THE OFFICIAL MAGAZINE FOR DEPARTMENT OF PETROLEUM ENGINEERING

DPE MIRROR

NOVEMBER 2024

DEPARTMENT OF PETROLEUM ENGINEERING proudly announces that

B.Tech Petroleum Engineering is NBA Accredited: Second Cycle (2024-2027)

Only NBA Accredited Petroleum Engineering Program in India

HIGHLIGHTS

- Conferences
- Student Chapter Activities
- News
- Student Centric Activities
- Placements
- Keynotes

DIRECTOR's & HOD's DESK

Prof. (Dr.) Anirbid Sircar
Director
School of Energy Technology

We are delighted to welcome you to this edition of the DPE Mirror. As we explore the achievements, progress, and ambitions within our department, it's clear that we remain a pinnacle of excellence in the field of petroleum engineering.

The DPE Mirror is a publication created by students, for students, and we would greatly appreciate your help by sharing images of your industrial training endeavors, which we may feature in future issues.

I extend my gratitude to the entire PDEU faculty, students, staff, and alumni—for your unwavering dedication and contributions. Together, we continue to shape the future of petroleum engineering.

Prof. Uttam Kumar Bhui
HoD
Department of Petroleum Engineering
School of Energy Technology

Over the past year, our department has marked significant milestones in academia and research. The tireless efforts of our faculty and the steadfast dedication of our students have led to pioneering advancements in petroleum engineering. From publications in prestigious journals to achieving top ranks in Gate exams, these achievements reflect our commitment to pushing the limits of knowledge.

At the core of our department, is a culture of development, innovation, ideation and deliberation. We have cultivated an atmosphere that fosters exploration, embraces challenges, and sparks creative solutions.

I'd also like to extend warm congratulations to the team behind the DPE Mirror. We hope you find this issue enlightening and enjoyable to read.

EDITOR'S DESK

Dr. Namrata Bist Rawat

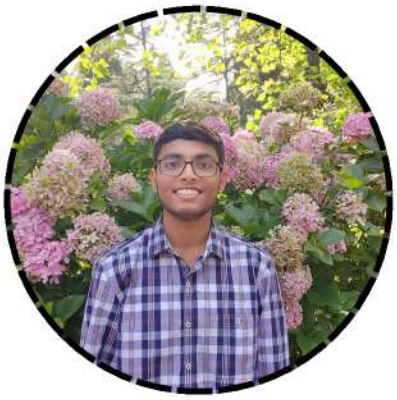
Mr. Gaurav Hazarika

Each year presents its own set of opportunities, and the past year was no exception. Our department within the School of Energy Technology has established a high standard for future cohorts to strive towards.

As we drafted the initial version of the magazine, it became evident that our department had reached significant milestones. From success in Gate exams to participation in conferences, from hosting online events to organizing festivals, and from educational field trips to insightful industrial visits, the magazine offers a comprehensive overview of recent events and activities within the department. Despite the challenges of transitioning from a school to a department, the unwavering dedication of both students and faculty toward excellence has been commendable. In the pages ahead, we have endeavored to cover as many events as possible while maintaining a focus on honesty and accuracy in our content delivery.

We extend our gratitude to all the students on the Editorial Team for their perseverance in crafting the magazine. Without their assistance, timely delivery would not have been possible. Additionally, the individuals within the department have played a pivotal role; without their contributions, this magazine would lack significance.

EDITORIAL TEAM



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Abhinav Tyagi

CONTENT

COVER STORY

Written by : Aksh Dave
Edited by : Yash Kumar

Industrial Giant's Visits PDEU: Chevron's Entry into India Begins with Recruitment at PDEU.

In a groundbreaking move, Chevron, one of the world's leading energy corporations, has made its long-awaited entry into India. Establishing its foothold in Bengaluru, Chevron has signaled its commitment to expanding its global presence by tapping into the country's vast energy market. In a momentous step for the industry and the academic community alike, Pandit Deendayal Energy University (PDEU) became the one of the first university in India to host Chevron on campus, marking an exciting new chapter for both the company and the students.

During Chevron's first recruitment drive at PDEU, five talented Petroleum Engineering graduates from the university were selected to join the company. This not only highlights the university's strong reputation in energy education but also reflects Chevron's recognition of the potential within the next generation of engineers.

The students selected will have the opportunity to work with Chevron's cutting-edge technologies and global projects, learning from the best in the industry while representing the high caliber of talent being produced at PDEU. This recruitment also strengthens PDEU's position as a leading institution for petroleum engineering, offering its students unparalleled opportunities to succeed in the global energy industry.

As Chevron sets the stage for its operations in India, its collaboration with PDEU serves as a symbol of the synergy between academia and industry, reinforcing the importance of nurturing young talent to meet the future demands of energy innovation.

Chevron recruits visit PDEU: six students embark on their professional journey.

