
Reflexia
J.N.G.E.C.
2018

Instigation

College life is fleeting, and every passing moment is registering itself into history to become a memory. Evidently, these contrails of memories haze over with time. With an intention to trigger all your college life memories when you flip through its pages, Team Reflexia is back with yet another edition of "Annual Magazine of JNGEC"—Reflexia 2018.

College magazine is a podium for the artists buried beneath skins to come forth in the most handsome ways. It not only behaves as a gallery to hidden fortes but also lodges some immortal impressions.

The overwhelming responses received from the students is truly worthy of being applauded. Certain limitations restrain us from printing all the received entries in the magazine. The whole team is cordially apologetic to those whose entries have not been included in Reflexia 2018. We truly respect your meek efforts.

Unlike its predecessors, Reflexia 2018 goes 'themeless', with a broader approach to all the received entries. The articles have been disintegrated into two sections—Technical, and Non-Technical. We have emphasized on making this edition of Reflexia a better blend of technical knowledge and literature. Along with the articles and poems, it features some stunning artworks and photographs received from the students of JNGEC. Thence, we have briefed some major activities and events that the college has witnessed in the last one year. Additionally, we have aimed to exceed eminence over quantity.

We hope Reflexia 2018 succeeds in radiating knowledge and smiles concurrently, and finds a venerable place in your bookshelf.

Team Reflexia

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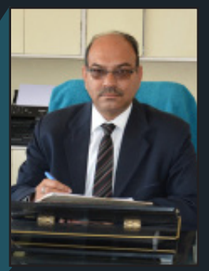
DIRECTOR'S MESSAGE

It's a matter of great pride that the Jawaharlal Nehru Government Engineering College is unveiling the fourth edition of Reflexia, the annual college magazine.

A college magazine plays an important role in constructing a genuine aspect in the lives of students by giving them the importance of participation in cultural as well as technical activities. It also allows the students to channelize their imagination, palliates their ideas and assists them in realizing their potential. The magazine helps to boost the confidence level of students by giving them a platform to showcase their creativity in terms of literature, opinions, artworks, and photography skills. It bestows them a platform for proliferating awareness about several happenings around the technological sphere as well as around the globe.

A good engineer must possess an out of the box thinking and a zeal to build a better future through comprehensive execution of ideas. These ideas are generated through exposure at a greater stage and Reflexia provides such a platform.

The reader while going over the magazine would be enlightened about all the activities happening in the college. **I highly appreciate the Team Reflexia and the students who devoted their precious time and proffered their contribution to the magazine content.**



Prof. Raman Parti

FACULTY COORDINATOR'S MESSAGE

Curriculum is that aspect of an educational institution which governs its scholastic undertakings and achievements. Extracurricular, on the other hand, depicts the participation, creativity, and innovations of an institute contributing to a better environment for students to grow and learn in. A college magazine presents an adept blend of curricular and extracurricular activities making it an important element of a college life.

I am rejoiced to announce that the dedicated team of students and teachers worked cohesively to bring out the fourth addition of the annual magazine—Reflexia. It gives the students a platform to express their ideas, opinions and views about various undertakings in the world governing its geological and political ballgame or technological advancements in various streams which have the potential to construct a better future. It also gives a stage to the students to express their creativity. In addition to this, it also brings out achievements of the college in various events.

I congratulate all the students who contributed in making this edition yet one successful one.

Er. Nitasha Bisht
A.P. ECE Department

FACULTY COORDINATOR'S MESSAGE

Dear readers,

With pleasure I would like to present you with this new edition of Reflexia, the annual college magazine of JNGEC. Thoughts are nourish our brain. Expression of beautiful thoughts and creations gives an unbound joy to readers as well as to the creators.

Reflexia, thus, is a medium for students to voice out their thoughts in the form of poetry, literature, art, and photography and showcase their creative side in the best of its way.

College plays an important role in shaping an individual, making him/her a valuable asset to the society. The administration of our college leaves no stone unturned to improve the standards of education and facilities provided to students to nurture their appetite for mental growth.

JNGEC provides students an environment where they can understand the needs of the philanthropy in society. The college provides all the useful and necessary resources to students so that they can keep themselves updated with the latest technological advancements in their fields.

I congratulate the whole team of students who worked cordially to bring out the Reflexia 2018, and I also appreciate the students who contributed towards the magazine through various type of entries. I hope you have a good time reading this magazine.

Er. Vivek Sharma
A.P. TE Department

J.N.G.E.C.

ESTABLISHED IN
2006

HOD MESSAGE

Prof. Rajeev Khanduja

You are welcome to the Department of Mechanical Engineering. It's our pleasure to introduce department. The department has well qualified and dedicated faculty. The faculty members give the students a hands-on approach in the use of Engineering principles and the opportunity to develop creative approaches to problems. The objective of the department is to prepare students for successful career in industry, research and academics to meet the need of growing technology. We provide opportunity for students to work as members of a team on multidisciplinary projects. The available equipment, excellence in instruction, and an emphasis on quality of education in Mechanical Engineering combined together to prepare the students to step into positions of responsibility at the leading edge of today's technology. The Mechanical Engineering students with a desire to learn will develop and expand their knowledge and skills in the areas of engineering sciences, testing techniques, material properties, analysis and evaluation along with communication.
Today JNGEC has grown in all directions and has become a distinguished centre for modern learning. I am happy to learn that our college is coming out with the annual college magazine. This magazine certainly would induce the young engineers to promote their creativity in approaching things differently. I extend my best wishes and greetings to editorial board for release of our college magazine.

ABOUT

The Department of Mechanical Engineering was one of the first streams started in JNGEC in 2006 at the time of its inception. Department offers a four year Bachelor of Technology course in the field of Mechanical Engineering.
Having one of the strongest alumni networks, this department focuses on developing engineers with sound fundamentals and revolutionary ideas. The department has specialized labs for workshop technology and CAD, making the students aware about the practical work and allowing them to keep pace with the ever developing technological advancements.
Mechanical Engineers have an ever increasing prospect in the areas of automobiles, designing, robotics, thermal engineering and many more.

WORKSHOPS

National Workshop on "Renewable Energy" conducted on 2nd March 2013.
National Workshop on "Renewable Energy-Theme Waste Management" conducted on 22nd November 2014.
Workshop on "Engine Overhauling" held on 20th to 21st April 2016 was organized by students of mechanical engineering.
Workshop on "Auto spark Engine Overhauling" was organized by students of mechanical engineering held on 13th to 15th May 2016.
National Workshop on "Engineering Materials & Advance Manufacturing Processes" conducted on 1st October 2016.

EVENTS AND ACHIEVEMENTS

Expert lectures by eminent people from renowned educational institutes (IIT Roorkee, IIT Mandi, NIT Hamirpur, NIT Jaipur etc.) and industrial organizations is a routine affair.
Software training on softwares like AutoCAD, Solidworks etc. are organized from time to time.
Students have participated in various technical events of institutes like IITs, NITs, etc.
The students have pursued their career in:
Various PSUs like BHEL, NPCIL, IOCL, reputed government departments like HPPWD, HPSEB, Technical Education, CTR Ludhiana, Govt. Banks etc.
Officer Cadre in defense services i.e. Indian Army, Indian Navy and Indian Air Force.
Various esteemed organizations such as Hero Moto Corp, L&T, Honda Group, Jindal Group, Sanmar Group, Gabriel India, Anglo Eastern Ship Management Pvt. Ltd. etc.
Higher studies (M.Tech, M.S, Ph.D) in renowned educational institutions/organizations like IISc, IITs, NITs, BARC etc.

SHINING ALUMNI

Manik Sharma: Indian Army (Awarded with Sena Medal [Gallantry])
Rajat Kumar: ISRO
Parveen Katoch: HPCL
Akshayendra Singh: IOCL
Tilak Raj: BPCL
Amar Singh: ONGC
Vipin Sharma: BHEL
Vishal Chauhan: Indian Air Force
Mukesh Verma: Indian Navy

Balam Sharma: Assistant Engineer, HPSEB
Ankesh Singh: Assistant Engineer, HPPWD
Jitender Kapoor: Assistant Engineer, HPPWD
Arun Kumar: CTR Ludhiana
Rahul Kirti: CTR Ludhiana
Sameer Sharma: Workshop Superintendent, HP Tech. Edu. Dept.
Manoj Kumar: Lecturer, HP Tech. Edu. Dept.
Satbir Singh: Lecturer, HP Tech. Edu. Dept.
Rajat Bhardwaj: HERO Moto Corp.

HOD MESSAGE

Er. Priya Jaswal

It is my pleasure and honour to welcome you to the Department of Textile Engineering at JNGEC, Sundernagar.

Each country has its diverse culture and traditions. A country is unique because of its people, who have different ways of clothing and living. Varied styles of dressing by people have resulted in improving the scope of Textile Engineering. Fashion is an extensive domain, which is directly affecting the textile trade. Consequently, Textile Industry has become one of the booming industries, and the companies are engaged in catering the needs of international and domestic markets.

Clothing is considered as the second skin, and by implementing technology in it, we are enhancing the overall functionality of the apparel. Textile Engineering contains the principles, laws, and scientific techniques which are utilized for development and manufacturing the textile fabrics and all type of yarns. It also involves the study of principles of science that deal with the analysis of polymers involved in the formation of textile fiber. Textiles have applications in multiple areas of economic activity, such as aerospace, shipping, sports, agriculture, defense, health care, etc.

Department is proud to possess a well-qualified and dedicated faculty members who always strive to perceive and resolve students queries so that the overall personality of the student can be groomed in such a manner that they pass out as Industry Ready Professionals.

It gives me great pleasure to know that 'REFLEXIA' college magazine is ready for publication. This magazine gives an insight into the range and scope of the imagination and creativity of our students and faculty members. I applaud the editorial team for the hard work and dedication they have invested in realizing this goal, and wish my dear students success in all future endeavors.

ABOUT

The Department of Textile Engineering was established in JNGEC in 2006 during the time of its inception, making it an original stream in all over of Himachal Pradesh. From that time this department has gone through numerous infrastructural improvements.

The Department of Textile Engineering has specialised characteristics in all regions of Textile Engineering such as fibre, spinning, weaving, processing, testing and designing etc. Its well-equipped state-of-the-art laboratories supervised by experienced faculty members provide students enough practical knowledge to withstand work environment.

EVENTS AND ACHIEVEMENTS

National workshop on "Innovations and Emerging Trends in Textiles" was organized by the Department of Textile Engineering under TEQIP II on 27th April, 2013 for dissemination of knowledge on recent innovations and their implications.

Two days National seminar on "Recent Innovations and Advances in Textiles (RIAT)" was organized by the Department of Textile Engineering from 28-29 March, 2014.

International Conference on "Innovation in Textiles (INNOTEX-15)" was organized by the Department of Textile Engineering on 7 Nov 2015.

Department of Textile Engineering organized TEQIP-II sponsored International Symposium on "Emerging Technologies in Textiles" on 26th September, 2016 in the college.

Department of Textile Engineering conducted series of expert lectures by Professors, Industry Experts, and Research Scholars from reputed institutes like Technical University of Liberec, Czech Republic, IIT Delhi, NIT Jalandhar, Defense Institute of Advancement Technology Pune, Technological Institute of Textile and Sciences, Bhiwani Haryana, Vardhman Textile Limited Baddi, Auxilia Technology Private Limited Chandigarh, College of Textiles, North Carolina State University, Raleigh, NC, US.

TE students got placed in companies like Vardhman Group, Morarjee Group, RSJ Textiles, etc.

SHINING ALUMNI

Radhika Vaid: Ph.D, North Carolina State University

Dr. Vijay Kumar: École Nationale Supérieure des arts et Industries Textiles (ENSAIT), France

Ashish Kapoor: College of Textiles, NC State University

Vishav Rajput: M.Tech, IIT Delhi

Sourabh Awasthi: Corporate Technical Officer, Vardhman Textiles Ltd.

Ajay Sharma: Executive, CPDC Vardhman Textiles Ltd.

Angat Kapoor: Quality Assurance Officer, Textile Committee, Ministry of Textiles

Sapna Singh: Assistant Professor, KR Mangalam University, Gurugram

Anshul Sharma: Major, Indian Army

Nikhil Saklani: Major, Indian Army

Shilank Chauhan: Manager at Catwalk Worldwide Pvt. Ltd.

Bharat Rana: Designing Engineer at Product Development Cell, SEL

Sheikh Shadab: Business Analyst at Magma Fincorp

Falak Chauhan: Technologist at Tchibo, Hamburg, Germany

Amit Sharma: Marketing Executive at Winsome Yarns Ltd.

HOD MESSAGE

Er. Ankush Kapoor

It is often said, “give me a copy of your college magazine, I will tell you about the quality of your college.” I strongly believe in this statement. For a magazine carries the contributions reflecting ethos and aspirations of the students, faculty, and other team members of an institution. I am happy to know that JNGEC is bringing out it’s current academic year edition of the college magazine.

A weak link is better than a strong memory. Nothing exemplifies it better than the nostalgic feeling one gets when leafing through the dusty old pages of his/her college magazine. It can make a reader travel down the lanes of memory, giving rise to a surge of emotions of many hues and colours.

I am happy to see the amount of enthusiasm of eminent members of the college to contribute to the magazine. Not to be outdone, our students have devoted time and plunged into creating powerful strong agreement and have carried out their duties with a level of commitment.

ABOUT

The Department of Electronics and Communication Engineering was established in the year 2010 in JNGEC. It offers a four year Bachelor of Technology course in the field of Electronics and Communication Engineering.

