

# INNEC

SPE GULF COAST SECTION NEWSLETTER

# MEMBERS IN TRANSITION INITIATIVE (MIT)

JUNE 2016

# KEY CHALLENGES FACING UPSTREAM OPERATORS

NAVIGATING THE US M, A&D AND CAPITAL MARKETS: FUNDAMENTALS, TRENDS, THEMES AND OPPORTUNITIES BUSINESS DEVELOPMENT P. 13

**INFLUENCING SAFETY IN EPIC PROJECTS:** CASE STUDY OF THE ALBA B3 OFFSHORE GAS COMPRESSION PROJECT

**EMERGING ENGINEERS** 

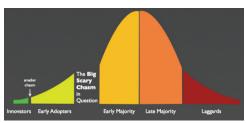
# CHAIR'S CORNER



**DR. IVOR ELLUL** 2015 - 2016 SPE-GCS Chair

nnovate, as defined by the Oxford Dictionaries, means "to make changes in something established, especially by introducing new methods, ideas, or products." Human nature, in general, tends to dislike change, especially when it affects the status quo, and our industry is certainly not a leading light when it comes to early adoption. In fact, when it comes to crossing the "chasm," I would venture that we are squarely in the domain of the "late majority" or even the "laggards."

**Disruptive**, as defined by the Oxford Dictionaries, means "innovative or groundbreaking." Interestingly, this word also carries with it a negative connotation, as in a disruptive child in a classroom. This may carry through to the element of disruption within an innovative frame of reference, as it relates to the instigation of change and resulting alteration of the status quo.



Source: "Crossing the Chasm," Geoffrey Moore, 1991.

One might ask — why the English lesson? Well, as much as it may be a lesson in English, so is it a statement of the mindset of the oil and gas industry, which, as we all know, is in a state of substantial flux. A permanent mantra of mine throughout my career in this wonderful and certainly cyclic industry has been "when challenged — innovate!" This has served me, and the companies that I have worked for, well over the years and is an ideology that I advocate strongly. This is a time to innovate and, in turn, embrace innovation in order to address the eventual issues of supply (yes, we will burn through the current over-supply) as well as those related to the environment (Leonardo Di Caprio wants us to "leave fossil fuels in the ground where they belong.")

What does all this mean for the SPE Gulf Coast Section? The gauntlet has been laid down – innovate! Despite all the other distracting challenges that currently surround us, and there certainly are a few, yes, we must innovate. The list of areas where we need to and, indeed, can innovate is endless. But the two disciplines that, in my book, filter to the top are those relating to exploration risk reduction on the exploration side and improved / enhanced oil recovery on the production side of the E&P coin. I see these as two of the more critical areas that require innovation in our industry going forward.

Reserves replacement for a number of the majors has fallen to record low ratios in comparison with previous years. There are, naturally, many reasons for this, including the low commodity pricing rendering some discoveries uneconomical and thus causing a reduction in P1 reserves. As we venture further afield in our exploration activity, exploration risk increases, which in the current fiscal environment certainly dampens enthusiasm for significant spending on the search for new reserves. Research and innovation into ways to reduce this risk are gaining momentum with focus on areas such as global data acquisition, knowledge base development, and big data analytics. IOR/EOR is closer to home for us petroleum engineers, and a number of research and

development programs continue to pursue the holy grail of moving the recovery factor needle to the right.

We are certainly playing our part in the GCS and our commitment to innovation has led the Board to establish a new Innovate! Study Group. This merges and replaces the Digital Energy Study Group and the Technology Transfer Committee.

The Ideas Launch Pad (ILP) initiative is now in full swing. As you may recall, the ILP is a program wherein anyone within the GCS who has an idea with technical and commercial merit is able to submit it to the ILP committee for evaluation. Ideas that pass muster are then forwarded on the Houston Technology Center (HTC) for possible adoption into their technology acceleration program. We have, thus far, evaluated ten ideas, two of which are in the process of entering the HTC process with a further two being readied for submission. As it happens, the first two ideas relate to EOR and enhancing drilling efficiency.

We look forward to further submissions from our membership. In particular, we are looking for ideas with sound and, dare I say, disruptive, technical merit. In addition, we expect to see that sufficient thought has gone into the development of a business plan with strong management teams demonstrating the requisite technical and commercial acumen.

