



Highlights

• ENERASIA 2014

Pg-14

ENERASIA 2014, the three-day Global Energy Summit and Exhibition was inaugurated at Pandit Deendayal Petroleum University, Gandhinagar by Shri Saurabhbhai Patel, Hon'ble Minister, Energy and Petrochemicals, Finance, Mines and Minerals, Government of Gujarat, on September 26, 2014. [read more...](#)

• ENGINEER'S DAY 15TH SEPTEMBER

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Every year, 15 September is celebrated as Engineer's Day in India in his memory. He is held in high regard as a pre-eminent engineer of India. He was the chief designer of the flood protection system for the city of Hyderabad in Telangana, as well as the chief engineer responsible for the construction of the Krishna Raja Sagara dam in Mandya.



Placement Corner

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The Training and Placement Cell (T&P Cell) facilitates the process of placements for graduates and post-graduate students at the University, besides collaborating with prominent organizations in setting up of internship and training program of students. The placement policies and other related activities are handled by Training & Placement Cell, assisted by Professor In-charge and students' Placement Committee. Students Committee is closely co-opted in implementing these policy decisions.



NOTE FROM EDITORIAL TEAM

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Neel Shah-Civil



“Talent wins games, but teamwork and intelligence wins championships”...

Imbibing these very words of the legendry Michael Jordan, We bring you the very second edition of the School of Technology's newsletter, "SOT MIRROR", wherein we have tried to capsule, everything that's taking place in the universe of our campus all around us, be it the local development of M.Tech Programme in Infrastructure, or ENERASIA 2014. To reflect the school we have also put in the activities undertaken by the all the departments of SOT, PDPU in the recent time along with the milestones that the students have touched.

We have also included some most enjoyable part i.e. the puzzles which are waiting since long to be solved! Hoping you enjoy reading it...

**Editorial team-
SOT Mirror**

Message from Director SOT and incharge DG



Dr. H. B. Raghavendra
Director,SOT,
I/C Director General,PDP.

Commend all the members involved in publication of SOT Mirror. This publication has successfully portrayed the maturity of the youngest school at Pandit Deendayal Petroleum University introduced in 2010. Today, PDP is widely recognized as a Centre for excellence in education in the domains of engineering, management, humanities, solar and nuclear energy systems and lays more focus on quality research across all the programs. In the academic endeavor, the University helps to expand the opportunities for students and professionals to develop intellectual knowledge-base with leadership skills which enables them to compete in the global arena. This goal is accomplished through a number of specialized and well planned under graduate, post graduate, doctoral and executive education programs. PDP believes in creating a pristine environment blended with modern technologies to enhance the spirit and energy level of learners and inspire them to optimize their learning efforts. The newsletter offers the perfect pedestal for the young and creative minds in SOT to bring forth their innovative ideas and to display their achievements. I hope this initiative is carried into the future with passion and I wish the best of luck to all those involved with it.

SOT boasts of having student/faculty associations to support value added services of student/faculty conducted workshops, Expert lectures, Posters and competitive designs and auditing. The placement activities of SOT for the year 2014-2015 is going on and several companies have visited campus already and many have confirmed their participation.

I am sure in coming days News Letter- SOT would evolve itself as knowledge centre in technical arena and provide a platform to express innovative thoughts and designs.

- Dr. H. B. Raghavendra.

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ICCI

ICCI-2014 was organized as a Pre-Vibrant Gujarat Summit in association with Industrial Extension Bureau (iNDEXTb), Govt. of Gujarat for Chemical Industry promotion, Collaboration & Innovations. The Vibrant Gujarat Summit provides opportunities to exhibit strengths and core competencies of Gujarat to potential investors and partners' in different sectors from foreign countries.

International Conference on Chemical Industry-2014 had sessions on

1. Chemical Industry : Macro policy discussions.
2. CEO Roundtable on Chemical Industry Prospects and Challenges', 'HR-Head Round Table on World Class Human Resources for Chemical Industry', 'Chemical Industry- Academia: R & D and Innovations'.

Deliberations in the form of Key Note Addresses, Panel Discussions, Consultation Meetings, Group Discussions etc, were held in Plenary Sessions and Parallel Sessions. Representatives of Government & Industry leaders, Technocrats, Managers, Academicians, R & D organization participated in the Conference.



The conference included lectures on Macro Policy Discussion, Speciality and fine chemicals, Research and Innovation on Chemical Technologies, CEOs and HRs roundtable along with the parallel technical paper sessions.

Some of the eminent speakers are as follows:

1. Shri Jaimin Vasa, President, Gujarat Chemical Association, Ahmedabad
2. Shri Krishnamurthy Govindarajan – Guest of Honour Chief Executive Operation, Projects , Essar Oil Limited
3. Shri D J Pandian, IAS, Additional Chief Secretary, Industries and Mines Department &Energy and Petrochemicals Department, Govt. of Gujarat, Gandhinagar
4. Shri Indrajit Pal, IAS, Secretary-Chemicals and Petrochemicals, Ministry of Chemicals & Fertilizers, Govt. of India, New Delhi.
5. Mr Zarir N Langrana, Chief Operating Officer, Tata chemicals,Mumbai, India.
6. Shri Samir Patel, Chairman & Managing Director, Amos Enterprise Limited, Ahmedabad
7. Mr Govindarajan Krishnamurthy CEO (Projects) Essar Oil Limited
8. Mr. Rajesh Shrivastava ,CEO-Specialty Ingredients and Life Science Chemicals Jubilant Life Sciences Ltd. , Noida
9. Mr Shailesh Patwari ,Chairman Naroda Enviro Project Limited., Ahmedabad, Gujarat.