Electronics is the field with the potential to bring up a revolution. Electronics industry is ever increasing. Almost all the appliances we use, like our computers, mobile phones and even cars work through its applications. In addition to this, wireless communication and satellite technology also feats on its applications. It is perhaps the most extensive industry making the role of Electronics and Communication engineers crucial in this era.

The department has specialized labs to make students aware about the actual working and creation of devices. Having its tie-ups with reputed institutions, the department is marching ahead by providing the students an exposure to the outside world and the global competition.

EVENTS AND ACHIEVEMENTS

Most of the students are members of professional bodies like ISTE, IETE.
I.S.F.-IETE student forum and student clubs are regularly organizing special talks & workshops for students by experts on cutting edge areas like IOT, Wireless Sensors, Nanotechnology, Lens Antenna MIMO, Analog VLSI etc.
Spoken Tutorials and Workshops by IIT Bombay are organized for students.
Students participated in Texas Innovation Competition.
IIT Bombay e-Yantra Project is being opted by the department.
Expert Lectures, Workshops and Symposium (National & International) have been organized by the department.
Due to combined efforts of faculty and students, students got placed in companies like:

- Hewlett Packard Enterprise
- TCS
- Marquistech Pvt. Ltd.
- Wipro
- Samsung India Electronics Pvt. Ltd.
- Tata Communication
- Tech Mahindra

SHINING ALUMNI

Manu Katoch: Flying Officer, Technical Fighter Branch, Bangalore
Mallika: PhD, IIT Roorkee
Bandana Kumari: M.Tech, IIT Delhi
Sanchit Sood: M.Tech, IIT Guwahati
Aman Deep Dogra: Branch Assistant Manager, PNB
Neha Patial: Branch Deputy Manager, SBI
Alisha Sharma: Hewlett Packard Enterprise
Divyanshu Gautam: Wipro Technologies
Harsh Bhanot: Wipro Technologies
Prashant Patial: RF Engineer, Samsung India Electronics Pvt. Ltd.
Piyush Aggarwal: JRF, DRDO Chandigarh
Apurva Thakur: Project Associate, CSIO Chandigarh
Vikas Sharma: Faculty in Allen Career Institute, Kota, Rajasthan.
Kanishak Vaidya : GATE 2018 AIR 10

DEPARTMENT OF CIVIL ENGG

HOD MESSAGE

Prof. S.P. Guleria

Civil Engineers are the builders of modern world and are instrumental in creating the monuments of modern technology. Due to the increased emphasis on the development of infrastructural facilities, especially in a country like India, civil engineers are required to play a major role in creating better and improved infrastructural facilities for the mankind. However, to achieve this target, civil engineers are required to be equipped with latest technical know-how and should be capable enough to tackle the constructional site challenges. In the department of Civil Engineering, more emphasis is being given to incorporate the latest technical knowhow/advancement in the curriculum; besides this, the students are also being trained to develop the soft skills and technical expertise as per the need of the society and industry.

I am glad to learn that Reflexia-2018 magazine is being published in the institution with the collaborating efforts of faculty and student editors. I hope that aforesaid magazine will provide a platform for the students to express their innovative ideas and to showcase their talent and explore their creative potential.

I congratulate the entire editorial team for their hard work and dedication that has resulted in the publication of this issue of Reflexia-2018 magazine.

ABOUT

The Department of Civil Engineering was established in the year 2010 in JNGEC. Since its inception, it has gone through many technological improvements by planting laboratories and other facilities aligning it technologically equivalent to the contemporary construction industry.

Civil Engineers are the fabricators of the modern world and they play a crucial role in conjuring the marvels of the present world. India being a developing nation, infrastructure holds the key to success. Hence, civil engineers are expected to play a major role in constructing the future.

The department also conducts industrial training and workshops to make students aware about the actual work scenario. The department is budding ahead to attain excellence in civil engineering and by acting as a support to the students and community.

CONFERENCES, WORKSHOPS, AND EVENTS

Workshop On "Urban Infrastructure Development" On 15th February 2017
Workshop On "Advances in Sustainable Infrastructure Planning And Development" On 14th September 2016
National Conference on "Innovation without Limits in Civil Engg." 18th & 19th March, 2016

Expert lectures by expert academicians and industry representatives from renowned educational institutes (IIT Mumbai, IISc Bangalore, IIT BHU, IIT Mandi, and other IITs and NITs) and organizations are organized from time to time.
Workshops on software like STAAD Pro, WaterGems, SewerGems, Atena etc. are delivered by experts from firms.
Students have participated in technical events of institutes like IIT Mandi, IIT Kanpur etc.

ACHIEVEMENTS

Due to combined efforts of faculty and students, around 15 research papers have been published and presented by students and faculty members in various international journals, as well as national/international conferences.
The students have pursued their career in:
Reputed Government organizations like HPPWD, I&PH, HPSEB, HPPTCL, Town and Country Planning, Govt. Banks etc. as Assistant Engineers, Junior Engineers (7 Asst. Engineers, 35 Junior Engineers)
Private construction and infrastructure companies as engineers and educational institutions as lecturers, assistant professors etc., and as private contractors.
Higher studies (M.Tech, M.S, PhD) in renowned educational institutions within and outside India like IITs, NITs, Texas University etc.

SHINING ALUMNI

Vinayak Kaushal: PhD, University of Texas, USA
Madhav Kaushal: PhD, IIT Bobay
Vivek Sharma: PhD, IIT Bombay
Shubhra Chaudhary: MBA, IIM Calcutta
Chandni: MS, IIT Mandi
Gaurav Bhardwaj: M.Tech, NIT Warangal
Shubham Sharma: M.Tech, NIT Surat
Amit Chaudhary: Assistant Manager, RBI Hitender Bhardwaj: Probation Officer, HP State Co-operativeBank
Kamna Jaswal: Assistant Engineer, HPPWD
Arushi Gupta: Assistant Engineer, HPPWD
Kaushal Sharma: Assistant Engineer, HPPTCL
Lalit Kumar Sharma: Assistant Engineer, HPPTCL
Abhay Kohli: Assistant Engineer, HPPWD
Sachin Nadda: Assistant Engineer, HPPWD
Hem Raj: Military Engineering Services
Akshit Mittal: Bridge Engineer, Bridgecon Infra
Arpan Bhardwaj: Pvt. Contractor (Enrepreneur)

HOD MESSAGE

Dr. Champa Verma

I am delighted to learn that our college is bringing out magazine "Reflexia" for this academic year. It is a nice platform for both, the faculty and the students to exhibit their talents. I congratulate all the contributors, management and members of magazine committee for their unrelenting efforts in compiling their magazine. I wish them all success.

ABOUT

Each and every procurement of an engineer is based upon natural sciences, viz chemistry, mathematics, physics, environmental science, English etc., making these subjects crucial for the establishment of a good engineering perception and mentality.

The department of Applied Science and Humanities constitutes all this curriculum, having well equipped laboratories for bestowing practical knowledge to the students and constructing a cohesive environment for the students to excel in. The department allows students to realize their fields of interests. The students are also exposed to subjects like Basic Electrical Engineering, Fundamentals of Electronic Engineering, Workshop Technology, etc. So the students have the knowledge to apply all these to their respective specialties.

In addition to all this, the department of Applied Science and Humanities instructs a student to learn managerial skills through subjects like Business Communication.

The Department of Applied Sciences & Humanities assists in establishing a base for an engineer to flourish.

EDITORIAL

Reflexia is a legacy that we are privileged to have received from our able alumni who fostered it from its very nebulous stage. The journey of Reflexia has been a remarkable one, with no dearth of ups and downs—each one leaving us with another scope of improvement.

Presenting to you the 4th edition of Reflexia brings to us the satiation and pride that cannot be coded into words.

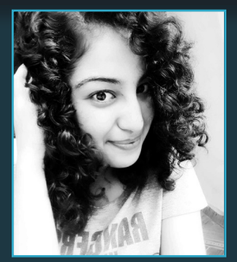
We are extremely obliged to the students who made their valuable contribution towards the magazine by sending their entries in form of articles, poems, artworks, and photographs. We thank you for placing your trust in us. Also, we are thankful to our faculty coordinators for their ever ready assistance and support.

Every page of this magazine is forged with the endeavours of our team. The promoters who reached out to maximum number of students; editors who tried to eliminate every possible error; and the designers who dressed the received data in the best of apparels, thus embellishing the beauty of words. The hardships that they have endured to effectuate the making of Reflexia 2018 are acknowledgeable. With full faith, we pass on the onus of Reflexia to them..

Three of us take this medium to wish every contributor, and every reader all the very best. Your dropping off of distractions to read this magazine itself is very appreciable. Make every day of your college life worth remembering. May all your dreams manifest into reality.

We hope, in future, Reflexia stays with you to awaken what's within you—the beautiful memories of college life.

Sanjeev Kumar
CE 4th year

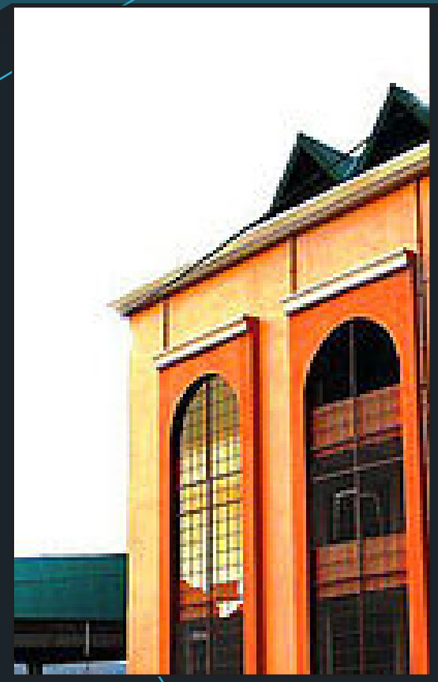


Shriya Bhandari
ECE 4th year

Raj Kaith
CE 4th year

J.N.G.E.C.

Jawaharlal Nehru Government Engineering College, Sundernagar (JNGEC) is an AICTE Approved, State Government funded engineering college. It is located in the Sundernagar town of Mandi District and is affiliated to Himachal Pradesh Technical University (HimTU), Hamirpur.
The institute offers 4 year Bachelor of Technology courses in disciplines, viz:
Mechanical Engineering
Civil Engineering
Electronics and Communication Engineering
Textile Engineering
Established in the year 2006, JNGEC is the oldest State Government Engineering College in Himachal Pradesh. Under the direction of highly qualified faculty members, institution is currently enriching around 1200 students with technical proficiency and moral virtues, imparting in them the potential to dodge every hurdle in the future.
The college hosts well equipped laboratories, a computer center, a central library, and canteens, ensuring the fulfilment of all needs of engineering pursuers. Along with the academics, JNGEC has also set many benchmarks in 'out of the curriculum' activities. Be it the annual techno-cultural fest 'Twask', or the annual sports meet 'Chakravyuh', the institution is in a continuous chase of overall excellence.



TECHNICAL ARTICLES

WHERE IT ALL BEGAN

STRATELLITE—SATELLITE IN STRATOSPHERE

Satellites, whenever we imagine our big blue planet Earth, I am sure that we can see those satellites around it. In almost every movie showing our planet, makers surely put some satellite figures around our sphere. Well because they are the backbone of our communication, or in general, the main key for our mobile access and our favorite TV Series. So let's know how this Satellite Communication works.

A satellite is a body that moves around another body in a mathematically predictable path called an Orbit. A communication satellite is a microwave repeater station in space that is helpful in telecommunications, radio transmission, and television along with internet applications.

Installing a satellite in space is not easy and satellites are not a cheap business. If you have at least $290 million in your bank account, then all that money can go into making a satellite that can track and monitor hurricanes. Add about $100 million dollars more if you want a satellite that carries a missile-warning device, and even after all this expenditure, satellites aren't designed for future repairs. Sanswire, with its partner TAO Technologies, introduced the first prototype of Stratellite. A Stratellite is a rigid framed airship that hovers in a fixed position in the lower stratosphere and carries one or more repeaters to create wireless communication networks.

A Stratellite can hover about 20 kilometers up in the sky, above the jet stream, and can serve an area about 320 kilometers in diameter (480,000 square kilometers). Its frame and components are made of very light but strong modern composites, and the topside is covered over with high-efficiency solar cells. These cells feed power into onboard batteries, which in turn runs the onboard systems and the electric propeller engines used for station keeping. Though designed to land at frequent intervals for maintenance, a well-designed Stratellite can stay in the air for several months, or even years without tending.

(Image Source: www.explainthatstuff.com)

A system of overlapping Stratellites is thought to be cheaper to create and maintain than a similar system of transmission towers, as fewer Stratellites would be needed to cover any particular region. Stratellites would also suffer less total wear as they fly above most damaging weather, and thus, despite their advanced design, they may end up needing less total maintenance and repair over their operational lifetime.
Stratellite is just a concept and prototype based innovation. It is not implemented yet as the testing and launching are still going on. But Stratellite will be our future and alternative to expensive satellites.

AANCHAL SHARMA
ECE 3RD YEAR

GRAVITY LIGHTS

Light is the most essential commodity in the present world. It is impossible to imagine the world without lights. We need them on streets, in homes, airports, and where not? To satiate this need, there is a lot of burden on electricity producers. But all of us know that even in this advanced age, there is still a huge mass of population deprived of electricity. Thus, they have to endure hardships in study, health, etc.

Most used alternative to electric lights is kerosene lantern. World Bank estimates that 780 million women and children breathing particulate laden kerosene fumes inhale the equivalent of smoke from two packs of cigarettes a day. As a result, weekly fuel consumption of one liter of kerosene produces 0.1 ton of Carbon Dioxide each year.

