



INDIAN INSTITUTE OF PETROLEUM AND ENERGY

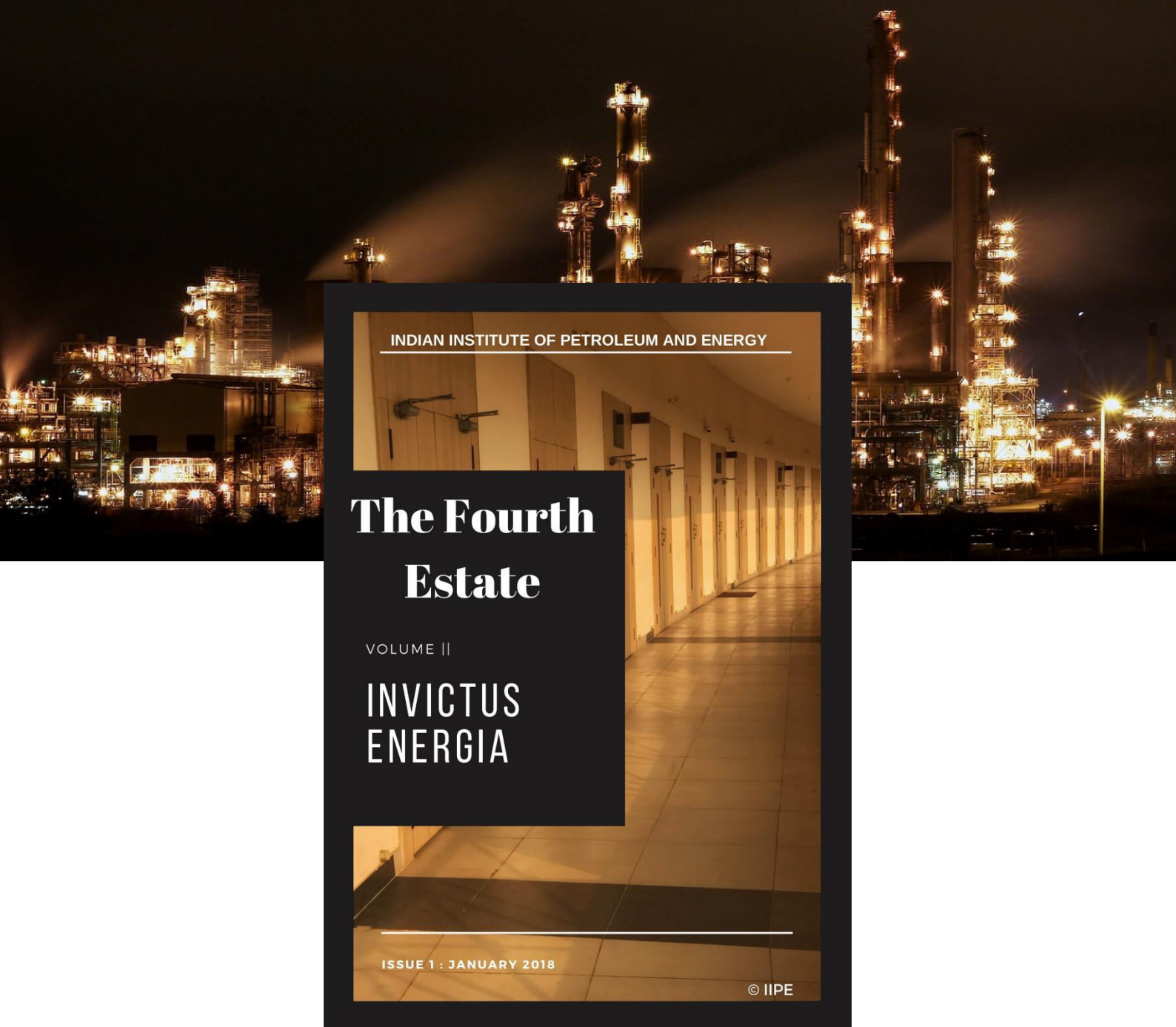
The Fourth Estate

VOLUME II

INVICTUS
ENERGIA

ISSUE 1 : JANUARY 2018

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“INVICTUS ENERGIA” is a word derived from two languages. The word “Invictus” means “Invincible” in Latin. The word “Energia” is derived from Italian which means “Energy”. The name suggests that the establishment of the IIPE with a motto to serve the society is carried forward with invincible energy from one batch to another. The flow of legacy is conveyed through the “Invictus Energia”. We feel proud to present the first issue of the second volume of our institute newsletter **“THE FOURTH ESTATE: INVICTUS ENERGIA”**.

TimeLine of IIPE



2014 – 2018





TOGETHER LET'S FIGHT THE STIGMA

-Dr. Manasa Mallavarapu
Counsellor
IPE

"Why do I need a Counsellor? I am not mentally sick!! My academics are good so I'm a sorted person. I am strong enough to deal with my own problems! Why should someone else know my weaknesses and insecurities? How can an outsider help? What are friends for then? My issues are too silly and they will laugh if they hear them. My friends will make fun of me if they see me going to Counselling...I always knew I needed help and I'm happy there's someone who can but what will my classmates and professors think? They may think I went crazy. Oh wait, what if my secrets are let out? What if I am judged and a bad impression is formed? Do I have time to talk about myself while I'm overloaded with classes and assignments? I will go later, when I feel so stressed that I can't deal with it myself and I feel I'm breaking down" ...

These are just some of the thoughts students usually have when they think of counselling and hence a vast majority of them are reluctant to approach. There needs a change in perception and I have been trying since October 2017-the time I joined IPE, to help students understand that it is only human to have emotions and one should acknowledge and accept them. Sharing with someone lightens the load. Even students that are well-adjusted in their life and are doing well in academics can, through this process work on realizing their potential to the fullest. So it is not for any special category of people.