I look forward to the day when, post retirement, perusing the Wall Street Journal over breakfast, I read about the success of a technology venture in the oil and gas space and note that this came through the SPE-GCS ILP program...



#### **GCS ENERGY TICKER**

DJIA	~~
WTI PRICE	~
HH SPOT PRICE	~~
US PRODUCTION	
RIG COUNT	~

#### June

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# BOARD OF DIRECTORS MEETING

THURSDAY, JUNE 16 | 7:30 TO 10:30 AM

#### **SPE HOUSTON OFFICE**

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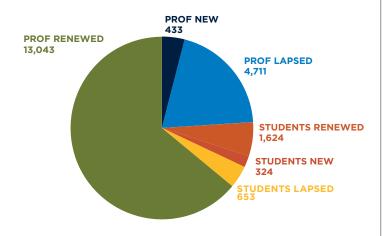
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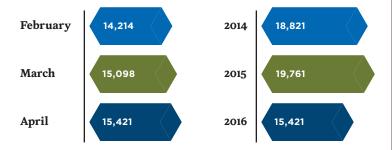


# SPE-GCS MEMBERSHIP REPORT Through April 2016

#### TOTAL SPE-GCS MEMBERSHIPS



#### **CURRENT MEMBERSHIP TRENDS**



#### STUDENT MEMBERSHIPS

STUDENTS	RENEWED	NEW	TOTAL	
НСС	78	35	113	
Prairie View	18	39	57	
Rice	47	72	119	
Texas A&M	999	80	1079	
UH	455	82	537	
TOTALS	1624	324	1948	

<sup>\*</sup>This chart does not reflect lapsed student memberships

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#### VOLUNTEER

# SPOTLIGHT

#### **ALEXSANDRA D. MARTINEZ**

his month, SPE Gulf Coast Section is thrilled to feature Alexsandra Martinez as the Volunteer of the Month. Alexsandra has been an active member of SPE since 2007. She joined the organization as a college undergrad and served as the co-chair of philanthropy and VP for the Texas A&M SPE student chapter. Her roles in the student chapter helped her build leadership and communication skills that laid a foundation for networking. After graduation, Alexsandra continued her involvement with SPE-GCS in the Reservoir Study Group, where she currently holds the role of publicity chair. She has been a very active and dedicated member of the Reservoir Study Group since 2013 and has significantly contributed toward the success of the study group in the past few years.

Alexsandra graduated with a BS degree in petroleum engineering from Texas A&M in 2011. At DeGolyer and MacNaughton, she is a petroleum engineer working in the Houston office for clients in North America. Prior to joining D&M, she worked for four years as an independent reservoir engineer consultant in the Reservoir Technology group at Anadarko.

Alexsandra enjoys volunteering because it gives her the chance to meet people from different backgrounds within the industry. This enables her to gain a valuable perspective of the industry through others' experiences. Her advice to young professionals is to continue their involvement with SPE as they enter the workforce. Simply attending a study group luncheon or volunteering to speak to a group of middle school students can have a lasting impact.

Thank you for all that you do for SPE, Alexsandra!





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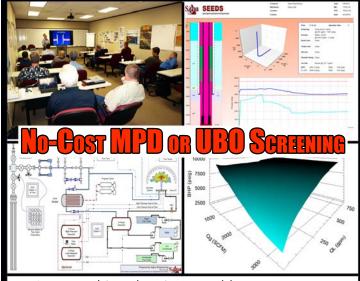


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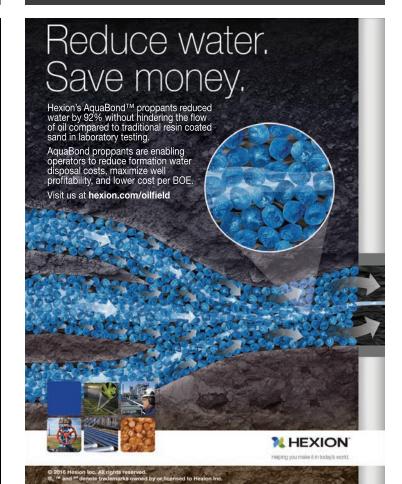
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## RESEARCH & DEVELOPMENT

# **Key Challenges Facing Upstream Operators**

Our panel of drilling operators will address the following questions:

- What are your greatest challenges and issues today?
- What new, innovative solutions do operators need from suppliers to do a better job?
- Do you have a problem that doesn't have a solution on the horizon yet?