To overcome these problems, Jim and Martin designed Gravity Lights in 2009. The aim was to create a sustainable alternative to kerosene lamps. They looked beyond solar and battery powered devices. And this lead the foundation of gravity lights. The first working prototype was made in Nov 2012.

The working of gravity lights is very simple and easier to understand. It is powered by the lift of a weight which is attached to the device weighing nearly 12 kg. Since the bag falls under the effect of gravity, the product is named Gravity Light. Gravity lights need no battery or solar radiation to run, and cost nothing to operate. It takes seconds to lift up the weight that powers it and on this action, Gravity light provide 20 mins of continuous light emission through a LED bulb.

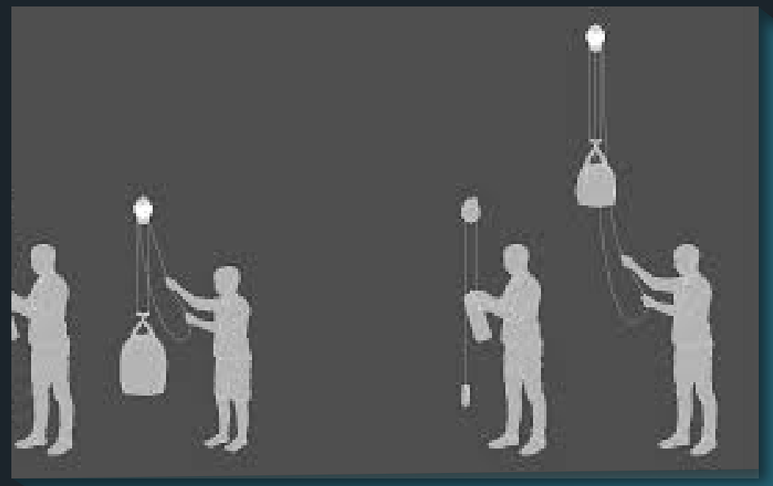


Image Source : www.gravitylight.org

It is installed at least 2 m from the ground. Once a weight is lifted, it is freed to fall down slowly (1mm/s). This movement powers a drive sprocket which rotates slowly but with high torque. A gear train turns this input into high speed low torque output that drives a DC generator at 1600 rpm. This generates about 0.1 W to power the LED. Moreover, it produces approximately 3 to 5 times more light than a kerosene lamp. Once the bag reaches the floor it is simply lifted back and process is again repeated. Gravity lights are easier to equip and cost less and are totally eco-friendly. They are robust and more reliable. This concept is a great innovation and we need to spread such ideas to help the society, especially the deprived ones.

ADITYA SHARMA
ME 2ND YEAR

MICROMACHINING

A decade ago, even watch parts were considered to be complex micro components. But nowadays, miniaturization has become the order of the day. In the modern era, different fields ranging from entertainment, electronics to medical cures, all use micro technologies. The manufacturing processes used for miniaturization are the microelectronic fabrication techniques used for Micro-Electro Mechanical Systems (MEMS).

Micromachining is the combination of two words—micro, and machining, which means removal of material at micron level. The two main categories of micromachining are surface micromachining and bulk micromachining.

Selective etching along with successive thin film deposition done in Surface Micromachining. On top of substrate, structure is formed. However, in Bulk Micromachining, selective etching is done inside a substrate. Bulk micromachining is used to produce MEMS.Miniaturization of materials mainly improves the accuracy and reliability of products, minimizes energy and materials used in manufacturing. It mainly includes finished products sized between 1 to 100 micrometers.

As we know that that every coin has two faces, one positive and other, negative. So, it has some disadvantages too. The components used in micromachining are expensive and very fragile. So, great care and attention in demanded while working on with these components. Micro valves, particle filters, micro molds and subminiature motors are some of the applications of micromachining. But, innovations are continuously being made to improve the process of micromachining.

ANISH DHIMAN
ME 1ST YEAR

HOT SOLAR CELLS

Even decades after they were first developed, solar panels remain burdened with bulky slabs of silicon and high prices. They underperform due to fundamental drawbacks which limit these conventional photovoltaic clusters to absorb just a fraction of the energy in sunlight.

But a team of MIT scientists has approached towards a different sort of solar energy device that uses inventive engineering to capture far more of the sun's energy. Focused within the specific spectrum that solar cells can use, this innovation will turn sunlight into heat and then convert it back into light dramatically increasing its efficiency.

Standard silicon solar cells capture the visual spectrum of light (violet to red). This means that they never convert more than around 32 percent of the energy in sunlight into electricity.

The key step in creation of the device was the development an 'absorber-emitter', which essentially acts as a light funnel above the solar cells. Solid black carbon nanotubes are used to build the absorption layer. They capture all the energy in sunlight and convert most of it into heat. As temperatures scales to about 1,000 °C, the adjacent emitting layer radiates that energy back in form of narrow bands of light that are absorbable by the photovoltaic cells. The emitter is made from a Nano-photonic crystals that control the wavelengths of light flowing through it. Another critical advancement is the addition of a highly specialized optical filter that carries out a process called 'photon recycling', i.e. reflecting nearly all the unusable photons of tailored light back. This eventually produces more heat, generates more of the light and improves the efficiency of the system (almost twice of the standard solar cells).

Certainly, there are some downsides to the MIT team's approach, including expensive components and workability only in vacuum.

If the researchers successfully find a solution to them, this system will one day deliver clean, cheap, and continuous solar power.

GAGAN SHARMA
ME 4TH YEAR

OUTER SPACE GARMENTS SYSTEM

A space suit is a complex system of garments and equipment. It is an environment system designed to keep a person alive and comfortable in the harsh conditions of outer space. To work in space, human beings must take their environment with them because there is no atmospheric pressure and no oxygen in space to sustain life. Inside the spacecraft, the atmospheric pressure is controlled. So any special clothing isn't needed. But when outside, humans need the protection of a space suit.

Outer space is an extremely hostile place. On stepping outside a Spacecraft, onto a world with little or no atmosphere, without wearing a space suit, the following things would happen:

One would become unconscious within 15 seconds because there is no oxygen.

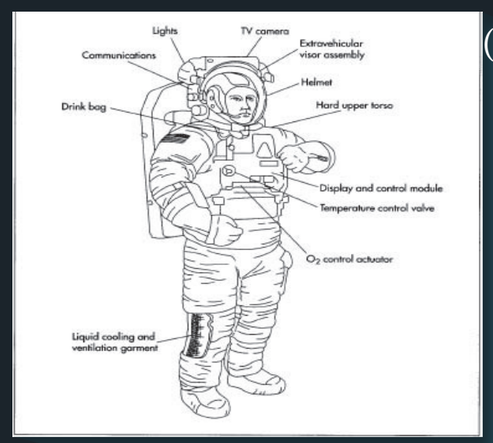
Blood and body fluids would boil and then freeze because there is little or no air pressure.

Tissues (skin, heart and other internal organs) would expand because of the boiling of fluids.

One might get hit by small particles of dust or rocks that move at high speeds (micrometeoroids).

One would face extreme changes in temperature—Sunlight: 248 °F/120 °C.

One would be exposed to various harmful rays—Cosmic rays, and Charged particles emitted from the sun (Solar Wind).



(Image Source: www.nasa.gov)

REASONS TO WEAR SPACE SUIT:

Earth's atmosphere has 21% oxygen and 79% Nitrogen. About 75 miles above sea level, space begins. At 18,000 feet, the atmospheric pressure is half as dense as it is on the ground. At altitudes above 40,000 feet, air is so thin and amount of oxygen is so less that pressure oxygen masks no longer do their job. Above the 63,000 feet threshold, humans must wear space suits that supply oxygen for breathing and that maintain a pressure around the body to keep body fluids in the liquid state. Space suits are pressurized at 4.3 pounds per square inch, but because the gas in the suit 100% oxygen, the person in a space suit actually has more oxygen to breathe.

Thickness of Space Suit: TA space suit is approximately 3/16" thick composed of 11 layers of material or much more, depending upon the requirements in space.

Making Cost: 2 million dollars (approximately).

Space suit Colour: Space suits are either white or orange in colour, because of the reason that these colours reflect heat in space.

Air Holding Capacity of Space Suit: Amount of air varies depending upon its size. The extra-large Shuttle Suit, without anybody in it, holds 5.42 cubic feet of air; the extra small size holds 4.35 cubic feet. With an astronaut in the suit, the amount of free space remaining in the suit is 2 cubic feet.

Pressurised Atmosphere: The space suit provides air pressure to keep the fluids in your body in a liquid state—to prevent body fluids from boiling. Like a tire, a space suit is essentially inflated balloon that is restricted by rubberized fabrics. In most cases, Neoprene-Coated fibres are used. The restriction placed on the "balloon" portion of the suit supplies air pressure on the astronaut inside it. The space suit used by shuttle astronauts operates at 4.3lb/inch at 2 or 0.29 atm. Oxygen Spacecraft can't use normal air—78% Nitrogen, 21% Oxygen and 1% other gases, because the low pressure would cause dangerously low oxygen concentrations in the lungs and blood. Space suit get the oxygen either from a spacecraft via an umbilical cord or from a backpack life support system that the astronauts wear. To go into a pure oxygen space suit, a spacewalking astronaut must "pre-breathe" pure oxygen for some period of time before suiting up. This pre-breathing of pure oxygen eliminates the nitrogen from the astronaut's blood and tissues.

suit's life support backpack, or in the spacecraft, in which case they are accessed through an umbilical cord.

Temperature Control: To cope with the extremes of temperature, most space

covered with reflective outer layers (Mylar or White Fabric). The astronaut produces heat from his/her body, especially when doing strenuous activities. If heat is not removed, the sweat produced by the astronaut will fill up in the helmet and cause the astronaut to become severely dehydrated.

Protection from Micrometeoroids: To protect the astronauts from collisions with micrometeoroids, space suits have multiple layers of durable fabrics such as Dacron or Kevlar. These layers also prevent the suit from tearing on exposed surfaces of the spacecraft or a heavenly body.

Protection from Direct Radiation: Astronauts must get protection from solar radiations. Its outer layers are made of insulating materials, such as Neoprene, Gore-Tex, and Dacron. The outermost layer is white to reflect the maximum radiation and is generally made of Mylar. As for the visor, it is covered with a golden film. These are effective means of protecting the face, and especially the astronaut's eyes against solar radiations. Clear Sight-Space suits have helmets made of clear plastic or durable Polycarbonate. Most helmets have covering to reflect sunlight, and tinted visor to reduce glare, much like sunglasses. Inside faceplate of helmet is sprayed with an anti-fog compound. Modern space suit helmet coverings have mounted lights so that the astronauts can see into the shadows.

Mobility within the Space: Moving within an inflated space suit is tough. To help this problem out, space suits are equipped with special joints or tapers in the fabric to help the astronauts bend their hands, arms, legs, knees, and ankles. In weightlessness, it is difficult to move around. If one pushes on something, he/she flies off in the opposite direction. Spacecraft is equipped with footholds and hand restraints to help astronauts work in microgravity.

MANISH KUMAR NEGI
TE 3RD YEAR

CLOUD COMPUTING

As we all know technology is not static. It presents new innovations every day. One such is here, called Cloud Computing.

It's all cloud computing that enables us to go for an online service—to send email, do documentation, listen to music, play games or store pictures and other files. The term "cloud" refers to a Network or Internet present at remote location. Cloud Computing provides services over network (public network or on private network) like WAN, LAN and VPN. It is combination of blend of both software and hardware. It allows us to create, configure and customize applications online. With cloud, users can access database resources via internet from anywhere without worrying about any maintenance or management.

Before cloud, business applications had variety of hardware and software. Running them was quite a hectic job. One needed a whole team of experts to install, manipulate, test, secure, and update them. After this invention, headaches that come with storing data got eliminated. With cloud app, all you have to do is just open a browser, log in, customize the app and start using it.

There are three types of Cloud Based Services:

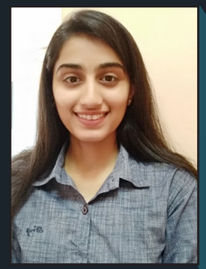
Infrastructure as a service (IaaS): It involves a method for delivering everything from operating systems to servers and storage through IP-based connectivity as a part of an on-demand service.

Software as a service (Saas): It involves the licensure of a software application to customers. Licenses are typically provided through a pay-as-you-go model or on-demand.

Platform as a Service (PaaS): It is a platform for creating software that is delivered via

Cloud-based software have offered companies from all numerous benefits including the ability to use software from any device, either via a native app or a browser. It has made possible the storage of data files, images, songs, videos, etc. remotely and safely out of the hardware.

NEHA SHARMA
ECE 3RD YEAR

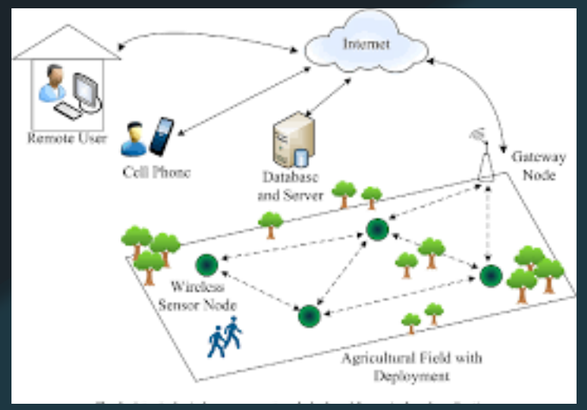


Wireless Sensor Network in Agricultural Field

Agriculture is the backbone of the Indian economy. The development of agriculture in terms of area of land under cultivation, use of modern equipment, and financial assistance to the farmers is absolutely essential.
One of the major problems present today is the less knowledge of the soil content and types, less knowledge of the types of fertilizers to be added, the irrigation amount, and soil's water retention capability.