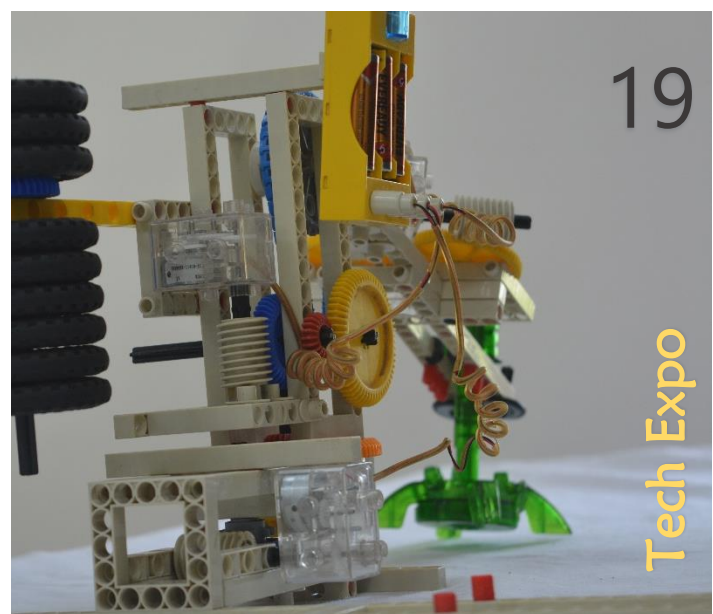
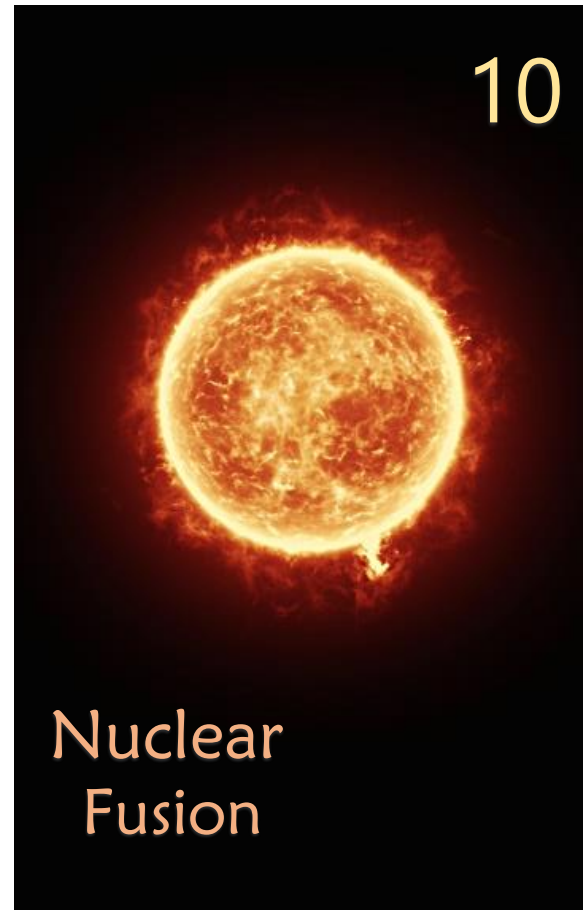
That said, one needs to also understand the nature of counselling. In our journey of self-discovery, we often need someone to help us help ourselves, collect our scattered thoughts and make a pattern out of it. It is a combined effort from both the individuals involved and it works only if there is will to change. It is a process that helps deepen one's understanding of what is going on, how it is impacting the individual and the possible reasons for the same and this requires a lot of time in most cases. One has to keep in mind that it is not a wonder pill, nor is it about offering solutions on a platter. It is not something that gives direct answers and overnight solutions and hence we need to frame a clear set of expectations.

Once this understanding is gained and more students come forward, leaving their inhibitions behind, we can have healthier and happier students who will in turn contribute to a better society. Every educational Institution needs a Counsellor and if we can show better results in terms of student well-being and development, more institutions will plan to have help for their students, in the form of a Counsellor. This will make sure to the extent possible, that no student turns to suicide as an option because there was nobody to listen to him/her. Together, let's create a positive atmosphere-one of trust and hope in IPE and beyond.

Good luck and hoping to see you all.

Write to me at: counselor@iipe.ac.in

INSIDE



THE TORCH BEARER

Born to be one of its kind
That will be difficult to find
Lying in the lap of nature
Hills, sand and sea one its signature.

Framed with excellence in mind
To leave a legacy behind
Good education is its feature
'Institute of National Importance' is its stature.

Making the evolution more refined
To show the path is its task assigned
It has dreams to nurture
For it is country's saviour.

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-Pinaki Parijat

ELECTIONS 2017

An election is believed to be the most efficient process to preserve individual right of every person.

STUDENT EXPERIENCE

The IIPE student election gives a chance to shape the future of student life in IIPE. Every single IIPE student was given the equal opportunity to cast his/her vote for the office bearers of the student committee. Every candidate who took part in elections enjoyed the campaign unmindful of the fact that the results may/may not be in their favor.

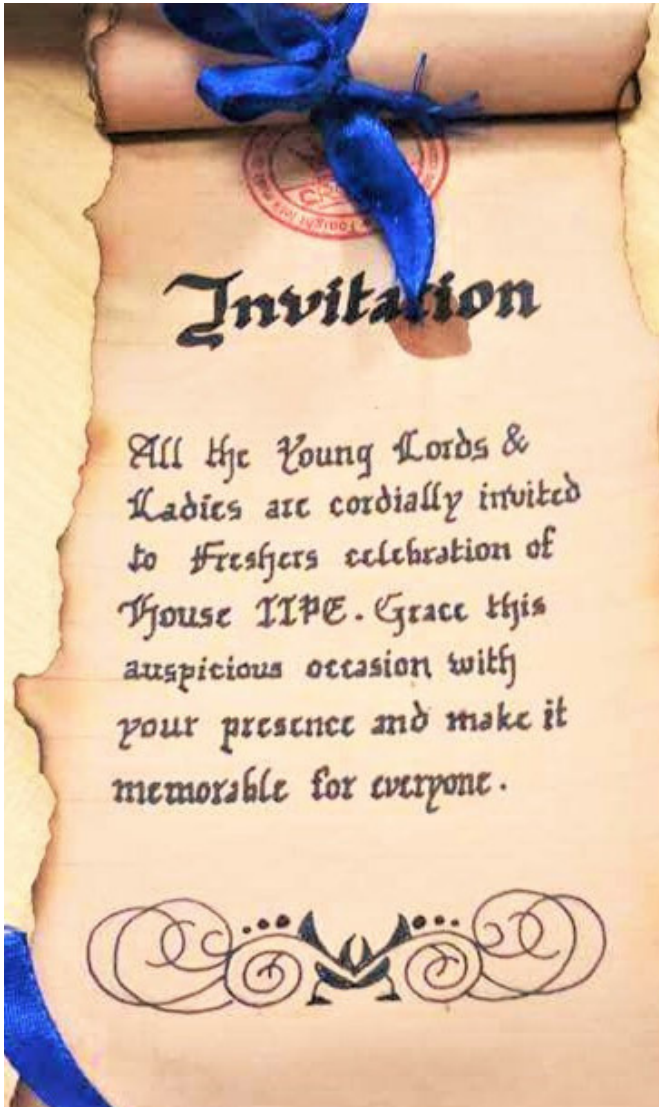


RESULT

Elections 2017 ended with 177 students casting votes for the next committee of IIPE student leaders. A high transparency was maintained during the polls. A new set of responsibilities were given to the elected candidates in a hope that they would work up to their duties.

G.Srinath

THE GROESO



Freshers Day invitation greeted every iipeian with joy and excitement, ours being second batch, it was the first such occasion planned in IIPE. The excitement is further enhanced by the secrecy maintained regarding the designed programme. We were initially asked to highlight our talents to get invitation. While many could affix their special talents, few were shy to perform. I was lucky to get away just with a joke. Friends who were not successful in this round were sent to next round to play the treasure hunt."

"Treasure Hunt" was quite interesting game and our batchmates really enjoyed playing it. Participants were given a clue and they had to roam around to crack the clue. This game was played for an hour and half, but it secured memorable print in the memories of first year students.



