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School of Petroleum Technology

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SPT Mirror

Bi-monthly Newsletter from School of Petroleum Technology, PDP

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Foreword



Expression is the key to reformation. It is the crux of realization. Until one does not express oneself, the chances that there will be a genius known to the next generation are very scarce. We have done great endeavors in academics, have created brilliance within the four walls of the tranquil classrooms but we needed a medium, to convey to the world what we have to offer.

The School of Petroleum Technology is releasing the first issue of the hence termed SPT Mirror, a mirror to our work, a mirror to our perseverance, a mirror to our constant vigilance to the world around us and a mirror that will reflect what we truly are. A mirror that collates all that we do, as a school, in union with everybody involved into Pandit Deendayal Petroleum University and a medium to show how bringing technology and creativity together, we as a school, have made a difference.

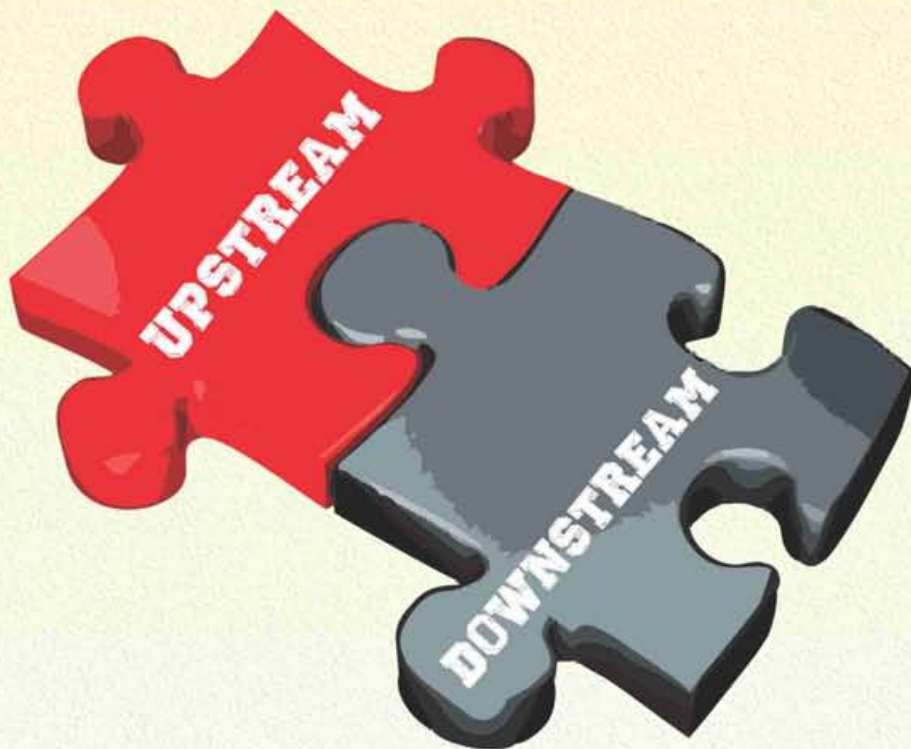
With this note of enthusiasm, we the office bearers give this newsletter to the world, and call upon all who feel they can make it better for anytime in the future.

Heartfelt thanks.

Dr. Anirbid Sircar,
Director,
School of Petroleum Technology

The Great Debate

- the motive behind the bifurcation, and how it will affect the students..



Students of SPT were in for an element of surprise at the beginning of their registration process for the new semesters. A policy of bifurcation in the major fields of study at the completion of the first two years has come into picture. The policy will be in effect from the SPT '10 batch students, who will be given a choice amongst the two streams – upstream with a minor in downstream, and vice versa. Pitched as a necessary and important move by the administration, the decision surely created ripples amongst the students.

continued...

The policy was introduced at the counseling sessions for the B. Tech. admissions in School of Petroleum Technology. This is intended to bifurcate the students, on merit basis, into two batches. The decision has come in wake of the industries' talks with the university placement cell and faculty about the upstream – oriented course curriculum being followed. This is expected to have a positive effect on the placements from the next session.



Says Pratish Jindal who has opted for the downstream major course, “The decision is very motivating for students who wanted to pursue their interests in the downstream sector of oil and gas industry.” The course curriculum has been designed with inputs from the industries, on what exactly they expect students to know when they come to hire them for a downstream portfolio. The bifurcation is expected to result in better placements of the coming batches into respective core upstream and downstream profile jobs, as well as in common IT profiles.