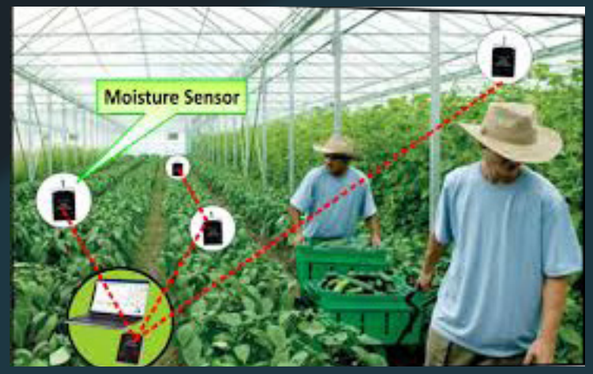
In the current Indian scenario, analysis of soil to increase crop yields is not being used to a large extent due to the cost involved. The technological development in wireless sensor networks made it possible to monitor and control the agriculture parameters in rural area.

Wireless Sensor Network (WSN) is a distributed network of large number of wirelessly connected autonomous devices, called Wireless Sensor Node (WSNode), which collaboratively collect the information about physical world and disseminate the same towards monitoring stations called Base Station (BS) for the deterministic analysis & presentation. It is a very powerful tool that enables the users to closely monitor, understand, and control desired processes. The WSN is an infrastructure comprised of sensing, computing, and communicating elements.



(Image Source: www.semanticscholar.org)

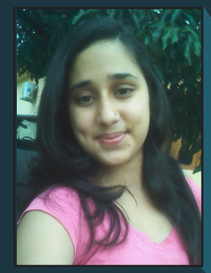
Wireless sensor nodes are deployed in the field to monitor the physical conditions like temperature, soil moisture, humidity, etc. For example, soil moisture sensor produces the output signal based on the wet and dry conditions of the soil. Microprocessor processes the data from the sensor, takes the decision to drive the irrigation motor and transfers the status of the motor to the farmer's mobile phone with the support of interfaced GSM modem.



(Image Source: www.kfrlab.com)

WSNs have wide applicability in enhancing agriculture, irrigation, and animal management. WSNs can also play a key role in the supply chain, quality check, and building management functions for agriculture.

RASHI CHANDEL
ECE 3RD YEAR



SURVIVAL OF IC ENGINES AND EFFORTS FOR BETTER EFFICIENCY

In the epoch of the 21st century, the most anent topic in discussion is energy conservation. With the major doubt being how can we efficiently use our conventional resources to preserve them, and at the same time, increase the potential of non-conventional resources for the upcoming generations? The manufacturers are constantly putting their efforts to secure their place in the market by enhancing engine's capability and efficiency, which so far is lacking in the modern day electric engines.

The very first question rising here is that why we (Petrolheads) are not able to make a shift from the conventional IC engines? The answer is that we are having such a wonderful experience—whether it's the amusing punch line of the superchargers or turbochargers, or the cracking noise of the exhaust bubbles which makes automobiles a stature of adventure.
Various manufacturers are testing their production ready prototypes which are examined for their fuel economy figures and performance characteristics. Few such technologies are listed below:

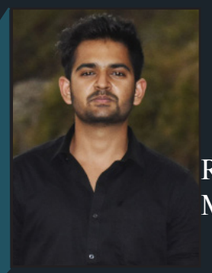
SPCCI ENGINE (MAZDA NEW SKYLINE ACTIVE-X)
It is the first production engine to employ gasoline compression-ignition combustion. Launched in the beginning of 2018, it is a 2.0L four cylinder unit which delivers 190 HP and 207 lb.-ft. of torque. The compression ratio of 15:1 is achieved using ultra lean air-fuel mixture ratio (so lean that it cannot be ignited by spark). The baffle on the intake port introduces swirl motion whose main purpose is to make the charge homogeneous. A second fuel injection activates after the compression of the mixture which is accompanied by the spark plug which achieves both the characteristics of diesel as well as gasoline engine (controlled multi-point combustion). It helps in delivering the wide torque bandwidth. Its power is enhanced using gasoline and it also reduces vibrations and noise which are major issues of conventional diesel engines. It is the production ready prototype of the HCCI engine which faces problems like pre-ignition and knocking.

INFINITI V-C TURBO (VARIABLE COMPRESSION TURBO)
Nissan advanced unit 'Infiniti' recently revealed its variable compression ratio engine also known as VC Turbo. The pioneering new VC Turbo powertrain represents a leap forward for engine development. It is a 2.0L I 4 engine. It has the mechanism to vary its compression ratio from 8:1 to 14:1 which can alter continuously in between according to their common conditions. It produces 268 HP and 280 lb.-ft. of torque. It alters the compression ratio by the advanced mechanical setup consisting of an electric motor controlled rotating unit called harmonic drive which is further connected by an actuator arm. A control shaft is provided to connect the actuator arm to the multilink by varying the coordinates of the multilink. It can aberrate to an angle by which the rotational motion of the connecting rod is carried out. Altering the angle of connecting rod further results in varying the compression ratio of the engine. The automakers also claim the specific layout of the engine internals and its reciprocating motion makes it smoother than conventional in-line engines and even matches the lower noises and vibrations of some V6 engines. It also doesn't require balance shafts as needed in conventional I-4 engines contributing to a lot more lighter and compact nature.

(Image source : www. www.motorauthority.com)

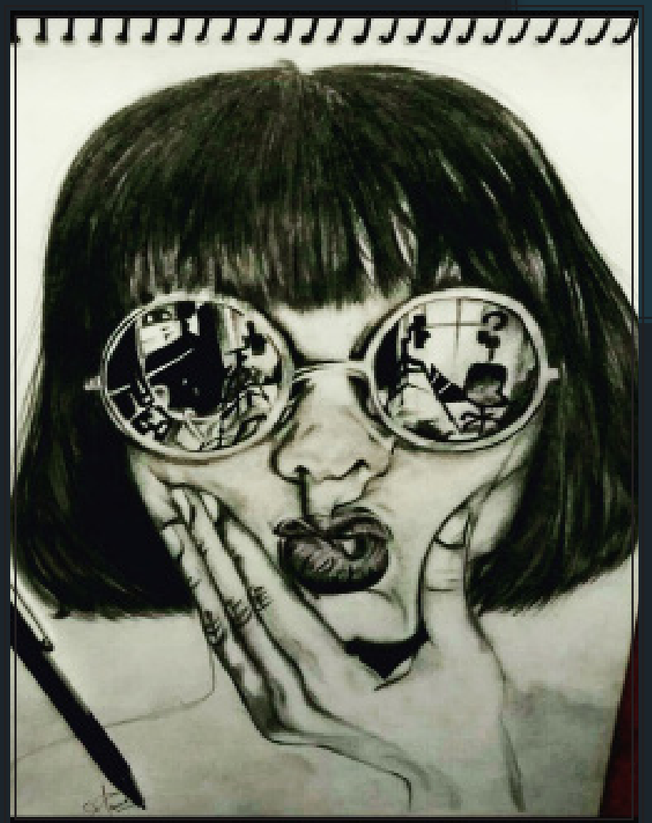
On the other hand Mercedes claims that their new engine can achieve the thermal efficiency of up to 50% with the help of a pre-combustion chamber which ignites small amount of rich air fuel mixture to help in combustion of the lean air fuel mixture in the main cylinder. The flame produced by the ignition system in the pre-combustion chamber travels into main cylinder to ignite lean mixture. Another technology known as MGUH (Motor Generator Unit Heat), which uses the turbocharger to spin up the electric motor is used to charge the battery pack which in turn is used to deliver power to the rear wheels by an electric motor. Hence, the waste energy of exhaust is transformed into useful energy by the electric motor. However it comes with the complementary disadvantages like increase in weight and price of the engine.

Conclusively, IC engines are struggling from performance as well as emission point of the view. But due to the continuous efforts by car manufacturers, IC engines are competing against electric vehicles. Manufactures like Tesla are reaching new limits by developing electric vehicles like Tesla Roadster which is capable of achieving 60 mph within 1.9 seconds and top speed of 250+ mph even when handling is the most concerned factor in electric cars due to their lower center of gravity. With all these innovations, it'll be interesting to see the level of competency of IC engines.



ROHIT MATTU
ME 2ND YEAR

ENAMELING THE MIND



AAINA GILL
ECE 4TH YEAR

AMAN DHIMAN
ME 2ND YEAR

AKSHITA RANA
ECE 4TH YEAR

DIXIT
ECE 3RD YEAR

HIMADARI CHATTERJEE
TE 1ST YEAR

PROSE

A PLAY WITH WORDS

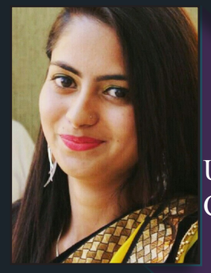
WAND

I am the wand of Harry Potter,
come from his magical hands.
I was placed in the drawer of wood,
With the pencils and bundle of bands.
He used me in his tough times,
I was the one to say a smile.
I was the only one to help,
I was the one to shape toys to ships.
I am the wand of Harry Potter,
I was in the publicity for six years,
I was in form of boon for him,
I was the one to say in his ears.
I am the best friend of him,
He handled me with great care,
He is a true man, yes I know.
I am the wand of Harry Potter,
A little wand with magical powers.
A power made for Harry Potter,
A power of wand is in each hand,
But to know the power,
We had to make our hard work

RITIKA PANWAR
TE 1ST YEAR

THE SUNSHINE

Finally, she decided to end the sufferings,
Not because she couldn't fight, but she was tired.
Knife in one hand and anger in the other, she decided to quit!
That wasn't easy, but dragged by the fear of being depraved every day,
Like a pith, she decided the last move.
Before she could slit her wrist and a let a river of red deluge,
She heard a melody from the door,
Sounding "Mummy I am home!"
And that was the moment she realized,
She has to lift the armour, not for herself, but for her girl!
And from there, a mother became a WARRIOR,
For a luminous sunshine for her daughter.



UMESH SHARMA
CE 2ND YEAR

सफ़रनामा

उदास चेहरे भी यूं मुस्कुरा जाएं,
इस कदर वो मुस्काती रही।

दिलों में ना रहें फासले,
इस तरह अपनों से प्यार जताती रही।

नहीं भी थी जब मोहब्बत जुबां पर,
लफ़्ज़ों को होठों के बीच दबाती रही।

जिंदगी की राहें नहीं थी आसान,
बिन परवाह कदम वो आगे बढ़ाती रही।

ठोकरें तो बहुत लगी लेकिन गिरना तो फितरत में है,
गिर कर भी खुद वो संभलती रही।

जब दुनिया दौड़ रही थी वक्त से भी आगे,
वो वक्त के साथ कदम मिलाती रही।

AKANKSHA SHARMA
ECE 4TH YEAR

दो चेहरे

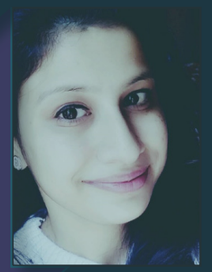
सब रास्ते अलग, हर मजिल अलग,
फिर क्यों मिल के मुस्कुराते हैं
दो चेहरे...
शायद किसी हमसफ़र की तलाश होती है,
जो इतना खिलखिलाते हैं
दो चेहरे...
हर चेहरा अलग, हर दिल-ए-दास्तां अलग,
फिर भी हमदर्द बन जाते हैं
दो चेहरे...
दिलों में मासूमियत लेकर चले हैं,
फिर भी ज़ख्म समेट कर हंसते हैं
दो चेहरे...

AKHIL BHARDWAJ
CE 4TH YEAR

THE TICKING OUT TIME

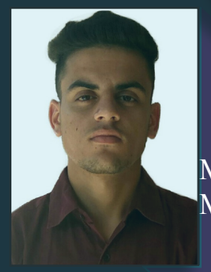
Wind is blowing, sun is rising,
See the new morning outside of your room.
Yes! A new day is coming to say you
"Wake up, this is your day!"
It's in your hands how you use your new day magnificently.
Another day will also come with the same wind,
And with same sun, but not with the same time!
It's only on you how will you manage your time,
To balance your life, because,
Other things may stay, but not time!

GARIMA GOEL
TE (2013-17)



TIME DIME

I ran out of sleep when dreams were about to turn real,
I gave up when it became impossible to bear.
Exhausted and injured, I was sitting with a frown.
But, who knew time would come along with a crown.
Waiting is a bit cruel,
But when you wait, wait long
You are paid strong.



MANISH KUMAR
ME 1ST YEAR

बचपन

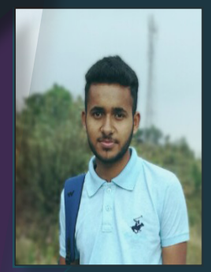
तब ज़िन्दगी में नूर था,
ना कोई गुरूर था,
बस हर वक्त सुकून था।

बड़े क्या हुए, सब लुट चुका था,
बस अब दस्तूर का कसूर था, या अपना गुरूर था।
न खुदा को याद करा, न खुद को संभाला,
टूटे सपनों के इस कर्ज़ में ऐसा डूबा,
कि बस नशे में चूर था।

कभी बड़े होने का बेसब्र इंतज़ार था,
अब वक्त पलटने का ख़्वाब है,
कभी गुड़िया से खेले, ना जाने कितने खिलौने तोड़े।
अब ना जाने कितने से खेले, और कितनों के दिल तोड़े।

वही खुश नुमा दिन जी लूँ,
वही ख़्वाब सच करलूं,
ऐ खुदा मौत दे ऐसी,
की दोबारा जन्म लेके,
अपना बचपन में दोबारा जी भर क जीलूँ।

NITIN SHARMA
ME 1ST YEAR



A LITTLE LESS OFTEN

Wandering, streaming,
Searching for peace,
A little less often.
Ask her not where she goes,
Hiding deeper somewhere,
Uncovering her layers,
A little less often.
Ask her not to look in the mirror,
Sheer elegance, and pure innocence,
A little less often.
I don't know, she says, I think I am lost,
Lost in a nowhere,
A little less often.
Tell her not to wake up,
For a sleep that happens to you,
A little less often.
A sleep that numbs the racing souls that rest,
A little less often.
Oh tell her not she's lost,
For a muse like that happens to you,
A little less often.

