four channels of TVF: The Timeliners, TSP, channel of TVF itself, and Girliyapa. The second video I had scripted trended on YouTube and its recognition boosted me up. My Zomato guy reel on insta went viral just before the lockdown and I believe that has given me a

break as an actor. “TheSarkari Karyalay” on YouTube is my latest mini-series and “The School Diaries” will be released soon. I am also writing a show. I have grown up watching Jeetu bhaiya and Biswapati Sarkar. They have been my role models.

### **5. How has been the support from your family and friends?**

They were worried for me when I left the job to pursue this full-time in Mumbai. But, right from the college days, my mom, dad and bhaiya have been totally supportive. Prakhar has always been a pillar of support for me in my struggle. He is a GREAT friend.

### **6. What were the difficult times in your life? How did you manage them?**

I care very less about the problems in my life, be it personal or professional. People have always put forward my ignorant attitude towards problems. They think I avoid the problems in my life and being positive is a good thing, but excess of it can be problematic. This has made me ask questions to myself many times. But, as I have seen it, if I keep thinking of the problems, I would definitely be pushed back by its weight. Maybe my screen time, my writing would be affected the most by it and I would not be able to see the bigger picture. That’s why I have always followed an own quote and you will find it in most of my writings: #SabBadhiyaHai.

### **7. What are your thoughts about the current scenario in the entertainment media industry?**

This industry has been the dreamworld for me. It was super awesome before the COVID happened. With the gradual evolution of OTT platforms like Netflix, Amazon Prime Videos etc, the YouTube industry has suffered in the fronts of classical content. I believe YouTube has brought the era of mini series and intelligent comedy in India but now it's running behind the OTT platforms in terms of numbers. The contest industry still has lots and lots for aspiring and creative creators.

### **8. What are your future goals?**

“Gullak” and “Panchayat” have been my favorites recently. I wish to write a script full of such authenticity and creativity at TVF. I love acting as much as I love writing. I want to act for a powerful character that leaves impact in the minds of people

### **9. What advice do you have for students who want to choose non conventional careers?**

First, “Be very, very sure”. According to me, one can only stay in this field with a strong, strong will to create/express content. In my opinion, one should come with all other doors shut, with no backup, no security, just a will to give more than his/her 100%. One who wants a ‘job’ can never be a part of this system in long terms.



**TECHNICAL**





# The Next Big Thing “IoT”

A Term that changed the World



"With great power, come great responsibilities," said Great Stan Lee. We often hear these words, quite a number of times, but what's the depth that lies within, are we ready for the change or, we still stand far away from our expectations.

The Internet of Things (IoT) has not been around for very long. However, there has been the concept of machines communicating with one another since the early 1800s. In the 21st Century, we have seen numerous revolutionary advances in the first decade and, presumably by the next decade, we would behold the rise of the new human era. Just think in a bit of depth and, you will realise that we are already in the transition phase. We are all connected through a number of devices on the internet that we carry with us or wear. There's an invisible aura of the formation of another world where everyone is connected directly or indirectly peer-to-peer, but no one sees it. We are talking about the era of (IIoT) Industrial IoT.

The term IoT has changed the definition of life in the 21st Century. The Term IoT coined in the year 1999 when Kevin Ashton, Co-Founder of Auto-ID at MIT, and CEO of Zensi, had to persuade the senior management of the company (Procter & Gamble) he was working for. The task was to convince them that they should put an RFID tag, a tiny microchip, in everything that they produced. They had no idea what Ashton was to tell, but they knew the internet was a big deal. He just wanted to put some engaging terms into his presentation and just wrote down those 3 words across the mind that became the next big thing of the 21st Century IoT.

Assessments of the potential commercial value of IoT are justly determined. A 2018 report by Bain & Co. prophesied that the overall market for IoT would market to over \$600 billion by 2022, more than double the \$235 billion in 2017. A 2017 white paper by Arm Holdings predicted that one trillion IoT devices would be built between 2017 and 2035, advancing global GDP by \$5 trillion a year by 2035. But it will take a lot more than one trillion IoT devices to achieve these predictions.

It's amazing to know that the term IoT we now talk about in daily science articles and other stuff started from a business presentation. One of the first examples of the Internet of Things is from the early 1980s and was a Coca Cola machine located at the Carnegie Mellon University. Local users connected via the Internet to the refrigerated appliance and checked to see if there was a drink available and if it was cold before making the trip. By the minimum. IoT also possesses a greater security risk as it's not only concerned with the software part but also has hardware related security concerns.

year 2013, the Internet of Things had evolved into a system using multiple technologies, ranging from the internet to wireless communication and from micro-electromechanical

systems (MEMS) to embedded systems. The traditional field of automation (including the automation of buildings and homes), wireless sensor networks, GPS, control systems, and others all support the IoT.

IoT is not just about your app telling you your daily electricity consumption in real-time or controlling the lights and fans remotely. IoT means a whole range of different sensors that are connected to the internet gathering information about the real world that can be brought to use after processing.

IoT alone is just another keyword for data telemetry. IoT is such a versatile technology that it can merge with other technologies such as Blockchain, Artificial Intelligence (AIoT), Robotics (ROS), etc. IoT is a bridge to all the technologies that we see today. With IoT, companies can accumulate, save, and examine massive amounts of data about their product's performance. The real-world feedback will help companies enhance their products and enable them to propose new services to their customers, such as predicting possible failures and scheduling preventing maintenance. Longer-term, this new class of IoT-based offerings is entirely reshaping companies, opening them to new ambitious possibilities and menaces, remodelling industry boundaries and forming entirely new sectors, as race shifts from specific products to more broad systems that incorporate several similar products and services.

As there is a growing market for IoT devices, manufacturers are eager to pump out in large numbers and may not spend much time developing their product's security. IoT devices can be useful considering whether your office kitchen needs that internet-enabled toaster or kettle. While the benefits of new technology always seem exciting – especially for small business owners looking to save money and increase productivity – it's equally important to take time to understand the risks that come with it. IoT devices possess the potential to bring efficiency improvements to many industries, but steps should also be taken to ensure that they don't leave your network vulnerable to malicious attacks. Unemployment also seems to be a big issue in this scenario as IoT would make the concept of automation and remote operation so easy that human labour would be reduced to the minimum. IoT also possesses a greater security risk as it's not only concerned with the software part but also has hardware related security concerns.

For better and for worse, according to the Economist, IoT can be seen as the next phase of the internet, bringing the transformative technology's industry model from the digital to the material world.

~ by Aman Kumar Dewangan  
B.Tech, Electrical, 6th Sem

# Effective Use of Technology for Teachers

Technology presents various means that educators can use in and out of the classroom to improve student learning. The efficient use of technology in educational backgrounds and its successful combination increases the potency of means of instructions. Regular and good-quality support thought to be provided for teachers is essential for technology used in educational contexts. Thus, it is required to find solutions to the question of what kind of activities could be used to provide teachers with constant support for using technology in various combinations to provide an optimal teaching-learning experience in educational context. A better and more powerful future for countries depends on the quality of the education they provide for their young people with. It also depends on the rich learning circumstances they establish for these individuals. Learning is said to be permanent when individuals learn in conditions similar to real-life situations or when they learn by actual application and experience.



## 7 Characteristics Of Teachers Who Use Technology :

1. They always start with the why
2. They are malleable and can easily adapt
3. They embrace change
4. They share
5. They think win-win
6. They are thorough and think ahead
7. They actively care

## Online Classroom: A Perfect Example of Modern Day Education

Google Classroom is a free web service, developed by Google for schools, that aims to simplify creating, distributing, and grading assignments in a paperless way. Such initiatives provide education opportunities to all the students located far from reach with remote connectivity. A number of such emerging startups have also been recognized which includes, Google Classroom, Kriyative Education, etc. The primary purpose of such platforms is to streamline the process of sharing files between

teachers and students. They combine facilities for assignment creation and distribution, Docs, Sheets, and Slides for writing, Gmail for communication, and Calendar for scheduling. Students can be invited to join a class or can be automatically imported from a school domain. Teachers can monitor the progress of each student, and after being graded, teachers can return work along with comments.

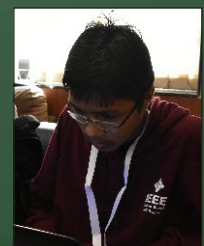
Teachers can conduct classes over platforms like Google Meet, Zoom, Skype, Google Hangouts, Meeting Burner using which educators can communicate through pupils for Online Video Conference. The Online Classroom platform has been one of the primary sources for those who can't afford education far from home in the education centres and minimizes the efforts of the teachers, as the students can review the same lesson as per their own understanding. This guides students through proper flow of content as per the students knowledge and learning speed.

## The Current Situation and the Future Prospect

Amidst this pandemic education sector experienced a sudden hold, and hold to still. But within a few weeks some of the schools started utilising this platform realising it's effectiveness and far-perspective utilisation which keeps pupils engaged to the assigned tasks, assessments and activities.

This pandemic has generated opportunities for similar platforms to come up with their ideas for the schools and colleges, providing them a platform to communicate and keep the education ongoing. This would also generate employment opportunities in the IT Sector and keep people engaged to the new terms that would be soon trending in society namely -> Work-from-home & Learn-from-home.

This term has promoted digitization of work, economy and education and requires everyone to make an effort to encourage such movements. This also provides a boost to industrial revolution in developing Countries like India and will let people know about emerging technologies even more.



**-Aman Kumar Dewangan  
NIT Raipur**



# Why is WATER essential for mining?

Mining is one of the few industries that is able to use water which is of lower quality than desirable for human consumption.

Water is involved in different mining industry activities, including mineral processing, dust suppression, slurry transport, and employee requirements. One of the biggest challenges for the mining industry is to ensure an optimal amount of water within the mine premises to secure water availability. It has been experienced that the efficient use of water resources can reduce risks related to water availability and save costs. The mining industry needs to have its water balance precise, dependable, and adaptive to scenario assessment when aiming for efficient water use and achieving these goals. To sustain mine operations, there is a strong need to know how much water can be extracted from the mine area and discharged from the surrounding water resources.

In mining operations, the essential use of water is typically in mineral processing. Water is required in hydrometallurgical processes, such as recovering gold and copper from a solution of chemicals). Water is also necessary for pyrometallurgical operations, such as in platinum and copper production, for cooling and other parts of the process. A significant amount of water is also needed for dust control on haul roads and waste dumps. This water can be lower-quality industrial water or mine water, provided there are no contamination risks. In contrast, high-quality potable water is required for domestic purposes in the office and administration buildings and camps associated with remote mines. Using pipelines to transport ore in the slurry can reduce both costs and energy demands compared with more conventional transport forms such as rail and trucks.

Designing the water balance in the initial phase of the project may be challenging because knowledge of water circulation, environmental requirements, or water balances of the unit processes may not be known explicitly

at that time. However, it may also offer several possibilities, e.g., water balance can be adaptable to different scenarios. In addition, the circulation and reuse of mine waters can be improved, and the need/capacity for water treatment and the handling of excess waters can be estimated on the basis of water balance.

Access to a secure and stable water supply is critical to mining operations. Without water, a mine cannot operate. Water sources often need to be shared by multiple users while leaving enough water for ecosystem functioning. In most mining operations, water is obtained directly from groundwater, streams, rivers, lakes, or commercial water service suppliers. In many countries, water extraction is highly regulated, and permits must specify the amount of water use. Governments, therefore, play a crucial role in determining and allocating water among various users. Potable water supply and types of sensitive agriculture and receiving environments require a higher quality of water than others, implying further consideration in water allocation. Sometimes mines experience a natural and continuous inflow of water, for example, in the pit or underground tunnels. This water needs to be withdrawn through pumping to ensure the mine-working stays open. This is known as dewatering. This water is often either released into a receiving water source or used by the mine or within the operation processes. But dewatering can reduce the levels of groundwater and also deplete surface water sources. There may also be issues surrounding the discharge of this water regarding its quality and quantity that affects the receiving environment.

by:

**Enjam Yashank**  
6th sem, Mining



# GLOBAL POSITIONING SYSTEM AND ITS INNOVATIONS

Whenever we are stuck in a relatively unknown place and we need to get home, “Google Maps” arrives to our rescue, Or when you watch a flashy thriller film where the police tracks down the criminal using a sophisticated tracking system. Have you ever wondered which technology forms the backbone of these kinds of tracking systems? The clear answer to this question is GPS that is Global positioning systems.

This satellite driven tracking system has almost become an important part of our lives. So how does GPS work? Basically it has three segments namely space , control and user segments.

**Space segment** consists majorly of a spherical constellation of 24-32 satellites arranged in such an order that at least six of these satellites are always in the line of sight of the receiver attached with the moving object. The satellites are fitted with atomic clocks that calibrate themselves according to the time on earth. These satellites send a crypto-numeric radio wave signal to the receiver which decodes the signal to generate a position coordinate of itself.

**Control segment** consists of a master control station (MCS),an alternative master control station, four dedicated ground antennas, and six dedicated monitor stations. The purpose of the control system is to keep a check on the function of satellites.

## Innovations – GPS-OCX

The main hurdles faced by the GPS system were the heavier cost and low accuracy which could now be solved by a technology called “GPS-OCX” which can lead to a saving of 50% in costing and handle twice as many satellites being handled presently.

## The Space Scene

While GPS was developed for terrestrial navigation, it turns out those same GPS signals can be used by spacecraft as far away as the moon and while in early transit to and from Mars . While GPS signals are beamed directly at the earth, some of those radio signals spill over and escape into space. “We live off the leftovers, We live off the spillover of the main beam and any side lobes.” says Frank Bauer, retired division head for space navigation at NASA.

GPS has still not been able to end all its challenges , GPS satellites and their control systems may be vulnerable to cyberattacks. A successful cyberattack, whether from a state-sponsored entity or a criminal, could fade away a vast pool of operations worldwide.

Having said everything , we all know that technology if used in a sustainable way can make the world an easier place to live, so as time flips humanity in innumerable ways and fashion, our technology will be becoming even cooler!



by:

Jyotirmay Ghosh





# Concrete Problems in AI SAFETY

The problems of accidents in machine learning systems, that is defined as the unintended and harmful behaviour that emerges from poor design of real world AI systems.

These seem to come up in the following circumstances:

When we specify wrong objective functions.

When we're not careful about the learning process.

When we commit machine learning related implementation errors.

In this article we shall explore a research paper titled "Concrete Problems in AI Safety" by Dario Amodei and others. This has been a very influential paper, and it is worthwhile for anybody who is anyhow related to Artificial Intelligence, which more or less, we all are!

The extent to which AI could go and cause potential harm has always been a matter of debate. The paper lays emphasis on the fact that we do not need to invoke any extreme scenarios to have productive discussions, they would rather lead to unnecessarily speculative discussions that might lack precision.

It would be more productive to have discussions based on general and practical issues with most modern machine learning techniques.

Accident risk may be identified as the task producing harmful and unspecified results. As the talking about "AI Safety or mitigating accident risk" itself suggests, AI models are very prone to "accidents". The paper beautifully elaborates it with a lot of examples. Some situations are:

## Wrong Formal Objective Function

Objective function might be better taken as the driving force of the model, if not defined with complete and proper thought, maximising it can lead to unforeseen disadvantageous results. This can be seen in action in the following categories.

**Negative Side Effects** - Eg. Disturbing the environment in a negative manner in the pursuit of its goals.

**Reward Hacking** - Simply put, it's finding a glitch in your reward. Eg. Hiding the stuff that is meant to be cleaned.

The problem with writing a clever "easy" solution is that it could pervert the spirit of the designer's intent.

## Scalable Oversight

Even with the correct objective function, an incorrect method of evaluation can backfire the entire process.

This may often come up due to bad extrapolation from limited samples, as a designer may have limited access to true objective function.

**Example** : Throwing away unused goods can seem okay, but not every unused good is useless. How do we keep a check on that? How often should stuff be thrown? You may consider asking before throwing it away, could that be pestering?

## Perfection and Exploration

Correct behaviour comes with perfect beliefs, problems like

- **Poorly curated training data**

- **Insufficiently Expressive Model**

may lead to negative and irrecoverable consequences. This outweighs the value of "long-term exploration".

We need "Safe exploration", as not every idea is gonna work right, trying to mop the floor with a damp cloth instead of a dry one might seem okay, doing that on an electrical equipment might be a blunder.