SEMINAR ON PIPING AND PIPELINE ENGINEERING

The department of chemical engineering in association with IChE student chapter organized a seminar on Piping and Pipeline engineering on 1st August that was held at PDPU , Gandhinagar.

The seminar was attended by the students and academicians of Chemical Engineering Department of various Universities like PDPU, Nirma, MSU, DDIT. Even Petroleum, Mechanical and Civil Engineering students attended the seminar. The purpose of the seminar was to provide the students a preliminary insight in piping and pipeline engineering.



The event was inaugurated by Director of SOT - Dr. H.B. Raghvendra, Dr. Pravin Kodgire, Prof A S Moharir. Afterwards, the seminar commenced with the lectures. Lectures were given by Prof. A. S. Moharir, Core Faculty, Chemical Engineering Department, IIT Bombay, Prof. R. K. Jain, Faculty, Petroleum Engineering Department, PDPU, Dr. S. K. Dash, Faculty, Chemical Engineering Department, PDPU. The event enlightened students about multidisciplinary approach of the subject and how the subject draws its knowledge base from chemical, mechanical, civil, electrical, metal-lurgical, instrumentation, control engineering and other branches of engineering. It was very beneficiary to all the students hence the department is looking forward to organise such kind of events in near future with even more participation from students.



Poster Presentation Competition

The Poster Presentation Competition beckons all the loquacious minds to scream out their ideas and learning, it provides opportunities to students to showcase their comprehensive knowledge and ability to make people understand it. There was overwhelming participation by the students in Poster Presentation Event. The poster is presented by 16 students at auditorium foyer on the occasion of the Engineers Day- 15th September, 2014. Here is the brief information of the poster of the Kartik Kapoor who stood second in the competition.



His poster was on conceptualization of roads generating electricity from car motion by using piezoelectric effect and it was supported by mathematical modeling using stress equations and applying constitutive transformation on them to compute power.

It can be used a secondary source of power at public gathering places where continuous pressure can be applied on the plates. Such places can be discotheek or night clubs or entrances of a mall or airport or railway stations etc.



After critical and exhaustive evaluation efforts by panel of judges (Dr. Sukanta Das and Dr. Nanji Hadia for about 2-3 hours), following three posters are selected as winners of this competition.

1 st Prize	Vineel Kondiboyina Amandeep Joshi	Electro-Less Silicate Anti Corrosion Coating (Energy Saving)
2 nd Prize	Kartik Kapoor	Energy Conservation
3 rd Prize	Gauravi Joshi	Employment of Pumped- Hydro Energy Storage to Store Excess Energy from Wind through Simulation and Mathematical Modeling

Technical content and presentation of the same through poster by all the participants is very well appreciated by the invitees, visitors and panel of judges.

The “Treasure Hunt”

Treasure hunt was organised on September 15th 2014, there was great response from the students and around 30 teams had taken an active part in it. Then clues and the task were so arranged that it always made the team to think something out of box and it also tested their logical skills. Whole and sole all the teams had great experience and enjoyed a lot despite losing.



A treasure hunt is one of many different types of games which can have one or more players who try to find hidden articles, locations or places by using a series of clues. Treasure hunt games may be an indoor or outdoor activity. Outdoors they can be played in a garden or the treasure could be located anywhere.

In 1956, comedian Jan Murray created and hosted a variation for television, also known as Treasure Hunt. The game pitted a pair of contestants answering questions to qualify to go on a treasure hunt that involved choosing from among thirty treasure chests that included anything from gag prizes to valuable merchandise and/or cash. The show also offered home viewers a chance for a treasure hunt, when a postcard was chosen from a large drum by a young guest who revolved the drum several times to mix up the entries. The show aired daily in the morning and once a week in the evening until 1959, when the networks began canceling game shows in the wake of the quiz show scandal.

The current Guinness World Records title for 'most participants in a treasure hunt game' is held by Team London Ambassadors, who broke the previous record (of 308 participants) in London on 23 June 2012. 466 Participants, all London Ambassadors for the Olympic and Paralympic Games, worked in 93 teams of five.

Showcase

DATE: - January 24, 2014

Mr. Mukesh Ambani, Managing Director of Reliance Industries Limited visited Pandit Deendayal Petroleum University on 24 January, 2014. The purpose of the visit was to inspect, examine and acknowledge the student activities taking place on the campus. The student branch had put up posters of various activities, events, workshops and industrial trips that had been conducted by the branch. Models and Papers that were part of the Modeling and Simulation seminar and paper presentation competition were displayed by the branch.



Expert Lecture on Technical Paper Writing

DATE: -31st January, 2014

An expert talk on "Writing a technical paper as per IEEE standards" was organized by IEEE Student Branch, PDPU on 31st January, 2014. The talk was given by Dr. Bhavesh Bhalja, Associate Professor, Department of Electrical Engineering, SOT, PDPU. Students were firstly informed about the IEEE standards for publishing a technical paper.