SUMEDHA SINGH
ECE 4TH YEAR

यादें नए सफर की

क्या याद है तुझे जब तू इस महाविद्यालय में आया था?
कहीं न कहीं, कुछ डर, कुछ घबराहट तो तेरे मन में छाया था।
वो पहली रात जब तू घर की याद में अंदर-ही-अंदर रोया था,
ठीक उसी रात तू बिल्कुल भी नहीं सोया था।

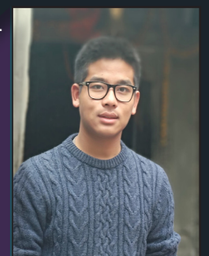
दिल को उस वक्त यही तो कहा था कि कब तक तू माँ के आँचल में रहेगा?
ये ज़िंदगी है मेरे दोस्त, यहाँ ऐसा हर रोज़ होता रहेगा।
ये सोचते समझते कब चिड़िया चह-चहाने लगी,
तब एक पल आया जब ये सभी बातें दिल को और ज़ोर-ज़ोर से धड़काने लगी।

क्या याद है तुझे college का वो पहला दिन जब तू orientation में आया था?
दिल में हज़ारों-लाखों सपने संग अपने तू लाया था।
उसके बाद बने तेरे कई रंग-बिरंगें यार।
जिनसे हुई कई नोक-जोंक, अब उन्हीं से हो रहा तुझे प्यार।

वो तेरा class में पहला दिन, जिसमें थें सभी विद्यार्थी भिन्न-भिन्न,
इस भिन्नता और नए जगह के तौर तरीके सीखते-सिखाते कब semester के final exams आ गए?
अब पूरे semester तो कुछ पढा नहीं, तो तेरे उन इरादों पर काले घने बादल छा गए।
उस समय तो बस जैसे-तैसे semester पास कर लिया।
खुद से फिर एक नया वादा कर लिया।

अब तो मैं अगले semester ज़रूर पढ़ूंगा!
जैसा इस semester मेरे साथ हुआ वैसा अगले semester बिल्कुल भी नहीं करूँगा।
लेकिन समय के साथ हुआ कुछ यूँ, के मुझे कभी इधर तो कभी उधर के काम आ गए।
और देखते ही देखते एक बार फिर semester के final exams आ गए।

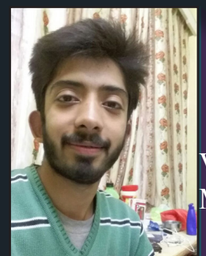
अब क्या कहूँ, मेरे इरादों में फिर से काले घने बादल छा गए।



VISHAL PUN
CE 2ND YEAR

किस्सा एक तरफा मोहब्बत का

एक उम्मीद सीने में दफ़न आज भी है,
इस दिल को तेरी जरुरत आज भी है!
मैं जो कहता नहीं, ये बात और है,
मगर वो छूटी सांसों को पाने की तलब आज भी है!
मैं हर रोज हारता हूँ खुद से खुद में ही,
मगर मुझमें कुछ जीत जाने की ललक आज भी है!
मैं जो कहता नहीं, ये और बात है,
मुझे तुझसे हार जाने की, सनम आदत आज भी है!
तुझे अपना बनाने का शौक तो नहीं हैं,
पर हर दुआ में दिल तुझे मांगता आज भी है!
तुमसे कभी नहीं मिल सकता यह पता है,
मगर तेरे सपने देखता दिल आज भी है!
तेरी मुस्कान देखकर दिल यूँ ही खुश हो लिया करता है,
मगर तुझे उदास देखकर दिल रोता आज भी है!
अक्सर तुमसे दूर जाने की कोशिश करता है दिल,
मगर नामुमकिन है यह जानता दिल आज भी है!
नज़रअंदाज़ करना आदत है तेरी,
पर दिल में तेरे लिए कुछ भी कर जाने का जुनून आज भी है!
इस दिल में तेरे लिए बेइंतहा मोहब्बत आज भी है।
एक उम्मीद सीने में दफ़न आज भी है।
इस दिल को तेरी जरुरत आज भी है!



VARUN RAI
ME 4TH YEAR

अलविदा College Life

आए थे schooling करके यहाँ,
नहीं था मालूम कि जाना है कहाँ।
लेके सपने NIT, IIT के हम बेचारे,
अंत में अपने JNGEC में पधारे।

Engineering होती है बहुत tough,
ये अफवाहें हमारे कानों में फैलाई गई तब।
सुना हमने भी एक कान से और दूसरे से निकाला,
और 1st year में अपना कदम बढ़ा डाला।

नए चेहरे थे सब, किसी से ना पहचान थी,
लगा तब कि engineering करना आसान थी।
थोड़े दोस्त बने फिर, पर ragging का डर था,
Seniors भी बहुत अच्छे मिले, शायद किस्मत का असर था।

थोड़ी पढ़ाई और थोड़ा intro हुआ,
इन्हीं बातों में 1st semester का end हुआ।
नए semester से शुरू मस्ती हुई,
एक साल college life की पर अब घट गई।

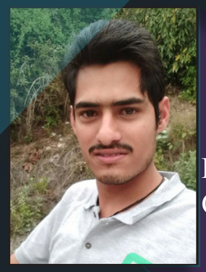
नए semester में अब हम भी senior हुए,
सोच में अब थोड़े परिवर्तन हुए।
चढ़ा सर पर थोड़ा अभिमान,
कहा juniors को कि हो जाओ सावधान।

Teachers का 3rd semester में lack हुआ,
फिर दिमाग पर हमारे double attack हुआ।
Exam हुए, result का wait था।
दुआएं करने में कोई ना late था।

Class में कई back के मारे थे,
बचने के लिए अब 'reeval' के सहारे थे।
कुछ को reeval ने बचा लिया,
बाकियों को supplementary ने फसा दिया।

फिर ना जाने कब 2nd और 3rd year का end किया,
Final year में हमने अब land किया।
8th sem में अब GATE पर सबका focus था,
बस 4 subjects के semester से हर कोई खुश था।

Engineering कर के अब सब अपने अपने रास्ते चले थे,
लेकिन ऐसा लग रहा था कि अभी कल-परसों ही तो हम मिले थे।
बस इन चार सालों बाद अब,
हम COLLEGE LIFE को अलविदा कह चले थे।



PUSHAP RAJ
CE 4TH YEAR

A RHYME IN TIME

A story back in time,
Let me recite a rhyme,
I was a child, he- a hero and she like a pillar so strong:The creator of our Home,
A fairy tale he set on to write,
She was beside him as his might;

Little by little, genuine efforts they made,
A contribution to what they did create,
It's all that can never be quantified,
In fact, the idea of quantification here isn't very right!
A few words can't contain,
Love-there is and always remains;
A home to me, you and all of us,
They are none other than our beloved parents;

Once upon a time,
A little traveller set on a journey,
Away from her home,
Only a few miles though!
The traveller, every day, used to meet the guide,
Who guided her towards the light?

Little by little, efforts they made,
To help her lead the way- strength displayed,
The guide played the magnificent part,
Always tried to show her the right path;
And put up their best to cover anything remaining,
They're our Teachers giving life- a meaning;
An amateur traveller still in training,
Come what may- sun or the clouds- raining,
The traveller- free to choose,
Willing to give it a try no matter- win or lose;
Exploring the seasons of time,
First green leaves, then yellow ones- time's prime;

Choice and its consequence,
Looking forward, you'll not see the sequence,
Looking back, the traveller could connect all the dots,
A make or break of some sort,
Learn and learn a lot of,
Fun and frolic too were a part,
A new phase of her life- a new start,
The mentors helped but from far,
Tried best to make her, among others, their best craft,

Do you know who they're? Yours and mine-
College Staff;

The journey goes on for all of us,
Life's pretty short and we are mostly out of focus,
A new world, still newer than before,
Nobody bothers to keep you sitting in the class anymore;
You sit, you learn and you only earn,
They now know you're aware of life's run;

You were in charge of your life earlier and always too,
But then you wonder, now, that has become so true!
With time, you see things and gain experience,
You have a back and love of your father, mother, the teachers and alike,
But alone you and you are to stride;
And that my friends, an old friend of yours in a new disguise,
And we call it Life,
That's how the story goes on for all of us in the Earth's time zone;

Walk on the grass barefoot,
Smell the fragrance of the beautiful flower sparing sometime in the woods;
The time on this Earth is fixed,
You've got your life's script;
Play your part well,
Leave everything rest on the plot of mystery,
The unknown, there be, watching you create a unique history!

ALISHA SHARMA
ECE (2013-17)

TWASK 2017

JNGEC was once again intoxicated in energetic ambience as the most awaited event of the year was advancing nearer. Twask, the college's annual cultural fest, was all set to dispel all the tediousness of monotonous routine. The delightful history of Twask makes it a crowd magnet, for it has never disappointed anyone in terms of fun and ecstasy. Twask scouts the talents that come from individuals or groups.

The organizers, who carried a bucket of expectations, put their hearts and souls in making Twask 2017 a successful mega fest—a three-day fest steeped in music, dance, frolic, and numerous amusing events. Shedding up the discreteness, everyone took up their team responsibilities and the preparations started weeks before the final event.

21 April, 2017, the institution saw the onset of Twask 2017. The excitement was not concealed from any face around. With all the exertions of Deco Club, college campus drenched in vivid colours. Events like Student of the Year, Roadies, Mr. & Miss Ardent, LitFest, Slow Bike Racing, etc. engaged students all day long, followed by a musical evening. Hon'ble Prof. R.L. Sharma (Vice-Chancellor HPTU), was present as the Chief Guest on Day 1 spectating all the zealous dance and song performances

Nalayak, the Band, with their performance on Day 2, transported everyone into a musically euphoric world. Chief Guest Prof. Lalit Awasthi (Director of NIT, Jalandhar) awarded mementos to the students who had outperformed in their academics.

In spite of a savage storm that hit the town the previous night, there was no decline of zest in the students. On the Final Day, Prof. S.P Guleria (Director MGGEC, Jeori) joined the celebration as a Chief Guest. Fashion Parade, being the major attraction, adorned the evening. The Organizing Committee got acknowledged by Director Prof. Raman Parti. With a music cum open dance session, Twask 2017 came to an end. Happiness swept through all hearts and there were radiant smiles all around.

All the toil that the organizers had put in got retributed in form a rocking event, full of joy that is cannot be justified by words or photographs.


INGEC
STUDENT
OF
THE
YEAR

NCC

With the aim to meet the requirements expected in the current socio-economic scenario of the country, to provide the youth with the leadership skills in all walks of life, and to keep the youth always available for the service of the nation, the first unit of NCC at JNGEC saw its formation in the year 2016.
Motto of NCC: Unity and Discipline
Unit: 2HP BN NCC MANDI

Enrolled Strength

1st Year	2nd Year	Total (Sanctioned: 50)
18 (16 Boys, 2 Girls)	16 (15 Boys, 1 Girl)	34

NCC Commanding Officer at JNGEC Campus: Capt. H.S. Rana
Senior Under Officer: Aman Dhiman (ME 2nd Yr.)
Under Officer: Abhay Pratap Singh (CE 2nd Yr.)
Sergeants: Shashwat Kapoor (CE 2nd Yr.) and Harshita (ECE 2nd Yr.)

Activities:
Bhaang Ukhado Abhiyan: (01/05/17)
Tree Plantation Drive: 34 Cadets (04/05/17)
Combined Annual Training Camp: 16 Cadets at MLSM College, Sundernagar (05/06/17 - 14/06/17)
International Yoga Day Celebration: (21/06/17)
Independence Day Celebration: (15/08/17)
Swachh Sankalp se Swachh Siddhi: Essay Writing and Short Film Making Competition (23/08/17)
Army Attachment Camp: (25/09/17 - 05/10/17)
Blood Donation Camp: 1 Cadet at BBMB Colony, Sundernagar (11/10/17)

Anti-corruption Pledge: (30/10/17)
Swachh Bharat Abhiyan: (26/01/18)
Republic Day: Flag Hoisting Ceremony (26/01/18)
NCC B-Certificate Exam: At VGC Mandi (04/02/18)
State Level Mock Drill on Earthquake Disaster: (08/02/18)
Shaheedi Diwas Celebration: (20/03/18)
World Water Day Celebration: (23/03/18)

NSS

The National Service Scheme, commonly referred to as NSS, is an Indian Government scheme that focuses on the personality development of students through community services. Conducted by the Department of Youth Affairs and Sports, NSS is a government sponsored voluntary organization for students studying in schools, colleges, and universities, working for a campus to community liaison.

As its motto “Not me but you” depicts, the main rationale of NSS is to provide service to society without any intention of personal emolument. NSS volunteers work to ensure the enhancement of society and environment.