The upstream major batch is also expected to gain a lot from the bifurcation. The number of students placed in core upstream sector is expected to increase, owing to the more focused curriculum of the upstream courses, as well as to courses common to both batches like Career Orientation, an initiative by the Training and Placement Cell to introduce the students to the competitive environment they will face when sitting for placements.

Shashwat Sharma

Faculty Speaks...

The scope and avenues of placement for Petroleum Engineers

It is difficult to get skilled manpower or experts in petroleum industries but it is more difficult to retain those talents. In a petroleum industry the major portion of



the talents are petroleum engineers followed by mechanical engineers and chemical engineers. A substantial number of geoscientists are the assets of any oil company engaged in oil exploration. The retention of the manpower depends upon the attachment of these talents to their companies.

Petroleum Engineers: More than two-third of petroleum engineers are devoted to their profession and would like to continue to work for their rest of the life as petroleum engineers.

Geoscientists: Due to their available options to other industries, geoscientists look for some other industries. However, for better earnings more than sixty percent of them prefer to work in oil companies.

Computer/software, safety/security/environment persons: Talents out of these branches do not have much attachment to oil industries. They have also other available options. Again due to attractive earnings a few of them like to continue working in oil industry.

Most of the skilled professionals are in excess today in India, but they are now global commodities and it is expected to be a critical shortfall for this skilled manpower in next 10 years. The more alarming situation is that out of these only 56% join E&P companies with nearly 12% being recruited by overseas companies. Nearly 29% join IT and Telecom sectors. The rest 44% students joining other industries is mainly due to the higher attractiveness in other sectors and partly due to unawareness of the opportunities in O&G sector.

It is envisaged that by 2017 Indian demand for skilled manpower in the upstream sector alone would be around 800 petro-technical students out of which 600 would be required by 2012.

Finally, there is no substitute for the best products, no scarcity of jobs for best Petroleum Engineers!

Prof. G.P. Karmakar,

School of Petroleum Technology

SPE Student Chapter organizes

WellCAP - Well Control Training Program

PDPU hosted a three day workshop on well control, 'WellCAP' from 28th to 31st of July 2012, which was organized by SPE student chapter at PDPU, in association with South Asia Consultancy.

WellCAP is an IADC accredited course which is widely recognized by the petroleum industry. Over 20 industry personnel participated in the workshop. Keeping the interest of students in mind, SPT students were permitted to attend the lectures, which provided a really good opportunity to gain realistic and field knowledge.

The workshop was inaugurated by Mr. Dharam Singh Rajput, Director (BD), South Asia Consultancy, with a motivational speech to all present. Mr. Vivekanand Chakroborthy, an experienced well control expert, was designated as the lecturer cum trainer for the event. On the maiden day, basic theories of well control were explained, followed by sessions on different well control and kill methods on second day. This was followed by instructions on well control equipments on third day.



The theory sessions were informative and were much appreciated by the students. The highlight of the workshop for the students was the experience on a simulator, on which different processes of well control and well killing were demonstrated by creating virtual situations.



In all, it was a wonderful and well managed event which helped the students to extend their knowledge about well control. SPE student chapter was greatly praised for organizing such kind of professional workshop at PDPU campus for students.

Deep Shah

(with inputs from Harsh Patel)

Interviewed: Dr. R.K. Vij

Q) How different and unique is petroleum engineering from other branches of studies?

India being a developing country, the oil industry contributes a major part to the economy. Hence there is an immense need for more young professionals to proliferate the growth of this sector. Compared to the other disciplines of engineering, this sector is constantly updating with advancement of technology and newer discoveries. The need of the hour is that students should keep themselves abreast with the latest advancements to make themselves deployable in the industry. The oil and gas industry has unlimited scope to offer with high salaries as compared to the other branches of engineering. The students need to improve their interpersonal skills which will help us to reach the benchmark that industry expects.

Q) How should aspiring petroleum engineers make themselves deployable for the industry?