Sampark 2014

DATE: -February 2, 2014

TIME: -9:30AM to 4:30PM

VENUE: -Auditorium, Marwadi College, Rajkot, Gujarat.

SAMPARK is an annual IEEE Gujarat Section event organized jointly by student branches of IEEE Gujarat Section where all the student members showcase IEEE activities carried out by their respective student branches and plan the activities for the year ahead. Chair persons of all the student branches delivered their branch annual reports on the events organized by their respective branches in the last year.



VISION BOTICS

(A Sixth Sense Robotics Workshop)

DATE: -March 15 & 16, 2014

VISION BOTICS Workshop was organized by IEEE Student Branch, PDPU and was conducted by iSindya technologies, Delhi in the PDPU Campus on the March 15 & 16, 2014. This workshop was conducted for the very first time in Gujarat and it was a great honour for IEEE SB, PDPU to organize such a huge event successfully. The workshop was handled by one instructor from iSindya technologies, namely Mr. Atul Yadav. He has an experience of more than 2 years in this field and was liked by all the attendees of the workshop. The workshop was of 16 hours (2 days). On the first day of the workshop the students were introduced to ATMEL microcontrollers and Embedded C (advanced version of C used for programming micro-controllers). Apart from motor and LED interfacing with micro-controllers the students were also introduced to SERIAL COMMUNICATION (specifically, UART).

Next the students were taught how control robots using PCs through both wired and wireless modes of communication (i.e. UART and Bluetooth). Finally the concept of Image processing through MATLAB was introduced to the students.



Modeling and Simulation Competition

DATE: 22nd March, 2014

Venue: Process Dynamics and Control Laboratory, Pandit Deendayal Petroleum University.

Judges:

I. Name: Prof. Kalpesh Pathak, Govt. Engineering College, Instrumentation and Control Department, Gandhinagar

II. Name: Prof. Nishant Parikh, Sardar Vaghela Institute of Technology

The competition was successfully conducted on 22nd March, 2014 in Pandit Deendayal Petroleum University. The participants (UG/PG) were from different department and universities like Nirma, LDCE, PDPU etc. The participants were first acquainted with the rules and regulations of the competition. Then each participant presented his/her model and was given time limit of 15 minutes for the same. Each one of them used simulation software's such as Matlab, LabVIEW etc. The winners of the event were:

1stPosition: Vishwanath Nanjannavar (Nirma Uni.)

2ndPosition: Aniket Timbadiya (LDCE, A'bad.)

3rdPosition: Naveen Velmurugan (PDPU), Snehil Dagur (PDPU)



Technical Paper Presentation

DATE: -March 22, 2014

IEEE student branch PDP, organized a technical paper presentation competition 'Adhayan' on 22 March 2014, as a part of the annual technical festival of the university. The participants had a wide spectrum of topics to choose from: Power systems, Robotics and micro-controllers, renewable energy, automation, wireless communication, control systems, energy efficiency and savings to name a few.

The selected presented their paper in front of the judges and their peers. The judges for the event were Professor J.G. Jamnani and Professor V.B. Babaria. Ankit Shukla and Anurag Laumas, 3rd year students of Electrical engineering, PDP emerged as the winners of the competition with their well-rounded paper on the topic: 'Smart Grid (Modern smart grid technology refers to energy of the future.

They were followed by Mihir Modi, 2nd year, Mechanical engineering, PDP. The simple yet practical approach of his paper 'Wheels at work' impressed the judges.



Line Follower

DATE: -March 23, 2014

IEEE SB-PDP organized a Line Follower Robotics competition on March 23rd, 2014 at PDP, Gandhinagar as a major technical event as part of its Annual Techno Cultural Fest-FLARE 2014. This line follower based event involved teams of 4 Members where in each had to design an autonomous robot to follow the given course according to specified conditions. min for the calibration of their bot prior to commencement of the competition. The winner thus declared was the team which took least time to complete the given track.



LaTeX Workshop

DATE: -April 4, 2014

LaTeX Workshop was organized by IEEE Student Branch, PDP and was conducted by Mr Anil Markana on April 4, 2014. This workshop was conducted for the very first time in PDP and it was a great honour for IEEE SB, PDP to organize such event successfully.

The workshop was of 4 hours. Attendees of workshop were IEEE members, faculty members, PhD. Students, Masters Students, 2nd, 3rd & 4th year students of various branches.

CRAZY CORNER

A bag contains one stone of unknown color, either black or white. A white stone is added to the bag. The bag is shaken and a stone is removed without looking; it turns out to be a white one.

What are the chances of the remaining stone being white?

(Hint: The answer is NOT 1 in 2.)

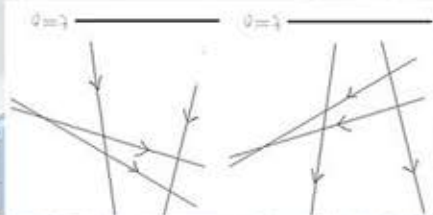
Four ships are sailing on a 2D planet in four different directions. Each ship traverses a straight line at constant speed. No two ships are traveling parallel to each other. Their journeys started at some time in the distant past. Sometimes, a pair of ships collides. A ship continues its journey even after a collision. However, it is strong enough only to survive two collisions; it dies when it collides a third time. The situation is grim. Five of six possible collisions have already taken place (no collision involved more than 2 ships) and two ships are out of commission. What fate awaits the remaining two?