#### **KHALID MATEEN**

Khalid Mateen is the VP of Engineering & Technology of TOTAL E&P Research & Technology USA. He has over 30 years of international experience in oil and gas field development, the last 24 years of which are with TOTAL. He previously served as the General Manager of Development Planning for TOTAL Canada. Mateen holds a master's degree in petroleum engineering from Stanford University. He is the author of several publications.

#### **JONATHAN CRANE**

Jonathan Crane has worked for Shell since 1987. He led two multibillion-dollar projects, Bonga SW in Nigeria and the Draugen Redevelopment in Norway, aiming to capture 2 million tons of CO2 per annum. Crane headed the development planning and economics team in The Hague, helping major projects with complex decisions. After four years as Drilling Manager in Norway, Crane moved to the US as VP of Wells Technology Deployment & Tech Services. He holds a degree in mechanical engineering from Durham University, UK.

#### JAMES RANEY

James Raney is Director of Engineering for Anadarko Petroleum's Engineering & Technology Group. Prior to his current position, Raney was responsible for technology developments for drilling, completions, producing operations, mid-stream operations, and facilities engineering for the corporation on a worldwide basis. Before joining Anadarko, he served in technical and management assignments with Mobil and ExxonMobil. Raney holds a bachelor's degree in engineering and applied science from the US Military Academy at West Point.

#### KIMBERLY MCHUGH

Kimberly McHugh is the GM of Drilling & Completions for Chevron Services Company based in Houston. She supports the global drilling, completions, and workover operations. McHugh holds BS and MS degrees in petroleum engineering from Texas A&M University. Her career has spanned operations in the Gulf of Mexico, Gulf of Thailand, and onshore US. Kim has worked for Chevron, BP, Unocal, and ARCO in operator roles and as a consultant. She has held roles in managing field operations, engineering, and global performance.



#### **EVENT INFO**

Thursday 6.2.16
11:30 AM - 1:00 PM

#### **SPEAKERS**

Khalid Mateen
VP, Engineering & Technology
TOTAL

Jonathan Crane
VP, Well Technology Deployment
& Technical Services
Shell

James Raney
Director of Engineering,
Engineering & Technology Group
Anadarko

Kimberly McHugh
General Manager, Drilling
& Completions
Chevron

#### **LOCATION**

Norris Center - Westchase 9990 Richmond Ave, Ste 102 Houston, TX 77042

#### **EVENT CONTACT**

Kitty Harvey 281-901-3245 kitty.harvey@c-a-m.com

#### **MEMBERS**

\$40

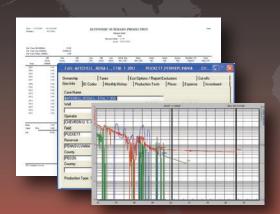
**NON-MEMBERS** 

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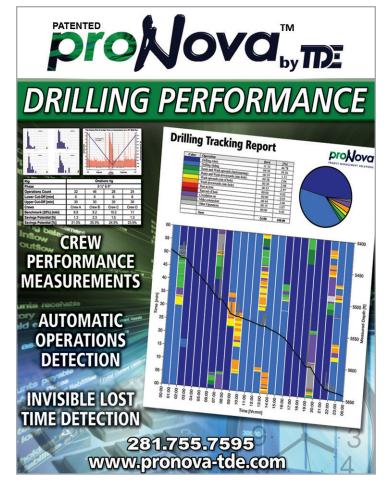
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HSSE-SR

# **Influencing Safety in EPIC Projects: Case Study of the Alba B3 Offshore Gas Compression Project**

Engineering, procurement, installation, construction and commissioning (EPIC) contracts are widely used for oil and gas projects worldwide. By its very nature, the EPIC contract puts the responsibility for the lump-sum, turn-key delivery of the project on the contractor, with the company being maintained at arm's length and any contract "extras" resulting in change orders to the contract. For a company with a robust HSE culture, influencing the HSE performance of an EPIC contractor presents a significant challenge.