To be deployable, it is necessary that petroleum engineers should have technical as well as field knowledge. Companies like ONGC expect that as PDPU happens to be a world class university focusing on energy sector, students should have both field as well as software knowledge. Students need to get themselves involved in real time projects as well. Being in the Board of Directors at ISM Dhanbad, we have revised their syllabus. Your college has also come up with a bifurcation and revision of the course. Thus, I suggest that all the petroleum engineering colleges keep updating their syllabus with time. You might know that ONGC is expecting a mass vacancy in the coming 3 years. Around 5000 engineers are expected to be recruited and the industry expects them to be capable enough to be able to bridge the gap in a very short time interval.

Q) What were the difficulties that you had to face when you entered the corporate world?

My background has not been petroleum engineering. So when I entered ONGC, I did have to face some difficulties. I had to learn all the software industry expects you to learn in the undergrad years.

continued...

Q) What is your contribution to link the academics and industry?

I am already in the Board of Directors at ISM, Dhanbad. I have many students training under me from different colleges like MIT Pune, ISM Dhanbad and PDPU among others. Coming to PDPU, I and Dr. Bijaya Kumar Behera are doing a project on Water Injection along with 7 students. ONGC also believes in providing mentoring to the students and has official mentors to guide the students. On a personal level, I can understand the students' problems as my son is in 4th year at MIT Pune and presently doing his internship in Schlumberger.

Q) What are the short term and long term goals of ONGC?

ONGC is preparing a perspective plan PP2030 in collaboration with Mackenzie. It has prepared a road map whereby it aims to develop shale gas projects. Other than that, it has set up a 15000 MW wind energy plant. It is aiming to develop solar energy projects and also other unconventional resources such as shale gas. OVL (ONGC Videsh Limited) aims to expand widely and make its mark felt across the globe. We are also in partnership with ConocoPhillips especially for shale gas project development whereby they train our engineers regarding advancements in technologies.

Q) Sir, your success mantra in life or words of encouragement for the students?

Hard work is the key to success. But hard work coupled with zeal pays you the best. There should be zeal among the students to acquire as much knowledge as possible from the faculties. The oil and gas industry has great opportunities to offer for young engineers like you but to make the best out of it, one has to be serious in his/her approach. A student at any juncture cannot take things lying down. He/she has to remain extremely focused in approach to be finally successful in life.

*Dr. R.K. Vij presently holds the position of the GM (Reservoir) at ONGC Ahmd.

Interviewed by: Reila Chakraborty, Bhagyashree Bhaya

We clinch Gold, thrice!



SPE Student Chapter at PDPU, established in 2007, has won the coveted Gold Standard Award consecutively for the third time in a row, the latest being in April, 2012. The accomplishments of the set goals by the team, with support from the faculty body and cheer from peers has helped the club achieve this honorable position. It is wished by everyone that we set more of such milestones in the future by our contributions to the industry. Let the support and cheer from fellow students and our teaching and governing body continue forever, with full hopes and trust in striving to achieve our goals.

Naveen Velmurugan



Petrotech Student Chapter bags 'Best Student Chapter' award!

The 4th Annual Convention of Petrotech Student Chapters was held at ISM, Dhanbad on 13th - 14th March, 2012. The theme for presentations by the student chapters was "Hydrocarbon and Beyond -

The Changing Scenario", for which the Petrotech Student Chapter, PDPU won the 'Best Student Chapter' award. The symposium was attended by elite industry professionals and students from UPES, RGIPT, MIT Pune etc. It was proposed at the closure of the symposium that the next edition of the Annual Convention be held at PDPU in 2013. It is a matter of great pride for the university as well as the student chapter.

Nikita Matreja



Petro – humour

(a section to remind you – the fun part has not been lost!)

E&P for non E&P

There is a lot that the academia gives and takes from the industry, and it is, in fact, very important that we as an institute keep doing activities that build and sync between the two so that tomorrow may see some really competent, employable and deployable engineers.



E&P (Exploration and Production) for non E&P, as the name goes, was a program initiated by Dr. Anirbid Sircar, aimed towards educating the corporate masses of various companies about the basic technical understanding about E&P. The inception of this program was the outcome of an observation that corporates in various O&G companies were not well versed with the technical inputs for E&P which would lead to a small gap in the operations process.