STUDENT / FACULTY ACHIEVEMENT

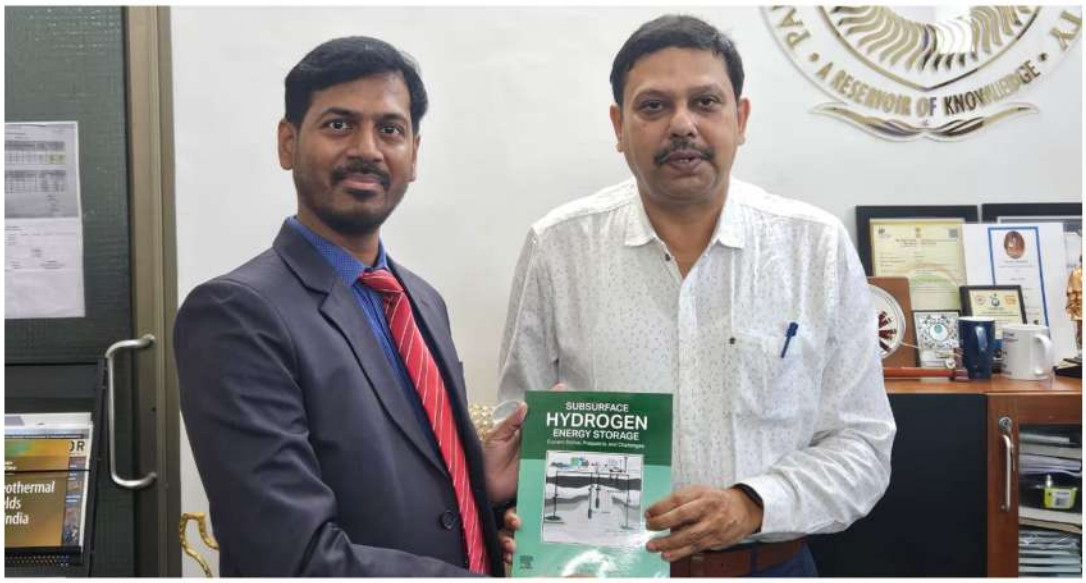
Written by : Yash Bhatt
Edited by: Yash Kumar

Dr. Namrata Bist, Assistant Professor, DPE was felicitated along with 4 other facutlies of PDEU by SpringerNature for contribution to publications related to Sustainable development goals on 28th September 2024.

Prof. Dr. Anirbid Sircar, Director SOET, Got the 1st runner up for innovation Green Hydrogen setup using Organic Rankine cycle at FICCI on 3-4 October, 2024.

Dr. Paul Naveen from the DPE received the 2nd runner-up prize of INR. 2 lakh rupees in the Central Mine Planning and Design Institute Limited (CMPDI)'s hackathon on R&D-2024, Coal Gasification, held on October 4, 2024, at CMPDI Ranchi.

Dr. Achinta Bera, Assistant Professor, DPE has been awarded the research excellent award in IOGCA 2024.



Dr. Achinta Bera, Assistant Professor, DPE published book on Subsurface Hydrogen Storage.

CERTIFICATE

Best Poster Presentation

PROUDLY PRESENTED TO

Maradana Amulya

has been recognised for participation in the poster presentation entitled ***"Surfactant Assisted EOR: Understanding Molecular perspective for effective designing of injection fluid for optimum recovery"*** *in* ***ICTU'24*** *on 30 September to 01 October, 2024 at Rajiv Gandhi Institute of Petroleum Technology, Jais, Amethi. Congratulations, for the award that have been earned. We really proud with your dedications and contributions.*

Prof. Satish Kumar Sinha ***Chairman***

Dr. Shivanjali Sharma ***Convenor***

Dr. Amit Saxena ***Convenor***

Maradana Amulya, pursuing M.Tech. at DPE won 1st price in poster competition at RGIPT, Jais, Amethi.

Archi sarkar, PhD student awarded the prestigious Colin ward award.

MEDIA BLITZ

Written by: Priti Jana
Edited by: Yash Kumar

Dr. Anirbid Sircar, Director of PDEU's School of Energy Technology, Honored as 1st Runner-Up at FICCI Bharat R&D Summit 2024

Pandit Deendayal Energy University proudly announces that Dr. Anirbid Sircar, Director of the School of Energy Technology, has been awarded 1st Runner-Up at the FICCI Bharat R&D Summit 2024 for his innovative work on the Green Hydrogen Setup using Organic Rankine Cycle. This prestigious recognition, awarded on October 3rd and 4th, highlights Dr. Sircar's dedication to sustainable energy solutions and his impactful contributions to the energy sector. Congratulations, Dr. Sircar.

PDEU's Petroleum Engineering Program Earns NBA Accreditation

The Undergraduate Petroleum Engineering program at PDEU's School of Energy Technology has proudly achieved accreditation by the National Board of Accreditation (NBA) for 2024-2025 to 2026-2027. Following a comprehensive evaluation on May 24, 2024, this prestigious recognition highlights PDEU's unwavering commitment to academic excellence, innovation, and real-world preparedness. Valid until June 30, 2027, this achievement reaffirms PDEU's dedication to cultivating future leaders in Petroleum Engineering.

National Board of Accreditation

PDEU Student Engages with PM Modi at Gandhinagar Metro Rail Inauguration

At the historic Gandhinagar Metro Rail inauguration, Prime Minister Narendra Modi personally engaged with PDEU students, recognizing the university's pioneering contributions to renewable energy. Dhruv Rawal, a final-year student from the School of Liberal Studies, had the incredible opportunity to speak with the Prime Minister. This interaction highlighted PDEU's innovative role in sustainable energy and serves as a powerful inspiration, showcasing our students' influence on India's green revolution.

DR. S. SUNDAR MANOHARAN HIGHLIGHTS RENEWABLE ENERGY AT INDIA TODAY ENERGY SUMMIT 2024

At the India Today Energy Summit 2024, Dr. S. Sundar Manoharan, Director General of PDEU, showcased the university's pioneering renewable energy initiatives. He discussed PDEU's solar farm installation, bridging the skill gap in solar panel manufacturing, and training students in silicon technology using non-Chinese instrumentation. Dr. Manoharan also highlighted a 2020 project launched by PM Modi, aiming to produce 45 megawatts of solar panels annually, reinforcing India's clean energy commitment.

PDEU HOSTS SPRINGER NATURE INDIAN RESEARCH TOUR 2024

On September 28, 2024, Pandit Deendayal Energy University (PDEU) hosted the Springer Nature Indian Research Tour 2024, in collaboration with the Indian Council of Social Science Research (ICSSR).

The event featured engaging discussions on academic publishing, Open Access policies, research integrity, and editorial opportunities.

Additionally, outstanding women researchers at PDEU were recognized with special awards. This collaboration highlighted PDEU's dedication to research excellence and academic advancement.