In 2013 Marathon EG Production Ltd (MEGPL) entered into an EPIC contract with Heerema Fabrication Group for the delivery of a new gas compression platform (Alba B3) to be bridgeconnected to existing infrastructure in the MEGPL Alba production area offshore Bioko Island in Equatorial Guinea. From contract development through to engineering, fabrication, and offshore installation, MEGPL project team personnel continually strived to achieve project goals and contractual requirements for occupational health, facility safety design, and environmental concerns. The focus of this HSE influence was not only on the contractor but extended to the sub-contractor companies as well. This presentation outlines the efforts by the MEGPL personnel to successfully influence HSE performance without affecting (increasing) the lump sum contract price.

#### **BRYAN WALLACE**



Bryan Wallace is the Project Director for the Marathon Oil Alba B3 Compression Project being installed in the Alba production area offshore Bioko Island in Equatorial Guinea. He has over 30 years of experience in oil and gas projects and operations both downstream and upstream, with a predominance of offshore international experience including Indonesia, Norway, Gabon, and Equatorial

Guinea. He also served as a member of the Management Committee for the joint venture Waha Oil Company in Libya, where his responsibilities included championing the implementation of a safety management system. Wallace has a BS in chemical engineering from Rose-Hulman Institute of Technology in Indiana and has authored multiple technical papers.



Tuesday 6.14.16 11:30 AM - 1:00 PM

#### SPEAKER

Bryan Wallace Project Director Marathon Oil Corporation

#### LOCATION

The Petroleum Club of Houston 1201 Louisiana St. 35th Floor Houston, TX 77002

#### **EVENT CONTACT**

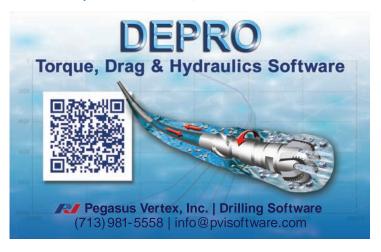
Trey Shaffer 832-209-8790 trey.shaffer@erm.com

**MEMBERS** 

\$45

**NON-MEMBERS** \$50

#### **STUDENTS/RETIRED SPE: \$10**



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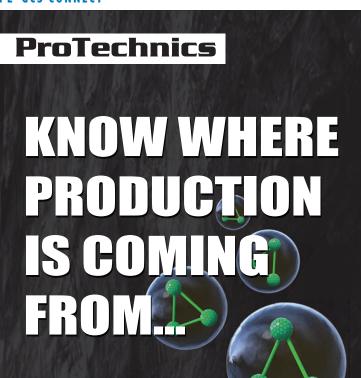
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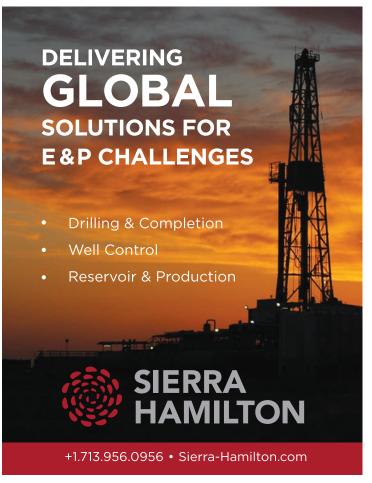
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## INTERNATIONAL

# Opportunities in the Eagle Ford on Both Sides of the Border

At this SPE speaker luncheon, the International Study Group continues its series focusing on opportunities in Mexico in the wake of recent energy reforms there. Dr. Thomas Tunstall, the Senior Research Director at the Institute for Economic Development at the University of Texas at San Antonio, will discuss Eagle Ford Shale, both on the Texas and Mexico sides of the border.

The Eagle Ford Shale generated \$87 billion in gross output in 2013, and likely had outputs similar to that in 2014. Those numbers were expected to reach \$137 billion by 2023. With the recent drop in oil prices, however, activity in the region has decreased significantly. Tunstall will present on the latest developments in the Eagle Ford along with "best guesses" for the future.

#### DR. THOMAS TUNSTALL



Thomas Tunstall, PhD, is the Senior Research Director at the Institute for Economic Development at the University of Texas at San Antonio. He was the principal investigator for the Economic Impact of the Eagle Ford Shale studies released in May 2012, March 2013, and September 2014; the West Texas Energy Consortium Shale Study; and a preliminary report on energy reform in Mexico. He has published

peer-reviewed articles on shale oil and gas and has written op-ed articles on the topic for The Wall Street Journal. Tunstall has spent a significant portion of his career on workforce and economic development assignments in locations such as Azerbaijan, Afghanistan, Kenya, and Zambia. He holds a PhD in economics and public policy and an MBA from the University of Texas at Dallas, as well as a BBA from the University of Texas at Austin.