Let's consider someone working for you seven days. You have a Gold bar to pay him. You must pay the worker for their work at the end of every day. If you are only allowed to make two breaks in the gold bar, how do you pay your worker? (Assuming equal amount of work is done during each day thus requiring equal amount of pay for each day).



Answer: The odds of the remaining stone being white are not 1 out of 2 because there are 3 possible outcomes, not just 2. As it turns out, the chances are 2 out of 3. Here are the three possibilities: 1. The original stone was black. If a white stone is added and a white stone removed, the remaining stone must be the black one. 2. The original stone was white, and the white stone that gets removed is the original one. What's left, then, is the white stone that was added. 3. The original stone was white, and the white stone that gets removed is the added one. What's left, then, is the original white stone. The above 3 possibilities are the only possibilities there are, and they're all equally likely. In the first case, the remaining stone is black; in the second and third cases, the remaining stone is white. That is, the remaining stone is white in 2 out of 3 of the equally likely possibilities. The reason the chances are not the expected 1 out of 2 is the specification that a white stone was drawn from the bag. This was a forced result, not a random result, and thereby affected the odds of the remaining stone being white.

Let z-axis denote time. Let x- and y-axes denote the 2D planet. Then the four trajectories are straight lines. Since no collision involved more than two ships, these four lines must all lie in a plane. So, one might be tempted to believe that the two other ships will also collide. But, they might have collided in negative time. So, it cannot be decided from the given information that the two ships will collide or not? This can be made clearer through the following two diagrams. In the first one, the four ships move such that there is no collision between the two ships. In the other diagram, the four ships move such that there is a collision between them.



Answer: The trick is not to try and how to cut in such a way to make 7 equal pieces but rather to make transactions with the worker. Make two cuts on the gold bar such that you have the following sizes of bars. 1/7, 2/7 and 4/7. For convenience sake, I would just refer to the bars as 1, 2 and 4. At the end of Day 1: Give Bar 1 (You- 2 and 4, Worker- 1) At the end of Day 2: Give Bar 2, Take back Bar 1 (You- 1 and 4, Worker- 2) At the end of Day 3: Give Bar 1 (You- 4, Worker- 1 and 2) At the end of Day 4: Give Bar 4, Take back Bar 1 and Bar 2 (You- 1 and 2, Worker- 4) At the end of Day 5: Give Bar 1 (You- 2, Worker- 1 and 4) At the end of Day 6: Give Bar 2, Take back Bar 1 (You- 1, Worker- 2 and 4) At the end of Day 7: Give Bar 1 (You- Empty, Worker- 1, 2 and 4) That should take care of every- thing

4th ASQ module 5S and its implementation

This ASQ module was conducted by Mr. Shrikant Mehta, Operational Excellence Manager at A.B.B Baroda. The module consisted of an interactive session to understand the basics of 5S. Following the lecture, the class was divided into groups and assigned different locations of the campus. The groups were assigned tasks to implement 5S in these areas. Some groups worked in parts of the workshop where there was an opportunity to make proper place for each tool, raw material and to arrange the place according to safety measures. Some groups worked in lecture halls and corridors where there was an opportunity to understand the areas that required appropriate visual signs. The students identified waste and unwanted materials using the red tags, identified proper place for everything and used color coded lines to identify and highlight restricted areas, pathways etc. The task helped the students in understanding the importance of establishing a Visual Workplace. Later, each group was assigned another group's location to evaluate it, to identify their shortcomings and the areas where there was room for improvement. The session ended with a quiz.



5th ASQ Module on Quality Management System

A quality management system (QMS) is a collection of business processes focused on achieving your quality policy and quality objectives — i.e. what your customer wants and needs. It is expressed as the organizational structure, policies, procedures, processes and resources needed to implement quality management.

This ASQ module was conducted by Mr. Jayesh Vishnuswami, Quality System Manager at KEC International Ltd. (RPG Group). The 5th module of ASQ workshop covered the steps to achieve the quality objectives of an industry. The first part of the module covered the process of identifying the requirements of customers from any product. Students were divided into different teams and made to brainstorm on the requirements of a product and what defines its quality. Next part of the module consisted of understanding the processes that lead to the fulfillment of these requirements. Next part of the module was to understand the role of ISO (International Organization of Standards) and how its standards help in identifying an industry's quality conscience. The session ended with a quiz on Quality management.



TARK GENERAL BODY MEETING

General Body Meeting organized for all the students pursuing industrial engineering, mainly aimed at electing a fresh TARK committee for the academic year 2014-2015. During the meeting students were made aware of the future events and the goals of the chapter.

The event mainly aimed at:

- Introducing the branch and student's chapter & its activities to freshers.
- Introducing American Society of Quality to freshers.
- Clearing their doubts and provide a background for interaction.
- Stating roles of various positions open to 3rd and 4th year students.
- Electing the new committee for the academic year.
- Getting a categorical idea of expectations from mutual sides.