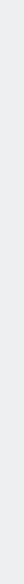
The Croeso, name given for Fresher's Day celebrations derived from Belgium, was splendidly arranged in colourfully decorated Sh. Y.V.S. Murthy Auditorium, AU campus. Curious iipeians reached Auditorium as per the invitation in their attire. Our first batch iipeians (seniors) very well planned with the event. The principal of the AUCE(A) graced the occasion as the chief guest, who has given an inspirational speech emphasising the merits in student's life. Well, I was there in a skit as a narrator. There were many mind bogging musical, dance and dramatic events.

Besides, flow of excitement all through the events, iipeians had the final pleasure of having delicious dishes in the dinner.



The celebrations were overseen by the faculty members and are concluded by the Director Sir's remarks. We the second batch iipeians are fortunate to have accommodative and supportive seniors, who have taken all the pains in organising the event to give a memorable welcome to the family of IPE. No need to mention, we the second batch iipeians would carry forward the legacy to next years to leave similar impressions in our juniors.

To conclude, we had a first great evening in this uniquely positioned great Institute with fully charged minds and memories to last till next year to come.



Director's meeting with Shri Venkaiah Naidu



The director of IPE Dr. VSRK Prasad visited Delhi to meet with the officials of Ministry of human resource and development (MHRD) to request that IPE be included in the Joint Seat Allocation Authority (JoSSA). The JoSSA has been set up by MHRD to manage and regulate the joint seat allocation for admissions to several institutes for the academic year 2017 - 2018. Upon the director's request, the officials of MHRD agreed to include IPE in JoSSA in the forth coming years.

During his visit to the national capital, the director also met with the honourable vice-president of India Shri Venkaiah Naidu. During this meeting the director explained the various problems that IPE is facing. The honourable vice president noted all these problems and ordered the concerned departments to take up the issues and provide possible solutions. The director of IPE on behalf of the faculty members and students thanked the honourable vice president for the kind gesture.

By P Jeswanth



Sankalp Se Siddhi

India is suffering from a poverty corruption and many things. To eliminate them Hon'ble prime minister Sri. Narendra Modi started a new campaign 'Sankalp Se Siddhi'. on the part of this campaign a exhibition is conducted on Sept 3 in Shilpa Kala Vedika Students of IPE were invited to this exhibition. Many presentations were shown about freedom movement and Lok Sabha bills which were passed in the beginning and were also shown outside the hall various speeches were given by a honorable delegates about the topic. A skit was performed on the topic corruption. This skit showed how corruption is ruling India. Another skit was shown which displayed about the importance of study. The exhibition was completed with singing national anthem. The exhibition educated everyone about various aspects going on the society.

By K. Gopal

INDEPENDENCE DAY CELEBRATIONS

Indian Institute of Petroleum and Energy (IIPE) celebrated the nation's 71st Independence Day and remembered gratitude, the sacrifice of the freedom fighters. As everyone is aware, Independence Day is annually celebrated on August 15th, commemorating the nation's independence from British Empire on 15th August 1947. Independence Day is one of the three national holidays in India.

Our college, IIPE also celebrated Independence day and made the day memorable.

The event took place in the basket ball ground of AU. The event started with a grand flag hoisting ceremony and march past, which was followed by the pyramids and grand stunts done by the boys with their entire effort which was the highlight of the event. All the students used only saffron, white, blue and Green as their dress code depicting the colour of National Flag.

After the event all the students gathered in the 311 room of IIPE campus where the director of IIPE shared his views and inspired the students on the occasion.

Then first year and second year students delivered their speeches describing the sacrifices of all the freedom fighters. All the students were overwhelmed after listening to the speeches.

This was our second independence celebrations in IIPE and was a memorable day for everyone. Finally, the ceremony ended with our national anthem.

JAI HIND

T. Lalitha Sridevi

NICER GLOBE

INDIAN SCENARIO OF THE CHEMICAL INDUSTRIES

Chemical industry is a knowledge as well as capital intensive industry. It plays a significant role in the global economic and social development. It is also a human resource intensive industry and hence employs a large number of people. Globally, more than 20 million people are expected to be employed in this industry. The diversification within the chemical industry is large and covers more than eighty thousand commercial products.

The Indian chemical industry is a critical part of the Indian economy. The industry contributed approximately 6% to the country's GDP and accounted for ~13% of the total Indian exports in 2013. With more than 80,000 products for downstream industries like automotive, textiles, pharmaceuticals, personal care, consumer durables, construction & engineering, food production and processing, the Indian chemical industry is playing a critical role in nation building and enhancing the quality of life. The Indian chemical industry stood at INR 819,000 Cr.(USD 140 Billion) in 2013 which accounts for ~3% of the global chemical industry. Increasing urbanization and per capita disposable income is resulting in a strong growth outlook for several key end use industries. This will positively impact the growth in Indian chemical industry and sustained growth of the sector is expected. The sector has huge unrealized potential which needs to be facilitated. The Government has set an ambitious plan of increasing the share of manufacturing in GDP from 16% to 25% by 2022.



Achievements of the Initiatives

As per the records,

GPS enabled vehicles - **8775**

Partners on Initiative –

1. Chemical Companies : **32**

2. Transporters : **199**

3. Trained drivers : **30552**

Verified points of Interest -

1. Police Stations : **1511**

2. Hospitals : **737**

3. Fire Stations : **626**

Emergency Response

Teams : **32**



Introduction to Nicer Globe (An initiative of the Indian Chemical Council)

The need for the standardization of protocols to bring in functional efficiency and effectiveness in the overall chemical transportation segment is the main reason for the birth of the "Nicer Globe". "Nicer Globe", an initiative by the Indian chemical Council (ICC), is a unique industry platform created by and for the Indian chemical industries for addressing this challenge. "It aims to enable the Indian chemical Industry with the globally acclaimed standards in the area of safe and secure transportation and emergency response." The challenges in management of chemical transportation can be effectively dwarfed by taking the help information technology solutions.

• Challenges faced by the chemical industries for the safe transportation of hazardous chemicals

1. Hazardous goods - Not only the flammables also the low awareness of Hazardous/Dangerous goods
2. No local regulation for transportation of hazardous goods.
3. No unified mechanism for pro-actively monitoring transportation of the chemicals or hazardous goods or wastes.
4. No common facility of emergency control center for first responders like police, hospitals with ready chemical
5. "Negative "image of the chemical industry among community, authorities

Vision:

The primary focus of the "Mission" includes Transport, Distribution safety and Security Emergency Response Operational Efficiency of the Logistics



Plan:

To create self-sustaining organization to achieve Nicer Globe vision. Reduction in transport incidents by Use of IT enabled platforms Improving the quality , capability and the skill-set of drivers and the transport service providers Selection of the safe transport routes, inculcating the journey risk managements Advocacy for improvement of infrastructure for safe and secure transportation Improve the Emergency Response capabilities: Fast and prompt networking among members Collaboration between the government and member

Conclusion:

The initiative by the ICC has recieved great response for the member industries to enhance the efficiency of the transportation. This programme indeed has brought up a lot of awareness about the environmental conservation among the people.