The session happened twice, once in July and then again in September. It was a two day course that covered petroleum exploration, understanding of a play, lead, or a prospect etc. We then touched upon the more technical modules like deciding where to drill, field appraisal and development, followed by economics of field development, business value and concept of spot markets and future markets and how these concepts affect the paper to barrel value. In continuation, we also talked about how companies and governments make contracts and how profit sharing and cost sharing happens. It was also discussed that how India in particular deals with contracts and NELP policies. Smaller but rather more important discussions also included the topics on the future of unconventional resources and their development and how they can play a very crucial role in the future oil and gas industry.

The companies that attended these sessions were; Jubilant Enpro, L&T, L&T Infotech, GE Oil and Gas, GAIL India. For the session on the 1st and 2nd September, companies like Jubilant Enpro, Jubilant Energy, Adani Welspun, Rajasthan Technical University, GAIL and Engineers India Limited sent corporates for the course.

Parth Trivedi



Placement Scenario

After a successful placement of the pilot batch, this year it was time to bid adieu to the second batch of SPT engineers with the best of the job offers possible. 2012 placements witnessed more diverse job offers; apart from midstream, upstream and downstream profiles, the job offers were from IT sector as well.

From the total number of students eligible to appear for the campus placement, a huge number of 193 students were successfully placed in 37 different companies, with different job profiles.

PDPU was privileged as companies like ONGC, which recruited 12 students, CAIRN, which recruited 17 students, visited the campus this year. Other renowned companies that offered job profiles this year were Linde, Accenture, Gas, Wipro, GSPC, Adani, Ltd., GAIL, Jindal Drilling John Energy Ltd., MI - Reliance Industries Ltd, L&T EPC, Sabarmati GSFC, Essar, Infosys and Industries Ltd., SWACO India, GSPL, amongst others.

The highest package was (12 LPA) and the average around 4.01 LPA.

“The end result (placement) was a success which saw a PDPU batch embrace a range of industries proving the talent they possess and the training they received over the period of four years.”

Jyotishka Mishra, SPT '08 batch, on the placement scenario.

offered by Weatherford package this year was

The increase in the very well portraits that equipped with the get hired in the best of the industries. Still considering the demand of the industry there is a thorough change in the course curriculum with the interaction of academia with the industry which will help the future engineers to prepare themselves better and reach to the bench marks set by the industries. With the support of the Training and the Placement Cell and all the higher authorities of Oil and Gas industries associated with our academia, PDPU will always be privileged to have better and better placements every coming year.

placement number the students are well knowledge required to

Bhagyashree Bhaya

PDPU welcomes Freshers

An account of my Induction Program...

“PDPU welcomed us freshers with open arms and before getting into the academic world, we were taught how to groom ourselves in the coming years along with meeting the industries' expectations. During this period of time we were imparted basic but very crucial knowledge that would help us in the coming years. It is very important for us to know certain limitations and duties, and to get through this we had a presentation on the Women's Cell by Mrs. Rita Banik and a talk on Social Welfare by Mr. Phalgun Kumar.

Mr. Sachin Sehgal also delivered a talk on what industries expect from us. Being freshers, it was a completely new chapter for us. There was also an introduction of all the schools at PDPU given to us by their respective Directors as a part of the Induction Program. Apart from this there were lectures on topics like Learning to Learn, Team Building, SWOT Analysis, US - India relations and Ethics in Education, in addition to an amazing discussion with Prof. Anil Gupta on Importance of Engineers and Engineering impact and its future scope.

Moving apart from the technical talks and discussion, the induction program also helped us to get acquainted to the very next persons sitting near us, i.e. our batch mates. There were various tasks given to us to perform in the groups and the sole purpose was to get to know the campus and the batch mates. There was also a guided tour of the huge campus. Summing up, this was not just an induction program for us but a unique way to know our university from the core.

All in all, it was a great experience. PDPU has given us an influential exposure of some of the most honorable people of this country. Being a student, I could say that the first week couldn't have been more informative than this.”

*Rutvi Shah,
SPT 1st year*

Industrial Orientation

from learning to experiencing...



The Industrial Orientation program for SPT 2010 batch commenced from 2nd July. 2nd - 6th July was fixed for Career Orientation program whereby we had seminars and guest lectures by distinguished names in the O&G industry.