PDEU HOSTS AIESEC GLOBAL VILLAGE 2024

On August 22, 2024, PDEU proudly hosted the AIESEC Global Village in collaboration with AIESEC Ahmedabad. This vibrant event celebrated diverse cultures from around the world while showcasing India's rich heritage. Marking its return to campus post-COVID, the event fostered global connections and cultural exchange, symbolizing unity in diversity. It was a joyous occasion for the PDEU community, promoting cross-cultural understanding and collaboration.

INDUSTRIAL INTERNSHIP 2024-25

Edited by: Yash Kumar


HARSH JANI


SURAJ CHOUDHARY

EXXONMOBIL


PRATHAM KUMAR


SWASTIK MAZUMDER

SCHLUMBERGER


OM VYAS


ANANYA VERMA


SWATTIK SIL


MOHIT PANDYA

HALLIBURTON


RAHUL SHARMA


ANANYA BAJORIA


VARDHAN MUNGLA


SMIT VAGHASIYA

DGH


KHUSH PATEL


RAJVI SUTHAR


CHITRANSHU MISHRA


MISHA SABLOK


AARZOO JOBANPUTRA

IRS, ONGC


KIRTAN PATEL


KARAPA THARUN

RELIANCE INDUSTRIES LIMITED


ANSHUL BHARDWAJ

HLS ASIA


YASH PATEL


VRAJESH RAVAL

ESSAR OIL AND GAS

DPE PLACEMENTS 2024-25

Edited by: Yash Kumar

OM VYAS

AARZOO JOBANPUTRA

HARSH JANI

SWASTIK MAZUMDER

SMIT VAGHASIYA

CHEVRON

SURAJ CHOUDHARY

EXXONMOBIL

AASHISH DADWANI

VIVEK KUMAR YADAV

RAHUL SHARMA

SWATTIK SIL

VARDHAN MUNGLA

ANSHUL BHARDWAJ

ANANYA VERMA

CHITRANSHU MISHRA

DAKSH JHA

ADITYA PANDEY

KIRTAN PATEL

MISHA SABLOK

MAHARSHI SONI

HARDIK GAUTAM

YASH BHATT

AMULYA MARADANA

RELIANCE INDUSTRIES LIMITED

Written by: Nilanjan De
Edited by: Yash Kumar

Investors Summit at PDEU: Bridging Innovation and Market Readiness

On August 1, 2024, the SPE PDEU Student Chapter, in collaboration with the Technology Enabling Centre PDEU (TEC PDEU), orchestrated a successful Investors Summit, bringing together a vibrant mix of innovators, investors, and industry leaders.

The event kicked off with an insightful introduction to the workings and mission of TEC, underscoring its pivotal role in fostering innovation and entrepreneurship within PDEU. This overview set a dynamic tone for the day, which was packed with knowledge-sharing sessions and networking opportunities aimed at bridging the gap between technological innovation and market readiness.

A highlight of the summit was a series of compelling lectures delivered by representatives from various successful start-ups. These entrepreneurs shared their journeys, offering valuable insights into the challenges and opportunities they encountered. Their stories provided inspiration and practical advice to the aspiring entrepreneurs in the audience.

Attendees also had the opportunity to explore several start-ups and technologies currently being incubated by TEC, gaining a firsthand look at the cutting-edge innovations emerging from PDEU. This showcase was a testament to TEC's commitment to nurturing and developing transformative ideas.

The event concluded with a significant Technology Handover ceremony, where various technologies incubated by TEC were officially transferred to companies poised to develop them into market-ready products. This handover marked a pivotal moment in the commercialization of these technologies, highlighting TEC's dedication to driving real-world impact through innovation.

The Investors Summit was a resounding success, facilitating meaningful connections between innovators, investors, and industry leaders. It further cemented the role of TEC PDEU as a catalyst for technological advancement and entrepreneurial growth, demonstrating the institution's unwavering commitment to innovation and market readiness.

STUDENT CLUB EVENTS

Written by: Aksh Dave
Edited by: Yash Kumar

ELEMENTRIX 2024: THE QUINTESSENCE OF TECHNOLOGY ROOTED IN NATURE

This year's edition of Tesseract, PDEU's esteemed Science and Technical Fest, embraced the theme "Elementrix," celebrating the mastery of the fundamental forces of nature—earth, water, fire, air, and ether. Held from October 18th to 20th, 2024, the fest drew an enthusiastic crowd of over 8,000 participants from various esteemed institutions, including Nirma University, LD College, and many others. The theme invited participants to explore the synergy between these elemental forces and cutting-edge technology, challenging them to push the boundaries of science and engineering for a better, more balanced world.

A HARMONIOUS CONVERGENCE OF NATURE AND TECHNOLOGY

Elementrix symbolizes the convergence of natural elements with technological advancements, illustrating how each fundamental force has inspired significant progress in human civilization. The theme highlights the following elemental relationships:

- **Earth (Dhara):** Symbolizing stability and structure, Earth represents the foundational aspects of technology, akin to the physical infrastructure in engineering and construction. Events related to robotics, construction technologies, and material sciences showcased how innovations are grounded in the tangible world.
- **Water (Jala):** Emphasizing fluidity and adaptability, Water reflects the software dimension of technology. This year's coding challenges and software development events underscored the importance of flexibility and evolution in tech solutions, highlighting the capacity for adaptation to meet emerging challenges.
- **Fire (Agni):** Representing innovation and creativity, Fire captured the spirit of passion that drives technological advancements. Events focused on startups and creative engineering solutions inspired participants to harness their creative sparks in pursuit of knowledge and discovery.
- **Air (Vayu):** Symbolizing communication and connectivity, Air highlighted the critical role of networking and data transmission in modern technology. Events centered on communication technologies and the internet of Things (IoT) showcased how connectivity facilitates the flow of information.
- **Ether (Aakash):** Representing the digital realm and artificial intelligence, Ether encompassed the intangible forces that underpin technological systems. Events focused on AI and virtual reality illustrated the profound impact of the digital landscape on shaping future innovations.