By N. Swabhaav

TEACHER'S DAY

Our celebration of teacher's day in IIPE was truly memorable. It is the second teacher's day that we are celebrating in IIPE.

The celebration started at the evening where I found all the students rushing in the corridor and making arrangements for the program. All the happiness started with the cutting of yummy.... yummy.....cake

by our honourable director and all our beloved professors.

Later the main program started in a hall which was very beautifully decorated with colourful rangolis and very beautiful charts pasted on the walls of the room.



The program was inaugurated by our director as the chief guest. Then there was an informative speech by the vice president of students union Adi Vishnu, regarding the difference between a teacher and a guru. Later all our beloved professors gave their words for us regarding the importance of teacher in shaping the students life and shared their views regarding the role of teachers.

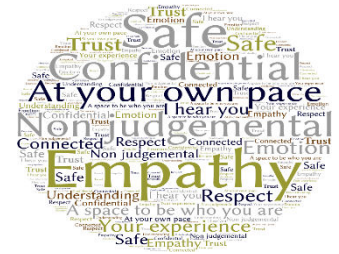
At the end all our respected teachers were greeted with gifts on behalf of all the students of IIPE for their love and affection they showed towards us. The program ended with the closing remarks of our honorable director congratulating all the students for their great effort for putting up the show and

also by wishing all teachers. After the program is completed all our students had a good time having the snacks provided.

**“A teacher takes a hand, opens a mind
And touches a heart”**

By K.Reshma Reddy

SOCIAL INTERACTION FOR HEALTHIER LIFE



"Communication leads to community, that is, to understand, intimacy and mutual valuing."

-Rollo May

If you are a guy who befriends others quickly, then that is good. But, if you are not such a guy, then you need to cultivate the quality. Make some friends soon because, according to a study at the Public Library Of Science Medicine, which is a peer reviewed weekly medical journal covering the full spectrum of medical sciences; low social interaction is a risk factor for death and can impact your longevity in startling ways. It makes you feel the world ice cold, builds up stress within you because you do not share your inner feelings with anyone whether it may be a good feeling or a bad one. It manipulates you to make wrong choices in life and more importantly, puts your life in danger by multiplying the chances

of you biting the dust at an early age. It can damage you as much as alcoholism or smoking and even more harm you than obesity. The data suggested that maintaining connections with your social network can improve your chances of survival by fifty percent regardless of your age. But one point is to be reminded that, a wise enemy is way better than a fake friend. So, friends hang out with your buddies for quite some time to remain healthy.

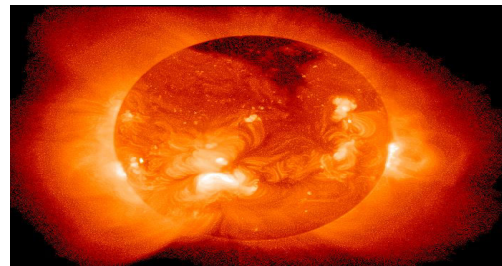
By R Anirudh

NUCLEAR FUSION POWER

By Pawan Kumar

Today, many countries take part in fusion research to some extent led by the European Union the USA, RUSSIA, and JAPAN, with vigorous programs also underpay in China, Brazil, Canada and Korea. Initially, fusion research in the USA and USSR are linked to atomic weapons development and it remained classified until the USA atom for peace conference in Geneva. Following a breakthrough at the soviet Tokama, fusion research became big science in the 1970's. But the cost and complexity of the devices involved increased to the point where international co-operation was the only way forward.

Fusion powers the sun and stars hydrogen atom fuse together to form helium, and matter is converted into energy. Hydrogen, heated to very high temperatures change from a gas to



THE SUN, LIKE OTHER STARS, is a natural fusion reactor, where **stellar nucleosynthesis** transforms lighter elements into heavier elements with the release of energy.

plasma in which the negatively charged electron are separated from the positively charged atomic nucleus ions. Normally fusion is not possible because the strongly repulsive electrostatic force between the positively charged nuclei prevent them from getting close enough together to collide and for fusion to occur. However, if the condition are such that the nuclei can overcome the electrostatic force to the extent that they can come within a very close range of each other than the attractive nuclear force which binds protons and neutrons together in atomic nucleus between the nucleus will outweigh the repulsive (electrostatic) force, allowing the nucleus to fuse together such condition can occur when the temperature increases, causing the ions to move faster and eventually reach speed high enough to bring the ions close enough together. The nuclei can fuse causing a release of energy.

"Home away from Home"

I'm Vivek hailing from Chandigarh. It's quite a different feeling spending time away from home for the first time. But the main problem is the humidity here. I even got a chance to experience and explore new stuff like the famous Kailash hills and the beach. According to me, people of AP are quite helpful and supportive. I feel that life should go on and we must keep up and adapt to the given conditions for survival. These new experiences make us strong and well prepared for facing various challenges in life.

Hi, I am Ajay Kumar from Jodhpur. When I was selected for IPE, I was very happy and on the other hand I was sad because I had to leave my state and family. But today I am totally happy here, as I have found good friends and professors to guide me. I feel very fortunate to study in such a prestigious institute. "I feel very proud to be an IPEian."

I am Ishan Awasthi from Ujjain. Coming to Vizag is a very different experience. I sometimes face language problems but it is not a big deal because I have already made so many friends who help me by translating things. The things that are same is that we all are Indians. In the end, it is going to be an awesome experience living here, learning new culture, meeting new people, understanding people from different parts of India and having a lots of fun with everyone.

I am Ujjwal Tiwari from Maharashtra, Aurangabad. I have enjoyed a lot in Aurangabad and still miss my teachers ,parents friends daily. Initially, I was homesick missing my friends too much, sometimes crying for them secretly but now everything is going good. Vizag is like Aurangabad only in reference to the ambience of mountains, but the beach is an extra feature of the city. I am enjoying the beach from the very first day I came to Vizag.