2017 witnessed the inception of the first official NSS unit of JNGEC. Packed with zealous members, the unit is headed by Er. Ankit Sharma of ECE department. The upper hierarchy of the unit comprises of students in the ranks of President, Vice President, General Secretary, Joint Secretary, and a Store Coordinator.

- President - Shriya Bhandari (ECE 4th Year)
- Vice President - Aditya Sharma (ME 2nd Year)
- General Secretary - Aanchal Sharma (ECE 3rd year)
- Joint Secretary - Manik Choudhary (ME 2nd year)
- Store Coordinator - Ritesh Raj (ECE 3rd Year)

Since its kickoff, the unit has been active in numerous social activities:

- 10 members of the NSS unit convoyed and assisted the Sakar Society for

Differently Abled Persons, a Sundernagar based NGO, in activities like catering and cleaning on their Annual Function Day held on 7th October 2017.

- Unit in collaboration with the NCC cadets participated in Blood Donation Campaign held in the BBMB Colony, Sundernagar on 11th October 2017. A total of 17 donors represented JNGEC for this noble cause.

Team Reflexia congratulates the whole NSS unit for its invaluable services to the society and wishes the team all the very best for upcoming activities.

NON-TECHNICAL ARTICLES

DIRECTLY FROM THE HEART

A LETTER IN THE AGE OF INTERNET

I don't know how these social media people got to know about whom we are going to like or not, but as I was looking for featured profiles after scrolling down two or three profiles there was Miss charming, I guess! That's the title you were holding in that photograph I remember that's first time I visited your profile and you know what when I dropped my sight on the screen of my phone, first thought that hit my mind was I need to get a phone with a larger screen size lol, while gazing through your posts I realized that it's never going to happen that you will reply to my texts and why would you?

You seem likely to be a model or actress to me but if you did I didn't have any clue how to give it a try, that simply employs I really am very dumb in starting a conversation and make it going.

It's really hard for me to deal with strangers for even a second and starting a conversation or having one, most of the times it puts me in awkward situation that somehow becomes intolerable and I regret my ingenuity after I got over them but you were different, I don't know how I got struck to you in a way that made me enchanted to have a conversation with you. Every single word that I uttered had passed through a bunch of algorithms in my brain like "Is this okay to say it having a population of 1.324 billion but thank God you noticed.

Bringing someone into your head is hard but getting them out of it, is way too easy, in your case it was totally reverse It just took a second to bring you inside my head but can't help myself to get you out since day one.

Maybe you got slipped and landed into my heart instead of head, who knows?

I can't remember our conversation and never wanted to realize that moment again because a new start everyday that's what keeps me moving forward, no regret of what happened in past not even a day ago that's why I don't keep any conversations saved anywhere possible told you earlier if you remembered but you are really a bad thing to be forgotten. So, Peek-a-boo! Here's something I want to tell you "Padosi-ji" that's a funny way to slay and look these strangers are neighbors now. That was the time when your texts make me shout in the whole room I was like literally "bhai ab kya karu", no fucking idea what to say but as the frequency of your messages accumulated they made me snugly to you and every single time I talked to you gave whole jungle in my stomach instead of butterflies. I know I'm very bad to have a conversation with, don't literally know what I am saying sometimes but that's the way I am and you got that or not, I don't know yet.

Do you?

Tell me as soon as possible.

Spoiler alert!

It was not me who asked about your number a friend of mine did because I was very afraid to do so, he knew this so he snatched my phone and asked for your number and the time you had taken to send that created a situation in that time everyone present in my room at that time was as serious as they were launching a satellite to the space and as you sent your number the whole room celebrated the success of the mission.

"Nidra" instead of "Nidhi" do you remember I didn't even know your name till a week after we reciprocated our phone number. That made me the brand ambassador of dumb shits, like seriously that's what called a real shit look like. I was overwhelmed with regret that I was asking myself almost after ten second like "seriously man! How could you dared to do that"? that was really embarrassing and I

ten second like "seriously man! How could you dared to do that"? that was really embarrassing and I still regret that.

Our conversation started stretching exponentially day after another. Eagerly waiting for your texts every single moment, getting replies from your side become my childish longing those days. The time you had taken to reply was like a wait till the end of this world to me but the fact is that you never let me wait that much, time you took to reply was just only the time you need to type that.

Texting was easy job when you have to deal with a phone call. It's really awkward and uncomfortable for the very first time and if you are new to this then my friend you are going to feel apologized about this after this happen. Bit familiar to something like this happened when I made a phone call to you. "aap chup hi ho gye" that was your words when you perceived that cold silence from my side, I was trying to shout loudly but my voice box started malfunctioning and I can't help myself with that. After sometime, everything was cool between us and now I was able to speak flawlessly but still I was afraid every single time about what if some of my words hurt you, so for taking care of that I preferred to listen to you all the time. Listening to you makes me blush I don't know how but this is the way I feel.

Despite of all the odds instead of being doubtful about each other we become secret sharers, we almost shared all of our sneaky secrets, both of us regretted what happened in our past and now we don't even bother about that. The most amazing thing about you was you accepted who you really are with all your flaws and that's a rare thing to see in this world nowadays, this idiosyncrasy of yours makes you divergent. That's the reason why you are different from others.

Last few days of your college, that was the time when we got strapped and I must tell you one thing, I literally lived every single moment with you in that period of time don't ask why because if I started this here I will not reach till the end of this. So what I was saying is every single moment from that "kirtan night" to the "bangle ceremony eve", from "puff party" with your jugadi friend to the "final meeting with your favorite teacher" and how can I forget those colorful cards your juniors gave you, those crazy "Dairy entries" when your bunny was staring at me. He really hates me I guess and also you use to say that you will not shed a single drop of tear from eye when you will leave that place and you end up deluging your crystals tremendously I told you that it's an orthodox, your tears will automatically start rolling but you said that's never going to happen. Every single bit of it I lived it.

The way you introduced yourself has driven this poor guy crazy and I don't know how these past five months passed holding a cogent desire that we will meet someday and look that day has come. I don't know how I'm going to encounter you but I'm sure that will be enchanting.

So finally after brawling all my dreads I decided to let you know about all this and ask you something.

Don't you think that throwing a smile towards me was enough to make me fall for you?

You Introduced me to a girl who was stronger than anyone I know, I can't say anything about her beauty because that will be defame of GOD's masterpiece and the heart she wore was as pure as snow, even her taste of music matches with mine too.

What were you trying to do?

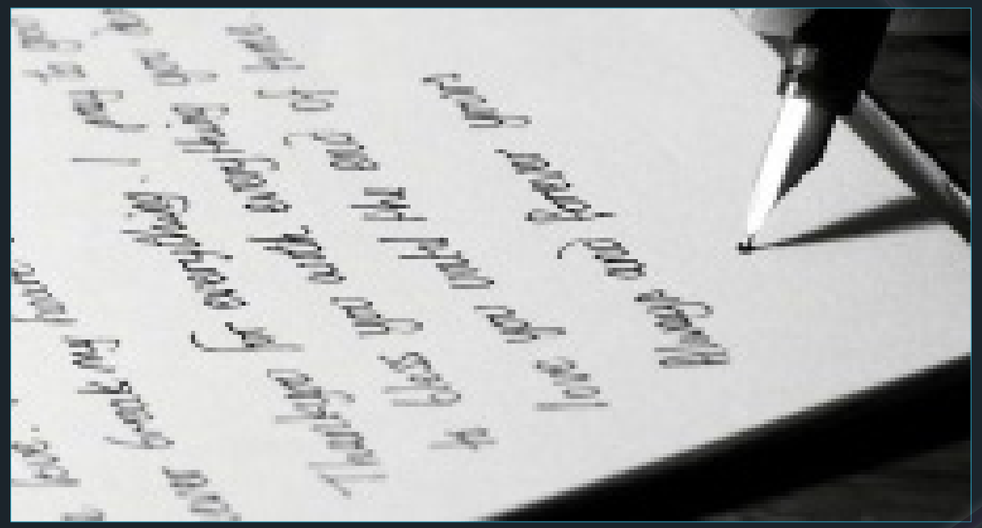
You have no idea what chaos you left me in, who should I blame for this?

My fate or you?

What I think it, was a well drafted conspiracy of yours to snag me from every single way to escape from your aviary. I can't help myself up with this now!

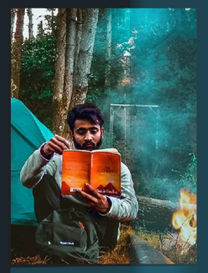
You know technology has evolved so devastatingly in past two decades that the devices we are using nowadays are far beyond the imagination of the people of our country twenty years ago, I was pondering that in this nation not a single person ever imagined that things like smart phones and facilities

like video call are going to be introduced at some point of their life. Time before smart phones and internet was really hard, it was a great struggle to impress a girl.
Instead of likes and comments roses were the way to express their feelings towards their love as each color of rose signifies unique meaning, so here's one from myside for you now you can unwrap it and also in place of phone calls, video calls or text messaging letters were used to describe their love, they are going to proclaim me unfit for this generation I know so I wrote "A letter in the age of internet" to describe how I feel about you to tell you that I love you.
There's a point which comes in everyone's life when they are able to recognize the people and assign pigeonholes according to their priorities but here's another thing despite of all these index there are some who becomes your priorities. I don't know it's the right time to say it or not but I want to make you a priority of mine.
So, what you say!
Do we stand a chance together?



(Imgae Souurce : www.devianart.com)

ADITYA SHARMA
CE 3RD YEAR



Traditions, the Obstacles?

"Traditions are essential, for alone our vision is too narrow. Together our vision guidance and strength is renewed." These words of Mark Reed hold great importance today when tradition has, for some, become a barrier in the path of growth and progress.

The dictionary defines tradition us customs, opinions, and beliefs handed down to prosperity. How ridiculous is it, then, to consider tradition as an obstacle to progress? Tradition lays the foundation of development. How are we to learn from our follies made in the past when we are ignorant of the fact that they were even committed? To evolve as human beings in a society, we need to look at the faults of our ancestors and their hopes that are not repeated.

Religion is an often talked about issue. Most people follow a particular religion because of what it teaches them and helps them attain. Many people are passionate about the religion because it lends them an identity. However, if it turns to extremism, progress in any spear is hampered. Respect and tolerance are essential prerequisites for the functioning of a secular society like India. Can we thus hope of being and erudite and holistic race if we shun out traditions followed by others in our society? Some might say that tradition holds no relevance in the modern day scenario which is the restricted thinking capacity of people. But, according to me, tradition and the individuality are essential if we have to understand our past any better, because our present is an outcome of the past. Traditions broaden our horizon and make us better rounded.

They lend a broader outlook to our vision for a global village. An often talked about tradition is of a married woman not being allowed to step out into the real world. But the women today have proved themselves by showing that along with being a home-maker, they can also be policy makers; not only for the family, but for the country as well. Examples of such women be like Kiran Bedi and Indira Gandhi.

All traditions require periodic renovation and research for balance and graceful acceptance of change. Of course, if we remain rooted with outdated traditions, we will be bound to suffer. We, being the most superior creature on earth, have the onus to absorb the best from traditions and inherited it to our convenience. Tradition runs parallel to progress. It is the Labyrinth of our development. In no way do they inhibit each other's growth for both are processes that must be carried forward.

www.walkingwanderer.com

WALKING WANDERER
Traveler, Writer and Organiser

RAHUL SHARMA
ME 4TH YEAR

RELAX, IT'S LIFE!

Warm blessings to all warriors here who have fought challenges of life until now. Everyone here is with some history, and everyone's history has witnessed all the up and down phases. We put the bad in the past and be alright.
So here are few reminders for all of you that you can look upon in the upcoming difficult times and pat yourself saying, "Relax, it's life".

Know Your Worth

Most of the times we underestimate or overestimate ourselves. We live with an illusion of our own image. We should know our real worth. How much do we deserve, and what we are getting is enough? And if not, then leave it, whether it's your job or your relation.
"Never Settle For Anything Less Than You Are."

Save Space for People who Matter

We should not forget about the ones who really matter to us. We must save some time for them out of our busy routine; be it very short period of time, but at least some. Ask them about their lives and share something about yours with them too. Life is fast and uncertain. You never know what you might lose at the very next moment. Make sure you don't have regret it later on losing something.

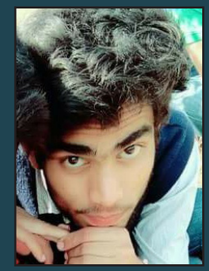
Accept What Cannot be Changed

We sometimes do not accept the reality. Instead, we prefer living in the self-created comfort zone of our lies. But it's not called living. We should always understand the things and accept them. Focus of our energy should be shifted from 'what cannot be changed' to creating something new and beneficial. It's your choice either to accept it now with a smile or regret that later in the time just to accept it again.