IMMERSIVE EXPERIENCES THROUGH THEMATIC INTEGRATION

Each event during Tesseract 2024 was thoughtfully designed to incorporate one or more of these elements, creating a cohesive experience that illustrated the relationship between nature and technology. Participants were encouraged to engage deeply with the themes, whether through coding competitions inspired by Water's adaptability or robotics challenges grounded in Earth's stability. The thematic décor and naming conventions reinforced the connections between the elements and their technological relevance, ensuring that participants could appreciate the underlying principles that drive innovation.

A CALL TO ACTION

Elementrix was more than just a theme; it served as a call to action for all attendees to explore and master the intersection of natural forces and technological innovation. By integrating these elements into every aspect of the fest, Tesseract provided a unique platform that challenged participants to think creatively while inspiring them to contribute to a sustainable and technologically advanced future.

STUDENT CHAPTER EVENTS

Written by: Neel, Priyanshu & Aditya
Edited by: Yash Kumar

FIPI Events

R&D CONCLAVE by FIPI INDIA

The Federation of Indian Petroleum Industry (FIPI) recently hosted its R&D Conclave, creating an exciting space where the brightest minds in energy and petroleum came together. It was a vibrant exchange of ideas, with industry leaders, researchers, and experts diving into discussions on the latest innovations and breakthroughs. The focus was clear, how can we make energy cleaner, more efficient, and future-ready. Sustainability and the transition to renewable energy took the center stage, as did new technologies like AI and data analytics that are changing the way we explore, refine, and manage energy. The event wasn't just about presentations; it was about collaboration—bringing industry and academia closer together to shape a more sustainable, resilient energy future for India.

BINGERACERS ARENA

On October 4th, 2024, FIPI PDEU SC hosted an exciting quiz competition called "Bingeracers Arena 3.0." This event, designed for first-year students, focused on movies and web series, featuring fun and competitive challenges. Teams of friends could participate and compete for different prizes. The quiz encouraged participants to showcase their knowledge of popular films and series while enjoying a lively and engaging atmosphere. The event started at 4 PM and aimed to create a fun experience for the freshers.

GATE 2025 PREPARATION

FIPI PDEU SC organized a seminar on GATE 2025 preparation with Animesh Choudhary, who achieved an outstanding rank in GATE 2021, on July 9, 2024. Held online, the session focused on how to prepare effectively for the GATE exam by turning knowledge into strategy. Animesh shared his insights and tips for success, helping students boost their preparation. This informative event aimed to guide participants in reaching their GATE goals.

SPE EVENTS

Petro Vista: Revolutionizing Petroleum Engineering Education

Petro Vista, an initiative by the Society of Petroleum Engineers (SPE) PDEU Student Chapter, launched in the fiscal year 2024-25, has swiftly garnered attention within the energy sector. This educational outreach program leverages Instagram and LinkedIn to share informative posts about global oil fields, aiming to educate and inspire petroleum engineering students, professionals, and enthusiasts.

Global Reach and Educational Impact

Petro Vista provides concise overviews of oil fields worldwide, highlighting geographical importance, technical challenges, and innovative solutions. The posts are designed to be visually engaging and informative, featuring maps, infographics, and key data points. This initiative not only educates its followers but also fosters a sense of connection to the broader industry.

Diverse Geographical Focus

- **Middle East:** Highlights fields like Ghawar in Saudi Arabia, showcasing historical significance and production scale.
- **North America:** Covers the Permian Basin and Canada's oil sands, emphasizing unconventional technologies and environmental challenges.
- **South America:** Focuses on Brazil's deepwater fields, discussing technical challenges and innovative solutions.
- **Africa:** Spotlights fields in Nigeria and Angola, addressing strategic importance and associated challenges.
- **Southeast Asia:** Features fields like Malampaya in the Philippines, highlighting regional energy security and offshore production technologies.

Fuel Pulse: Decoding Fuel Prices for All

Fuel Pulse, an initiative by the SPE PDEU Student Chapter, is redefining how we understand fuel prices. Launched in FY 2024-25, this weekly series on Instagram and LinkedIn provides timely updates on fuel price trends and the factors influencing them.

Key Insights

Each post in the Fuel Pulse series breaks down the complexities of fuel pricing.

Topics include:

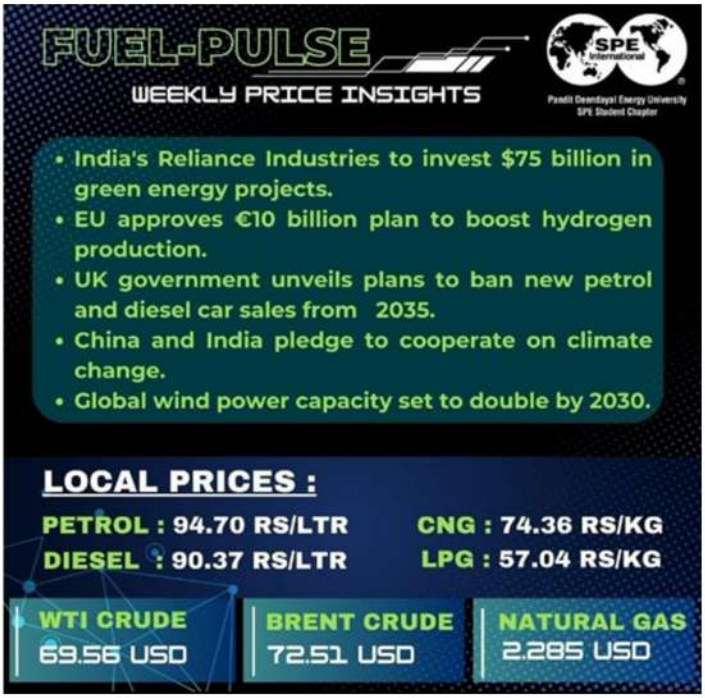
- **Crude Oil Trends:** Current prices and the global events impacting them.
- **Local Fuel Prices:** Updates on petrol, diesel, CNG, and LPG prices, along with regional variations.
- **Influencing Factors:** Analysis of political, economic, and environmental influences on fuel prices.
- **Event Impact:** Coverage of how significant news events affect the oil and gas sector.