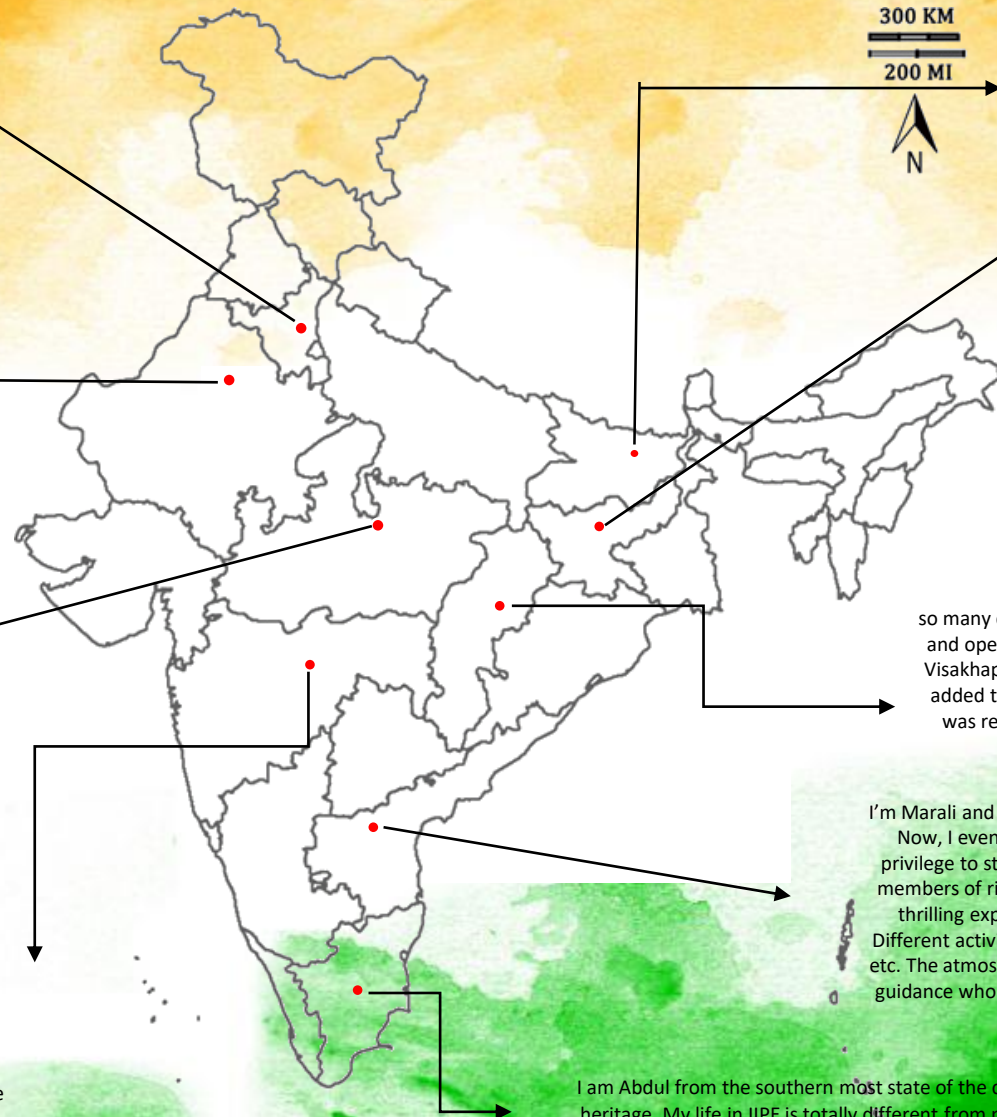
I am Abdul from the southern most state of the country rich in culture and heritage. My life in IPE is totally different from my life so far. I have some discomforts like different food styles, language, etc. I'm trying to adapt myself to the environment. The seniors, faculty members and the un-matchable friends that I have made here are my assets. I am proud to be an IPEian and I have made my up my mind to make this place a memorable one in my life.

I'm Marali and I was born and brought in Vizag. I did my entire schooling in this beautiful city. Now, I even got the opportunity to continue my graduation also in my hometown. It's a privilege to study in an Institute of National Importance. IPE is a treasure bunk with faculty members of rich knowledge, enriched by people of various places, and diverse culture. It's a thrilling experience to have a journey with people coming from all parts of the country. Different activities have been conducted by our seniors like the treasure hunts, fresher's day, etc. The atmosphere of IPE is so calm and secured to get educated. We have excellent faculty guidance who always encourage us in each and every aspect required. It is their cooperation that motivates us the most.

I'm Srishti from Chhattisgarh. Obviously, there are challenges at a new place with so many differences in language, culture, weather, and environment. Folks here are enthusiastic and open minded. I got to interact with people who are willing to focus on every aspect of life. Visakhapatnam is beautiful place in the lap of the hills with beaches as centre of attraction and added to that, IPE provides facilities which are at par with best institutions. Earlier our world was revolving around JEE. I now got freedom, but I will remember my responsibilities also.

I am Abhinav from Jamshedpur. I am really glad to present my personal experiences in this new land of flora and fauna in Vizag. I initially had some problems, but as the time passed I have started feeling it as "the home away from my home". Something that I liked here was the freedom of being independent. There might be many reasons to justify my feeling initially but they all have been shattered because of the comfort and warmth I received from my friends. And I am really thankful to God for giving me an opportunity to start a new journey of my life in such a nice place like Vizag.

I am Sonika Shandilya, hailing from Patna. My experience in IPE has been great so far. The most appreciable thing that I have noticed here is the student and faculty interaction. This thing lacks in most of the top rated colleges. Although I came to a new place, every thing was comfortable and smooth. Being a North Indian, I got to know about the different cultures, traditions, food etc,. My lifestyle changed to a great extent after coming to here. I became more responsible, and also understood how to handle things. Our seniors are supportive and friendly. Overall, being an IPEian is overwhelming.





SPORTS MEET

- G. Naga Deepthi

Indian Institute of Petroleum and Energy organized its sports meet from Oct 26. It lasted for four fabulous days. It was a spectacular event which witnessed students participation from all the branches in the institution Dr. V. S. R. K. Prasad, director of IIPE is the chief guest .

DAY 1

CRICKET

Pull shot, night watchman, carrom ball.....

A wonderful start is given by our cricket team with the comprehensive victory. This was the most prestigious sport held here. Two teams were into the finals after the knock outs out of six teams. There was a tough and tight competition which made the audience fingers crossed. The teachers and the staff surprised the audience with their enthusiastic participation.

Their participation made the day!

DAY 2

FOOT BALL

Penalty, drive, strike...

This was another great day for lipe.

"Serious sport has nothing to do with fair play. It is bound up with hatred, jealousy, boastfulness, disregard of all rules, and sadistic pleasure in violence. In other words, it is war without shooting."

-George Orwell

It is obvious that they bicker about in this aggressive game. This blew the fuse off the teams. This aggressive game went all the way to a nail-biting finish.

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Students competed really well with lots of excitement which motivated all the people present there. The event were vibrant and was totally enjoyed by the performance of the players. Finally I would summarize it by saying it as a feast to the eye.

KHO-KHO

Chaser, recede, shoulder line...

Kho-Kho ranks as one of the most popular traditional sports in India. Two teams were into finals after the qualifiers. Out of blue, the girls had a friendly match before the finale. This day filled with fervour and excitement experienced amidst thrills, shrills and cheers.

BASKETBALL :

Amoeba defence, hack a shaq

The day was filled with existing victories, the students played so well that the winners were praised. And the participants cheered up with sportsman spirit. This ended the day!

DAY 3

VOLLEYBALL :

Cut shot, decoy, joust...

There were five teams out of which two are into finals. The game went on unexpected twists that dropped the jaw of audience. The students did really great job and actively participated in the sports conducted. This was a great delight to the audience.