The introductory session was given by Mr. Sachin Sehgal. On the same day, we had lectures by Dr. Anirbid Sircar and Prof. R.L. Malhotra on "Careers in Upstream". They discussed the different profiles available in the upstream sector. We also had an interactive session with Mr. Alok Nandan, ONGC WSS on the stimulation techniques employed in the industry. Dr. Bijay Behera gave us an insight into "Careers in Research Organizations", especially for the students who see their futures in R&D. Highly interactive sessions were also taken by Mr. Sunny Vaghela on entrepreneurship, Mrs. Divya Bhatt, L&T on 'Careers in Downstream' and Mr. SPS Chauhan, GSPC on 'Careers in Drilling'. A motivational session was also taken by the AkshayPatra foundation.



On 6th July, an introductory lecture was given by Shri Devdutt Sharma, OILEX on "Exploration in O&G Markets in India, Current Scenario". The second session was taken by Shri B.S. Negi, Former Director, GAIL & Former Member PNGRB who spoke on "Careers in Retail Marketing (CGD)".

In the following week the entire SPT '10 batch visited industries like Reliance, IOCL, ONGC Baroda, ONGC WSS, GSPC Gas, ONGC Hazira etc to learn about their functioning and operations. The visits proved to be very beneficial as we had hands on experience about the workings in the industry.

It would be best to summarize our entire Industrial Orientation phase as a journey, transcending books and theoretical know - how to the world of practical knowledge and implementation.

Reila Chakraborty

Will India emerge as a major global refined product exporting hub?

To predict the future we have to analyze our past. Till the mid-1990s, India had a refining capacity of 60 million TPA (tonnes per annum) only. As set out in its 11th and 12th Five - Year Plan, the Government of India seeks to establish India as a global refined product exporting hub, and also added that India's oil refining capacity will rise by over 60 per cent.

To achieve this, we are increasing our refining capacity. For more private players and global companies, India had changed its investment policy as FDI is now open up to 100% for private sector and maximum 49% for public sector. India's Special Economic Zones (SEZs) and Export-Oriented Units (EOUs) were established largely to assist businesses investing in key industries to skirt this extensive red-tape. India is now good at providing better infrastructures and transport facility and has already lowered its import-export duty. So India's refining capacity is increasing day by day.

We have developed our capacity and policy but if there is no demand for refined product then these companies with surplus of capacity will have to face the challenges. It is predicted that demand is growing more and more in Asia - Pacific and the Middle East. According to the IEA's 2008 *World Energy Outlook*, close to 85% incremental oil demand up to 2030 will come from Asia - Pacific and the Middle East, befitting Indian interests.

Will India emerge as a major global refined product exporting hub? On one side India has developed its refinery capacity, policy, infrastructures etc to global significance. Despite its significant successes, in the long-term India faces several challenges to its growing status as global refining powerhouse. Current extensive investment will certainly ensure that India remains a key exporter of refined product, especially in the Asia-Pacific region. However, falling investment in refinery capacity after 2012, owing largely to growing regional excess capacity and a tighter fiscal environment, puts at risk India's emergence as truly one of the world's largest refinery centers in the long-term, especially in the context of growing domestic product demand. It is difficult to predict but sooner or later India will emerge as a major global exporting hub.

Jimesh Moradiya

Panorama

Photo Gallery



by - Yash Lakhani



by - Jaymin Modi



by - Prakhar Mathur



by - Yash Lakhani



by - Shrey Baxi



by - Anmol Garg

Message from the Editorial Board

Once in a while, there come times that we must stop, slow down and look back at what we did, and how satisfied we are with it. There are moments where we must fathom the depths of our minds and ask ourselves what we have done to this date that would make us and the rest of the world proud. We at the School of Petroleum Technology, decided to do the same and boy did we come up with something!

SPT mirror is a clear reflection of an immense retrospection into our daily lives. It has been a fun learning experience for us as well; working enthusiastically on what we wished to see on the newsletter, and what others would be expecting to read when the pilot issue comes out. The Mirror isn't merely a newsletter; it is an insight into the life at School of Petroleum Technology, PDPU, and so brims with students' motivated contributions through all its pages. There might, invariably, be errors that might have escaped our eyes, but it is wished that the Mirror be seen as the first step into what is expected to be a long and healthy run of issues.

We, as the editorial team of the bi-monthly newsletter of SPT, take this opportunity to thank, appreciate and promote one and all who played an encouraging role in the inception and propagation of this idea.

And to all others who are indefatigably working to do amazing things for this initiative, we say, keep up the great effort!

Hope you had a good read!

*The Editorial Team,
SPT Mirror*