Sometimes the model might as well just silently make unpredictable bad decisions! Strategies learnt from training data, might just not be appropriate for the test data.

Eg. A factory would be quite different in comparison to a corporate office. We require **Robustness to Distributional Shift**.

This paper dealt with the problem of accidents in machine learning systems. It primarily took care of reinforcement learning agents. It presented five possible research problems and for each we discussed possible approaches that are highly amenable to concrete experimental work.

With the concrete possibility of ML based systems controlling industrial processes, health-related systems, and other critical events, accidents seem like a very genuine threat, and are important to prevent. The risk of larger accidents is rather difficult to estimate, but it is worthwhile to develop a principled and forward-looking approach to safety that shall continue to remain relevant as autonomous systems gain more power.

And that was all! It was indeed a pretty long article, but if you made it here you must've gathered greater knowledge and deeper understanding about how things work and how they should work in the world of AI. All the best for your AI journey!

by:

Priyanshi Sharma

35 | Shilpi 2020



# Mine Reclamation : Challenges and solutions

Abandoning of mines or improper land reclamation following mine closure has been a regular complaint of environmentalists and activists in our country. India produces over 80 minerals and less than three percent of India's Gross Domestic Product comes from mining. Under the Forest Conservation Act, 1980, the MoEFCC gives clearance for diversion of forest land for non-forestry purposes like mining or infrastructure projects like railways, road etc. While giving such clearances, the MoEFCC stipulates that the project proponent shall undertake mining in a phased manner and shall undertake concurrent as well as final reclamation of the mines over the area. The status of reclamation of mined-out areas is regularly monitored by ten regional offices of the environment ministry across India. But as the process needs lots of governmental clearances and time which makes it sluggish and lengthy also making companies feel this as a financial draining stuff. Conservation of topsoil is also a big challenge. And obvious economic factors cannot be ignored which include the proper employment of the machines. If this condition persists and the process becomes time taking we may need to import coal from outside due to inability of the domestic mines to fulfill the need in time, which is not good.

It has now become quite acceptable to ask if there are methods to solve the problems in a holistic way by taking all the necessary factors into account. Thanks to the advancement in research and technology the answer is positive. Some of the methods include biotechnical approach for medicinal garden, drone seeding for proper utility of the land, planting fast growing trees, conserving topsoil by shifting it in a nursery where its fertility and humidity is maintained for ecological aspect. Commercial afforestation is also an option. Turning the pits containing water to a tourist place by partially dumping solid waste and the proper soil material, can help in ecological aspects as well as can provide monetary benefits. Turning the land to grassland, public attracting place or to a training or study centre for the technical and research institutes and water containing areas to fisheries can help in social aspects.

Cities nearby some mines, feeling the need of a dump area to dispose its solid waste, can find the pits created by mines useful. Proper treatment of soil to prevent soil erosion, proper layering of soil over waste to prevent soil pollution, the integrated sequence, methodology for proper time management and checking the progress in an efficient way can be done by employing drones for non viable places are also to be taken into account.

So the number methods are abundant but the need is to implement these methods. It is also quite obvious that the mining companies will need help and cooperation from the government. To increase the country's growth rate, there has been a constant talk of increasing mining activities. In such a scenario, if there is an increase in mining activities, the proper closure of mines once the activity has ended and reclamation of land will gain more significance. The ways in which a forest provides the flora, fauna and many more things for a community are varied and complex. This cannot be reinstated simply by sticking trees back in the mud after ravaging a place. Having all the required technologies we should not try to find any reason to ignore the problems. The proper methods if properly employed can overcome the challenges which are being faced.

by:

**Shantanu Kumar Shukla**  
6th sem, Mining







# Artificial Intelligence in AUTOMOTIVE INDUSTRY

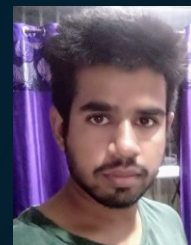
AI-artificial intelligence. The tech has caught so much attention and space in the technological world that almost every industry is now trying to incorporate it into their working and products. Automotive industry is no exception. From the first ever “self moving toy” by Ferdinand Verbiest in 1679 to self-driving cars, this industry has really come far. The thirst for innovation in the hyper-competitive arena has been pushing the technological benchmarks in this industry, the most recent one being the induction of artificial intelligence.

Self-driving cars are essentially the face of this AI-powered revolution. Delving into the past, the first truly autonomous cars debuted in the 1980s with Mercedes-Benz launching the first one in collaboration with Bundeswehr University. As of now, almost all automotive giants are putting a lot of capital into this exciting tech, ranging from German VWs to American GM. However, when it comes to India, there is still a lot to be done. Tata Elxsi just closed their autonomous vehicle project due to lack of demand. Though some promising startups like Quixote, Raytheon Systems can be seen doing advancements but corporates are still hesitant to venture in.

A self-driving vehicle or autonomous vehicle is a vehicle which can assist humans partially or fully in driving itself. Autonomous vehicles are rated on a scale from zero to five, from zero being fully manual with no assistance to five being fully automated. Alphabet's Waymo is an example of a level 4 autonomous car. There hasn't been any level 5 autonomous car till now, though various prototypes are in their advanced stage. But here, the automation is not just limited to cars. Autonomous trains have been in the scene as early as 1967. As of today, Singapore, Japan, China, US, UK, France, and Germany use self-driving trains extensively. In India, the first driverless train is set to make its debut on the Delhi Metro line this year. Apart from full automation, AI is implemented in a lot of driver-assistant technology in airplanes, cars, trucks, and buses.

Predictive maintenance and automatic route charting in airplanes make use of AI. Collision avoidance systems in cars and trucks are becoming a common safety feature in the high-end segment nowadays. Volvo's emergency brakes and collision avoidance systems in Audi A8 are some good examples. AI also comes in handy while designing climate control and ABS systems.

Like every technology, AI too has its advantages and disadvantages. Digitalization of vehicles is making them prone to hacking, which could be quite dangerous. Surprisingly, AI systems too commit errors, though mostly they are manifestations of faulty learning processes or imperfect implementation, both designed by humans. People still do not feel safe in autonomous cars, even though research shows that 60% of accidents occur due to human errors and can be brought down drastically by the use of self-driving cars. Another set of apprehensions are regarding the replacement of workers by AI, and on this topic, currently, the world is divided into two groups. One being confident that AI will create more jobs than it will replace. Another stating that it will be a doomsday scenario for employees and workers. And neither one is offering any substantial evidence to back their claims. We can only see how the future turns out to be. But there's one thing for sure - if another industrial revolution takes place, it will be largely through AI.



by:  
**Swapnil Pandey**



हिन्दी खण्ड





# लकीर के दोनों ओर

मैं एक लकीर पे चल रहा हूँ ।  
जिसके एक ओर मैं कभी बहुत सच्चा हूँ,  
इतना की संत हो जाऊँ और एक ओर इतना झुठा की राजनेता।  
जाने की एक ही दिशा है - आगे।  
ये लकीर मुड़ती रहती है, पाँव भटकते रहते हैं।  
ये लकीर इतनी महीन है,  
इतनी महीन हैं कि पूरापाँव कभी इस पे पड़ा ही नहीं।  
कभी इस ओर ज्यादा, कभी उस ओर ज्यादा।  
पर तब भी कोशिश यही रही की दिशा एक रहे - आगे।  
कहीं कहीं बहुत सारी लकीरें एक बिंदु पर आकर मिलती  
हैं और यहाँ पता नहीं चलता आगे कौन सा रास्ता है ?  
मैं तब पाँव के निशान तलाशता हूँ वो जिनके कदमों की  
दूरी मेरे बराबर हो। कभी कभी ये मुझे उनके जीवन में  
पीछे ले जाती हैं और कभी कभी अपने जीवन में आगे।  
कभी एक जोर का झोंका सारे निशान मिटा देती है,  
कहाँ थे कहाँ जा रहे थे, सब भुला दिए जाते हैं।  
लकीरें धूल ओढ़ लेती हैं और मैं फरेब।  
जब मैं उनकी चाल से तंग आ जाता हूँ,  
तब मैं राह बदल लेता हूँ, दिशा तब भी वही रहती है-आगे।  
कभी मेरे समानांतर(parallel), अन्तर्विभाजक (intersecting),  
मैं उन्हें देख भटक जाता हूँ, मैं उनकी ओर जाता हूँ, मैं लकीरें लांग जाता हूँ,  
मैं कभी बहुत बुरा हो जाता हूँ, मैं कभी बहुत अच्छा हो जाता हूँ।  
मैं फिर दिशा तलाशता हूँ, मैं थोड़ी देर पहले कहाँ था ? कहाँ भटक गया मैं ?  
अभी कहाँ हूँ ? मैं तब भी चलता रहता हूँ - आगे की तरफ।  
मैं रास्ते में नींद तलाशता हूँ मैं जागे रहने का ढोंग फैलता हूँ,  
मैं आवरण बदलता हूँ, मैं बदल जाने का ढोंग करता हूँ।  
मैं खुद को झुठलाता जाता हूँ, पर मैं चलता जाता हूँ -आगे।



अभिषेक पटेल

# श्वेत और फूल

बड़े होते होते हमारा कल्पना कर सकने का दायरा छोटा होता जाता है। बचपन में सोच आजाद होती है। वो हकीकत और सपने के दुनिया के बीच फर्क नहीं करती है। जो चीज अभी सच से दूर कल्पना की दुनिया में हो, बड़े उसे पागलपन कह कर नकार देते हैं। धीरे-धीरे सोचने का दायरा केवल इंसानों और उनके कहानियों तक सीमित रह जाती है। कोई नहीं पूछता, की फूलों से दोस्ती कैसे की जाती है। सब धीरे-धीरे सच और झूठ की बेरंग दुनियाँ को ही सच मान लेते हैं। अब आपको लगोगा की जो कहानी मैं आपसे कहने जा रहा हूँ, वो हो ही नहीं सकती ! बड़ों की ये बहुत खराब आदत होती है, पूरी बात सुनने से पहले मन बना लेते हैं। पर ये कहानी उतनी ही सच है जितना मैं और तुम।

लंच का समय है, बच्चे क्लास में अपने बेंच पर बैठे हैं। अपनी रोटियाँ चबाते हुए वो superheroes की बातें कर रहे हैं। लखानी को flash बहुत पसंद है, जबकि शिखर को hulk। 'क्या बात होती न, अगर हमारे पास भी ऐसी शक्तियाँ होतीं !' सपन बोला, मैं तो बहुत जोर से झुला झुलता और चाँद को ही छू आता। इतने में विपुल का जवाब आता है मेरे पैर लम्बे हैं मैं तो सूरज को ही छू लूँ। वरुण की आँखें एक दोस्त से दुसरे के चेहरे पे पड़ रही थी, वो अपनी बारी का इंतजार कर रहा है। वह बहुत उत्सुक है, उसे भी बोलना है। पर पापा ने ये भी तो सिखाया है की दुसरो की बातें काटा नहीं करते। बच्चे क्लास में वापस आने लगते हैं, वरुण समझ जाता है कि (recess) मध्यंतराल खत्म होने वाली है। पर अभी तक तो उसने अपनी बात पूरी भी नहीं हुई, पूरी क्या होती उसने तो शुरूआत भी नहीं की है। इतने में शैली अंदर आती है, वरुण की धड़कन तेज हो जाती है। शैली का आना समय का सूचक है, और ऐसा इसलिए क्योंकि पुरे क्लास में केवल शैली के पास घड़ी है। उसने भी अपने पापा से घड़ी की माँग की थी, पर खैर वो दूसरे दिन की बात है। शैली अपना सारा काम समय पे कर लेती है, पर वो (teacher) अध्यापक की पिट्टी भी है। वरुण को उसकी तरफ देखना भी नहीं पसंद, पर आज उसका आने के दूसरे मायने थे। काश वरुण बड़ों की तरह चीजों की रफ्तार पता कर पाता। पर अभी अफसोस करने का समय नहीं है। उसने सोच लिया की अब तो वो बोल कर ही रहेगा। वो पलटा उसकी आँखों में चमक है। उसको पता है यही मौका है आखिरी मौका। वो मुँह खोल कर बोलने ही लगता है की सुनो..... पर तभी घंटी बज जाती है।

वह घर जाता जाता सोचता है घब्रया होता अगर वो बड़ कर अपनी बात कर पाता ! उसे भी बोलना था की उसे captain america पसंद है। वो अपने हीरो को सबसे अच्छा साबित करके रहता। क्या होता अगर शैली को आने में थोड़ी देर हो जाती? सारी उसकी ही गलती है। अगर रोहन के चिल्लाने से चुप न हो कर अपनी आवाज उठाता। पर बीते समय को वापस थोड़ी लाया जा सकता है! आखिर में वो खुद को दिलासा देता है की अगली बार जब उसकी बारी आएगी, उसको मौका मिलेगा तो वो क्या बोलेगा, कैसे बोलेगा उसकी बारी के बाद सबकी आँखें खुली की खुली रह जाएँगी।

धीरे-धीरे उसकी चाल धीमी होती जाती है, आसमान दूर जाने लगता है। आसपास की चीजें अलग-अलग होने लगती हैं। और उनके बीच नजर आता है खालीपन। वो फिर सोचने लग जाता है, कि अगर उसने अपनी बात कह दी होती तो शायद सब उसका मजाक उड़ाते, हो सकता है उनको उसकी बातें पसंद न आती। शायद चुप रहना ही बेहतर है, या फिर क्या होता अगर सारी बातें झट से कर ले और भाग जाए, ऐसा करने से बेइज्जती से बचा जा सकता है। नहीं नहीं लेकिन उनको याद तो फिर भी रह जाएगा, या फिर क्या हो अगर किसी तरीके से समय को पलटा जा सके, तो अगर उनको पसंद न आए तो वो शुरूआत ही बदल दे। पर नहीं उसे याद आता है कि स्कूल में एक बार पढ़ाया गया था की समय सबसे बलवान चीज है और उसे मजाक में नहीं लेना चाहिए।

वह स्कूल से बाहर आ चुका था, स्कूल छूटते ही वो पीछे के रास्ते से घर जाया करता था। उसे गॉर्ड क्वार्टर में लगे फूल बहुत पसंद थे। वो उनसे खूब बातें करता था, क्या हो अगर सब के पास इतना समय होता बात करने को। और फूल तो उसका मजाक भी नहीं उड़ा सकता, अगर उसने कोशिश भी की तो वो उनको उखाड़ फेंकेगा। नहीं नहीं वो उस फूल से बहुत प्यार करता है, उसके साथ कभी ऐसा नहीं करेगा। हालाँकि ये बातें उसके मन में थी, और फूल सुन भी लेता तो कुछ कर भी नहीं पाता। पर फिर भी आज वो उससे और प्यार से बरताव करने लग जाता है, मानो कुछ गलत किया हुआ ठीक करने की कोशिश कर रहा हो। उसे खुद पर क्षोभ होता है और उसे लगता है की आज उसे ज्यादा पानी दिया जाना चाहिए, जैसे रूठ जाने पर माँ उसे ज्यादा मिठाई देती हैं। अरे क्या कर रहे हो, ऐसे में तो वो मर जाएगा। श्वेत बचपन से ही फूलों की देखभाल कर रहा है। उसने ये सब अपनी माँ से सीखा है, वो कहती हैं की जैसे ज्यादा लाड़ प्यार बच्चों के लिए खराब होती है, उसी तरह ज्यादा पानी पौधों के लिए। वरुण थोड़ा सहम गया फिर थोड़ा हिम्मत करके उसने पूछा प्ये सारे फूल तुम्हारे हैं !