Tuesday 6.21.16
11:30 AM - 1:00 PM

#### **SPEAKER**

Dr. Thomas Tunstall Senior Research Director Institute for Economic Development at UTSA

#### LOCATION

The Petroleum Club of Houston 1201 Louisiana St, 35th Floor Houston, TX 77002

#### **EVENT CONTACT**

Barry Chovanetz 713-850-9955 barry.chovanetz@gaffney-cline.com

#### **MEMBERS**

\$35/\$40 Walk-In

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**ONLINE REGISTRATION:** spegcs.org/events/3243/

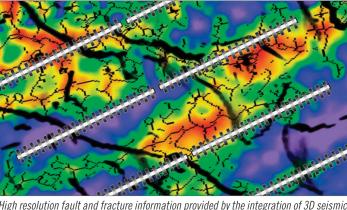






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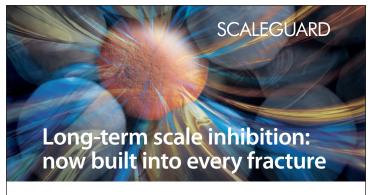
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### BUSINESS DEVELOPMENT

# Navigating the US M,A&D and Capital Markets: Fundamentals, Trends, Themes and Opportunities

Join us at the Four Seasons downtown as key industry experts give an in-depth review of the current US M,A&D and capital markets.

The speakers will address questions including:

- What are the drivers from current capital markets and implied asset values of E&P companies?
- Where are the differences at this time between public markets and M&A values?
- · Where do debt holders stand?
- What is the impact of current price cycle on valuation across different plays?
- What are drivers underlying buy and sell decisions?

#### GABRIEL G. CHAVEZ



At Triple Double Advisors, Gabriel G. Chavez is responsible for analyzing exploration and production equities, trading, and client performance reporting. Previously, he was a research analyst at Koch Quantitative Trading, where he developed systematic equity trading strategies. Chavez received a BS in economics from the Wharton School of the University of Pennsylvania with dual concentrations in

finance and management. He is a candidate for an MA in philosophy from the University of Houston.

#### **BRIAN LIDSKY**



Brian Lidsky is Managing Director, PLS Inc. Lidsky has over 25 years of oil and gas experience with expertise in upstream investments, valuations, operations, and management. Prior roles include EVP and Director of John S. Herold Inc., co-founder of Calgary-based private E&P Vigilant Exploration, and Managing Director of M1 Energy Capital. He holds a BS degree in geology from Emory University and an MBA

from the Jesse H. Jones Graduate School of Business at Rice University.

#### MANUJ NIKHANJ, CFA, FRM



Manuj Nikhanj co-heads the 50-person energy investment research team at RSEG, a market-leading oil and gas research and advisory firm that works with several hundred institutional investors, E&P companies, and private equity firms. Nikhanj obtained his bachelor of commerce degree with distinction from the University of Calgary and has earned the FRM and CFA charters.

#### **TIM PERRY**



Tim Perry is a Managing Director of Credit Suisse in the Investment Banking division based in Houston. He joined Credit Suisse First Boston in June 1999 from JPMorgan, where he was a Vice President in the Oil and Gas Group. Perry holds a BS in business administration from the University of Arkansas (Fayetteville) and an MBA degree from Vanderbilt University.



#### **EVENT INFO**

Wednesday 6.22.16

5:00 PM - 7:30 PM

#### **SPEAKERS**

Gabriel G. Chavez
VP & Research Associate.
Triple Double Advisors, LLC

Brian Lidsky Managing Director PLS Inc.