DAY 4

BADMINTON:

Birdie , flick, woodshot..

Events were conducted with great competitive spirit. In this field, the girls were given the opportunity to take part. Everyone showed incredible determination and effort to support their respective teams.

CHESS and CARROMS :

Break, luft, squeeze, thumbing...

Chess and carroms were also taken part in this event as a part of every single day. This went along all the four days. This kept the the audience charge there minds.





Director of IIPE with members of the faculty

The Government of India has established a petroleum university in AP as per the provision of the AP Reorganization Act 2014. Thus, the Indian Institute of Petroleum and Energy came into existence from the academic year 2016-2017. Now the temporary campus is located in Andhra University, Visakhapatnam. A permanent building with full infrastructure is planned at Sabbavaram, 35 km from Visakhapatnam.

INSTITUTE DAY

Institute Day is marked to celebrate the handwork and success of students who have shown academic consistency as well as excellence in other fields over the entire academic year. In 2017, on this day, prizes were given to students who contributed their ideas on the topic – ‘Plastic Rice’ by the director.

Medals and certificates were given to all the meritorious students. All the award winners would also be enlightened by seeing their peers and friends supporting and encouraging them on this momentous day. Director gave his valuable speech on academic interests.

By S. Kavya

GUEST LECTURE by Prof. M. Chidambaram

The former director of NIT Tiruchirapalli and Professor of IIT Madras visited the Indian Institute of Petroleum and Energy to guide the students for the betterment of their future. Dr. M. Chidambaram graduated as a chemical engineer from Annamalai University and did his M.E and PhD from Indian Institute of Science Bangalore. He interacted and guided the students on the basis of carrier development and defined the qualities of an engineer. He also spoke about how he let his national



Institute to one of the top institutes of the nation. He also shared a few of his memories and some of his teaching experiences. IIPE is thankful to Dr. M. Chidambaram for enlightening the students by giving some good career guidance.

By Vijaya Raghavendra

“A REGULAR GATHERING OF WRITERS AND READERS”

VIGILANCE WEEK There was a Vigilance Awareness Program conducted in our institute from 30th October to 2nd November 2017 in alliance with HPCL. Various events were held as a part of the programme. Essay writing competition was held on 30th October, elocution on 31st October and a Panel discussion on 2nd November. The topic chosen for the three rounds is “My Vision-Corruption Free India.”

The Central Vigilance Commission, as part of its efforts to promote probity in public life and to achieve a corruption free society, observes Vigilance Awareness Week every year. The week in which 31st October, the birthday of late” Sardar Vallabhbhai Patel “falls is observed as Vigilance Awareness Week. The observance of Vigilance Awareness Week renews our commitment to achieve the goals of promoting integrity, transparency and accountability in public life. The Commission, therefore, lays greater emphasis on generation of awareness among the public as a more effective and sustainable means of fighting corruption.

Students were encouraged to participate in Essay writing and Elocution competitions. The events were coordinated by our English Professor Dr. Prakash Bhadury. The essays were evaluated by Dr. Girish Rajan and Dr. Manasa in parallel judgement. The elocutions were evaluated by the panel of three members Dr. Debarshi Sinha, Dr. Girish Rajan and Dr. Manasa. Professor Prasanna Kumar, a retired senior Professor from Andhra University addressed the gathering with his GRIPPING SPEECH on how corruption arises, its effects on the society and how it can be eradicated, during the panel discussion.

The prize distribution event took place on 4th November and Mr. Prasad Sharma, the Chief Special Officer of HPCL was the chief guest. Fabulous prizes were awarded to the winners and runners up and the program came to a grand conclusion.


By A. Marali

Magnetars

By R. Anirudh

Magnetars are One of the Most Extreme and Mysterious Objects in Space. They are Surprisingly Small, they are Incredibly Dense, and as the name suggests, they have a Powerful Magnetic Field.

At the Final Stage of a Star's life, it explodes into a Supernova. As it collapses in on itself, it outshines all of its neighbours before slowly fading away. If the living star was big enough, it leaves over a "Neutron Star", a star so Dense that, although it can often be the Diameter of a small city, a Teaspoon of its matter weighs at least a Billion Tons. Meanwhile, they spin really fast (like hundreds of times per second) .All this Density equates to a really Powerful Magnetic Field-about a Trillion Times more Powerful than Earth's. But Magnetars are a especially a Neutron form of Star.



. This Magnetic Fields measure about 1000 Trillion times that of Earth. Can you Understand why Magnetars have earned the status of most Powerful Magnet that's been discovered in the universe so far. In fact, a Magnetar's Magnetic Field is so powerful that even coming within 600 miles of one would destroy your nervous system and change your Molecular Structure. Just a Little bit closer and the Gravitational Force would literally tear you apart-starting at atomic level. For the Time Being, the Scientists will just have to study these Magnetic Space Oddities from afar.

Anti-Ragging Information Session

Our Director, Dr. V.S.R.K Prasad started the program by informing us about the core importance of the program and also how the program will intend to help us. Then he thanked our chief guest Shri A Narsimha Murty, ACP East Visakhapatnam, for addressing our students on maintaining law and order.

Our guest started by telling us about the importance of friendship and career and how to maintain a balance between them. He congratulated us for clearing JEE Advanced 2017 and reminded us about our struggle throughout our lives. Picking up the topic of ragging, he informed us briefly about the issue. As told by him "ragging is a physical or a mental violence, insult, intimidation from one person to another. Ragging can be done by either from seniors to juniors or from juniors to seniors or it may also be possible between the same batch mates". The Anti-Ragging Law was passed by the government of Andhra Pradesh in the year 1997. Since it is a punishable

offence, various categories of punishments like imprisonment ranging from six months to lifetime.

Only a complaint by the student either to the Director of the institution or calling the ragging helpline number (18001805522) is enough to lodge the complaint. The chief guest then told us about the various incidents validating the quick response of the anti-ragging committee within twenty-four hours of the complaint.

He then moved on to the topic of "student safety" by awakening us about two things, firstly cyber-crimes and then about the roughness of the Visakhapatnam sea giving details of the numerous young lives lost. In the end our Director handed over a memento as a piece of appreciation to our chief guest. Finally, an oath was sworn by all the students of IIPE for not supporting ragging in any form.

By Samarthya Raj Singh

Women are the real architects of society



Women Empowerment

Women empowerment implies the ability in women to take independent decisions according to their wish and interest in their life. Women empowerment is the key to social and economic growth. It is a much talked about and issue since last two decades. Giving equal importance without gender bias helps the nation to develop in many ways. It supports that social rights, political rights, economic stability etc. Judicial strength should be also equal to women. The position and status of women all over the world has risen incredibly in the few decades. Many countries are focusing and supporting to implement women empowerment with good efforts. Two acts have also been enacted to emancipate women in India. These are protecting women from domestic violence act, 2005 and the compulsory registration of marriage act, 2006.