Share out your Music Loud

Never underestimate the power of music. It is the way to the soul. But listening to same old songs over the time doesn't help much. What you need to do is share your songs with the people you meet and exchange their tracks. New tracks give new feelings, new ways, and new images for and about life. It will also help in understanding other people better.
Live every moment to the fullest, have faith in yourself, and make your own new way to the success.t

RISHAV KAUNDAL
CE 2ND YEAR



GOD OF SMALL THINGS

Life is all we have got in total in this world. It is the medium by which we get a chance to experience worldly things. There are two types of people in this world—optimistic and pessimist. The major difference between the two is the way they view life. A hopeful approach to life is called optimism. An optimist finds happiness in every moment of life and is full of positivity. But the other category—pessimists, are comparatively higher in number in today's world full of hustle and pursuits. Pessimism is a byproduct of modern competitive lifestyle. The peer pressure among us makes us think the other way, the pessimistic way. Pessimism ultimately compels us to blame our existence and living. But someone once said, "If you think you are useless in this world, every single thing begins to make you feel the same". All of this evidently leads to depression and most of the people don't even know they are suffering from it. Brain is the most complex organ in our body, and depression is the devil the messes up everything inside it and makes you a slave of it. Most of the people consider depression a taboo and hesitate to discuss it freely. Bipolarity is one of the most common outcomes of depression. There's a personal experience regarding the same, it's about a friend.
Let's call him "X".
So X has bipolar disorder, he himself knows about it and is searching about it on internet and related symptoms. He feels shy to discuss his problem with anyone and decides to cope up with his situation himself. He also fakes his laughter to show himself happy to others. X is youngest among his family members, his siblings and cousins are way elder to him so there is a communication gap existing between them. He had a friend in his previous school who cornered him after he came to know about his bipolar disorder. As a result of this, X is afraid of making new friends. The only person X talks the most with is his mother but he doesn't want to discuss bipolarity with her too fearing her getting tensed. By the way, X has attempted suicide thrice and has harmed himself many times. He has electrocuted himself, and fractured himself intentionally. He is not able to cope up with mood swings. Also, he has lost his sense of pain. Then X gets into an IIT coaching institute after passing 10+2. However, he wants to do B.Sc. (Hons) in Physics, but for his parents, he joins coaching classes and drops a year. To deal with bipolar disorder, he writes his feelings on WordPress but never publishes them.
Then he meets S. He is his classmate in coaching institute. He's a psychology enthusiast and loves to examine human behavior. One day, in a formal talk, X comes to know that S loves answering real life questions on human behaviour. The same night, they have a talk and finally X discusses about his problem for the first time with someone. S suggests him not to worry as bipolarity is not a disease according to him. He tells X that bipolarity is only a state or phase of mind which can be cured easily by changing the way of thinking and enjoying small things in life. X feels happy as he finds someone to talk to about his problem. X calls S "The God of small things". After a few days, X discontinues his coaching classes. S gets worried as X is not taking calls or messages. After numerous attempts, X answers the call. They have a talk for 5 minutes in which X tells S that he's not able to handle this anymore and wants to get rid of himself. S suggests him to collect some courage and at least talk to his mother regarding his problem. After a few days, S reads the a note written by X on WordPress (X has given S the access to read his notes) .Then S comes to know that X courageously told his mother everything and he's trying to live life gradually. The thought of "Finding happiness in small things" influenced X the most. X starts coming back to classes, his laughter is not fake anymore. Finally, he accepts himself the way he is and learns to deal with small problems. X and S are friends once again. They share their opinions on human behavior. X now studies in a private college doing B.Sc. (Hons), and S, who is the author of this article, is doing ECE in JNGEC.
This small story tells us about the behavior of a person who suffers from a type of depression. By the way, the reason for X's bipolar disorder was his past failures, lack of communication among family members, and peer pressure. All that our friends like X need is open participation in life.

SACHIN HIMALYAN
ECE 1ST YEAR

LEARNING VS. PRACTICING

We all have goals that we want to achieve in our lives. These goals may include a new language, getting good grades, saving more money, or anything else.

It can be easy to conclude that the gap between where you are now, and where you want to be in future is caused by lack of knowledge. This is why we buy courses to learn new shortcuts and pathways to score good grades. We assume that only if we know about a strategy, we will get better results. We believe that a new result requires new knowledge!.

What's important is to realize that new knowledge does not necessarily drive new results. In fact, learning something can be a waste of time if your goal is to make progress and not simply gain additional knowledge. It all comes down to the difference between learning and practicing.

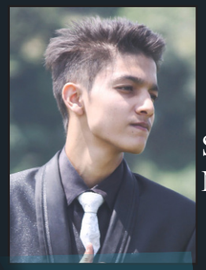
Always make sure you are doing little experiments every day to move yourself forward on things you are interested in. In other words, in order to do so, you must have the mission of being a doer. There are simple adjustments that can make action easier;

Build a Habit: When you start with a creative habit, you eliminate excuses that prevent you from doing. You build the skill of shipping, and you get sharper.

Cut your distractions: You can cut down distractions in your digital life, and you can cut out distractions in your physical life such as by going minimalist. With fewer distractions, you can focus on doing.

Practice Motivational Judo: If you understand the psychology that holds you back from doing, you can use it to your advantage. Start with a habit so easy that you can't stand to miss a day.

These techniques can be used to quadruple creative productivity and help you achieve your goals easily. If you can do, then get into doing. If you struggle to do, make a few changes to make doing easier. Getting art done will help you overcome the resistance and bring your work into the world.



SHIVAM THAKUR
ME 1ST YEAR

THE NEIGHBOUR

Sara was sitting with her family, giggling and making lame jokes. She then grabbed the TV remote and sat like a queen on the sofa watching her favorite cartoon. Just then, an aunt in her neighbourhood entered the room and asked her about how her studies were going? At first, she didn't understand what to say and how to reply to that old lady, but before she could figure things out and construct a reply in her head, her mum entered the room and said, "The tea is ready Rama Ji".

Sara had never liked this old lady. She often used to complain about her presence in there house. Rama aunty had this blithe attitude towards her own family but was deeply concerned about Sara's family, especially about Sara. She had a son who was almost the age of Sara but not even half in comparison to her intellect level and her dexterous attitude. Rama aunty always wanted her son Mukul to be as good as Sara in all aspects, not because Sara was something extraordinary or extremely 'wow' kind of a girl, but just because Rama aunty was envy of Sara and her family. She could not see Sara excelling in academics or being a good dancer. She even used to tell her mom to stop sending her to drawing classes. But Sara's mom never took this personally. May be she was much more mature and vulnerable to such people in society in comparison to Sara.

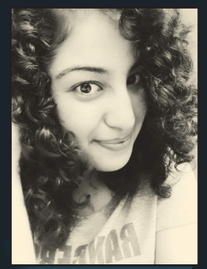
One day, Sara saw Mukul rushing out of his house crying and yelling like anything. Sara being curious more than concerned decided to follow Mukul. She ran behind him and asked him to stop. Both of them gasped for a breath and then sat on the side of the road to have a talk. Sara asked Mukul in a blunt way, "Did your mom scold you?" What did you do now?" Disgruntled Mohan replied, "How does it bother you?" "Well, it does, in a quite similar manner as every little detail of mine bothers your Mom." Mohan couldn't speak a word after this. Sara, being a little polite this time once again asked him about the matter? Despondently, Mohan replied, "My mom wants me to join your school". Sobbingly, he said he didn't want to do that. "I don't want to leave my old friends, moreover, I don't know how to speak English, what will I do in an English medium school?" Sara had a hearty laugh hearing this. "Just this and you're weeping as if the world has come to an end." She told him that there will be an interview round before he gets admitted in the school and he won't be able to clear that because he doesn't know how to speak English, as simple as that. In this way your mom will have no other option but to send you back to the same old school, back to your old friends. Saying this she got up like a boss, brushed her dress and asked Mohan to stop worrying, as if she had advised president of India on how to solve terrorism.

Next day, Mohan went for the interview, failed at it miserably, but came back home full of enthusiasm and joy. He was feeling this exuberance just because he was back to his own friends, his own school, where he had this sense of belonging and felt comfortable. Though Mohan's mom was upset and disheartened, she still managed to hold that fake smile and carry that burden of society to make their children study in an English medium school.

All of us might have gone through this phase of choosing between what we really want to do and what society wants us to do. It's not that Mukul didn't want to succeed or could not succeed by studying in a Hindi medium school or living in a family that did not have a good financial status. It was not the case that he needed all those skills which Sara had to be a successful person. He could manage success on basis of his skills too, but unfortunately, Mukul's mother did not believe so. She thought learning all those skills which kids from rich families do will make her son more successful. I am not saying going to dance classes, learning art and craft or even pursuing any other activity beyond academics is bad or is only meant for kids from rich families, but evaluation of a person's success or his/her ability to do something great in life on those basis is crap. Mocking your child to learn things or do things his/her friends are doing is nonsense. Maybe your child has something better in him/her and can do wonders, but you as a parent want him to do something which he is least interested in and that too just because a random person in your neighbourhood does that! Cliché is what I call it!

Well, Mukul and Sara grew up to be great individuals and are leading a happy and successful life. Mukul earns a little less than Sara but is content in his small business and that is what matters the most. Happy endings are rare. Rama aunty stills mocks him on expanding his business despite of the fact that she has zero knowledge about it. But that's okay, Mukul is happy with his job and that's more important.

"Always remember, being best version of you is more important than being a second copy of someone else."



SHRIYA BHANDARI
ECE 4TH YEAR

INSPIRATION FROM THE HILLS

There still exists a paucity of proper medical facilities in the settlements perched in some distant seclusions of the Himalayas. The statistics are undeniably depressing as any people in Himachal Pradesh die of curable diseases due to unaffordability or geographic remoteness.

Crushing all the snags, two altruists from Himachal Pradesh aided mankind with their crucial contribution towards public health in the state, becoming the paragons of humanity. The gravity of their services came to light after they got stamped by the World Health Organization.

Geeta Verma—the Woman on WHO's Calendar

September 2017, mounted on a motorcycle, Geeta Verma rode through the choppy roads of Seraj Valley to destine a box of Measles Rubella (MR) vaccine for the poor children residing in the remote areas of Raygarh. A native of Karsog (District Mandi), Geeta Verma made headlines when WHO India featured her its annual calendar for this heroic job of her. CM Jai Ram Thakur also commended Geeta for her selfless commitment towards health services in rural areas.

Dr. Omesh Kumar Bharti

WHO registered a major breakthrough when HP Government's Field Epidemiologist—Dr. Omesh Kumar introduced a revolutionary protocol in the treatment of rabies. His idea of injecting rabies immunoglobulin only in the wound earned global recognition as it reduced the cost of rabies treatment by a factor of almost 100. In India alone, around 20,000 deaths are reported due to rabies every year. Hopefully, Dr. Omesh's work will help effectively reduce these figures.

People like Geeta and Dr. Omesh prove that no religion is greater than Humanity. Through the means of this magazine, Team Reflexia congratulates both of them.

Team REFLEXIA

SURVEY

1. Your plan after graduation?
a) Higher Studies: 20%
b) Government Job: 51%
c) Private Sector: 18%
d) Entrepreneurship: 11%

2. Workplace across India that you prefer?
a) Chandigarh: 16%
b) Bangalore: 43%
c) Delhi: 5%
d) Other: 36%

3. Which among the following is the direst concern for India?
a) Overpopulation: 6%
b) Corruption: 40%
c) Unemployment: 48%
d) Communal Bigotry: 6%

4. Which of them according to you was the most revolutionary invention in human history?
a) Computer: 51%
b) Light Bulb: 18%
c) Penicillin: 5%
d) Automobiles: 26%

5. What is the biggest threat to humanity?
a) Terrorism: 12
b) Pollution: 5%
c) Drug Addiction: 51%
d) Nuclear War: 32%

6. Which of the schemes by the existing in-power NDA government do you cherish the most?
a) Demonetization: 3%
b) GST: 2%
c) Swachh Bharat Abhiyan: 46%
d) Make in India: 49%

7. What should our new Himachal Government emphasize the most upon?
a) Roads: 8%
b) Education: 10%
c) Health: 29%
d) Environment Friendly Tourism: 53%

8. If you're empowered with a superhuman capability to travel back into time and bypass one major historical event permanently, which one would you do?
a) World War 2: 2%
b) Partition of India: 32%
c) Devising of Atomic Weapons: 3%
d) Arrival of East India Company: 63%

9. Place on the top of your travel bucket list?
a) Ladakh: 39%
b) Goa: 30%
c) Rajasthan: 11%
d) Other: 20%

10. Your favourite music genre?
a) Pop: 6%
b) Rock: 34%
c) Rap: 10%
d) Soul: 50%

11. Favourite YouTube Viner?
a) Bhuvan Bam: 43%
b) Harsh Beniwal: 20%
c) Ashish Chanchlani: 25%
d) CarryMinati: 12%

12. Which religious practice would you ban if you have a chance?
a) Bursting Crackers on Diwali: 13%
b) Playing with Water in Holi: 4%
c) Wood Cutting on Lohri: 25%
d) Animal Slaughtering in other Rituals: 58%

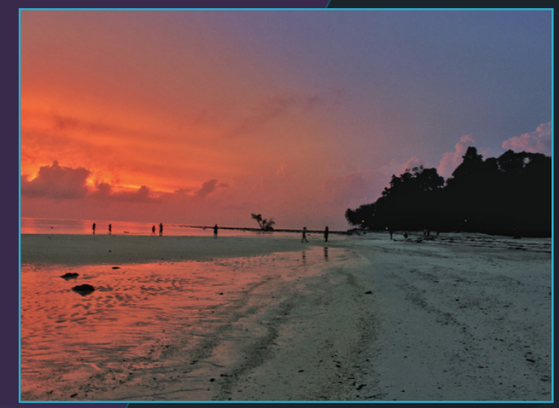
PHOTOGRAPHY

ALONGSIDE INSPIRATION AND CREATIVITY IS MEANING

ABHISHEK MEHRA
ECE 4TH YEAR

PIYUSH RANA
ECE 3RD YEAR

UDAY BHUSHAN
ME 2ND YEAR



VAIBHAV GUPTA
CE 2ND YEAR

AYUSH SHARMA
CE 2ND YEAR

SAHIL MEHRA
CE 1ST YEAR

SALIL SHARIA
CE 2ND YEAR

SURAJ DWIVEDI
CE 4TH YEAR

HIMASHU GUPTA
TE 3RD YEAR

M.S. RAGHAV
ECE 3RD YEAR

ALUMNI MESSAGES

FAR YET VERY CLOSE

Vinayak Kaushal

Ph.D. Student | Graduate Research and Teaching Assistant
Department of Civil Engineering | The University of Texas at Arlington, USA
vinayak.kaushal@mavs.uta.edu | vinayakkaushal4449@gmail.com

Dear JNGECians,

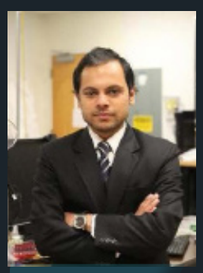
Warm greetings!