श्वेत : हाँ

वरुण : क्या मुझे इनमे से थोड़ा दोगे ? मैं पक्का इनका ख्याल रखूँगा।

श्वेत : नहीं फूलों में भी जान होती है, मैं उसे मार नहीं सकता। पापा कहते हैं उनको भी दर्द होता है।

दोनों कुछ देर शांत रहते हैं।

श्वेत : पर तुम चाहो तो रोज, यहाँ आ सकते हो। अपने फूल भी लगा सकते हो। फिर उनको बढ़ते हुए देखना।

वरुण खुश हो जाता है, उसको पहली बार कोई दोस्त मिलता है। उसका जी चाहता है की उससे सारी बातें कर ले। पर उसके मन में थोड़ा संकोच अभी भी है।

अगले कुछ दिनों में रोज उसका आना जाना बढ़ जाता है। दोनों मिलकर अलग अलग रंगों के फूल लगाते हैं, कभी कभी कपडे पे लगी कीचड़ के कारण डाट भी पड़ती है, लेकिन उतना तो सहा जा सकता है।



# श्वेत और फूल

धीरे धीरे उसके लगाए पौधों पे कलियाँ आने लगती हैं। अब उसके मन में जो बातें आती है सारी उन्हें कह देता है। उसे लगता है की वो कलियाँ उसकी बातें सुन कर खिल रही हैं। उसका फूल धीरे धीरे बढ़ने लग जाता है। पर एक दिन वो देखता है कि उसकी फूल की पंखुड़ियाँ सिकुड़ने लग जाती हैं, वो मुरझाने लगता है। उसके मन में डर आता है कि कहीं उसने उसका दिल तो नहीं दुखा दिया। वह उसको चुटकुले सुनाता है, हँसाने की कोशिश करता है। और जब वो अगले दिन आकर देखता है तो फूल का मुरझाना और बढ़ जाता है। उस दिन शाम में घर जाकर वो माँ के पास बैठ जाता है। भ्रमों में बीमार हो जाता हूँ, तो तू क्या करती है ! माँ उसे गोद में उठा लेती हैं। क्या हुआ मेरे लल्ला को, कौन हो गया बीमार ? वो उनको सारी बातें बताता है। तो तू क्यों मुँह फुलाता है, चल जल्दी जल्दी दूध पी और सो जा माँ उसको लोरी सुनाती है और वरूण को माँ की गोद में अच्छी नींद आती है।

अगले दिन सुबह उठकर वो थोड़ा सा हल्दी दुध गरम करता है। उसे लगता है थोड़ा सा हल्दी दूध और ढेर सारा प्यार सब कुछ सही कर सकता है। वो जल्दी जल्दी स्कूल जाता ने को तैयार होता है। पर माँ उसको रोक लेती है और स्कूल जाने से मना कर देती है। और कोई दिन होता तो ये खुशी की बात होती पर आज उसका मन व्याकुल हुए जाता है, पता नहीं उसका फूल कैसा होगा ? काश की किसी तरह वो माँ से छुप कर जा पाता। वो ठान लेता है की मौका मिलते ही वो भाग निकलेगा, थोड़े देर की ही तो बात थी। माँ की शकल पे चिंता थी, कुछ तो गहरी बात हुई थी जो उसके मन को घेरे रखी थी। माँ टीवी देख रही थी, वरूण उनके करीब जाकर बैठ गया। न्यूज पर बताया जा रहा था की, स्कूल के पास वाले इलाके में कैप्टन अमेरिका और हाइड्रा के बीच लड़ाई हुई। जिसकी वजह से स्कूल का कुछ हिस्सा बर्बाद हो गया और 2 -4 लोग की मौत हो गयी। वरूण खबर ध्यान से सुनता है, खुश हो जाता है, कल केवल उसके हीरो की बातें होंगी। काश की ऐसा होता की वो भी अभी स्कूल में होता। वरूण ख्यालों की दुनिया में खो जाता है। कैसे वो अपने दोस्तों को बचाता, अपने दिमाग में वो सारी कहानिया बनाने लगता है। हो सकता है उसकी बहादुरी देख कर कैप्टन उसको अपनी टीम में ले लेता। इतने में उसकी खुली आँखों की नींद टूट जाती है। लड़ाई खत्म हो चुकी होती है और हमेशा की तरह कैप्टन, माहौल का जायजा लेने और घायलों से मिलने और उनके घर वालों से बात करने को रूका करते थे। शायद वो जल्दी करे तो उनसे मिल सकता है। वो घर पे बिना बताए स्कूल की ओर दौड़ पड़ता है। पता नहीं उससे हाथ मिलाने पे कैसा लगेगा, शायद साथ में फोटो भी मिल जाए ! क्या पता कुछ भी हो सकता है। वो बहुत उत्साह में दौड़ कर स्कूल के सामने पहुँचता है, पर वहाँ तो बहुत भीड़ इकट्ठा हो गयी है। इन्ते सारे लोगों के बीच वो आगे तक कैसे पहुँचेगा ! पर कभी कभी कुछ ऐसी चीजे हो जाती हैं , जिनको समझना बड़ो की बस की बात नहीं होती। वो छोटा सा था, आसानी से भीड़ के नीचे से निकलने लगा। लोगों की गन्दी जुराबों और पसीने की बू के बीच जैसे जैसे वो आगे पहुँचा। और सामने अपने हीरो को देखता है। जो हो रहा है उसपे उसको भरोसा नहीं हो पाता, पर वो सच है एकदम सच, पापा के वादों जितना सच। आखिरकार उसको अपने हीरो के साथ एक फोटो मिल जाती है, जिसपे उसके दस्तखत होते है। शायद ये उसकी जिन्दगी का बेस्ट दिन था , या शायद ये उसकी जिन्दगी का बेस्ट दिन हो। शायद वो स्कूल में होता उस वक्त तो सच में मदद कर पता, अच्छा दिन हो तो क्या कुछ नहीं हो सकता। फिर वो भी superhero बन जाता और सबको बचाता , खासकर उनको जिनसे वो प्यार करता है। वो यही सोचते सोचते पीछे के रास्ते की तरफ बढ़ने लगता है। बार बार उसकी नजरें उस फोटो पर पड़ती है। पर जैसे ही वो पीछे के गेट के पास पहुँचता है और सामने देखता है, उसके चेहरे से एक क्षण में पूरा जीवन उड़ जाता है। मनो उसे सौंप सँघ लिया हो, या उसने भूत देख लिया हो। ये तो वही जगह है जहाँ उसने फूल लगाए थे। और और..... नहीं नहीं ऐसा नहीं हो सकता। वो दीवार उसके फूलों की क्यारी पर गिर गयी है। वो फूल , उसके कूद के फूल, जिन्हें उसने इतने प्यार से बड़ा किया था, उन दोनों के बीच एक संबंध सा हो गया था। उसने उनको अपना लिया था, वे एक दूसरे के लिए जरूरी बन गए थे। पर अचानक फूलों का जाना ऐसा हुआ कि वो उन्हें अलविदा भी नहीं कह पाया। और अब सब खत्म..... श्वेत वहाँ बैठा रोता रहता है। दोनों बच्चों के लिए ये क्षण बहुत पीड़ादायक है। शायद जीवन में पहली बार उन्होंने किसी को खोया था। दुनिया में केवल फूल ही बच्चों के मन के जितने पवित्र और सुन्दर हो सकते हैं।

खैर वरूण जानता था कि कुछ और किया नहीं जा सकता फिर भी वो मलबा हटाने लगा। छोटे छोटे हाथ आखिर कब तक मेहनत करेंगे, आखिरकार वो थक गया। तू फिर न कर , फिर से इससे अच्छी क्यारी बनाएंगे। माँ कहती है कि फूल ही तो हैं, जैसे दिन बदल के सूरज आता है, उसी तरह फूल भी आ जायेंगे।

श्वेत : क्या केवल फूल ही रूप बदल कर आ सकते हैं ?

वरूण : शायद, मैं सही से नहीं कह सकता। किसी बड़े से पूछना पड़ेगा।

थोड़ी देर चुप रहने के बाद वो फिर कहता है।

मुझे लगता है, वो हर चीज जिससे हम प्यार करते हैं, वापस लाये जा सकते हैं इन फूलों के रूप में।

श्वेत : तो क्या अब मेरे पापा भी फूल बनकर आएंगे।

इतना कह कर श्वेत रोने लगता है।

(वो जो कुछ लोग जिनकी मौत हो जाती है , उनमे से एक श्वेत के पापा होते हैं )

-अभिषेक पटेल

# देवघाटी

यहाँ पैकेटबंद खाने की चीज जमीन पर गिर जाय तो उठाकर खाना गुनाह है, वहाँ उपले की आग में सिंके लिट्टी से राख झाड़कर खाने में बेसुमार आनंद है। जी, ठेठ देहाती डिनर। डिनर ही क्यों, बेटाइम खाइये, बेमौसम खाइये, बेमन से खाना शुरू कीजिए तिस पर भी खाने से प्यार न हो जाये तो कहिये। मेरी अम्मा गँवार है, जब से हम पढ़ने शहर निकले हैं उसको लगता है कि हमार लइका बिलायती हो गया है। घर पहुँचते हैं तो पूछती है - “का बनाई बेटा, का खइबा?” हमारा हर बार की तरह एक ही जवाब- “आज चोखा रोटी बना द, बिहान दलिहई रोटी, परसो लिट्टी चोखा..... और हाँ, ई सबके साथे हउ हरियरका नून पीस दिहा अउर अलिंगे से पियाज काटि के दिहा। उसनें सुन रखा है कि शहर में पढ़ने वाले लइके थोड़े कूल होते हैं, और ये कूलिंग बनाये रखने के लिए के लिए फ्रिक्वेंटली कोल्ड ड्रिंक का इस्तेमाल किया जाता है।

अम्मा को एक चीज पता है, कि बाबू के सत्कार के लिए दुपहरिया में पेप्सी के साथ नमकीन मँगाकर खिलाना पिलाना चाहिए। स्प्राइट, मिरिंडा, लिम्का इन सभी को वो पेप्सी ही कहती है। हमारे इन सब फरमाइश पर उसे लगता है कि शहर पढ़ाने का कोई फायदा नहीं हुआ। तीन साल पहिले जइसे भेजे थे, अभी तक वइसे ही है, कोई शहरी लक्षण दिखता ही नहीं। खैर, हमारी जिद के आगे उसकी नहीं चलती या कहिये कि वो खुद की चलने ही नहीं देती। आखिर शाम को लिट्टी चोखा की व्यवस्था होने लगी, हमको आर्डर मिला गोबर के उपले तोड़ने और सुलगाने का। आर्डर मिलने की देरी थी, कार्रवाई शुरू हो गयी। अब लिट्टी बनाना था तो चूल्हे पर थोड़े ही बनेगा, दुआरे गोइँठा सुलगाने लगे। बनने से खाने तक कि कहानी भी बड़ी दिलचस्प है, सुनाएंगे कभी.....

by  
Devesh Dron  
IT 8th sem



# गोरखपुर का सफर

वो हम जैसे नहीं हैं  
हाँ.. वो हम जैसे नहीं हैं ।  
फर्क है.... फर्क है कपड़ों का, कपड़ों का क्योंकि सबसे  
पहले वही दिखाई देता है और हमें आम लगता है ।  
फिर तुरंत ध्यान हटता है और तपाक से नजर चली जाती  
है पास के छोले-भटूरे के ठेले पर...  
एकाध को दिखाई दे देता है -  
उनकी परिस्थितियां, उनका बचपन, उनकी मजबूरी और  
आखिरी में उनका संतोषजनक व्यवहार ।  
ना हमने अपना बचपन चुना ना उन्होंने, ना हमने अपनी  
कम्युनिटी चुनी ना उन्होंने, बस ये तय था और बाकी आगे  
सब कुछ चलता गया..  
उसने कचरे में से संतरे को उठाया और जांच पड़ताल के  
लिए पास खड़े लड़के की ओर बढ़ा दिया जो देखने से  
उसका भाई जान पड़ता था ।  
तुम तो बकायदे पैक किया हुआ चॉकलेट भी जमीन पर गिर  
जाता है तो नहीं उठाते क्योंकि अब वो तुम्हारे लिए खाने  
लायक नहीं रहा ।

पर ये क्या करें ? पेट की आग तो ऐसे बुझेगी नहीं, और  
तुम उन्हें किसी काम लायक तो समझते नहीं की किसी  
काम पर रख लो ।  
तुम्हें मेस का खाना भी नहीं अच्छा लगता...  
और भरी थाली छोड़कर तुम अपने दोस्त से कहते हो -  
''अरे यार होने दे ना ऑफर खत्म.. 200 रुपये में चार  
पनीर के टुकड़े और चार ही रोटियाँ आ जायेंगी, गजब का  
स्वाद रहता है zomato से ऑर्डर कर लेते हैं, इस सड़े हुए  
खाने से तो अच्छा ही है'' ।  
तुम्हारी जेब भरी है और उनके पास जेब तक नहीं, तुम  
फिर भी अपनी परिस्थितियों का रोना रोते रहते हो और  
उनके चेहरे पर शिकन तक नहीं....  
जितना खाना है उतना ही लो, पर खाना वेस्ट मत करो  
please... शायद किसी का पेट भर सके..!  
हाँ कभी मौका मिले तो zomato वाला खाना इन्हे भी  
खिला देना और ये करते हुए अगर लगे कि जेब पर जोर  
पड़ रहा तो उसके हाथ से वो गिरा हुआ संतरा वापस लेकर  
पास के ठेले से एक दूसरा संतरा दिला देना, अच्छा लगेगा..

..  
(घर जाते समय Railway station के पास ली गयी एक  
तस्वीर)

by  
Devesh Dron  
IT 8th sem



# दिशा

# में

में चल पड़ा उस दिशावश,  
जहाँ जमी ध्वस्त हो जाती है।  
या लौट चला वापस मुड़कर,  
जहाँ लहरें नाद उठाती हैं।

जहाँ सफेद अश्व बनकर प्रचंड,  
हाहाकार बन जाते हैं।  
जहाँ पाषाण-पर्वत सब विशाल,  
धूली होकर रह जाते हैं।

जहाँ भीष्म भयंकर सूरज भी,  
शीतल कोमल रह जाते हैं।  
जहाँ अहं-अहंकार सब मूर्छित,  
नम्र-नम्र रह जाते हैं।

में चल पड़ा उस दिशावश,  
जहाँ जमी ध्वस्त हो जाती है।  
या लौट चला वापस मुड़कर,  
जहाँ लहरें नाद उठाती हैं।

ये घमासान है किसका,  
क्यों लोग यहाँ को आते हैं।  
दूषित-दूषित देह अनेक,  
पानी मैला कर जाते हैं।

खो प्रेम ये नाराज लहर,  
तिशोध को आक्रोशित है।  
निर्दोष-निकट पड़ा है तट,  
जन्मो से वह भी पीड़ित है।

हाँ नाटक का ये मंच विशाल,  
परस्पर मन को भरमाती हैय  
में चल पड़ा उस दिशावश,  
जहाँ जमी ध्वस्त हो जाती है,  
या लौट चला वापस मुड़कर,  
जहाँ लहरें नाद उठाती हैं।

में अब कस्बों की तंग गलियों के छोटे लोगों से पीसती नहीं  
में अब मैदानों में बिखरे घरों की खुली हवा की बस्ती हूँ।

में अब लोगों की उथली बातों की मजाकों पर फसती नहीं  
में सरकार के झूठे वादों की सच्चाई पर हँसती हूँ।

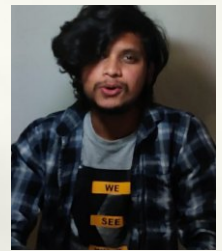
में तुम्हारे चमचों के हजारों के गिनती में अटती नहीं  
में तुम्हारे खिलाफ के आवाजों की गुंजों से उठती हूँ।

में बस अब कल के उत्पीड़न की विरोध मात्र नहीं  
में अब कल के क्रांति की विराट गर्जना हूँ।

में उपनामों के बदलाव से पहचान खोती नहीं  
में अब खुद अपने होने में अभिमान पाती हूँ।

में शहरों से ऊपर मीनारों के कमरों के महीने की किस्ती  
नहीं  
में अब चूल्हों-सी उठती धुओं की बेरंग-सी हस्ती हूँ।

में यादों की पुरानी मौतों की मजारों में बसती नहीं  
में पन्नों के कलम से रंगे जाने में बसती हूँ।



अभिषेक पटेल

# कभी – कभी

कभी कभी कुछ नहीं करना भी सुकून दे जाता है,  
सबका खाली बैठना हमे अपनो के और करीब लाता है ।  
कभी कभी अपने आप से गुफ्तगू करना भी बड़ा पसन्द  
आता है,

हमें अपने आप से रुबरु कराता है ।  
कभी कभी घर से बाहर ना जाना भी बहुत कुछ समझाता  
है,

घर के अंदर भी एक दुनिया है ये बता जाता है ।  
कभी कभी पुराने दोस्तों से चौटिंग करना भी ताजगी दे  
जाता है,