The event saw a massive participation from students of 13 and 14 Batch. They were interrogated for their current knowledge and updates about Industrial engineering as career option and their response was admirable. Ms. Mallika Taneja ended the meeting with amicable words of encouragement and support



GUEST LECTURE EVENT REPORT 13th AUGUST 2014

ABOUT THE EVENT:

TARK's prime motive was to make industrial aspirants aware of the emerging technology and development in the face of real world and inculcate these qualities. This seminar was an appropriate channel to achieve it. The seminar conducted by TARK comprised of two prominent lectures on topics fundamental to Industrial engineers. The minutes of the lectures are as follows:

1. Total Quality Management

Prof. Tushar Desai, (Department of Mechanical Engineering, SVNIT, Surat)

Prof. Desai commenced the lecture by quoting some poems, composed by him, relating the rampant applications of Industrial knowledge. He then covered significant topics like ILO-basic and excess work contents, 7 popular wastes form TPS, their prevention techniques, providing incentives and their importance. He introduced examples for techniques used in TQM. He lastly concluded the lecture by relating to the history of Quality management in different parts of the world.

2. Interview And Placement

Dr. Himanshu Trivedi, (Vice President, Bosch Rexroth, India) Keeping the students need in mind, Prof. Trivedi focused mainly on the industries' expectations from the students - How to present yourself successfully. Abreast, he also focused on students' quality for engineering. He also talked about the requirement of workers with the right leadership and technical skills. The lecture concluded with an interactive question answer session.

Automobile Workshop of SAE

Society of Automotive Engineers (SAE) PDPU Collegiate Club organized its first event of this year which was an automobile workshop on 30,31 August 2014 for which Shaan Varma of Carmate with his team had arrived to our campus to organise it.

The main motive behind this event was mainly to give the students live demonstration of the car parts along with an insight to automobile technology. This workshop helped students to bring theory concept to practical existence as well.



Expert Lecture of ISHRAE

Indian Society of Heating Refrigerating and Air Conditioning Engineers (ISHRAE) PDPU Student Chapter organized an expert lecture on Practical Heat Load Calculations delivered by Mr. Mukesh Shah. The two hours lecture was organized on August 21st, 2014 at 14:00 hours at LTC-1, D Block, Pandit Deendayal Petroleum University.



The lecture aimed at ensuring the students who attended, to be able to calculate the heat load for a given different space configurations and constraints, the first and foremost estimation required to HVAC System design. This calculation is also useful for proper selection of cooling and heating systems.



Introductory Session of ASME

American Society of Mechanical Engineers (ASME) PDPU organized a meeting with the students – an introductory session, which was open to all.

The main aim was to familiarize the students about the organization and its various aspects.



ASME is a not-for-profit membership organization that enables collaboration, knowledge sharing, career enrichment, and skills development across all engineering disciplines, toward a goal of helping the global engineering community develop solutions to benefit lives and livelihoods. Founded in 1880 by a small group of leading industrialists, ASME has grown through the decades to include more than 140,000 members in 151 countries. Thirty-thousand of these members are students.

From college students and early-career engineers to project managers, corporate executives, researchers and academic leaders, ASME's members are as diverse as the engineering community itself. ASME serves this wide-ranging technical community through quality programs in continuing education, training and professional development, codes and standards, research, conferences and publications, government relations and other forms of outreach.

Quick Facts

- Over 140,000 members in over 150 countries
- Over 200 Sections and 32 Technical divisions
- 600 technical standards improving the safety and efficiency of boilers
- elevators, cranes, nuclear energy, pipelines, and many other areas
- ASME Standards used in over 100 countries
- ASME members provide engineering and technical expertise to policy
- Holds more than 30 technical conferences per year
- Offers over 200 professional development courses in multiple formats
- ASME's online Digital Collection features over 30,000 journal articles and
- more than 30,000 conference proceedings papers as well as eBooks.
- Nearly 250 mechanical engineering landmarks and collections of historical

The event was organized on 16th September 2014 at 5:00 pm in LH-1, D-Block. There was a participation of around 70 students from the first year mechanical as well as industrial engineering departments



Team CZAR at Virtual BAJA

Four experienced team members were sent on behalf of Team CZAR along with our faculty advisor Dr. Rajesh Patel and Dr. Vimal Savsani. They were given the responsibility of representing team's endeavor of last three months.

We are obliged to have dynamic and vibrant faculty advisors who support, encourage and inspire us in each and every hurdles of our project with the motto of "No Compromise, Only Optimize"



About SAE BAJA:

BAJA SAE is an intercollegiate design competition run by the Society of Automotive Engineers (SAE). Teams of students from universities all over the world design and build small off-road cars.

SAEINDIA is an affiliate society of SAE International, registered as Indian nonprofit engineering and scientific society dedicated to the advancement of mobility community in India. It organizes BAJA every year with Mahindra & Mahindra at Pithampur, Indore with the help of Automotive research Association of India (ARAI) and NATRIP.

Each team's goal is to design a prototype of a rugged single seat, off-road recreational four-wheel vehicle intended for sale to the non-professional, weekend off-road enthusiast. The competition goals include that

the vehicle must be safe, easily maintained and fun to drive. It should be able to negotiate rough terrain in all types of weather without damage.