The Mission

Fuel Pulse aims to make fuel pricing transparent and understandable. It combines visual appeal with critical data, making it a valuable resource for industry professionals, students, and consumers.

Conclusion

Fuel Pulse successfully bridges the gap between complex fuel pricing mechanisms and public understanding. By providing clear, concise updates and in-depth analyses, it empowers its audience to stay informed about the ever-evolving oil and gas market.



Spectra Spotlight: Showcasing Innovation in Oil and Gas

Spectra Spotlight, a weekly initiative by the SPE PDEU Student Chapter, brings the latest advancements in oil and gas technologies to Instagram and LinkedIn. Aimed at petroleum engineering students and industry enthusiasts, it highlights cutting-edge innovations and provides detailed insights into their missions, founders, and key features.

Purpose and Reach

In a constantly evolving industry, Spectra Spotlight bridges the gap between theory and practice. Each post is meticulously crafted with visuals like infographics and diagrams, making complex technical information accessible and engaging. This initiative ensures that students and professionals stay informed about the technologies shaping the future of the oil and gas sector.

Key Sections

- **Introduction to Technology:** Provides an overview of the featured technology or technique.
- **Mission and Objectives:** Explains the technology's purpose and the problems it aims to solve.
- **Founders and Development History:** Highlights the innovators and companies behind the technology.
- **Specialties and Key Features:** Details the technical specifications and benefits.
- **Impact on the Industry:** Discusses current applications and future potential.

Conclusion

Spectra Spotlight is an essential educational resource, empowering the next generation of petroleum engineers with the knowledge to navigate and lead the industry. By providing in-depth information on the latest technologies, it enhances the learning experience and fosters a deeper understanding of the sector's innovations.

Introductory Session

The SPE PDEU Student Chapter (SPE PDEU SC) recently organized an introductory session for incoming freshmen to acquaint them with the mission and advantages of joining the Society of Petroleum Engineers (SPE). The session offered insights into the various opportunities and resources that SPE membership provides, emphasizing its potential to boost both academic growth and career prospects. The goal was to engage students while highlighting the importance of belonging to a global network focused on the oil and gas industry.

To make the session more interactive and enjoyable, a brief quiz covering general topics was incorporated. This activity served as an icebreaker, encouraging active participation and allowing the freshers to demonstrate their knowledge. The quiz helped create a friendly and collaborative environment, making it easier for the new students to connect with one another as well as with the chapter representatives.

Given the large turnout, the event was held in two batches to ensure each participant had the chance to engage fully. The session successfully captured the interest of the freshmen, many of whom expressed excitement about joining SPE and getting involved in the chapter's activities. The SPE PDEU SC is thrilled with the positive feedback and looks forward to fostering the enthusiasm and participation of its newest members in upcoming events.

Pre-Introductory Session

The JNTUK SPE Student Chapter, in collaboration with the PDEU SPE Student Chapter and other SPE Student Chapters, organized a Pre-Induction Series aimed at assisting new and current student members in maximizing their membership benefits. This virtual event, held on the 8th, 9th, and 13th of June, 2024, from 6 PM to 7 PM, featured three insightful lectures by distinguished speakers from the industry.

First Session: How to Begin Your Journey with SPE as a Student Member & Make the Best Out of It.

Mr. Vinod Kumar Madem, a Reservoir Engineer at SunPetro and a Young Professional with the SPE Mumbai Section, delivered the inaugural lecture. He underscored the importance of active participation in professional societies and highlighted the long-term advantages for students pursuing careers in the energy sector.

Second Session: How I Transitioned from an SPE Student Member to a Professional Member

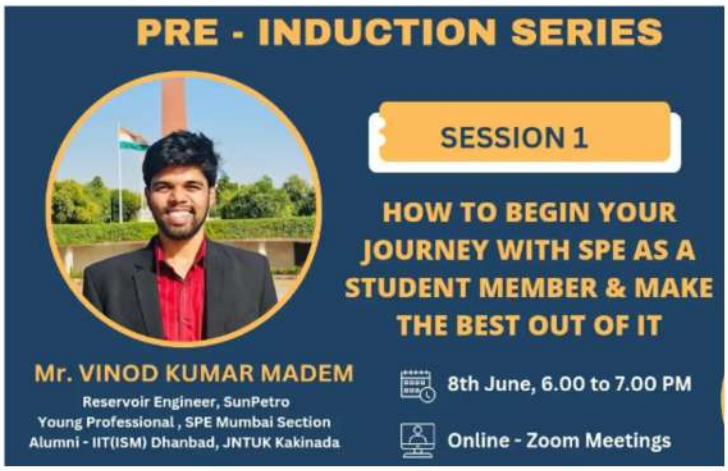
Mr. Nitin Lahkar, Superintending Reservoir Engineer at OIL and Student Chapter Liaison with the SPE New Delhi Section, conducted the second lecture. He shared his personal experiences regarding the transition from a student member to a professional member. Mr. Lahkar emphasized the significance of continuous learning, networking, and active involvement in SPE events.

Third Session: My Journey as an Industry Professional

The third session was led by Shri Tapas Kumar Sengupta, former Director (Offshore) at ONGC, former Director at FIPI, and former Regional Director at SPE International. Mr. Sengupta narrated his illustrious career journey, stressing how his connections, particularly with SPE, facilitated his career growth. He also provided valuable advice to the younger generation on building successful careers in the industry.

Conclusion

The Pre-Induction Series proved to be immensely beneficial for student members, offering crucial guidance on leveraging SPE membership benefits, transitioning to professional roles, and establishing successful careers in the energy sector. The event equipped students with practical strategies for professional development and reinforced the importance of active involvement in professional societies, preparing them effectively for their future careers in the industry.