नहीं तो इस रेस की दुनिया में कहां वक्त मिल पाता है ।  
कभी कभी अपने लिए समय गुजारना भी कितना अच्छा  
महसूस कराता है,  
कितना ही टेंशन क्यों ना हो सब भाग जाता है ।



गुंजीता जैन



# AATMA-NIRBHAR BHARAT

भारत माँ के हरे-भरे आँचल को अब लहराने दो,  
मातृभूमि की खुशबू को दूर-दूर तक जाने दो ।

जाति-पाति और धर्म के बादल को अब मत मंडराने दो,  
सपनों को साकार करो और नई उमंगों से भर दो ।

सच्चाई के सिंहासन चढ़ वाणी से कुछ हल कर दो,  
देश भक्ति और नई तरंगों से माँ का आँचल भर दो ।

अपने मन मस्तिष्क भुजा और भावों को मत सोने दो,  
रंग भरो हर कोने में अब साक्षरता मत खोने दो ।

अब और न बढ़ने दो ऋण को, इतना सम्मान तो रहने दो,  
आबाद करो इस भूमि को, मत इसको धूमिल होने दो ।

हर भारतवासी के दृढ़ संकल्पों का मान तिरंगा है,  
इसको मत झुकने देना यह तो अरमानों का झंडा है ।

अब उठ बैठो, जग जाओ और पुराणों को कुछ कहने दो,  
अपने जीवन धारा से अमृत की गंगा को बहने दो ।

नित्य बीज धरा पर नए दौर के बो कर वृक्ष पनपने दो,  
साकार करो नए सपनों को और बुरे दौर को सोने दो ।

दूर गगन में उड़कर भी पहचान कभी मत खोने दो,  
धीर-वीर-गंभीर-शील बन भारत को गर्वित होने दो ।

दूर गगन चूमोगे फिर भी माटी तो कुछ बोलेगी,  
हम भारत के वासी हैं सब भेद दिलों के खोलेगी ।

दूर शिखर पर बैठ परिदे जैसे घर पर लौटेंगे,  
मंत्रमुग्ध सी मां का आंचल खुशियों से तुम भर दोगे ।

हर्षित होकर भारत माता हमको गले लगाएगी,  
अपने ही कर कमलों से माँ "भारत रत्न" पहनाएगी ।

गली-मोहल्ला-चौक-सड़क और हर चौखट को रखना साफ,  
तभी मिलेगा हर वासी को याद रखो सच्चा इंसाफ ।

मानव से भी बढ़कर है मानवता का यह उपहार,  
नहीं भूल से भी भूलो तुम भारत मां का यह उपकार ।

भारत माँ के आशीषों से आगे बढ़ते जाओगे,  
अपने अरमानों की मंजिल को आसानी से पाओगे ।

वह दिन अब दूर नहीं जब "मेरे सपनों का भारत" होगा  
हिन्दू-मुस्लिम-सिख-ईसाई सब अपनों का भारत होगा ।

जय हिन्द, जय भारत ।



-हर्षिता शर्मा  
बैच- 2017-2021 (2017-2021)  
सेमेस्टर - 8 (8)  
संगणक विज्ञान एवं अभियांत्रिकी



# नारी सम्मान की आशा

नारी सम्मान की आशा कैसे करू?  
वर्तमान के समाज में,  
सीता भी यहाँ बदनाम हुई,  
पुरुषोत्तम के राज में।

तुलसी भरोसे राम के,  
बोलो, कैसे निर्भय होकर सोये?  
जब राम बस चुनावी प्रचार के,  
विचारों से गए खोए।  
नारी समानता की आशा कैसे करू?  
वर्तमान के समाज में।

जब बरसो से, उस मां, बहू और पत्नी के,  
नये साल के संकल्प है,  
बंद पड़े किताब में, बंद पड़े किवाड़ में,  
मानो घर की देहरी ना हुई,  
किसी जेलखाने का एक सेल हो।

संकल्प भी कुछ ऐसे थे कि,  
वह अपनी बूढ़ी माँ के संग,  
दो दिन कुछ अधिक बिताय,  
अपनी पुरानी सहेलियों संग,  
चार गीत पुराने बेफिक्र गाये।

जो अपनों की एक आवाज पर भागती,  
है उसकी भी कुछ आशाएँ।  
जो पृष्ठभूमि से निकालना चाहती,  
है उसकी अनेक बाधाएँ।

क्यू ना आप और हम मिलकर,  
कुछ कार्यों में उसका हाथ बटाएँ।  
जो अपनों की एक आवाज पर भागती,  
उसका भी नववर्ष बनाए।

जो घर की देहरी लांघने से डरती  
है उसकी भी कुछ आशाएँ  
जो खुले आसमान में घूमना चाहती  
पर है उसकी भी अनेक बाधाएँ।

क्यू ना आप और हम मिलकर,  
कुछ विचारों को स्वयं में लाए।  
जो घर की देहरी लांघने से डरती,  
उसका भी नववर्ष बनाए।  
बोलो नारी सम्मान की आशा करू?



# एक अच्छी कविता

एक अच्छी कविता लिखता हूँ।  
जिसमें शब्द थोड़े भारी हो,  
और वर्णावली हमारी हो।  
जो दिखला दे तुम्हे मुँि मार्ग,  
जो समझा दे तुम्हें ब्र ज्ञान।  
रच जाऊँ मैं ऐसा करना,  
जो चले तुम संग मरघट तक,  
तुम्हारे तन समान।

एक अच्छी कविता लिखता हूँ।  
जो अंधकार लीन जगत में,  
फैलाया ऐसा काश,  
जो अंतर की ज्वाला से,  
उपजाए सृष्टी का विकास।

एक अच्छी कविता लिखता हूँ।  
जो नर को याद दिला दे यह,  
बिन नारी के जैसे शंकर।  
जो नारी को ज्ञात करा दे यह,  
के तुझमें ही माँ दुर्गा है,  
तुझमें चंडी करती वास।

एक अच्छी कविता लिखता हूँ।  
जो थाम दे नर संहार,  
जो लौट आए मेरे समीप,  
तुम्हारा हृदय छूकर।

एक अच्छी कविता लिखता हूँ  
जो बुझला दे अधरो की प्यास,  
जो तृप्त करे निर्धनों की आस।  
एक ऐसी कविता लिखता हूँ,  
जिसमे वर्णवाली हमारी हो,  
और पुकारे तुम्हारी हो॥

केतन चन्द्राकर



ENGLISH

ARTICLES  
ODYSSEY

# NIGHT BEFORE THE EXAMINATION : ENGINEERS

“Children fear ghosts, but engineering students have the fear of ghostly exams.....but we win the battle with just last night's fight.”

Engineering teaches us a lot of things and it will have a profound impact on us. Yeah! It is true that most engineering students start their preparation just a night before the exam, but we don't see it as “just” a night, we see it as 12 whole hours and set the average learning time per text book unit, according to time left. All wants become RANCHO but it ends up being CHATUR without any chamatkar.

Well! Let me clear its methodology.....

Step1-collect all the books, and Xeroxes copies of notes all through the semester.(Are you backbenchers?...don't be panic for these collection, all the materials will be available on whatsapp group by 7pm)

Step2- if you find ,there are much more on books, then mind goes to RANCHO (TOPPER) of our class and tries to find out his/her notes. If we succeed in this then.....do analysis and almost narrow down on what questions and which half of each chapter need to be studied.

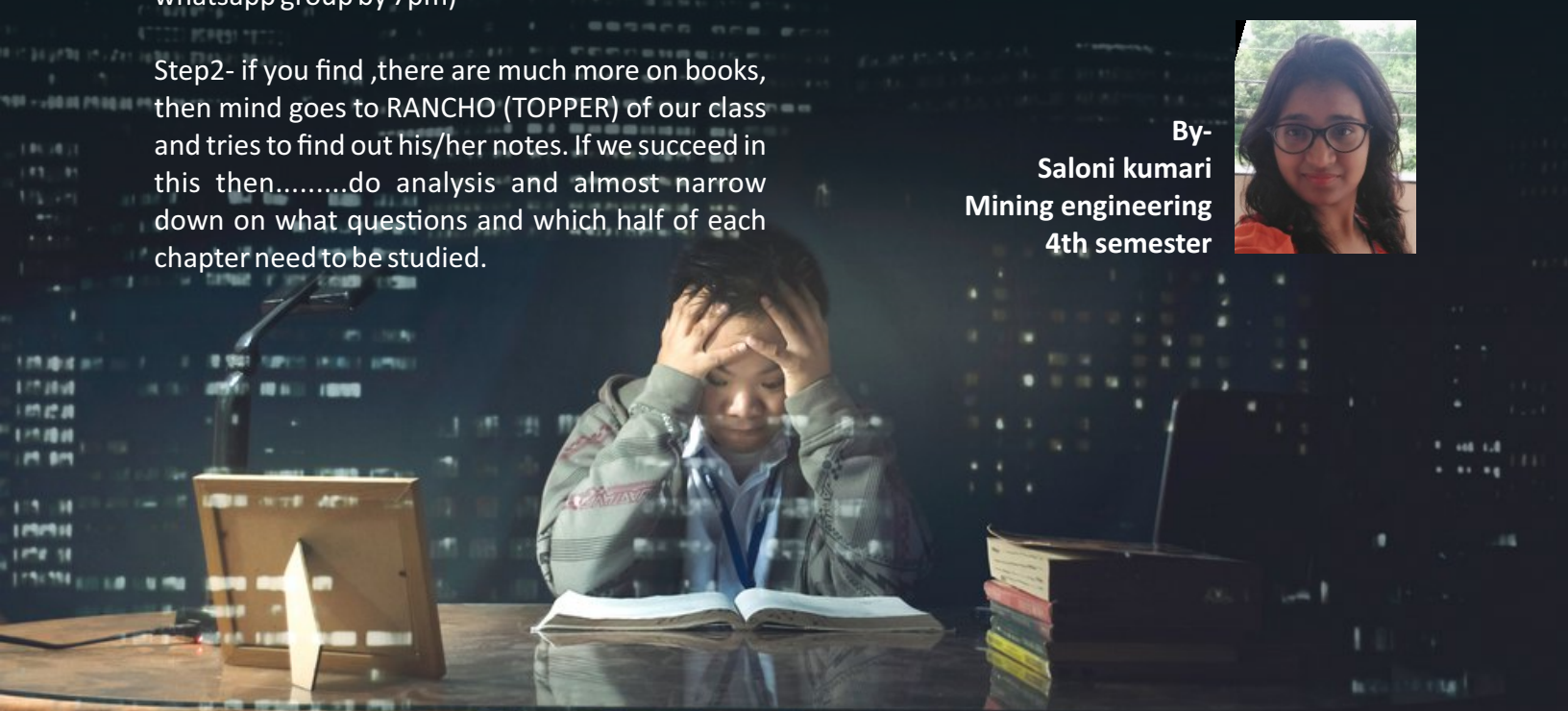
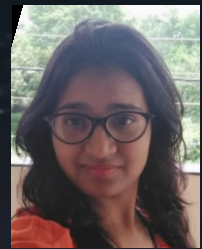
Step3-(the night before exam): lets attack.....no brush, no phone calls, no internet, no chatting, no watching series, no hii, no sleep, no bath, no breakfast.....we all programmed to be with books and notes until entering the exam hall. By this time, most of us would have completed all the syllabus.

Step4- 1-2 hour before entering the exam hall, we all have one who explains all those concepts in a short and constructive way that's highly click on exam time . confidently we go for the exam and as ever, a question paper comes to us , like a supercomputer mind starts memorizing all things and we realize our internal power which is only alive for exam periods.

luckily ! this paper wasn't very tough.  
Or.....!  
(we fear from our fearlessness for exams.)

By-

**Saloni kumari**  
Mining engineering  
4th semester





# THE DOBBY WAY FOR SELF TALK

We have a belief of what our real potential is and that affects how much action we take and of course that affects the result and then these results reinforce our belief. Belief comes from self-talk. Everyone has their moments when they are at their nadir, where they lack motivation and encouragement to do anything. It can be a fight with your parents, friends or when you lose someone dear to you, or when you fail at anything. It starts developing a negative mindset inside you and a negative mindset restricts your life in every way possible.

When I asked the people around me about what was going on in their minds during their hard times or what they used to tell themselves, they all came up with a bunch of negative self-talk. Following are a few of them: "I am lazy, pathetic, why can't I be as beautiful as those other girls on TikTok, why am I not smart enough like the topper of my class, I don't want to go anywhere with this fat and ugly body, I don't have any skills, I don't have a girlfriend like my friends, who do nothing except for roaming after girls, why am I even trying to build this good habit when I already know it will last only for 2 to 3 days....why am I even working out I am such a lazy animal, I am not worthy to my parents, I literally suck at everything...does anyone even know that I exist....." and the list goes on.

When I was going through my hard times, I started missing my classes, started being rude to everyone around, crying for long hours under the blanket and I started sleeping for 12 to 14 hours straight. I knew I needed to talk to someone so I approached my teacher at that time, I told him about all that has been going on. He told me –"the way you talk to yourself, matters". You have plenty of people around you to say negative things, to let you down but you yourself shouldn't do it. You are not lazy, you are not pathetic, it's just the voice in your head who believes you are pathetic. You just need to change your way of self-talk, instead of saying you are lazy, say Aanchal is lazy and she needs to be trained. In other words, just try to become Dobby the free elf from Harry potter. Also if you are a pro wrestling fan then you probably know that Dwayne the Rock Johnson does the same thing.

And I started doing that, I took a deep breath and said "ok Aanchal is fine, she is not worthless she just needs a little bit of training and discipline in her life and I will help her to obtain that. She needs to eat healthily, she needs to complete her lessons, she needs to sleep well and she is gonna be fine. I will train her to be happy and peaceful with a great work ethic and a great personality.

In the morning after that, I used to tell myself, "ok Aanchal get up you need to wake up early otherwise you will be late. Good girl, now go freshen up we will make an awesome breakfast today." Sometimes I used to be harsh to myself like, "ok Aanchal you need to be more appreciative stop acting like you need sympathy, you have me, so you can endure all the pain." By being harsh with yourself I don't mean giving punishments to your body but what I actually mean is to discipline your lazy self.

You are not always going to have people around you to motivate you and inspire you; sometimes you yourself have to ignite a spark within you. It's exactly like the way you talk to your best friend. The only difference is that you become the best companion of your own voice in your head. With practice, now when I cry, automatically a voice pops up in my head saying "stop crying, it isn't going to help, wash your face and try again."

Self-talk is your internal dialogue. It's influenced by your subconscious mind, and it reveals your thoughts, beliefs and ideas. It can cherish you or it can destroy you – "The way you talk to yourself, matters."

**Aanchal Sharma**  
**Electronics and Communication**  
**1st year**





# 2020

## 2020: AN APPRAISAL

How ironic it is to start a year with full enthusiasm, then curse it all the way around, and then end it with immense nostalgia. It's been a fearful year for all of us, painful for many, and a mixture for most. But the lessons that this year has taught us are just incomparable with the past years. It came as teaching to many, that even with all resources, money, and so-called materialistic things, we aren't completely safe.

The climate issues are now inescapable and the whole world needs to come forward together to face it, only then we can save your beloved planet. There's also a lot of hatred injected into the minds of the human race, many related to a nation or a religion. But this agony will only keep rising until we understand that this is not only breaking us from within but also killing humanity. We shouldn't let some people's nasty thinking get inside our head & make us fight with each other.

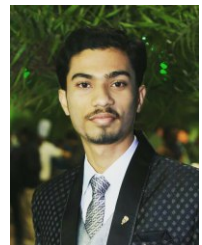
This year has brought to us a lot to introspect & self-assess upon. It's been a tough one with a lot of contemplating involved. It's the one that ended the fastest but taught the deepest. A new decade awaits us, but something is left behind again, maybe your true self, which is left back every time because it keeps clashing with society's stereotypes.

But maybe this herd mentality has to stop, maybe this hatred has to end, maybe love and empathy have to prevail, maybe this 'maybe' has to be changed to a must!

2020 is not just a year on the calendar that faded away; its lessons and incidents will be remembered perpetually. It's not the year, but our own actions that have brought us to this point. 2021 has a lot to offer us and that can easily be gained and utilized with patience, integrity, and love.

We shouldn't mess it up; after all, it's 2021!