The object of the competition is to simulate real-world engineering design projects and their related challenges. Each team is competing to have its design accepted for manufacture by a fictitious firm. The students must function as a team to design, analyze and present a CAD model of vehicle within the limits of the rules, also to generate financial support for their project and manage their educational priorities.

The evaluation process for the BAJA SAE INDIA is a twofold process and students have to clear the Virtual Baja preliminary round before they start manufacturing their buggies for the main events.

Total of 322 teams had registered this year for the BAJA SAE-INDIA and out of that 150 has been selected for the main event

About Team CZAR:

Team Czar is a talented group of students of Pandit Deendayal Petroleum University who have been selected after a rigorous selection procedure which includes Aptitude Test, Group Discussion and Personal Interview as conducted by the faculty in-charge.

Team CZAR has been invested with the responsibility of representing PDPU annually in BAJA SAE INDIA. With the experience of past couple of years Team Czar has been improving in its designing and manufacturing procedures with a clear aim of building an ATV capable of delivering top notch performance in the competition.

The team currently consists of 16 highly dedicated and motivated B.tech students who belong to the Dept. of Mechanical Engg, PDPU.

ENERASIA 2014, held in our college Pandit Deendayal Petroleum University, was an international Summit where world energy leaders participated in Mega Exhibition, a Human Resource Conference and various Seminars.

About Enerasia 2014

India is the fourth largest consumer of energy in the world after USA, China and Russia. At present the energy sector in India is growing both in size and complexity. The energy sector, like in other countries, plays a very important role in the socio-economic scenario of India too. As such, ERASIA – Global Energy Summit is conceived as an international platform for stake holders of the energy sector to discuss innovative concepts, investment ideas and sustainable energy solutions.

Enerasia will be organized around September, every year.

ENERASIA 2014, the three-day Global Energy Summit and Exhibition was inaugurated at Pandit Deendayal Petroleum University, Gandhinagar by Shri Saurabhbhai Patel, Hon'ble Minister, Energy and Petrochemicals, Finance, Mines and Minerals, Government of Gujarat, on September 26, 2014. Dr. P.K. Mishra, IAS, Additional Principal Secretary to Prime Minister of India was the Guest of Honour on the occasion.

Global Participation

Along with Petroleum Federation of India, international agencies like Australia India Business Council, Indo-Canadian Business Chamber, Korea Trade-Investment Promotion Agency and New Energy and Industrial Technology Development Organization (Japan) took part in the summit to discuss energy issues across the world.

Associations like Solar Energy Society of India, Indian Association for Hydrogen Energy and Advanced Materials, National Solid Waste Association of India, Society of Energy Engineers & Managers, World Institute of Sustainable Energy, India Energy Storage Alliance and

National Small Industries Corporation had joined hands with Enerasia to discuss and adapt sustainable technologies in the energy sector.

Mega Exhibition

A mega exhibition on Oil & Gas, Power, Renewable Energy and Petrochemicals was the major attraction at Enerasia 2014. National and international companies operating in these sectors and Energy Consultants and Educational institutions took part in the mega exhibition and showcased their technology, products and services.

Reliance Industries Limited was the presenting Sponsor of Enerasia 2014 and Energy majors like ONGC, Gujarat State Petroleum Corporation, Suzlon Energy, CLP India, Torrent Power, Sabarmati Gas, Shell Gas, Indian Oil Corporation, Bharat Petroleum Corporation, and Kalpataru Power Transmission participated in Enerasia 2014 Exhibition.

Seminar

Seminars on various themes like Challenges and Opportunities of Energy Industries, Energy Financing: Challenges & Solutions, New Energy Resources: The Indian Perspective and Solar & Smart Grid Technology were held at PDPU.

A large delegation of industrialists, Government officials and decision makers from Queensland, Australia participated in 'Queensland-Gujarat Energy Round Table'. As part of Enerasia 2014, CEO Round Tables and Seminars were held at PDPU on various themes like:

- Challenges and Opportunities of Energy Ind.
- Energy Financing: Challenges & Solutions
- New Energy Resources: The Indian Perspective
- Smart Grid Technology : The way forward

ENERASIA 2014 provided an excellent platform to 15,000+ delegates and 160+ Exhibitors with 12,000+ sq. meter Exhibition area to network with global leaders in the industry who participated in this mega event. Key decision makers from the Government, top industry leaders etc. did their visit to the exhibition.

During Enerasia 2014, our cabinet minister Mr. Saurabh Patel visited our campus, who currently holds the ministry of energy and resources of Gujarat. Moreover, the event enabled the participating companies to exhibit their products, services, discuss innovative concepts, explore investment ideas and showcase sustainable energy solutions.



Why Gujarat...

Gujarat, the Petro-Capital of India is emerging as the Global Petro-Capital. Energy & Petrochemicals dept., Govt. of Gujarat has been proactive in promoting the State's energy initiatives among the global investment communities. As a result, Gujarat, the land of Entrepreneurs, has remained the most preferred investment destination in the last decade. Great many growth opportunities in the Energy & Petrochemicals sector are to be explored in the State in the near future.