People thoughts and mind is also changing about women and their capabilities. Person having self-confidence and determination can achieve heights. For improving empowerment education through mass communication is very important. In India, women enjoy a status of equality

with the men as per constitutional and legal provisions. Developments such as urbanization and technology create unexpected opportunities for women. Recent survey shows that the globalization and technology are helping to close the gender gap in employment and opportunities across the globe, sometimes in surprising ways. Many actives and campaign are conducted all across the world to bring awareness among the people. However, our country, India is a bit lagging in these zone or area compared to some of the west countries due to some unwanted superficial beliefs. In spite of such obstacles our nation has bought good improvement in past few years. As citizens we need to support and encourage our nation's development.

Women empowerment is not limited to urban working women but women even in remote areas are now increasingly making their voices heard loud In the truest sense it will be achieved only when there is attitudinal change in society. Unless there is attitudinal change in society towards women, merely arming them with legal and constitutional rights will be simply inadequate.

“By changing a small thought of human can bring a beautiful change in world”.

“For me, a better democracy is a democracy where women do not only have the right to vote and to elect but to be elected.”

By T. Lalitha Sridevi

TECHNICAL EXHIBITION

11 November '17

SCIENCE EXHIBITION

QUIZ COMPETITION

CONTRAPTION

For a technical institution, science is a crucial part of our day to day lives. We encounter technically practical cases every day and it is the human curiosity to reason their existence. Such reasons form the base of events such as a Science and Technical Exhibition in which the students get opportunity to do practical things at a very early stage of their academics. In IPE we conducted an intra-college technical events for the first and second year students of petroleum and chemical engineering. Events such as contraption, video experiments, stall exhibition and finally a technical quiz were conducted. The honourable guest from the HPCL along with Dr. VSRK Prasad, graced the event. This act was successfully completed with the help of our faculty advisor Dr. Debarshi Sinha, who co-ordinated the event with his full wit and dedication.

The chief guest gave a special word of appreciation to all the participants and inspired them to keep learning and exploring the richness of our resources. We began the big day with video experiments in which the students recorded the videos of their respective working models which was later presented on the day of the event.

Contraption was the key to practical differences from ideal cases. Participants used simple leftover materials to make working models to perform a simple task. Hard work and overnight sleepovers helped in refining the quality of this sub event. Later we had the stall exhibition in which exhibits were put for viewers to take a glance at. Meanwhile the poster presentation was into act where the participants answered the questions of the common crowd.

The event was finally concluded by conducting a technical quiz in which 20 teams with 4 members each participated in a knockout round and finally 8 teams progressed to the stage round in which the Yamuna team emerged victorious.

- Abhinav Bharadwaj , Amir Eqbal , K. Reshma Reddy



**The Science of Today is the
Technology of Tomorrow**

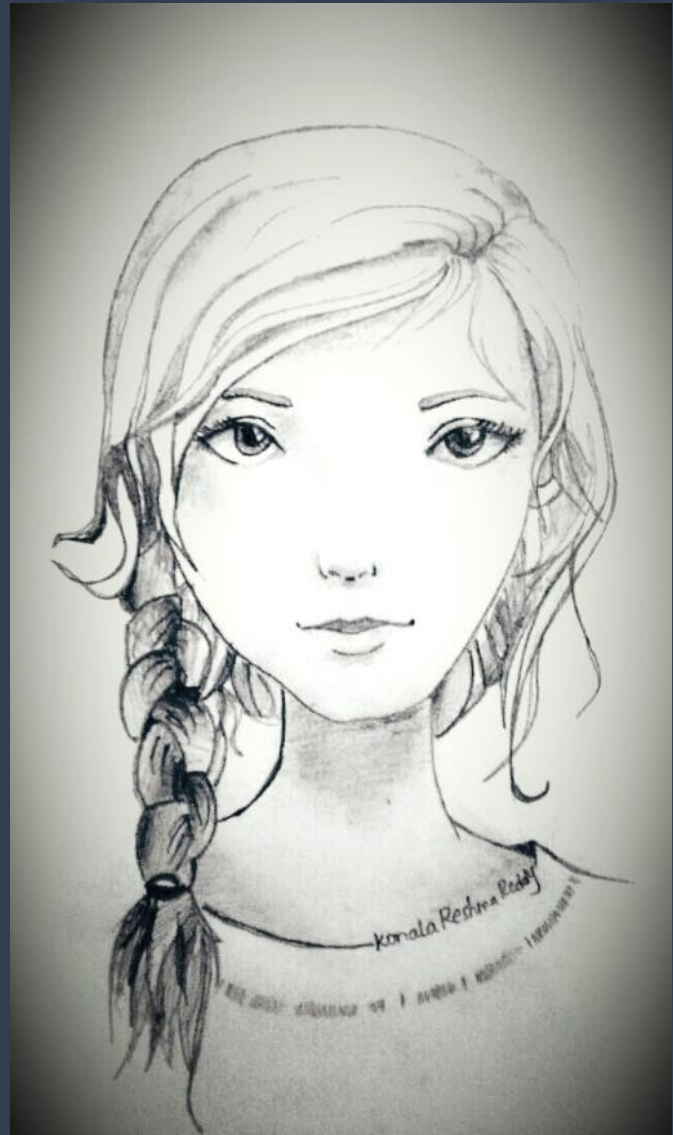
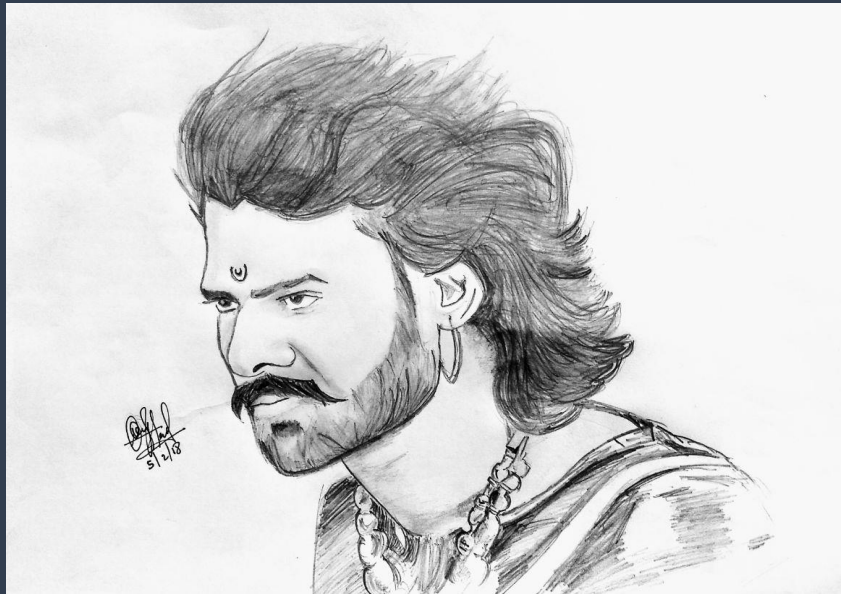
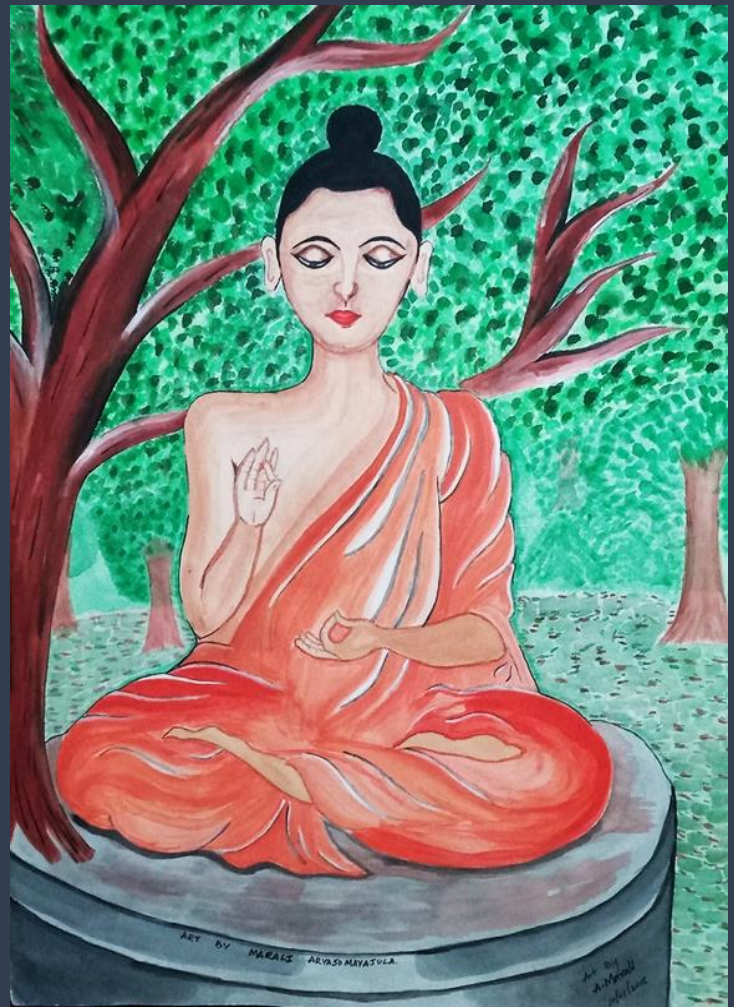
One of the interesting event which was the part of the Science Expo 2017 was Contraption. The students have proved their skills of innovation & team work. The extreme hardwork & several sleepless nights gave them a big success. The contraption was inaugurated by Mr. Prasad Sharma, a dignitary from HPCL and our Director of IIPE. The students were appreciated for applying the concepts of science in real life and for their teamwork. The main motto under this work Contraption is to inculcate teamwork in students and produce the best out what they can and encourage innovative thinking.