**Ujjwal Likhari**  
**1st semester**  
**Metallurgical and materials engineering**



# A FORTUNE TELLING SUPERCOMPUTER

The year was 2120 and Jack had finally finished a super quantum computer that could not compute all the equations and variables that decide the future events of the universe, since, it would need a much powerful computer, but it could compute a part of it, so that you can see some particular set of events at a single time, or in other words could see the future of a single person at a time. Moreover, owing to the technological advancements of the past century, experimenters could retain every bit of information they want to in the "Brain Bank" in their modified brains. The team decided to send Jack first to try it since he was the one who came up with the idea years ago.

He went to the dark quiet room alone, sat on a chair in front of the computer, and put the glasses on his eyes. And then he saw, he saw – after seeing the future he put off his glasses and went home, only some days' time has passed since he was playing his future at high speed. He drove to the home, and almost all of the time his eyes closed since he knew the road, his home, and every uncertain thing in between.

Somehow, the things were making more sense to him now, and he was doing them with more confidence, not afraid of making useless mistakes anymore, while, at the same time, also embracing the outside factors which he couldn't know about. "I can now do what's best for me, and do it with certainty", he concluded happily.

However, as the days passed, he began to think what is the point of doing it if I know what will happen after that and after that and after that ultimately nothing will happen, and everything in vain (since he already

proved to the world with the help of a calculator that there is no such thing as afterlife some years back), and at that moment he realized that the only thing that mattered in his life was hope for something better in the future, which he didn't have because he had already experienced everything, thus everything has become past for him now, everything linear, and everything mundane. He knew now his future was doomed because he had none of it, and the tears rolled down his eyes. He decided to see no further and he took his glasses off, and went home, only some days' time had passed, since he was playing his future at high-speed. He drove them home, and this time he knew that no car was coming to him, however not closing his eyes this time to give himself a sense of unpredictability. Somehow, the things were making more sense to him now, and he was doing them with more confidence...

The next day, he wrote a letter, "Hey listen, I know that you won't believe me even if I tell you what happened to me, but take this as a plausible idea, that no matter how harsh the circumstances are, don't ever dread the future, not at least when you still have it. There will be times when you will want to know badly, that what will be the outcome if I chose this one, but fear not, because the worst that can happen will still contain a chance for the future to make things better, and that chance is all that we need to have."

He decided to send this letter to the past version of himself when he was still young and somewhat afraid to make mistakes. But he put the letter in the drawer of his desk, till the time a machine to travel back in past to correct the mistakes and get over the regrets was invented.

**Vashu Jain,**  
Information Technology,  
4th Semester





# Pearled Verses



# THE ELUSIVE SATISFACTION



I watch faces every day,  
Rushing through the same way;  
Putting everybody on themselves,  
Turning away from true selves;  
Carrying a buried sole target,  
To do something people can't forget.

In this desert of personalities,  
Trying to mark their very own qualities;  
Everyone drag themselves the whole way,  
Keeping their divine soul far away;  
Panting hard to leave behind a memorable  
footprint,  
Sustaining the dragging, overlooking the need to  
sprint.

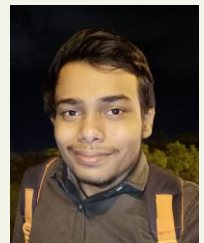
Children have lost the vast ocean of gladness,  
Drifting down the narrow stream filled with  
restlessness;  
Fenced by their unmentioned vow,  
Scrounging the answers of their own 'how?';  
Heading hard towards different destinations,  
With bowed down shoulders due to expectations.

Everyone carries the same bowed shoulders,  
But, still, they stay happy by seeing the nearby  
others;  
Lifting the burden by comparing,  
Spewing the frustration by roaring;  
Seeing up, begging to the ultimate God,  
Still suspecting 'Whether he exists or not?'

Now, the sun is getting really down,  
With, still many thudding for a crown;  
Preparing themselves for a restless night,  
Which grows out of their mirage-like might;  
Few returning home, some coming out,  
Heading a verse none of them knows about.

Some will go and rest,  
Thinking they gave their best;  
Worrying about this unending deal,  
Afraid of stepping out of this whirling wheel;  
With still keeping inside the heat,  
All set for the next day to repeat.

They run for varying expectation,  
Totally overlooking the eternal satisfaction;  
They forget that a rush can't be a race,  
Meanwhile, a poor with a bread owes the ace;  
As he doesn't possess a happiness which is  
exclusive,  
Thus, he is far beyond this world's satisfaction  
which is elusive.

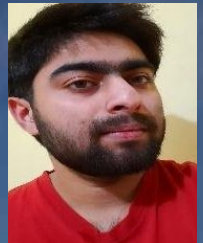


**Abhisht Pandey**  
Fourth (4th) Semester  
Electrical Engineering

# HOPE FOR TOMORROW

Don't follow the way of solution  
Try to create new evolution  
Things are correct according to the resolution  
Because no one needs the simulation  
Something is emotion  
Something is devotion  
And that's the reason  
We always living in the illusion  
Some says destiny  
But we don't need to listen  
Always this type of history  
We have courage  
We have dedication  
Then what we are waiting for  
Don't follow the way of system  
Try to create tradition of revolution  
Life is running step by step  
Because no one needs the advice slow-motion.

BY- ABU ANAS  
MME BRANCH  
1st Semester



HOPE

A silhouette of a person sitting on the word "HOPE", which is written in large, bold, black letters. The scene is set against a sunset sky with a silhouette of a mountain range in the foreground.

# WHY IS IT NOT THE SAME, AS IT WAS BEFORE?

I ran so far, far from home  
And now I am lost, lost within my own mind  
And I can't find my way back home.  
Home which seemed so, pleasant and  
Used to give me sense of peace,  
Now it's utter silence bites me, torments me.  
Why is it not the same as it was before?  
Why is it not the same as it was before?

People ask me why I run away from home.  
And the only answer I have is a cipher  
Which I can't decrypt.

A cipher which holds the answers to my questions.  
Which is why can't things go back to the way they were before  
Before my world came crashing down on me  
Before my happiness shattered before my eyes  
And all I did was I stood there reflecting on my past  
Why is it not the same as it was before?  
Why is it not the same as it was before?

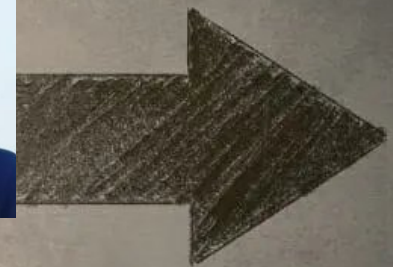
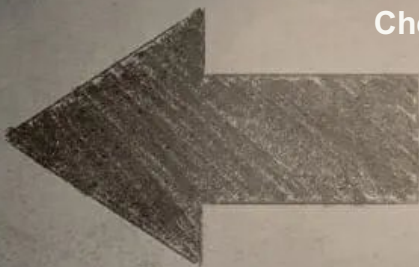
-Aman Priyansh John  
4th semester  
Mechanical engineering



# THE DILEMMA OF LIFE

A CHILD IS BORN WITH NO DREAMS,  
JUST TEARS AND SCREAMS;  
FACING A DILEMMA ABOUT WHETHER TO LIVE OR DIE,  
BUT CHOOSES ONLY TO CRY;  
HE GROWS UP SEEING SEVERAL SMILES,  
ONLY TO LEARN THAT HE HAS TO COVER SEVERAL  
MILES;  
FACING A DILEMMA ABOUT WHETHER TO RIDE A  
BICYCLE OR BECOME A DISCIPLE,  
BUT CHOOSES TO DO A MIRACLE;  
HE REACHES STANDARD TWELFTH,  
WITH ALL HIS MIGHT AND STRENGTH;  
FACING A DILEMMA ABOUT WHETHER TO GET  
ENTANGLED WITH STRANDS OF DNA OR PONDER OVER  
THOR'S ELECTRICITY,  
BUT CHOOSES TO LEARN ABOUT BASICITY;  
HE GOES ON TO WOO HIS LADY,  
BUT AGAIN THWARTED BY THE FAMILY;  
FACING A DILEMMA ABOUT WHETHER TO MARY HIS OR  
THEIR CHOICE,  
BUT CHOOSES TO RESTRAIN HIS EMOTIONS AND THEN  
REFRAME HIS PARTNER'S CHOICE;  
HE GOES ON TO ESTABLISH HIS OWN INDUSTRY ,  
JUST FORGETTING ABOUT HIS RESPONSIBILITY;  
FACING A DILEMMA ABOUT WHETHER TO SEE HIS  
COMPANY OR MEET HIS SON,  
BUT CHOOSES NONE.

Ambar Dixit  
Chemical Engineering  
4th Semester





# THE DILEMMA OF LIFE

Standing at the palatial entrance of the mela I  
gazed at the giant wheel  
Sellers selling their goods with great enthusiasm  
and zeal

Amidst the vibrant lights that dazzled my eyes  
I heard the heavenly music that made me rise  
above the skies

I asked the merchants, "What do you sell?"  
They gave me a bluish basal shell

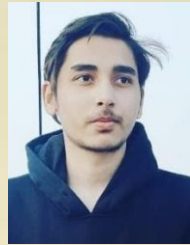
I asked the vendors, "What do you weigh?"  
They gave me the leaves of sweet bay

I asked the goldsmiths, "What do you make?"  
They gave me a necklace, a symbol of love's stake

I asked the fruitmen, "What do you cry?"  
They gave me some raisins rich and dry

I asked the flower-girls, "What do you weave?"  
They gave me chaplets for the Christmas eve

**Ambar Dixit**  
**Chemical Engineering**  
**4th Semester**



# THE CONCLUSION

Dark windy skies,  
black clouds crowded around  
lightning is the only light  
and thunder the only sound.

Bleak atmosphere,  
it's like the nature's waging war  
against it's human enemies,  
who have harmed it so far.

No beacon of light,  
houses and trees falling apart  
it looks as if mother Earth  
is preparing for a new start.

But they say it's alright,  
we will pass this all  
We will stand together,  
because united we are strong.

Maybe, this won't last long  
but what will you do,  
when an eternal storm comes  
to wipe us all through.

**Ananya Dixit**  
4th semester  
Information Technology





# ADIEU WITH A PROMISE...

*Ups and downs, these years four,  
From feeble sounds to thunder roar,  
A place so new with knowns so few,  
Who knew these memories we will sew!*

*Envious of the sun and moon I get,  
They stand the same for years set,  
No change of place, no change of  
thoughts,  
Can see from there, their favourite lots.*

*Glorious they are, but we unknown,  
Little are we, or are we grown?  
Who knows what our next abode will be,  
To bid "farewell" again to thee.*

*It's hard for us to leave this place,  
It's hard again to adjust our space,  
Time comes and time flies,  
Full with laughter and heavy sighs.*

*Visible Massive though the building be,  
Its Heart beats we cannot see,  
It too shouts out in infra tones-  
"To call you I do not have phones,*

*Promise me, come back you will,  
To me here, who stands still,  
For years passed and yet to come,  
I hold a part not all but some,  
Of what you are and will become,  
Give me your word, you will return"*

*Let's give this place a little word,  
Stand apart we will from the herd,  
The burning fire, the zeal within,  
Prompt to play, we lose or win,  
Never to let this place feel low,  
Pledge we today and here we go,  
To challenges and fears whatever in line  
we see,  
Nonetheless, they will make a better  
version of me!*

HARSHITA SHARMA  
8th Semester  
Dept. of Computer Science  
& Engineering  
Batch-(2017-2021)





# MUMMA

From where to start, how to define,  
After all she is so divine,  
Even being normal she is so great,  
Whenever I fall, she is my first aid

My happiness is her first priority,  
Considers me as her biggest responsibility,  
She is so more to me than to herself,  
She even forgets to eat as well.

Love from her is always the purest,  
Teasing with her is always the coolest,  
She is my best laughing partner,  
I'm a little sapling and she is my gardener.

Lakshman Mulchandani  
1st sem  
Electrical





# KITES

# "IMPERFECTLY PERFECT"

I try to fly high...  
Each time with the same hope,  
"Oh! that might be the surface of the hazy sky."  
But the charmer pulls the wool over my eye.  
Sometimes I fall, sometimes I swirl,  
Sometimes it brings me down,  
Occasionally getting lost in a wave or whirl.  
Sometimes it helps me to reach the amusing height  
Often it caresses me as if I am a feather or a pearl.  
I keep trying to get the soothing touch of the charmer sky.  
Unknowing the fact that it's just air completely dry.  
But then also, I try to reach out high.  
Lively carrying my enthusiasm and just fly,  
Out of reach and unbounded by any 'how' or 'why'.  
Just me and my cord being lost in the perpetual joy  
The wind might even change our direction  
But then, we never lose our hope,  
And try not to say each other goodbye.  
We keep flying and try to reach out for the sky.

Perfection might fulfill our obligations,  
Ever tried to perceive the beauty of imperfection?  
Existence of perfection is limited to our imagination,  
Nor even this earth a perfect sphere,  
Still, we love it as if it's our own mother.  
Appreciate the aging it's natural and tidy  
Think of your own mother,  
She might not be the perfect  
Yet for them, we are highly obsessed.  
Sense it's positive reflection and serenity.  
Even the moon's beauty not a permanent  
Sometimes a bright circle, with unhidden scars  
Else a thin crescent yet reflecting shining stars.  
Look at your palm are all fingers perfectly the same,  
Yet we fall for a piece of perfection like insane.  
Realize the beauty of a hand made craft,  
could never be designed by a mechanical shaft.  
Imperfection is lively while perfection is dead.



# I AM THE SAILOR OF MY LIFE

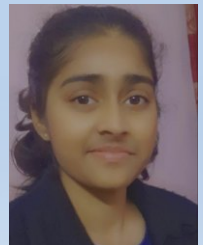
I am the sailor of my life,  
I have thousand miles to sail,  
I will sail through the dark storms,  
From the waters I will rise,  
To the mountains bright and warm,  
Above all I will prevail,  
I am the sailor of my life.

I am the sailor of my life,  
I will war with the weathers,  
I will war with the winds.  
I will soar my feathers,  
I will soar with the winds.  
I am the sailor of my life.

I am the sailor of my life,  
I have storms that stop,  
The thunders that block,  
The journey to my dreams.

I have courage in my heart,  
And determination stern as rock,  
I will make them bend on their knees,  
I am the sailor of my life.

I am the sailor of my life,  
I have wrath of the waters,  
I have bergs to face.  
I have valour in my mast,  
And fearlessness on my face,  
I am the sailor of my life,  
I have a thousand miles to sail.



**Samyukta Shaji**  
**Biotechnology**  
**1st Semester**



# TO INFINITY AND BEYOND...

I'll write till I carve texts with my chisel-like pen...  
hammered over by blows of emotions

Till ideas brim onto the funnel of my mind  
and the drenched sheet pacifies its thirst after having slurped the last drop of ink

Till my expressions crave to bury themselves deep inside my diary,  
even if left untouched, unimpressed, untold

Until introspection drains out all the faults within  
and all sin is washed away in pursuit of the undiscovered self

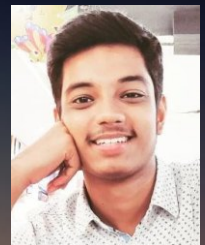
Till I detach myself from the last bit of sorrow  
and neither pleasures entice me nor death may haunt

Until my head stops pondering over the next phase  
and my hand longs a pause from the unforgiving toil

I'll write up till my last breath...  
the last full stop.

Till the blot of my work outlives me  
to infinity and beyond...

**Saurabh Patel**  
**Electronics and Communication Engineering,**  
**4th sem.**





# ORDER & CHAOS

Childhood days are cherry blossoms, I bliss  
Aback I grow up;  
Too small for being liable, too big for being childish  
Thence, order & chaos rise up.

The extant is comfortable  
Aback I start daydreaming;  
Here love appears... quite debatable  
Ergo, order & chaos rebelling.

Have spring sunshine, flowers bloomed  
Aback I dare to fly;  
Could reach high enough, but doomed  
On top, order & chaos are not shy.

Desire is order, chaos hail... like time's wheel.  
It's inevitable...but I will !!!



**SEEMA BHARTI**  
**MINING,**  
**4th SEMESTER**



# THROUGH THE COURSE

I wanted to start afresh,  
I wanted to forget the past,  
I wanted the pain to subside,  
I wanted to breathe at last.