Gujarat has achieved significant milestones on its journey of excellence in the energy sector and successfully set benchmarks for the country. Some of the major strengths of Gujarat are:

- Largest offshore gas producing State in India
- Largest offshore oil producing State in India
- Highest number of oil & gas wells in India
- Largest crude oil importer in India
- Highest refining capacity in India
- Only State to have a Gas Grid of over 2400 km.
- Over 2 million PNG domestic connections across the State
- Over 300 CNG Stations across the State
- Asia's largest grass-root petroleum refinery at Jamnagar
- Country's only two LNG import Terminals at Hazira and Dahej
- At present generates 12,000 MW, 20,000 MW Power projects under various stages of development
- A leader in Solar Power generation contributing 60% of India's total photovoltaic energy
- Introduced canal- top and roof-top Solar Power projects first time in the country
- Has the second largest Wind Power plant in the country

ENGINEERS' DAY CELEBRATION

Engineers' Day was celebrated on 15th September this year organised by civil department. Event started with lighting of lamp and brief information of Shri Mokshagundam Visvesvaraya who was an eminent engineer and a statesman and played a key role in building of modern India. This year the University has added one more dimension to the celebration by felicitating exemplary and path breaking leadership of engineering/technology professional entrepreneurs in Gujarat.



List of people who have contributed to the society and the engineering profession is very long but we witnessed some of them who are...

- Shri KarsanBhai Patel, Chairman of the Nirma Group.
- Shri AnilBhai Patel, founder of Gujarat Apollo Industries Group, and Founder President of Ganpat University.
- Shri Anil Bakeri, Chairman and Managing Director of Bakeri Group
- Shri Rajendra Shah, Chairman of Harsha Industries Ltd, Ahmedabad.
- Shri S.B. Dangayach, Managing Director of Syntex Industries Ltd., Ahmedabad
- Dr. K.K. Thakkar who is the Director and Corporate Advisor of JSL Industry
- Shri Jaimin Vasa, who is the Managing Director of Vasa Pharmachem.

Sir Mokshagundam Visvesvaraya , KCIE (popularly known as Sir MV; 15 September 1860–14 April 1962) was a notable Indian engineer, scholar, statesman and the Diwan of Mysore from 1912 to 1918. He is a recipient of the Indian Republic's highest honour, the Bharat Ratna, in 1955. He was knighted as a Knight Commander of the Indian Empire (KCIE) by King George V for his contributions to the public good. Every year, 15 September is celebrated as Engineer's Day in India in his memory. He is held in high regard as a pre-eminent engineer of India. He was the chief designer of the flood protection system for the city of Hyderabad in Telangana, as well as the chief engineer responsible for the construction of the Krishna Raja Sagara dam in Mandya.

Career In Brief

- Joined service as Assistant Engineer in Bombay, 1884; served in Nasik, Khandesh and Poona;
- services lent to Municipality of Sukkur in Sind, 1894: designed and carried out the water works of that Municipality, 1895;
- Executive Engineer, Surat, 1896;
- Assistant Superintending Engineer, Poona, 1897–99; visited China and Japan, 1898;
- Executive Engineer for Irrigation, Poona, 1899;
- Sanitary Engineer, Bombay, and Member, Sanitary Board, 1901; gave evidence before the Indian Irrigation Commission, 1901;
- designed and constructed Automatic Gates patented by him at Lake Fife Storage Reservoir; introduced a new system of irrigation known as the "Block System", 1903; represented the Bombay Government at the Simla Irrigation Commission, 1904; on special duty, 1905;



ENGINEERS' DAY CELEBRATION

- retired from British service, 1909;
- Chief Engineer and Secretary to the Government of Mysore, 1909;
- Dewan of Mysore, P. W. and Railway Dept., 1913.
- Board of director of TATA STEEL, 1927-1955

Each year one department takes the responsibility of the celebration of the engineers' day...this year it was organized by the Civil Engineering department.



Coming back to the event celebration, Event was huge success attended by large number of students with faculty. They got opportunity to interact with so many eminent personalities and gained lots of experience and



motivation Instead of being 'Job Seekers', to be 'Job Providers' spread the knowledge and happiness in society.



Various students activities as a part of the engineers day celebration were organised which included Quiz, Treasure hunt and Poster Presentation.

Some of the glimpses of the session...



Siemens-Center of Excellence

The Siemens CoE was inaugurated on the morning (9 a.m) of 26/9/2014 by Hon'ble Energy Minister Shri Saurabhbhai Patel during Enerasia 2014.



For the development and enhancement of the students to build a stronger sense of engineering in automotive and automation sector, a Center of Excellence has been set up in PDPU under Siemens. It has been formed as a part of MoU signed at Vibrant Gujarat where the state government decided to an International Center of Excellence in Automobile- Automation and Safety (iACE) in association with IndextB, Maruti and Ford being industry partners while PDPU and IIT-Gandhinagar being knowledge partners.

The various courses offered by Siemens Coe are as follows:

- Basics of CNC Machine
- Essentials for NX Designers
- Basics of PLC
- Basics of Scada

The above mentioned courses are essential to create a strong background for pursuing the fields of automobile and automation. The Coe consist of various well equipped labs for hands on experience of machines and

equipment like CNC controllers, CNC machines, 3d prototype makers, servo drives, PLC controllers, high functioning simulators and controllers for designing purpose etc.