Investor Summit

On August 1, 2024, the SPE PDEU Student Chapter, in collaboration with the Technology Enabling Centre PDEU (TEC PDEU), hosted a successful Investors Summit. The event kicked off with an informative introduction to TEC, emphasizing its role in promoting innovation and entrepreneurship at the university. This overview laid the groundwork for a day of knowledge sharing and networking, aimed at connecting technological innovation with market readiness.

The summit featured a series of talks by representatives from various thriving start-ups, who shared their entrepreneurial experiences and insights. These sessions offered valuable perspectives on the challenges and opportunities encountered by start-ups, providing inspiration and practical guidance to aspiring entrepreneurs. Following the lectures, attendees had the opportunity to witness several start-ups and technologies being incubated by TEC, offering a glimpse into the cutting-edge innovations emerging from PDEU.

A major highlight of the event was the Technology Handover ceremony, where technologies developed within TEC were officially transferred to companies capable of bringing them to market. This marked a key step in the commercialization process, showcasing TEC's dedication to turning innovation into real-world impact. The summit was a tremendous success, fostering meaningful connections between innovators, investors, and industry leaders, and reinforcing TEC PDEU's role as a driving force in technological progress and entrepreneurial development.

Unconventional Edge

On September 16, 2024, the SPE PDEU Student Chapter hosted a guest lecture titled The Unconventional Edge, focusing on the topic Coal Bed Methane (CBM) Overview. The session was led by Mr. Saurabh Kumar Rai, a senior drilling and completions engineer at Reliance Industries, who delivered a comprehensive overview of CBM, starting with the formation of coal and the techniques used to extract methane from coal seams.

Mr. Rai delved into the economics of CBM extraction and addressed potential issues with Progressive Cavity Pumps (PCP), offering practical solutions based on his industry experience. He also explained the workover procedures essential to the CBM extraction process. His real-world expertise provided students with valuable insights into the operational challenges and opportunities in the CBM sector.

The lecture was well-received, as students gained a deeper understanding of both the technical aspects and the industry-specific challenges associated with unconventional energy resources. Overall, the event was a great success, equipping attendees with practical knowledge and a clearer perspective on the CBM industry.

IADC Events

IADC PDEU Student Chapter 4th Anniversary Celebration

GUEST NAME : Mr Deep Shah & Mr Parag Bhoraniya
DATE AND TIME OF EVENT : 6th September, 2024
Session by Mr. Deep Shah (Shelf Drilling, Rig Manager)

Offshore Drilling using Jackup Rig

Mr. Deep Shah's session provided a comprehensive overview of oil and gas production. His presentation included an introduction to offshore fields and various types of rigs.
He discussed the design aspects of wells and elaborated on two types of jackup i.e. supported jacks and independent jacks.
A jackup rig consists of a hull and extendable legs that can be lowered to the seabed. Once the rig is positioned over the drilling site, the legs are lowered until they rest on the seafloor, and the hull is jacked up, allowing the platform to be above the water surface. This setup provides stability and minimizes the impact of waves and weather on drilling operations
Jackup rigs are typically deployed in water depths ranging from about 30 to 500 feet (10 to 150 meters). They are often used in regions where the seabed is relatively stable and the water depth is not too deep, making them suitable for various offshore drilling projects.
ADVANTAGES
One of the primary advantages of jackup rigs is their cost-effectiveness compared to other types of offshore rigs, such as semi-submersibles or drillships. They are also relatively quick to mobilize and can be used for a range of drilling activities, including exploratory drilling and production drilling.Regulatory requirements such as MODU 89, ABS, Flag Visit and ODAG-NSC were also covered in his talk. Mr. Shah's session was informative and provided valuable insights into industry practices and regulations.

Session by Mr. Parag Bhoraniya (Shell India)

Crafting an effective CV and interview techniques.

Following Mr. Shah's session, Mr Parag Bhoraniya took the floor. His presentation focused on the art of creating a professional CV for the college students. He provided detailed guidance on structuring and presenting a CV to maximize its impact.
Key points were as follows:-

- Customize it for each job application by emphasizing skills and experiences that align with the job description.
- Organize your CV with clear sections: Contact Information, Professional Summary, Skills, Experience, Education, and Certifications.
- Use specific examples and quantify your accomplishments (e.g., "Boosted sales by 30%") to demonstrate your impact.
- List relevant skills and incorporate industry-specific terminology to align with the job requirements.

Mr. Bhoraniya also shared tips on acing interview, emphasizing key points to keep in mind and strategies for answering questions effectively. His session to equip students with practical skills to enhance job application and interview performance.

Some key points to remember are:

- Understand the company's mission, values, and recent developments. Tailor your responses to align with their goals and culture.
- Prepare for typical interview questions using the STAR method (Situation, Task, Action, Result) to structure your answers effectively.
- Show genuine interest in the role and company. Highlight your motivation and how your skills align with the position.
- Dress appropriately, maintain good posture, and use positive body language. Make eye contact and offer a firm handshake.
- Pay close attention to the interviewer's questions and comments. Take a moment to think before answering to ensure your responses are relevant and concise.
- Prepare thoughtful questions about the role, team dynamics, and company culture to demonstrate your interest and help you gauge if the company is a good fit.

Session by Mr. Chiradeep Gupta

Basics Of Managed Pressure Drilling

The event, led by Mr. Chiradeep Gupta, seeks to introduce participants to the core principles of Managed Pressure Drilling (MPD). The session aims to demystify MPD techniques and demonstrate their impact on modern drilling practices. The primary objective is to equip attendees with the essential knowledge needed to apply these techniques effectively in real-world scenarios.

Event Overview

The session took place on 03rd August 2024 at 5:30 PM,[MS Teams], and featured a distinguished guest speaker who delivered valuable insights into Managed Pressure Drilling. The event was designed to introduce attendees to the fundamental principles of MPD, its operational techniques, and the benefits it brings to modern drilling practices.