I did not ask for love,  
I did not ask for company,  
I did not ask for anything,  
Except for peace and harmony,

Hear my woeful tale!  
For what I asked was refused,  
The peace was brutally murdered,  
And no one punished the accused.

And then I thought to myself,  
“Why was it so difficult?  
Was it too much to expect?  
Is this all my fault?”

I broke down and crashed,  
But I did not wail for long,  
I gathered the broken pieces,  
And I dragged them along.

And as I pushed myself,  
And toiled harder than ever,  
I realised a secret,  
That added the perfect flavour.

Every time I fell,  
I rose taller than before,  
The journey became easy,  
And at last, I reached the shore.

My secret remains with me,  
Till I fade away,  
But I reveal another secret,  
Listen to it, I pray.

My secret is mine,  
And yours is only yours,  
This unique tool is discovered,  
Only through the course...  
Only through the course...



**Soumya Subhrajita Mohanty**  
**4th Semester**  
**Mechanical Engineering**

# WAKING UP

I] Waking up to happiness is a sign of success  
But don't forget to be humble,  
Remember those days of pain  
There was a hand which pulled your life full of subtle.

II] Waking up to sadness can also be a good start  
Can prove to be a source of motivation,  
Breaking the bondage with laziness  
You can work to gain back your lost reputation.

III] Waking up to fear is the last thing you will ever want  
Because the society will fill your life with stress,  
So better overcome this loop hole at earliest  
To avoid hassles in your climb of success.

IV] Waking up to surprise is a day we want everyday  
But it comes like a Halley's comet and goes like a flash,  
And we have to carry on this life  
Again with the schedule and a wait of another bash.

V] Waking up to anger is a lost battle for you  
Because life is not meant to deal alone,  
To keep going in this vicious circle  
Learn the art of forgiving and do the atone.

VI] Waking up to disgust will give you ripples of unluckiness  
But what you need to understand to fullest is that,  
Life is never meant to be a walk on flowers  
There was, there is and there will be a daily combat.



**Tanmay Choudhari**  
Information Technology,  
8th Semester,  
NIT Raipur



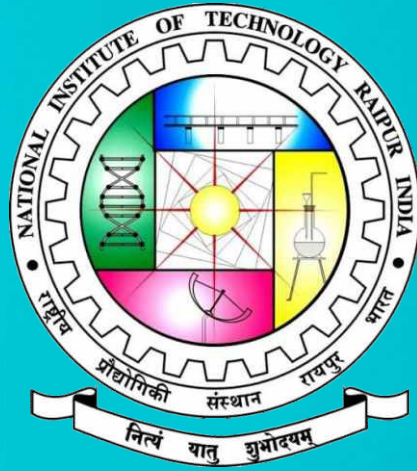


# YET THE WORLD HASN'T CHANGED

Yet the world hasn't changed!  
The world moved on with the same stillness.  
Time has moved on  
but people haven't.  
Still the beasts prance around with false pride.  
Only she was the mourner, she still remains.  
Nothing changed much, only years faded away.  
Her elegance turned into her enemy.  
Her will, their choice,  
Her emotions, their cruelty.  
Only when her innocence mutated into indignation,  
Their ego crushed, their vanity ruined.  
Before,  
the world only spoke,  
Now the world witnessed her competence.  
She is the creator,  
the destructor as well.  
Her purity, her sanctity can never be dismantled.  
Though knowers knew, believers believed, fighters fought,  
Yet the world hasn't changed.

Ujjwal Likhar  
1st sem  
Metallurgy





# *Clubs and Committees*

REPORTS



# ABHINAY

## THE DRAMATICS CLUB

The session 2019-20 was one of the best for the members of Abhinay The Dramatics Club. The first event organized by ATDC was Unkahi, the Open Mic Session 10.0 on 7th August 2019. Over 50 students performed and put forth their inner feelings and expressions with the help of poems and storytelling. On 1st October 2020, Team NSS organized "A Day with Real Heroes 2k19" to give tribute to the Army, Navy and Airforce and Abhinay performed a small mime act dedicated to those servicemen whose journeys are an inspiration to all of us. The mime act depicted the life of soldiers who live for their country and are always ready to sacrifice their lives for their motherland. Abhinay also participated in the street play competition of the Cultural Fest at VNIT Nagpur. The title of the street play was "Jal Shakti Abhiyan" which aimed to spread awareness in our society for the conservation of natural resources like water which forms the base of human life. An imaginary situation was presented where in the future the price of water has reached towering heights. During the Vigilance Awareness Week from 28th October to 2nd November, the Team performed a street play presenting a tirade of dialogues and a message to spread awareness of the need to curb corruption before it's too late. With the aim to nurture future talents, the Team organized a workshop in Sakti and its nearby villages. Several members of the team took the initiative to develop an ecosystem filled with art and culture and tried to show them the way to grow in this artistic domain. On 27th December 2019, Abhinay in partnership with Oxfam India, Raipur Division performed a street play on the topic "Gender Justice" in the Village Kara, of Janjgir Champa District. Apart from street plays, Abhinay also organized an online Poetry competition in which the many unknown but talented poets from our college as well as other colleges sent their poems which were published on ATDC's Instagram Page "abhinay.nitr". Following this, another competition "Drunken Diaries" was held, in which participants were asked to send their happy, heart wrenching or funny stories which they felt were close to their hearts and wanted to Next was a Street play performed on 31st January 2020 with the title "Hum Nukkad Kyu Karte Hai". With this, the Team wanted to tell the audience the reason why a Nukkad is performed, its aim and what role it plays in shaping the thinking of its audience and this society.



Abhinay also participated in Aurora, The Cultural Fest of IIIT-M Gwalior. And after a lot of hard work and selfless efforts, the Team stood first in the competition and it was one of the proudest moments for the Club and for the College. The theme of the Street Play was based on "Body Shaming" in which a message was given to not judge people on the basis of their looks and body shape. On 1st March 2020, Mahila Ayog of Chhattisgarh and Rashtriya Mahila Aayog organized a "Power Walk" for "women security during night", in which the team participated and organized a street play for all the people of Raipur. It was an enlightening experience and the team was grateful after seeing such an overwhelming response from the audience. On 21st February, Abhinay Club participated in "Goonj", the street-play competition of Eclectika, the Cultural Fest of our Institute. The Team performed the same winning Nukkad of IIIT-M Gwalior and won the second prize. On 23rd February 2020, 3rd day of Eclectika, a Mono-act competition "Abhivyakti" was organized. It was open for all and the participants had to perform a self-prepared mono-act on the spot. On 9th March, Abhinay got an opportunity to perform at the biggest conclave of literature, on the 18th National Book Festival at BTL Ground, Shankar Nagar, Raipur. During the lockdown, Abhinay was very active on its social media platforms and was constantly promoting social distancing and mask awareness. This year brought us highs and lows, ups and downs and victories and defeats, but the spirits were always high. Under the guidance of our faculty incharge Prof. Govardhan Bhatt sir, the Abhinay team never gave up and made NIT Raipur proud.



# CLICK CLUB

## ANNUAL PHOTOGRAPHY WORKSHOP

The club organised the Annual Photography workshop under the supervision of Dr. S Sanyal . The workshop covered a wide range of topics regarding Mobile photography, And Managing College with Photography and Budget Travelling , Basic Camera Handling, Light modifiers, post processing and composition along with an outdoor photo walk to implement these rules. The session was delivered by professional photographer and a feature on Natgeo, History TV 18 , Mr Siddhant Soni .

## AURA

THE PHOTOGRAPHY EXHIBITION The Club organised Aura , the photography exhibition at the start of the session . Various pictures from different genres including Street photography , Astro Photography and Portraits with extraordinary creativity were displayed . The Exhibition was a great success and it promoted creativity among the students.

## PHOTOGRAPHY CONTEST

The Club also organised a Food Photography contest on the social media platform-Instagram and prizes worth 1k where given to the winners.



## PIXEL LANE

The club organised Pixel Lane on the event of Cultural fest Eclectika,by displaying the photographs taken by the members of the club. This year every photograph had a unique QR code and by scanning it displayed the name,genre and story behind that photograph. The club made its presence felt throughout all the events at the college from Beginning to Eclectika .



# E-SUMMIT EVENTS(E-CELL)

**UTHKRISHTH:-** In society, there are certain benevolent citizens whose exemplary efforts are directed towards the betterment of society. UTHKRISHTH aims to congratulate such gems of society. Abhishek Dubey, founder of Muskaan Dream Creative Foundation, and Nikhil Gampa, founder of Green Wave and alumnus of NIT Durgapur graced the event as speakers.

**B-QUIZ :-** Business-Quiz is a quizzing session that not only cultivates the entrepreneurial spirit of the students but also nourishes their minds and pushes them to come up with innovative ideas that address society's problems. It was held in two rounds, where the top six teams who cleared the prelims, met each other for the finals.

**CRICNOMETRICA:** - The E-Cell, NIT Raipur brought the Cricnometrica event to illuminate the minds of young entrepreneurs and make them believe in themselves. The event took place in three rounds. Team LBW of NIT Raipur won the event.

**WALLSTREET :-** Wallstreet is a virtual game that allows the students to see the transgressions of the market first hand. While building a virtual stock market and supplying them with virtual stocks, this game, in turn, encourages learners to learn and develop their skills to become a giant in the field of evolving trends. It was held in two rounds with over 45 teams, the top two teams took the honours.

Wallstreet is a virtual game that allows the students to see the transgressions of the market first hand. While building a virtual stock

**INNOVATION MANTHAN :-** The Innovation Manthan aimed at providing a platform to the

brilliant minds to present their innovative ideas, the team with the extraordinary project would be provided with a Seed Grant of Rs.25k and a wonderful opportunity to be patented. There were a total of 25 teams, with their innovative ideas, abstracts, prototypes, and presentations that amazed the people as well as the judges.

**ENTROPY :-** It aims to facilitate the young entrepreneurs by directly getting advice from the best, the people who've had a first-hand experience at the obstacles of Entrepreneurship. Mr. Sandeep Chadda, Product Manager, Microsoft; Ms. Shweta Kothari, Managing Editor, The Logical Indian; Mr. Sandeep Jain, Founder, GeeksforGeeks; Mr. Raj Shamani, TED Speaker were called in for the Speaker Session.

**STARTUP CAMP :-** The motive of Startup Camp is to help start-ups grow in Chhattisgarh, E-cell NIT Raipur wants to help students and start-ups by providing all required resources at one place itself. Showcasing Round, a part of Startup Camp, had a motive to provide a platform for startups to present their model in front of the public that visited the showcasing round. Students can also visit E-Cell's new online portal to apply for internships.



The startups which attended the startup camp were:

ExoSolar, We+You, Fru. Care, Toning World International, APS Microtech, Kotigem, PadhaDeBro, Influence Fox, Cybotrix Digitals, Grahmart, MyTirthIndia, Psalm Consultancy.

**PITCHING ROUND :-** Following Startup Camp, a Pitching Round event was held, which connects the up and coming startups with a panel of investors. Pitching round gave the startups great insight of the fund raising and motivated them to take their ventures further in the race of becoming the next big thing. The event had a wide range of investors ranging from entrepreneurs themselves to Managing Directors of some existing big players in the business market, such as Mr. Gagan Gupta, Co-Founder of KYT Ventures, Mr. Nitin Baradia, Founder of the AT Group, Mr. Ravi Ranjan, Head of NASSCOM 1000 Startups Warehouse, Mr. Arjit Johri, Bharat Innovation Fund, Mr. Varun Bhatt, Unicorn India Ventures, Mr. Amod Yadav, CEO of Arsonic International PVT LTD, and Mrs. Manjusha Manker, Managing Director at Arsonic International PVT LTD.

**B-CASE STUDY :-** It is one of the attractive events of the Summit, that provides the genius minds, with problem statements, which the participants have to research and come up with innovative solutions, to solve the underlying issue. The event was conducted in three rounds, the judges appreciated the efforts of the contestants and gave them some golden tips for improvement and shared their views on each case study.





# INNOVATION CELL (MAJOR EVENTS)

## A. I-Talk:

I-Talk provides a platform for geek students to grab some experience from Experts on the trending topics of the industrial domain through an interactive Session. It seeks to make students aware of the various Industrial Development and Innovative Sectors. Following are the sessions organized by Innovation Cell:



## B. Seed Grant 2020:

Innovation cell, NIT Raipur conducted Seed Grant 2020 on 5th Sep., 2020 to award the fund for the innovations proposed by the students of the Institute and take them to the prototype stage. A sum of Rs 3,25,000/- will be granted to the 13 teams by Dr. A. M. Rawani, Director, NIT Raipur. Teams pitched their ideas in front of the panel consisting: Dr. S. Bajpai, Head of Career Development Cell, Dr. S. Sanyal, Professor, ME, Dr. R.N. Patel, Faculty Incharge, Entrepreneurship Cell, Dr. S. Ganguly, Assistant Professor, Department of Metallurgical Engineering, Dr. L. K. Sahu,

Faculty Incharge, Ethics Club and Dr. S. Gupta, Faculty Incharge, Innovation Cell. The alumni of the Institute and successful entrepreneur, Ajit Deshpande also joined the program and provided some technical insights to all teams.

## C. MHRD Sessions:

Innovation Risk Diagnostic — Product Innovation Rubric (PIR)

This session on 15th May 2020, was taken by Dr. Lakshmi Meera who herself is a big innovation enthusiast and believes in the latent and untapped talent of the youth of today which can solve some of the major problems that can change the world as we see it. The main learning objective of the session was to help students understand the different risks inherent to innovating a product with the help of PIR, a diagnostic tool that helps evaluate the potential of product innovations and gauge its progress. The session proved to be immensely fruitful for budding entrepreneurs and helped them understand the importance of innovation while balancing the risk factors.

## Legal and Ethical Steps – Productive Entrepreneurship and startup

When it comes to start-up, only an idea isn't enough. You need several other requirements to be fulfilled. One of those is the legal aspects. A session was conducted at IIC on 12th of May 2020 by Mr. Hari Mohan, Founder & CEO of Signicent LLP in India and Signicent LLC in the US. His company employs 80 full time experts in the area of IPR (patents, trademarks and copyrights). As an IIT Madras 2008 post grad, research and technology has always been close to his heart. The major objective behind this online session was to introduce the students of NIT Raipur with Legal and

Productive Entrepreneurship and startup. This session with such an expert made the students understand the legal steps to be taken for their innovation to become a business.

**USE OF MARKET DATA AND APPLICATION  
OF MARKETING RESEARCH TOOLS  
AND METHODOLOGY - INCREASING CHANCES OF  
SURVIVAL OF INNOVATION AND VENTURE -  
ADVANCE LEVEL**

An online session conducted by Dr Preet Deep Singh had a great and valuable impact on students of NIT ,RAIPUR. Dr Preet Deep Singh is a Gold-medalist PhD from IIM, Ahmedabad. He led the Startup India Hub for Govt of India. He has worked with various State Governments and serves on the board of startups and incubators. He has been working with startups for a decade now. Students have learnt Actually applying data and market and B2B and B2C case studies research for survival. This session had a great impact and encouraged the attendees of NIT,RAIPUR to make their businesses innovative and survive the market.

# INTERACT CLUB 2020

1. On February 22nd, Interact The Quiz Club of NITRR successfully conducted the I-Quest 7.0, a general quizzing event with the theme "Bite into fantasy".

The quiz was open to public and approximately 300 people were in attendance out of which 250 people were from the college itself while 50 people from

the outside participated. During the quiz, participants went through some intense quizzing action and brainstorming sessions. The first day of the quiz, which was a written round, was led by quizmasters Ayush Tiwari and Shubh Kela of the Interact Club NITRR.

This round was exclusively held for the NITRR students. On the second day, i.e. February 23rd, teams from outside the college participated along with the selected teams from the previous round. The written round was held during the day. Over 200 teams participated out of which only 6 made it to the final buzzer round. The buzzer round was led by Suraj Sharma as the quizmaster. Prizes worth 25,000/- were distributed among the top 6 teams. Audience members were also given chances to answer some of the questions ensuring the active participation of everyone present in the quiz.

2. On March 28th, Interact The Quiz Club of NITRR successfully conducted The Connect Quiz, an online quiz focussing exclusively on Connect questions. The quiz was conducted on the Facebook group of Interact Club with almost 7,500 members. The quiz was led by Shubh Kela as the quizmaster. The quiz saw participants giving their best and trying their hardest to make sense of 4 pictures and connect them in a way to arrive at an answer. PayTM cash prizes were given to the winners of the quiz.