Considering Industrial sector, automation is a key part of modern age. High volume production and high efficiency can be achieved by automation. Siemens being one of the world leaders in the automation sector is a strong aid to the program. Industrial and Mechanical department being eligible for CNC and Nx Designers have a great opportunity to learn something practical and beneficial for the industry. It will add not only to their knowledge but also employability.

The first batch of CoE is near to complete their term. This included students from 3rd and 4th year also students from M.Tech. The students under CNC program got to learn about the basics of CNC programming with g-codes, M-codes and got a hands on experience on Siemens controllers like 808d and 840d. The students under NX designers program learned about the ability of the software and also the basics of designing re-enforcing their designing abilities.



PLACEMENT BUZZ

With a new Training and Placement Officer, SOT placements have started with good offer for our students. Some top names like GSFC, Infosys and Toyo are already done with their recruitment processes. At the same time T&P Cell is working hard for students and have arranged GD and PI sessions for the final year students. T&P Cell has also organized HR Table in EnerASIA and ICCI which helped students to enhance their knowledge on Industries demand.

Name of students placed in INFOSYS :

Chemical

Jayati Bhambhani

Civil

Ayush Misra
Harshang Pankajbhai Shah
Harsh Rameshbhai Koradia
Pranjal Sanjaykumar Dalvdi
Pratyush Mandal
Priyanka Bist
Abhijeet Dasharathbhai Patel
Lovleen Kaur
Devendra Singh Shekhawat

Electrical

Gaurav Singh
Nisharg Omprakash Chopra
Siddharth Merubhai Parmar
Snehil Dagur
Parth Pradeepbhai Shah
Shantanu Vaishnav
Satbir Singh
Sagorika Mozumder
Ishan Purohit
Anisha Goel
Richa Yadav

Industrial

Tanmay Porwal
Mehul Rakeshbhai Patel
Kapilkumar Rasikbhai Kyada
Deepti Poduval
Devik Sodha
Gaurang Kaushik Manek
Prakrut Upendra Dalwadi

Mechanical

Rishi Bimal Thacker
Siddhant Agarwal
Deep Madhavjibhai Vaghani
Ashutosh Devendrakumar Kapadia
Shloka Sunil Shah
Sumit Kabiraj
Chaitanya Dipakbhai Dave
Rajat S
Raj Anand Gopalachari

Students placed in GSFC :

Rachana Duvani
Monideepa Karmakar
Vedant Bhatti
Junaid Sheikh

As a new initiative, we are now starting a column on interview tips and placement experiences from next issue. Till then, here are some facts and figures.

ENJOY!

#Sardar Sarovar Dam being executed by the group is the 3rd largest in the world for volume of chilled concrete to be placed -nearly 7 million cum.

2014 INMM ANNUAL MEETING

16 students along with the 2 faculty advisors attended the 55th INMM Annual meeting at Atlanta from 20th July to 24th July. 9 papers and 1 poster were presented by the PDPU students at the annual meeting. The meeting was an excellent platform for the chapter students to interact scientists, professors and their International counter-parts.

U.S . Department of State's Partnership for Nuclear Security conducted various workshops on chapter sustainability, PDPU students and Faculties actively participated in those workshop. These workshops gave many ideas to PDPU students to work towards sustainability of chapter.

PDPU Stall at INMM's 55th Annual Meeting at Atlanta, Georgia, USA

PDPU INMM student chapter had a stall at the annual meeting. The purpose of the stall was to introduce the university at a global stage and to make others aware about the various activities done at the chapter. It was well appreciated by scientific community and other student chapters.



PDPU students and Faculties also presented t-shirts to Texas A&M professors and officials of PNS.

PDPU Students attended 13th ESARDA Course on Nuclear Non-proliferation and Safeguards at Chulangkorn University, Bangkok, Thailand



This compact course was open to masters degree students, in particular nuclear engineering students, but also to young professionals and International Relations / law students.

It was aimed at complementing nuclear engineering studies by including nuclear safeguards in the academic curriculum. The basic aim of the course is to stimulate students' interests in safeguards. The course addressed aspects of the efforts to create a global nuclear non-proliferation system and how this system works in practice: the Treaty on Nonproliferation of Nuclear Weapons (NPT), safeguards technology, and export control.

Also regional settings, such as Euratom Treaty, are presented and discussed. Three PDPU Students along with a research staff actively participated in the course and obtained a certificate of completion.

2014 INMM ANNUAL MEETING



Guest Lecture on Fusion Power

Department Of Nuclear Engineering invited two eminent scientists from Institute for Plasma Research on October 30th to deliver Lecture. Dr.Dhiraj Bora, who is director of IPR and ITER delivered a talk on "Research opportunities for students at IPR and ITER" and Dr.C.VSRao who is the head of Plasma diagnostics group delivered a lecture on "Fusion power".

This is called energy of future. These two lectures were aimed at bringing research opportunities for our P.G Students not only restricted to Nuclear Engineering but also on other disciplines such as Electrical and Mechanical.

DR. Dhiraj Bora delivering lecture on Plasma by Magnetic Confinement.



DR. C.V.S Rao delivering a lecture on Tokamak moreover Fusion power is next generation power source.



Dr. Ajit Shukla presenting memento to Dr. D. Bora. and Dr. Kachhwaha presenting memento to Dr. CVS Rao