I feel delighted that Fourth Edition of REFLEX-IA is coming out and congratulate students for all their hard work to make it possible. Contribution of students to different sections of the magazine proves that their capabilities and capacities are way more than just limited to attending the routine curriculum lectures. My sincere gratitude also goes to the faculty and staff, for their tireless services and concerted efforts, to improving the quality of education in the institution.

Ashish Kapoor

PhD: NC State University (2015-present)
M.Tech: IIT Delhi (2013-2015)
B.Tech: JNGEC (2009-2013)

Hello respected faculty, dear students, fellow alumni and friends;
I am a proud alumni of the J.N. Government Engg. College where I studied Textile Engineering from 2009-2013. JNGEC was the first step and also the most significant one in my journey towards becoming a PhD student at NC State University in USA. The continuous support from faculty and college helped me learn new skills and shape my personality which made me a better version of myself. JNGEC has always focused towards becoming a center of excellence and providing quality technical education to students so that they can emerge as future global leaders. I would encourage students to actively participate and get involved in academic and extracurricular activities. Thank you and best wishes.

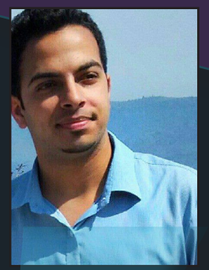


Rajneesh Kumar (ME 2007-11)
A.P. ME Department, MG-GEC, Jeori

I am very proud to be a part of this esteemed institution. 4 years B.Tech journey gives the exposure to the students and helps them find out “who they are and how they have to survive in this world.” Reflexia, the college magazine helps students to show their creativity and skills. I wish JNGEC grows by leaps and bounds. Thank you JNGEC for giving me the opportunity to associate with Reflexia.

Tapesh Behl (CE 2013-17)
Physics Faculty in a Delhi based institute for IIT-JEE and NEET

JNGEC has helped me a lot in becoming a responsible person in my life.
I am thankful to all the teachers and my friends who always supported and helped me, whenever and wherever I needed it. JNGEC will be 12 years old this year and I wish many such years of happiness to all the JNGECians. I wish the whole JNGEC family a great success ahead.
In the end I just want to say that “भीड़ हमेशा उस रास्ते पर चलती है जो रास्ता आसान लगता है, लेकिन इसका मतलब यह नहीं की भीड़ हमेशा सही रास्ते पर चलती है| अपने रास्ते खुद चुनिए क्योंकि आपको आपसे बेहतर और कोई नहीं जानता”.



Alisha Sharma (ECE 2013-17)
Technology Consultant (IOT), Hewlett Packard Enterprise | Former Editor (Reflexia)

Greetings to all!
It’s pleasure to see Team Reflexia bringing another colourful version of the Magazine. Our JNGEC has always harboured different shades of Himachal Pradesh and I was lucky enough to see all of them. The teachers, staff, friends, and the environment gave me opportunities to learn, grow and have fun all together. The immense support of all the teachers had been helpful in nurturing my talents. I have gratitude for all that JNGEC endowed me with. These 4 years will give you innumerable occasions to enrich the innate talent that you possess and encourage you to create new. You'll face many challenges in life and have beautiful experiences too; both have the power to shape you into a better person working towards goals with integrity, diligence and dignity. Give yourself chances to learn from mistakes. Look for taking initiative for the betterment of the college and society and volunteer for creative pursuits. Join a society or club in the college, build it and in the process, you’ll build yourself too. Laugh often, support your peers, juniors, and seniors alike, and most importantly, enjoy the serene gift of nature that you as JNGECians are exclusively gifted with.
I wish you all a beautiful and meaningful life!

Simran Sharma (TE 2013-17)
M.Tech, NIT Jalandhar | Former Editor (Reflexia)

Hello JNGECians!
First of all, I want to congratulate Team Reflexia and everyone reading this piece of hard work, dedication and unshakable passion. Sending message for Reflexia is no less than a delight for me as I was a part of this team from the very beginning. This was one of the major things which has made me grow and turned me into the individual that I am today. My message to all my juniors is that they should work in the direction of growth in their college years because it’s the only thing that will eventually form a path for your future.
Good wishes to everyone for their upcoming future!

BATCH OF 2014-2018

Vikrant Guleria (CE 2013-17)

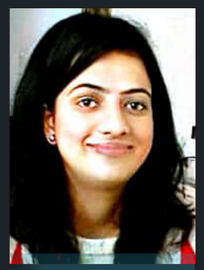
Former Editor (Reflexia)

I am deeply humbled to write this message as an alumnus of the institute along with an ex-editor of this very magazine. Besides having nostalgic feeling, it gives me immense pleasure when I see students devoting their time towards such creative activities along with their study. Such activities let you explore your hidden talents and prepare you for various challenges which one can face in his/her life. I wish all the success to the students and congratulate them for bringing out Reflexia this year. My sincere regards to the teachers and everyone who is a part of this beautiful JNGEC family.

Chandni (CE 2013-17)

MS Scholar in Groundwater & Water Resource Engineering,
Indian Institute of Technology Mandi

Success stories are not built in a day, they are derived from the satisfaction in every phase of life. Success is meeting your needs and striving for the best because we never know what life has in store for us. Potential used to the optimum gives satisfaction and is not dependent on the resources just on the dreams which you presume. Limitations are a part of life but to optimise every resource and overcome these limitations creates success stories. Be true, be optimistic and be happy because this is where true success lies. In the words of William Arthur Ward, “Opportunities are like sunrises if you wait too long you surely will miss them”, so go all out for these opportunities because the time which passes never returns. “Work hard as a labourer to enjoy life as a king” as hard work is the building block of life.



Left to Right, Top to Bottom

Row 1: Shubham Dutt, Nivesh Verma, Maheep Bhargav, Vivek Gautam, Aman Verma, Suraj Pratap Singh, Amit Jaswal, Sachin Mandhotra, Vikram Singh, Nishank Gumra, Kevalkant Sharma, Abhishek Mishra, Abhishek Mehra, Aayush Sood, Ashish Thakur, Rajat Pundir, Manish Kumar, Parth Sharma, Rajat.
Row 2: Pushpender Sharma, Vidya Prakash, Mahender Pal Singh, Pankaj, Chanchal Kumar, Vinod, Aaina Gill, Mehak Dharma, Bharti Sharma, Jessica Sood, Garima Singh, Akshita Rana, Shalu Ranot, Akanksha Sharma, Rajkumari, Shweta Kumari, Suraj Sharma, Rohit Kumar, Pankaj Chaudhary.
Row 3: Bhawana Devi, Mansi Sharma, Sanjali Sharma, Nandita Patyal, Nidhi Sharma, Hemlata Khagta, Himanshi, Anjali Thakur, Tamanna Choudhary, Sumedha Singh, Swati Pathania, Neha, Vasudha Divedi, Nomita Choudhary, Shriya Bhandari, Mr. Narotam, Mr. Nika Ram, Mr. Ram Lal
Row 4: Mr. Deepak Jamwal, Er. Vivek Mankotia, Mr. K.K. Sharma, Mr. R.K. Sharma, Er. Vicky, Er. Manjeet Singh, Er. Ankush Kapoor, Prof. Raman Parti, Prof. Ritesh Kaundal, Er. Ankit Sharma, Er. Manjeet Singh, Er. Nitasha Bisht, Er. Pooja Sharma, Er. Manik Dogra.

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Row 1: Kartik, Sahil, Mukesh, Ankit, Sumit, Digvijay Bizalwan, Arpit, Supern, Sulabh, Ritesh, Gagan Sharma, Rahul Kapoor, Vinay Sharma, Aman Chauhan.
Row 2: Vinesh, Avneet, Naveen, Ankit, Rasik Kharwal, Rahul Dhiman, Nitish, Vishal, Amit Kumar, Gaurav, Pankaj, Jitender, Sanjay.
Row 3: Ajay, Aman, Tushar, Shubham, Rajat, Kiran, Digvijay, Akshay
Row 4: Shivanshu, Rahul, Kawalpreet, Shubham, AAvinash, Shubham, Saurav, Eshen, Gaurav Dhiman, Akashdeep, Santosh, Abhitesh, Udit, Yash, Keshav.
Row 5: Mohit, Avinash, Nishant, Amit, Varun Rai, Ekta, Pallavi, Gauri, Manisha, Saurav, Rajat, Shashi, Amit, Deepak, Prikshit.
Row 6: Mr. Amarjeet Singh, Er. Aman Sharma, Mr. Mohinder Singh Jamwal, Mr. Ramesh Chand, Er. Gaurav Mahajan, Er. Amitesh Sharma, Prof. Ritesh Kaundal, Prof. Raman Parti, Prof. Rajeev Khanduja, Er. Mridul Sharma, Er. Anil Kanwar, Er. Navdeep Sharma, Mr. Karun Singh, Mr. Tijender Chauhan

DEPARTMENT OF ELECTRICAL ENGINEERING

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Row 2: Arvind, Rishikesh, Omender, Subhash Sharma, Chanderkant, Abhay Mahajan, Pankaj.
Row 3: Pankaj Sen, Arun Kaundal, Rohit Kumar, Suraj, Ashutosh Mani, Bhavesh Thakur, Navdeep Kaundal, Devraj, Navneet, Gagandeep, Atul, Shubham Sharma, Lovenish, Avinash.
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Row 5: Er. Gaurav Grover, Er. Akshay Sharma, Er. Amit Kumar, Er. Ajay Kumar, Er. Urvashi Malhotra, Er. Priya Jaswal, Er. Praveen Kumar, Prof. Raman Parti, Prof. Ritesh Kaundal, Er. Anil Kanwar, Er. Vivek Sharma, Er. Ankush Sharma, Er. Dinesh Bhatia, Er. Mukesh.

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SANJEEV KUMAR {CE 4TH YEAR}
RAJ KAITH {CE 4TH YEAR}

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AKHIL SHARMA {CE 3RD YEAR}
MANIK CHOUDHARY {ME 2ND YEAR}
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EXECUTIVE MEMBERS:

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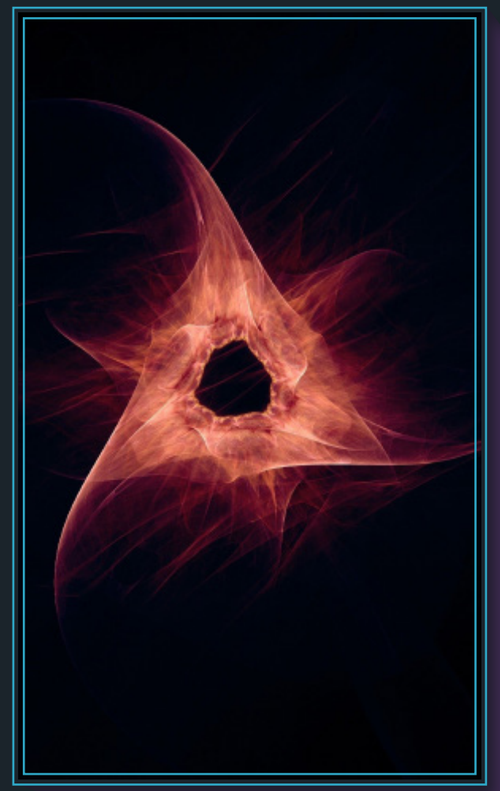
MANISH KUMAR {ME 1ST YEAR}
NITIN SHARMA {ME 1ST YEAR}

It all began with the selection of color palate for the magazine. But this time, it must be refreshing, smart but fun, simple yet displaying the complexity of the process of creation of this art. Yes 'ART', I referred to it as art because from the articles to the poetry, from the photographs to the designs, every small detail comes all together to form this whole picture called 'REFLEXIA'.

The theme for this year's magazine was not described because in this way we can let the mind of the reader to sway along the writers of the articles, walking along the road, feeling the air as the writers felt and understanding the writers' point of view.

I wanted this year's magazine to be not just a book, but striking as an experience. That's the reason why the colours of the magazine give you a relaxed feel, comforting your time with it.

Lastly from designer's desk, this journey of Reflexia has been a great one, with loads of opportunities to learn and develop. I hope you enjoyed it.



Designed by : Jatin Pandit

DESIGNER FOR REFLEXIA
JATIN PANDIT
CE 3RD YEAR

Thanks Note

Imperfection is an innate characteristic of our existence, and mistakes come as a byproduct to it. Even after all the drudgery that the team had put in, there were numerous errors that needed the precision of oracle proofreaders.
We send our heartiest obligations to the proofreaders of Reflexia 2018—
Er. Mridul Sharma (A.P. ME Department, JNGEC) and
Mrs. Parul Chauhan (A.P. MGGEC, Jeori)
who devoted their valuable time in striking out the minutest of mistakes.

Obtaining magazine in this shape was only possible due to their proficient analysis. On the behalf of whole team, we once again warmly thank both of them.

SINCERE THANKS
TEAM REFLEXIA

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