3. On 15th March 2020, the Rapidfire Quiz was conducted by Interact the Quiz Club of NITRR. It was a short quiz of 15 questions in a single round which was held on Interact Club's Facebook Group containing 7,500 members. Amid the worries and tensions of COVID, this quiz was meant to be a relieving distraction. The quiz was conducted by the new members of the Club, Abhilash Biswas, Mourya Choubey and R Ayush Pathak. The quiz saw participation of several quizzers who had been anxiously holding on for the next quiz after the ferocious I-Quest quiz. Top 3 winners got PayTM prizes.





4. While wedding fever was on everyone's head with Sima aunty's banter, Interact Club conducted the Big Fat Indian Quiz with questions ranging from topics like sports to the big bang. It was held on 8th August 2020 on Facebook Group of Interact Club with 7500+ members. The quiz was led by Abhilash Biswas and Mourya Choubey. Each question was answered within seconds as quizzers were feverently trying to do their best. PayTM prizes were given out to the top winners.

5. On 17th October 2020, Interact the Quiz Club of NITRR held its most awaited Quiz of the year, The Techonomic Quotient 8.0. Even though the techfest of NITRR couldn't be held this year, kudos to COVID, Interact Club didn't let this dampen the excitement among students. The first round of the quiz was held on the Dare2Compete site. More than 1000 registrations were made for the round. Each team was allowed to have 1-2 members. With short amount of time and fierce questions, quizzers gave their best. After the round top 6 winner teams were selected for the finale. On 24th October 2020, the Finale of TTQ 8.0 was held through an online meeting on Zoom. The finale itself had 3 subrounds, each with different type of questions. The quiz was led by Shubh Kela as Quizmaster. Top 3 Winner

teams were given Amazon Gift cards worth ₹15,000/-.

6. On December 27th, Interact The Quiz Club of NITRR conducted it's last event of the year The Quiz, another online quiz which was conducted on the platform Dare2Compete. The Quiz's theme was the ongoing online classes in all the educational institutes and was meant to be a relief for all the students from all the stress of the online semesters. With over 1000 registrations, the screening round of the quiz was conducted on Dare2Compete. Questions of various varieties were asked from all genres of quizzing. Out of the 1000 registered, only the top 6 teams qualified for the final round of the quiz. The final round of the quiz was conducted on 3rd January, 2021 with Ayush Tiwari as the quizmaster for the quiz. Quiz was held through a zoom online video conference. Prizes worth 15,000 /- were given to the top 3 teams of the quiz. The motive behind the conduction of all the online quizzes was to help the quizzers in getting the hardcore quizzing experience despite the constraints put on due to the lockdown. Interact The Quiz Club looks forward to bringing the best quizzes to its audience this year as well.



# LITERATI - THE LITERARY COMMITTEE

Literati, the Literary Committee of National Institute of Technology, Raipur encourages a different way of thinking, encompassing problem solving skills, art of writing and criticism.

The main objective of the Literary committee is to enhance the literary skills of students, to bring to light the hidden talents among the students and conduct various literary events providing a platform for the students to come up with their not so known skills . It strives in developing an unbounded and strong platform to bring overall development of the students. The committee also publishes “Shilpi”, a high-quality, peer- reviewed college magazine providing a platform for faculties and students to pen their ideas and viewpoints through various aspects of the society.

Literati organized biweekly debates for students, with agendas covering from political issues to social issues. It also organized an essay writing competition on Vigilance Awareness Week.



Model United Nations was to be organized for the first time in NIT Raipur on 21 March 2020, but was cancelled due to Covid-19. The committees and agenda were :



Social, Cultural and Humanitarian Committee (SOCHUM) : Ensuring the privacy rights for the public in the rigorous privacy breach by the powerful authorities and reaching a consensus on the use of surveillance by the government  
All India Political Parties Meet (AIPPM) : Discussion on Population Regulation Bill and analysing the need for birth control doctrine on tackling the socio-economic crisis  
United Nations Environment Programme (UNEP) : Climatic crisis and management





# NRITYAM

## **FLIP THE ALBUM -**

The sole purpose of this event was to recollect people's long-lost memories of dancing and let them relish those moments once again. In these hard times, it's important to appreciate the little things in life. And for us, dance has always been our happy place. 'Flip the Album' was a great initiative to recollect people's love for dancing. We saw through this event that sharing one's personal stories can uplift the confidence of fellow humans. We plan to organise similar events in near future, because it is not always about competition; sometimes it's about growing together.

## **DANCE DIARIES : Flipping through the memories**

To hold one-to-one conversations with some talented dance performers and distinguished dance shows' contestants. The talks were basically light exchanges to discuss the guest's journey in realising their talent and the experiences they have gained throughout. All this added with a dip into their personal lives. One club member was chosen to be the host for the day to interact with the guest. 5 live sessions were held in a duration of 2 weeks. The conversations were aired straight from the official Instagram page of Nrityam- the dance club. @nrityam\_nitr. The meet was then posted on the same page to keep it preserved and for the followers to gaze upon them later. The short live sessions proved to be the best fit in the present scenario. The viewers in no doubt benefitted from the valuable

experience passed on by the guests. On their own side, they enjoyed themselves and had a good time talking to their fans and supporters who had been watching them perform only on the screen so far.



**3. GET SET GARBA:-** An exclusive event aimed at organizing an online dance competition, marking the celebration of Navratri. Garba is to Navratri in the same way as soul is to body. So without letting the pandemic disrupt the ethos of the festive vibes, the event solemnly meant to let the audience engross into the beauty of Garba and magnify the curiosity and jubilation among the people. Three tutorial videos were released on 15th, 16th and 17th October 2020 on three different songs, i.e., odhani, rangtaari and kamariya respectively with a fusion of Bollywood and Garba styles. The participants had to recreate any one of the three tutorial videos and add magic to it with their moves and expressions. The recreated dance covers were to be sent on the listed number through WhatsApp. The dance videos were then to be





uploaded on Instagram or Facebook tagging @nrityam\_nitrr using the hashtag #garbaWnrityam. Based on the video entries the participants were crowned for various titles Best performer, Best dressed performer and Most energetic Performer. In the circumstances with pandemic being on its peak and people regressing from celebrations and joy, overpowered by the fear of it, a break and some excitement lightens and brings joy to people. Realising the thought that distance and pandemic should not become a hurdle amidst enjoyment and celebration, team Nrityam came up with linking the people miles apart but connected by heart. The event aroused the zeal and enthusiasm among the people and gave a new way to relish moments of joy being at home. It also brought about a great relief that no matter what the scenario is, we can always find a way to cherish and participate and enjoy every moment to the fullest. The event proved to be a big hit and a great means of socialising with the people.

#### **NRITYA SANGAM:**

This was purely a classical/semi-classical online dance competition with the procedure remaining the same as the Get, Set, Garba. This event was organised to keep the long and rich heritage of classical dance forms alive in the minds of the audience. The awards were bestowed under 2 categories: the Best dancer and the most popular dancer judged by Mr. Anil Tandi, an amazing choreographer and renowned classical dancer.

#### **CATCH THE BEAT :**

Online dance competition based on latest trending songs adorned with appealing and innovative edit. The participants were required to upload their performances on their insta ID tagging nrityam. 2 winners were awarded with attractive prizes.

#### **REPORT OF THE PREMIERE:**

January 1st, 2021: Nrityam, the dance club Nit Raipur went live on YouTube with an event "The Nrityam's New year Bash" at 8:15 P.M on the new year eve on its YouTube channel. All its members enthusiastically took part in it and contributed equally for the success of the event.

The event started with the Director's note, who wished his students and encouraged them to develop a positive mindset and work harder. Thenceforth, a grand introductory performance was presented which included all its members of various domains Documentation, Dance and choreography, Design, editing, and Management. Various dance performances on different dance styles hiphop, bhangra, classical, semi classical, mass were presented and entertained the audience. The Nrityam members even presented a rap song of its club which mesmerised the audience and which can be said to be the show stealing performance. The lyrics, composition, vocals, editing of the song was done solely by its members. At last the event was a grand success and the hard work of its members was clearly visible.





# NATIONAL SERVICE SCHEME NIT RAIPUR



## Team National Service Scheme, NITRaipur

The team National Service Scheme (NSS) worked (2019- 2020) with the aim of serving humane kind, developing the humanity and promoting patriotism in students of our college. The main motto of the team was connecting the students with social-feelings.



**Dr. Govardhan Bhatt**  
Faculty in charge  
Team NSS

## Event Name - Plantation Drive on Independence day

Date - 15th August, 2019

Motto - Planting the saplings on the auspicious day of 15th August in the NIT Raipur campus to save our environment.



## Event Name- Plastic waste free campaign

Date - 24th September 2019

Motto -To spread awareness about the hazards of excessive use of plastic. And this day also marked the Golden Jubilee of NSS, making the day even more special.



## Event Name - A Day With Real Hero's

Date - 29th September, 2019

Motto-'A day with real heroes', an event to express our unbound gratitude for the brave soldiers and also to the unsung heroes who work hard for the betterment of the society without expecting anything in return from us.



## Event Name - Cleaning Campus

Date - 2nd October, 2019

Motto - Celebrate the Gandhi Jayanti and Swacchata Diwas with cleaning and planting the saplings in the college campus.



## Event Name- School Visit

Date-23rd November, 2019

Motto-Team NSS visited Government high school and primary school in Guma village to give guideline for study, softskills, board exams and to create awareness about the harmful effect of the 'Single Use Plastic' and also motivated the students to plant more and more trees to fight against climate change.







# RAAGA

## THE MUSIC CLUB OF NIT RAIPUR

Raaga organized its annual musical eve-Shruti'19 on 19th October 2019. The event showcased various talents of the students of our institute in the field of music. From Rock music to Folk songs the evening was full of vigour ,enthusiasm and melody as students took the stage to depict the beauty of music. Raaga also collaborated with the Cultural committee and performed in pre Diwali celebration and Eclectika Cult Night.





# ROBOTIX CLUB

Universe is gaining its pace with an immense furtherance in technologies. When we talk about science and technology the world of robotic machines and computer programming are certainly not flickered from the eyes of the people. Programmable machines had a continuous manipulation since its very birth and still its maneuver is going on for its better use. And here come the geeks of ROBOTIX club of NIT, Raipur who have made their flawless support in this field. We feel ourselves obliged to get a part of it and even organized multi robot-events for the tech geeks. Here we summarize some of our events. The most awaited event of ROBOTIX Club ROBOFEST was organized between 29th Feb 2020 to 1st March 2020. The main attractions of the event were Robothon and RoboExpo.

## ROBOTHON

A Robothon is a Robotics Hackathon organized by Robotix Club NIT Raipur, for the sole purpose of bringing robotics enthusiasts together and discussing real life problems and their solution by creative ideas within a limited time frame by employing and enhancing technical skills that participants already have. It is all about robotics, automation and education.



The Robothon would be a 24-hour long challenge where a number of problem statements would be launched prior to the event. The Problem statements would range from IOT projects to defense related problems. A team is allowed to select a problem of their choice and come up with a viable solution.

A team would consist of 5 students (irrespective of their branches), having the zeal and enthusiasm to build a robot capable of solving real-life problems.

The Robothon would be attended by students from top colleges across INDIA. Out of which we wish to accommodate 70% students from NIT Raipur itself and for the other 30% seats we plan to have participation from various IITs.

## ROBO EXPO

The Robo Expo 3.0 is an exhibition held to provide a glimpse of the future with robot technology incorporated in society. Examples of robot introduction being promoted by companies, organizations and various participating schools are displayed calling visitor's attention to the future of robotics. Robots that have a potential to be employed in various industries such as manufacturing, health care, service robots and disaster management are displayed to open up the minds of the visitors to the endless use of Bots.

For the purpose we would be inviting problem statements from participants themselves and faculties of NIT Raipur. After proper validation and evaluation, we would shortlist the models that would be of considerable value to the society in modern times.

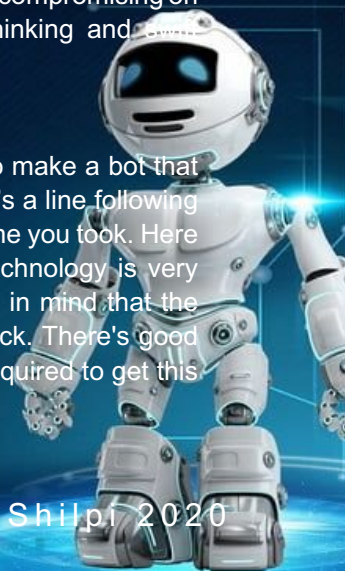
These models will then be clubbed into similar groups for the purpose of presentation. Any and all doubts and queries regarding the models will be cleared by the club members and all possible assistance will be provided in order to make this venture successful. During the Technical Fest of the College 'Aavartan' Robotics club presented the students with another phenomenal opportunity to build and compete their robots. The club conducted various events throughout the fest.

## ROBO SHOOT

Soccer for robots, Score big, win bigger. This competition is to show how good and swift a robot of yours can be by playing soccer using it and scoring more goals. Numerous colleges participated in the event in which your robot has to score a goal against the opponent's robot. The designing of such robots required intricate and compact design while not compromising on power. It also required innovative thinking and smooth running of the robot.

## MAZE RUNNER

Solve it like Harry did. The game is to make a bot that can solve the maze in a given time. It's a line following bot and you're judged based on the time you took. Here the use of IR sensors and related technology is very essential. The students have to keep in mind that the robot is in control and don't go off track. There's good use of coding and a lot of testing is required to get this robot working flawlessly.





# ROBOTIX CLUB

## TERRAIN TREADER

If it can go through the dirt your bot can go through this. Here your bot's maneuverability and power are tested. The track is filled with obstacles and hurdles. The winner takes it all. There's a good use of high power and toughness in this competition. The participants must make sure their bot functions in rigid and rough conditions without failing. The obstacle track is brutal and doesn't forgive anyone. An agile and tough bot is required for getting gold here.

## DIABOLIC DUMPER

The competition requires you to design such a mechanism and shift the maximum number of balls to the deposit zone. Easy?? Here comes the twist in the tale. Your opponent can claim the balls you have collected. You have only two options- get dumped or become the DIABOLIC DUMPER. Not just power it's a game of speed and agility. You may not be the most powerful out of the competitors but if you're the fastest then this is the place for you to be.

## AQUA BOT

Make a bot that can swim its way through the water. Wired or autonomous it must clear the track underwater. The track has obstacles but the main thing is your bot must be faster than others and should go around the opponents to win the crown. Here the students have to put their brain caps on! as this bot requires a lot of calibration and modifications to make it waterproof. Since it has high chances of failure due to water leakage this bot is really a challenge for all the participants.

## Workshops organized by ROBOTIX Club

During the session 2020 the club organised a 2 day workshop on Satellite Robotics. The event took place on the 25th and 26th of January 2020. The workshop received healthy participation from students of the college as well as from students outside the college. The students were rewarded with a Hands-on Kit as well as a Take-away kit. The event was conducted in Partnership with 'Exact Techfleeters'. The students were given hands-on experience in using and designing Robotics components used in real world Satellites all over the Globe.



## Robotics exhibition organised at NIT Raipur

■ Staff Reporter  
RAIPUR, Aug 10

ROBOTIX Club of National Institute of Technology (NIT) Raipur organised a 'Workshop cum Exhibition', aiming at explaining the process of designing and building autonomous bots.

The exhibition showcased various Robotics projects accomplished by the members of Robotix Club. The members also gave the insight on how they made their projects and the major challenges they faced while working on their project.

The theme of this workshop was 'Life on Mars'. Team members tried to show the necessary devices which will be the key to the first civilisation in Mars.

Total 11 Projects were made by the students. One of the most important project was



Students and visitors during Robotix exhibition.

'Report Air Quality'. This device is of strategic importance for Earth also.

This project was developed by Ashish Kumar, Shashank Chandrakar and Anukriti Das under supervision of Shreyansh Ganvir. Name of the other projects are-Smart Home Automation, Smart Gardening, Solar Tracker, Motion Sensor,

Amphibious Bot, 6\*6 LED Cube, GPS Tracker, Pid Based Line Follower, Obstacle Detecting Bot and Self Balancing Bot. The Workshop covered various topics related to robotics including Basic Manual and Autonomous Robots, Working Model of Arduino, IoT etc. The main speakers were Abhinav Agrawal, Christl Mathai and Kanishk Gavel. Christl Mathai briefly explained the working mechanism of 'Amphibious Bot with Gripping Mechanism'. Abhinav Agrawal spoke about 'IoT'. Overall the speakers explained the working of autonomous bots with the help of their projects.