Contrivance

+

Adaption



An **ARTIST** draws
with his **EYES**.....
not with his **HANDS.**

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Photography takes an instant out of time, altering life by holding it still.

—Dorothea Lange



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Photographs by

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ADVANCEMENTS IN RENEWABLE ENERGY SOURCES

Earth is becoming fragile day by day due to the exploitation of the diverse Natural resources. We are the sole reason for the whole deterioration of the Earth. If this deterioration is not controlled, we will face some tough years ahead. All the countries around the World are doing their part in restoring the original versatility of the Earth. Using the renewable sources of energy is one of the best way to save the Earth.

As we all know what renewable energy is, it has made some advancements in recent years. These advancements are enabling us to shift towards renewable sources with promising results. Here I will be listing and will be giving a brief about two of those advancements.



Artificial Photosynthesis:

We are in a urgent need of renewable energy fuels which can replace Gasoline and other Fossil Fuels which are depriving the environment. We know that energy will be produced naturally in plants through photosynthesis by using water and carbon dioxide. Scientists are trying to mimic nature's own method of photosynthesis there by producing fuels. Scientists recently developed a Bionic leaf which can convert 10% of the energy from sunlight. Its nearly 10 times better than the photosynthesis of average plant. They used catalysts prepared from cobalt-phosphorous alloy to split water and a kind of engineered bacteria in converting hydrogen and oxygen into Liquid Fuels.



Hot Solar Cells:

The Solar panels we are using are bulky, inefficient and expensive. These will only convert a little fraction of energy from sun to useful energy. Recently Scientists created a new device to manipulate the sunlight by turning sunlight into heat and then convert it back to light, but now focused within the spectrum that solar cells can use. These devices are called Hot Solar Cells which after absorbing sunlight reach a temperature of nearly 1000°C. Then emitting the heat energy as light in band ranges which the photovoltaic cells can absorb. The key step in creating the device was the development of something called an Absorber-Emitter. The absorbing layer is built from solid black Carbon Nanotubes that capture all the energy in sunlight and convert most of it into heat.

D.SREE KARTHIK
(Source: MIT Technology Review)

Literary Events

By K. Jahnavi

In order to enhance our communication skills, there was a literary event conducted in our esteemed institute, on 15 Nov 2017. As a part of this, *Group discussion* and *Extempore* were conducted. Dr. Prakash Bhadury was the coordinator for this event. Dr. Girish Rajan, Dr. Manasa, Dr. Prakash Goswami were judges for both group discussion and extempore. Students being talented enough actively participated in group discussion as well as extempore. Around 30 students participated in group discussion. They were divided into two groups. Each group was given a separate topic. They were allotted a time slot of fifteen minutes. So all the participants were requested to participate and they were given individual marks depending on their performance. This was a quite an interesting event. Both teams were given topics related to beauty contests and brain drain.

Around twenty members participated in extempore. It was a spontaneous speech where students were requested to take a chit placed in a box that contains a topic. They have to deliver a speech about that topic spontaneously for two minutes. All the participants have done well. Finally the winners were declared and prizes were distributed on certificate day.

Our First Newsletter

The day had come where the first ever newsletter of IPE was released. All our eyes were filled with excitement for knowing the name of our first ever newsletter. the occasion was graced by the chairman of the event Mr Krishna Babu IAS, chairman of Visakhapatnam port. Another dominant personality who graced the occasion was Dr. Chandrasekhar, Director of IIM Visakhapatnam. The program started with the opening remarks of beloved Director Dr. V.S.R.K. prasad. Then the members of the newsletter team shared their experiences of making the newsletter. Then our chief guest Mr. Krishna Babu addressed the gathering regarding the key to

success and shared his life experience which inspired many of us. Then the main section of the event had come where our first ever newsletter THE FOURTH ESTATE: The Beginning, was released by Mr Krishna Babu.

Later Dr. Chandrashekhar addressed all of us regarding the statistics of petroleum and other resources. Then prizes were distributed by Dr Chandrashekhar to the winners in the literary events and momentous were given to the sports meet winners. The program ended with closing remarks of our Director followed by National Anthem.

By K. Reshma Reddy

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PROFESSOR IN CHARGE AND CONVENER

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