Key Highlights:

- **Introduction to MPD:** The event began with an overview of Managed Pressure Drilling, explaining its role in controlling wellbore pressure during drilling operations. The guest speaker highlighted how MPD helps prevent blowouts and improves overall well performance.
- **Operational Techniques:** Detailed discussions covered the core techniques of MPD, including how pressure is managed and the types of equipment used. The session provided practical examples of MPD applications in real-world scenarios.
- **Expert Insights:** The guest speaker shared expert knowledge on the latest advancements in MPD technology. Attendees were given the opportunity to ask questions and engage in a dialogue about the practical implications of MPD in the petroleum industry.
- **Interactive Q&A:** The event included a Q&A segment where participants interacted with the guest speaker. This interactive component allowed for a deeper exploration of MPD concepts and addressed specific queries from the audience.

Outcome

The event was well-received by attendees, who gained a solid understanding of Managed Pressure Drilling and its significance in enhancing drilling operations. The session provided valuable insights that are expected to benefit participants in their future professional endeavors.

Conclusion

The successful execution of this event highlights the IADC Student Chapter's dedication to advancing industry knowledge through educational initiatives. The session on Managed Pressure Drilling effectively met its goal of educating participants and fostering professional development.

Introduction to Offshore operations through Virtual Reality (VR).

The primary objective of this VR event was to provide new freshmen students with an immersive introduction to offshore drilling operations. This experience aimed to familiarize students with the complexities and real-world applications of the drilling industry in an engaging and interactive manner.

Event Overview

The event utilized Virtual Reality (VR) technology to simulate offshore drilling environments. This innovative approach allowed participants to experience firsthand the various aspects of drilling operations, from equipment handling to safety protocols, without leaving the event space.

Key Highlights

·The event began with a brief introduction by Maharshi Soni (chairman IADC), outlining the goals of the VR experience and its relevance to students' future studies and career opportunities in the energy sector.

INTERACTIVE SESSION

- Students were divided into groups to ensure everyone had ample time to interact.
- Students asked questions about real-world drilling operations, career prospects in the industry etc.

Article published in ONGC Reports dated 11th Nov2024

Achieving synergy with sustainability, a continuous endeavour requiring dedication, collaboration & resilience: ED-Asset Manager, Ahmedabad, at PDEU SPE Fest'24

ED-Asset Manager, Ahmedabad Asset, Prasun Kumar Sinha delivered the Keynote Address as the Chief Guest at the prestigious PDEU SPE Fest 2024 (PSF'24) held at Pandit Deendayal Energy University (PDEU) in Gandhinagar on 8 November 2024. The event, organized by the Society of Petroleum Engineers (SPE) Student Chapter at PDEU, brought together over 2,000 budding petroleum engineers, industry professionals, and academicians to explore the latest developments in the energy sector.

ED-Asset Manager, Ahmedabad Asset, Prasun Kumar Sinha at the inauguration ceremony of the PDEU SPE Fest 2024

In his keynote address, Mr. Sinha captivated the audience with his insights into the future of the energy sector, highlighting both the opportunities and challenges faced by India's oil and gas industry.

ED-Asset Manager, Ahmedabad Asset, Prasun Kumar Sinha delivering the keynote address amidst leaders from the industry and academia

Mr. Sinha noted that India's energy demand is growing at a rate of 5% annually, outpacing global averages. He observed that despite significant strides in renewable energy, oil and gas will continue to play an indispensable role in meeting India's energy requirements for the next two to three decades. In this context, he emphasized that the country's oil import dependency remains a challenge, with around 88% of India's crude oil needs being met through imports. This underscores the need for greater self-sufficiency and continued focus on E&P activities.

Mr. Sinha also addressed the global shift towards renewable energy and India's commitments at COP28. However, he acknowledged that this transition would not be easy. While renewable energy is important, oil and gas will remain crucial for India's energy security in the long term, he added. ONGC, he affirmed, is "committed to achieving net zero emissions by 2038 and is taking significant steps towards sustainable practices, such as using cleaner fuels and implementing technologies to reduce emissions from its operational activities".

He informed the gathering, that ONGC's new generation drilling rigs are equipped with advanced technologies, including catalytic converters and the substitution of diesel with gas to reduce carbon emissions. ONGC has also introduced a smart engine management system that optimizes fuel consumption and reduces idle time, contributing to a more energy-efficient and environmentally friendly operation.

In closing, Mr. Sinha encouraged the students to remain optimistic and excited about pursuing a career in the oil and gas industry. "You, as students and future leaders, hold the key to reimagining energy. Your innovation, perspective, and passion for change are exactly what the industry needs," Mr. Sinha remarked. He urged the students to take full advantage of the event to network, exchange ideas, and create solutions that will drive the industry forward sustainably and collaboratively.

SPE Student Chapter, along with the industry leaders

Mr. Prasun Kumar Sinha's address at PDEU SPE Fest 2024 not only set the tone for the event but also inspired the next generation of petroleum engineers to embrace the challenges and opportunities of the evolving energy landscape. His message of resilience, innovation, and sustainability resonated deeply with the participants, reinforcing the importance of collaboration between the industry, academia, and government to achieve a sustainable energy future.