The workshop was successful in gathering interest of students especially who were from first year. Team members are expecting more interested members this year after seeing today's workshop's response.

# SAHYOG

A blood donation camp was organised at NIT Raipur on 26th February 2020. The camp was organised by Team Sahyog in collaboration with Indian Red Cross Society under the HeAL Program. HeAL Program is a set of interactive life awareness sessions which has been started under the adroit guidance of Dr. A. M. Rawani, Director, NIT Raipur for creating an experience of greater awareness and freedom about life. The Blood donation session was conducted under the guidance of skilled doctors and 391 blood samples were collected by the Red Cross Society. The camp was headed by the Faculty in Charge, Club Sahyog Dr. R. K. Jade and Club Head Coordinators Shashi Bhushan, Sanjeet Purang, Bharat Gidwani & Akshat verma.



save lives.  
donate blood.



# CULTURAL COMMITTEE

Eclectika Sanskriti-The Cultural Committee, NIT Raipur organized the annual cultural fest, Eclectika . It was based on the theme of Diversity and Dynamics of Food and had the tagline Bite into Fantasy. Various mega-events and games were held during these three days. The Mega event of comedy, known as Tafree was judged by Siddhartha Shetty, the stand-up comedian. The grand finale of the mega event Eclectika Idol was judged by PVNS Rohit, Indian Idol 9 Runner Up. Clash of Coreos, a crew dance mega event was judged by Piyush Gurbhele, 2 nd runner up DID season 6. The mega event of street play, Goonj was judged by Arvind Gaur, a veteran in Indian theatre and thought-provoking plays. The flagship event of fashion, Allure was judged by Harshali Chauhan, Miss Chhattisgarh 2017. Avirbhaav, the Battle of Bands was judged by Vinti Singh, a play-back singer. The mega event of art, Kalopsia was judged by Vijay Nishad, the teacher at Chappak Art Shala. The evening schedule of the first day of the fest involved an EDM night with D. J. Ravator, D. J. BtorCarnivore and Sabrina Terence. On the Second Day, Nrityam-the Dance Club, performed on themes of father son relation and Nritya Hopper Crew based on hip hop. The third night of Eclectika was Bollywood Night which brought forth the celebrity, Darshan Raval, a popular singer and composer from Ahmedabad, who has appeared in India's Raw Star.





# SAMAR

Samar the Sports Fest of the Institute was organised .The Fest was inaugurated by Dr. A. M. Rawani, Director,NIT Raipur.Various tournaments of Hockey,Kabaddi, Kho-kho, Cricket, Handball, Yoga, Carrom, Chess, Basketball, Badminton, table tennis, football etc were the major attractions of the event. Students from more than 36 Institutions participated in the fest. The event was concluded with the medal ceremony in which the Interbranch Trophy was lifted by the students of the Department of Electrical Engineering and Mining Engineering, NIT Raipur. this event was organised under the guidance of Mr. S. Pramanik, Professor In-Charge Shaurya.



# TEDx REPORT

On 1st March 2020, the National Institute of Technology, Raipur once again conducted the fourth Edition of TEDxNITRR along with Robothon'20 by the Robotix Club of NIT Raipur. TEDxNITRR is an annual event organized by the TEDx Student Committee of NIT Raipur and with all the success they had gotten before they were back again to curate an even more successful event in 2020. Inspired by scintillating innovations, and driven by enlightening the youth of advancements, all around, TEDxNITRaipur strived to foster the core idea, "Ideas worth spreading" and bring to light, the local stars, who have been involved in the construction for a better life, for the generations to come. Held every year, since 2017 amassing rich support, beating previous records, and inspiring people to explore beyond conventions. Team TEDxNITRaipur, were back again with an even more ostentatious TEDxTalk this year. The event took place in the Pandit Deendayal Upadhyay Auditorium, where speakers ranged from various Industries with Highly ranked government officials to celebrities in the Entertainment Industry TEDx NITRR covered them all.

The first speaker was Lieutenant General Satish Dua a retired officer of The Indian Army, who also served as the Chief of Integrated Defense Staff to the CISC of the Indian Armed Forces.. He shared his inspirational life story with the audience and taught them all a lesson about teamwork. He even quoted "I look back on these anecdotes and many more I realize that I owe all my achievements to the teamwork of my teams and I was very fortunate that I connected well with my soldiers and my subordinates".

The second speaker was Mr. Rishabh Joshi, a dental surgeon turned award winning portrait photographer and a filmmaker. Mr. Joshi talked about a near to death experience he has when he was 20 where a speeding truck came behind and he woke up to finding himself in the ICU in a transient coma with only 10% chance of survival and how with that experience he realized he was getting a second chance in life with his lesson he reminded us that we don't have to live life following a rule book trying different things and making mistakes is what make life 'life' because after all at our deathbeds we don't want to regret not trying something.

Their third speaker was, Ms. Shreya Gupto a bollywood heartthrob Gaining stardom all across the continent for

her role in the acclaimed series Mom and Co She inspired us all with her journey in acting and theatre and told us about her role model, her mother, her struggles being a single parent when her father left her and mother to live another life inspired her to be ho she is today. She quotes " you want it if you just want it you don't need guidance you are your own guidance if I can do it you too".

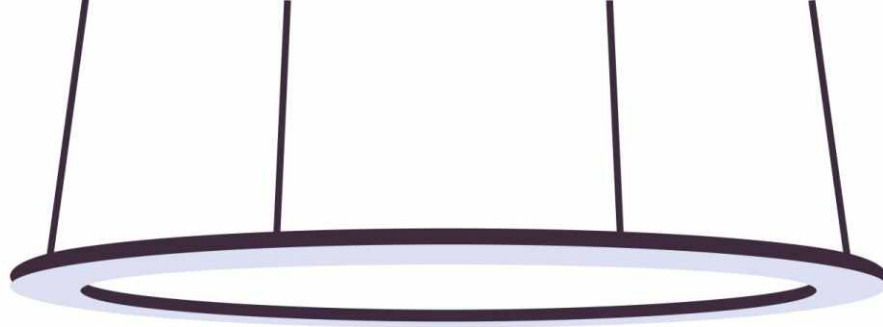
The fourth speaker was Ms. Geetika Sehgal, A Multi Award-Winning Success Coach and Writer Of the book "Finding Your G-Spot in Life". She motivated the audience with her speech and reminded us that The greatest barrier to success is the fear of failure



The fifth speaker was Mr. Gurprit Saluja a Businessman, Blogger, Mutual Funds & Stock Market Geek, Value Investor, Personal Finance & Investment Consultant. Also the CEO of Limelight Corporation (PR firm), he also delves in Event Management, Barter Sponsorships, Hotel Management, Sales and Marketing. He reminded the audience that Life teaches us many lessons, knowledge beyond our books and classrooms! One who learns at every stage of life, grows higher towards success.

The sixth speaker was Mr. Anil Swarup, retired Indian Administrative Service Officer, former 'School Education and Literary Secretary of India' and the 'Coal Secretary of India'. He has been in the service of many key positions of Union Government and Uttar Pradesh Government. After retirement, he wrote a book 'Not Just a Civil Servant' which gained appreciation from every section of the society. They say Civil Service can never be placed on a satisfactory basis until it is regulated by law, he talks about the pros and cons of being an IAS officer but also about how he's tackled corruption in this field.





# DEPARTMENT ACTIVITIES

# ELECTRICAL DEPARTMENT

Department of Electrical Engineering (EE), NIT Raipur organized a five-day Training Program on Electrical Maintenance. The program provided hands-on experience of working on contractors, circuit breakers, different types of relays and E-CAD Software. Dr. R.N. Patel, Associate Professor, EE and Dr. B. Bag, Assistant Professor EE were the coordinators of this training program. The Program was financially supported by TEQIP-3 and NIT Raipur.

A five-day STTP on Recent Trends in Power Electronics, Power Systems and Renewable Energy Systems was conducted by the Department of Electrical Engineering (EE) . It was chaired by Dr. N. D. Londhe, HoD, EE and coordinated by Dr. Shubrata Gupta, Professor, EE and Dr. Anamika Yadav, Associate Professor, EE.

A five-day National Conference on Sustainable Energy Systems Design for Remote Villages in India was organized by the Department of Electrical Engineering (EE), NIT Raipur from 5th to 9th Nov., 2019. Dr. N. D. Londhe, HoD, EE and Dr. A. Yadav, Associate Professor, EE, inaugurated the conference. The event was coordinated by Dr. R. N. Patel, Associate Professor and Dr. B. Bagh, Assistant Professor, EE. Department of Electrical Engineering, NIT Raipur received Fund for Improving R&D Infrastructure (FIST) of Department of Science & Technology (DST), Ministry of Science and Technology, Govt of India. The Electrical Engineering Department of NIT Raipur is among the only 16 departments of recognized organizations selected by DST out of 218 applications in Engineering Sciences.

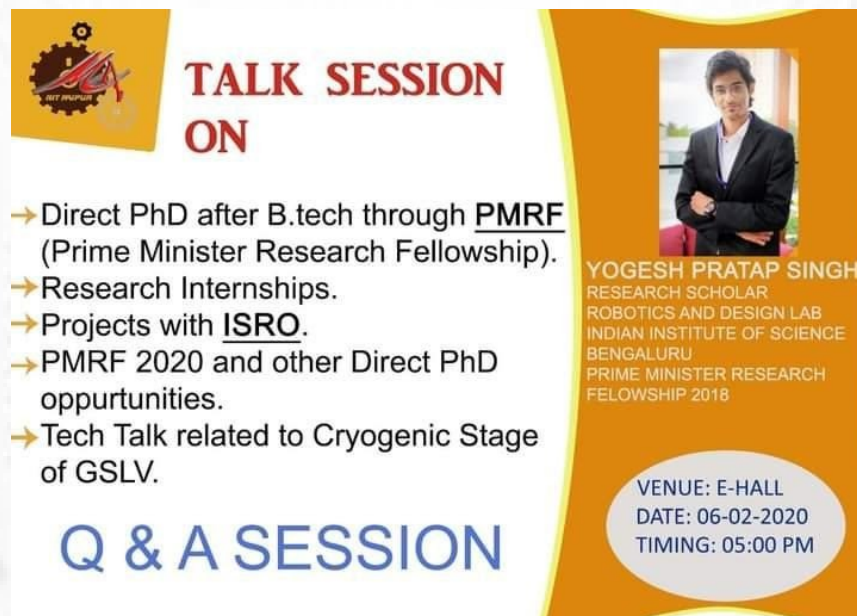
# MECHANICAL ENGINEERING ASSOCIATION (MEA)

## Major Events :

### Talk :

MEA organized a Q/A session with Mr. Yogesh Pratap Singh (NIT RAIPUR 2018 BATCH), under the supervision of Dr. Swamy Naidu sir. The session included :

- Discussion on Direct PHD after B. Tech through PMRF (Prime Minister Research Fellowship)
- Opportunities in Research Internships and Projects with ISRO
- Tech talk related to Cryogenic Stage of GSLV



The poster is divided into two main sections. The left section has a yellow background and contains the text 'TALK SESSION ON' in red, followed by a list of topics: 'Direct PhD after B.tech through PMRF (Prime Minister Research Fellowship)', 'Research Internships', 'Projects with ISRO', 'PMRF 2020 and other Direct PhD opportunities', and 'Tech Talk related to Cryogenic Stage of GSLV'. Below this list is the text 'Q & A SESSION' in blue. The right section has a white background and features a portrait of Mr. Yogesh Pratap Singh. Below the portrait, his name and credentials are listed: 'YOGESH PRATAP SINGH, RESEARCH SCHOLAR, ROBOTICS AND DESIGN LAB, INDIAN INSTITUTE OF SCIENCE, BENGALURU, PRIME MINISTER RESEARCH FELLOWSHIP 2018'. At the bottom right of the poster, a white oval contains the event details: 'VENUE: E-HALL, DATE: 06-02-2020, TIMING: 05:00 PM'.

**TALK SESSION ON**

- Direct PhD after B.tech through **PMRF** (Prime Minister Research Fellowship).
- Research Internships.
- Projects with **ISRO**.
- PMRF 2020 and other Direct PhD opportunities.
- Tech Talk related to Cryogenic Stage of GSLV.

**Q & A SESSION**

**YOGESH PRATAP SINGH**  
RESEARCH SCHOLAR  
ROBOTICS AND DESIGN LAB  
INDIAN INSTITUTE OF SCIENCE  
BENGALURU  
PRIME MINISTER RESEARCH FELLOWSHIP 2018

VENUE: E-HALL  
DATE: 06-02-2020  
TIMING: 05:00 PM

### Quiz :

A quiz was organized by MEA for the 1st year students of the 2019 batch. The quiz was mainly based on Aptitude, General Affairs and Logical Reasoning.





## MEET OUR TEAM MANAGERS

**KAMALKANT MISHRA**  
ELECTRICAL

**YOGESH KUMAR KHARE**  
ELECTRICAL

**MAYANK OGREY**  
CIVIL

**GOURAV SAHU**  
ELECTRICAL

**ENJAM YASANK**  
MINING

**AYUSH RAI**  
BIOMED

**ABHINAV SINGH**  
CIVIL

**DEVVRAT SAHU**  
CIVIL

**SAKSHI CHANDRAKAR**  
META

**SHIKHAR SACHAN**  
ELECTRICAL

CONTACT:





## MEET OUR TEAM HEAD CO-ORDINATORS



**TANMAY CHOUDHARI**  
INFORMATION TECHNOLOGY



**UTKARSH SHRIVASTAVA**  
INFORMATION TECHNOLOGY



**ANAND SONI**  
INFORMATION TECHNOLOGY



**AAYUSHI UPADHYAY**  
ELECTRICAL



**PARIDHI TRIPATHI**  
META



**ADARSH SINGH**  
INFORMATION TECHNOLOGY



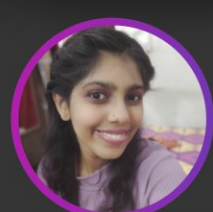
**LAKSHYA MALAV**  
ELECTRICAL



**SIDDHANSH SHRIVASTAVA**  
INFORMATION TECHNOLOGY



**VIRAJ HUMBRE**  
CHEMICAL



**PRAGYNA CHATTERJEE**  
META



**TEJAS KOCHAR**  
CSE



**KARTIK PANDEY**  
ELECTRICAL



**SUMIT KUMAR**  
INFORMATION TECHNOLOGY

CONTACT:





## MEET OUR TEAM EXECUTIVES

**KETAN CHANDRAKAR**  
ELECTRICAL

**ARUSHI CHATURVEDI**  
CSE

**DUBI SAO**  
BIO MEDICAL

**SOUMYA MOHANTY**  
MECHANICAL

**MANMEET SINGH**  
INFORMATION TECHNOLOGY

**SHAGUN BOHRA**  
MINING

**MANAVENDRA SINGH GENA**  
ELECTRICAL

**SEEMA BHARTI**  
MINING

**ANANYA DIXIT**  
INFORMATION TECHNOLOGY

**VANSHIKA TIWARI**  
ELEX

**GOVIND KUMAR**  
CHEMICAL

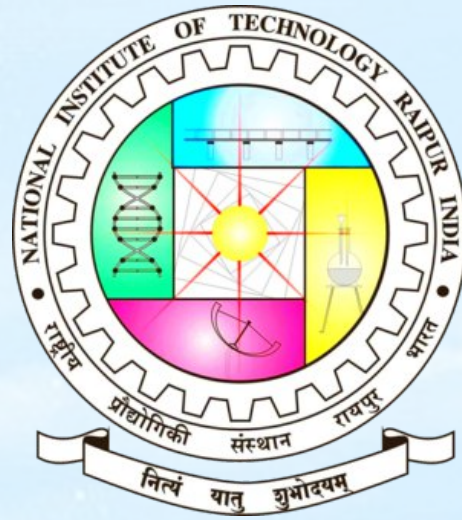
**DEVANSHU SHARMA**  
MINING

**ADITYA TIWARI**  
META

CONTACT:







Shilpi  
2020

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