- CC, Ahmedabad Asset

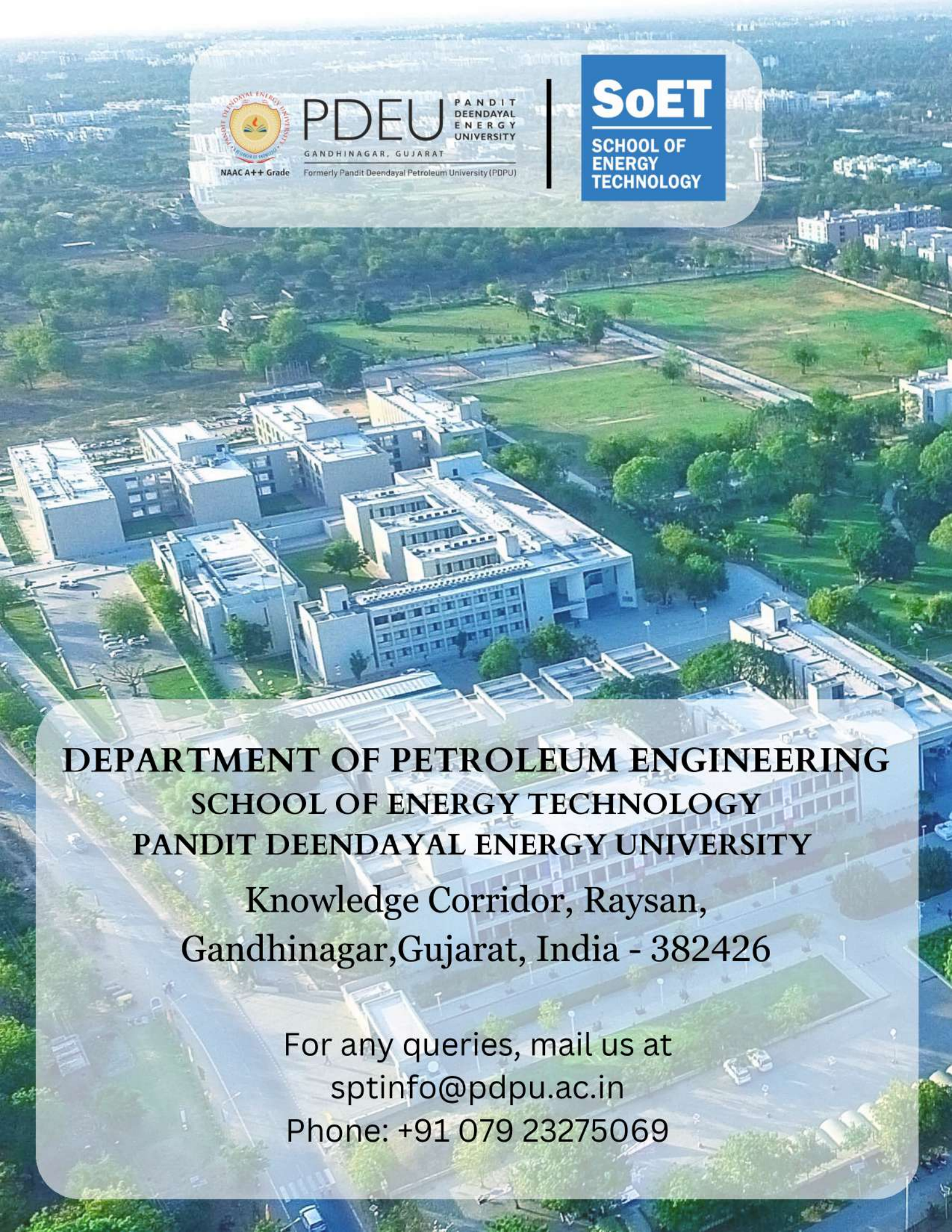
NEWLY INDUCTED FACULTIES

Dr. Ramanand Singh is currently an Assistant Professor in the Department of Petroleum Engineering at the School of Energy Technology, Pandit Deendayal Energy University, Gandhinagar, Gujarat, India. He holds a Bachelor's in Petroleum Engineering (BE, 2013, MIT Pune), a Master's in Petroleum Engineering (M.Tech, 2018, IIT Madras), and a Doctorate in Petroleum Engineering (PhD, 2023, IIT Madras). He is an active member of the Society of Petroleum Engineers (SPE3472217) and the European Association of Geoscientists and Engineers (EAGE M20120880). Notable achievements include receiving the Institute Research Award from IIT Madras in 2022, ranking All India Rank 31 in GATE 2016 (PE paper), and winning the SPG Master Mind 2020 award at the 13th Biennial International Conference & Exposition "KOCHI 2020" in India. He has published 7 Scopus-indexed journal articles and 2 conference proceedings. Dr. Singh presented his research at the 84th EAGE Annual Conference & Exhibition 2023 in Vienna and at the SPE Symposium: Asia Pacific Energy Transition 2022 in Kuala Lumpur. His research areas include HPHT drilling and completion fluid technology, rheology, nanofluids, well integrity, well control, and mud and cementation engineering, with additional interests in EOR and Underground Hydrogen Storage and Production (UHSP).

Dr. Abhinav Kumar is a dedicated academic and researcher with over two years of experience in teaching in Petroleum Engineering. He is currently an Assistant Professor in the Department of Petroleum Engineering at PDEU Gandhinagar, having previously served in the same role at Presidency University, Bengaluru. At Presidency University, Dr. Kumar played a pivotal role in academic and administrative capacities, including serving as a member of the Board of Studies (BOS) and coordinating Research and Consultancy, International Affairs, and ERP systems.

Dr. Kumar holds a B.Tech in Mechanical Engineering from NERIST Nirjuli and an M.Tech in Petroleum Engineering from IIT (ISM) Dhanbad, where he also completed his Ph.D. His doctoral research, conducted under the guidance of Prof. Vikas Mahto and Prof. V. P. Sharma, focused on developing nano-enhanced preformed particle gels (PPGs) for optimizing water shut-off operations. This ground-breaking work involved synthesizing reinforced preformed particle gels (R-PPGs), characterizing their properties through advanced analytical techniques, and evaluating their efficacy in reducing water excessive water production and enhancing oil recovery in mature reservoirs. He also contributed to an ONGC-IOGPT-sponsored project on particle gel systems for water shut-off in high-temperature carbonate reservoirs during his Ph.D.

Dr. Kumar's research interests include water shut-off jobs, conformance control strategies, particle gel systems, hydrogel systems, rheology of viscoelastic materials, and nanotechnology in hydrogels, enhanced oil recovery techniques, and computational modeling using CMG.



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