Manuj Nikhanj, CFA, FRM Co-CEO RS Energy Group

Tim Perry

Managing Director, Global Head of

E&P, and Co-Head of O&G Americas

Credit Suisse USA

#### LOCATION

Four Seasons Hotel Houston 1300 Lamar St Houston, TX 77010

#### **EVENT CONTACT**

Cody Felton 281-221-3042 Cody.Felton@energynet.com

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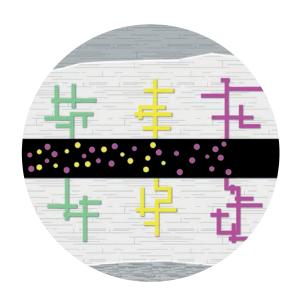
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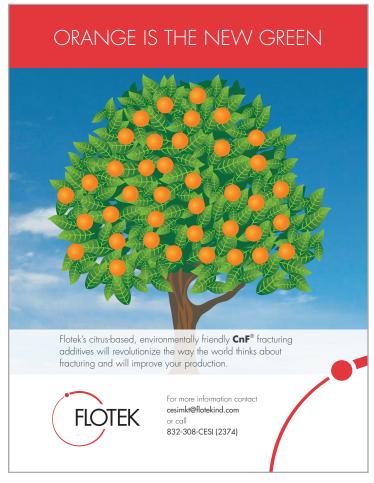
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Providing Insight Onsite









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- Microseismic observations and geomechanical predictions

#### **Topics covered**

#### 1. Fundamentals of Petroleum Geomechanics

- Petroleum geomechanics definition and its major goal
- · Challenges in conventional geomechanics application to unconventional reservoirs

#### 2. Geomechanics Theories and Background

- · Mechanics review
- Rock strength
- Measurements and calculations of rock mechanical properties

#### 3. Geo-Pressure and Geo-Stresses

- Pore pressure predictions
- In-situ stress estimation

#### 4. Geomechanical Applications

- · Wellbore stress, stability and strengthening
- Evaluation of unconventional reservoir fracturing

#### DR. REZA SAFARI



Dr. Reza Safari is a Geomechanics Advisor at Weatherford Geomechanics Research, Development, and Engineering. Safari's current focus is on geomechanical modeling development of unconventional reservoir stimulation and wellbore mechanics. He has co-authored more than 20 publications on hydraulic fracturing, waterless fracturing, hydraulic/natural fracture interactions, and

wellbore strengthening. Safari holds a PhD degree in petroleum engineering (petroleum geomechanics) from Texas A&M University.

#### **EVENT INFO**

WEDNESDAY

6.22.16

8:30 AM - 4:30 PM

#### **SPEAKER**

Dr. Reza Safari Geomechanics Advisor Weatherford International

#### **LOCATION**

SPE Houston Training Center 10777 Westheimer Rd, Ste 1075 Houston, TX 77042

#### **EVENT CONTACT**

Sunil Lakshminarayanan 281-248-1443 sunil\_lakshminarayanan@oxy.com

#### **REGISTRATION**

spegcs.org/events/3235/

#### MEMBERS/NON-MEMBERS \$350

Note: A limited number of subsidized passes for this one-day tutorial will be available for students, retired professionals, and professionals with no corporate support.

Committee: Scholarship

## **2016 SPE-GCS Scholarship Winners**

We would like to announce and congratulate the 2016 SPE-GCS Scholarship Winners. These students have demonstrated exceptional academic achievement, leadership, and service in their communities. The SPE Gulf Coast Section is proud to honor these remarkable students.

#### **SCHOLARSHIP WINNERS**

- Yash Bora, Seven Lakes High School
- Heidi Higginson, The Woodlands High School
- Mohammad Omar Khadimally, Elkins High School
- Jasmin Guzman, Milby High School
- Shannon Rouhana, Westside High School

#### **AUXILIARY SCHOLARSHIP WINNER**

• Nicole Magpantay, Victory Early College High School

#### **CISH SCHOLARSHIP WINNERS**

- Sandy Mejia, Davis High School
- Cristian Oviedo, Milby High School

We wish these scholarship winners all the best as they embark on their college careers. Thank you to all the volunteers who assisted in the application review and interview process.

# Where Are They Now?

PAST SCHOLARSHIP WINNERS

The Scholarship Committee recently conducted a survey of past recipients of the SPE-GCS scholarship. If you're considering donating to the SPE-GCS scholarship fund or hiring an SPE-GCS scholarship winner for a summer 2016 pre-college internship, you'll be glad to know that the program has enjoyed considerable success over the past six decades. Here's winner **Reynaldo's story:** 

As the oldest of three children born and raised near the Greenspoint area in Houston, I'm a first-generation college graduate. I earned my bachelor of science in petroleum engineering with honors from the University of Texas at Austin in 2000 and my professional engineering license from the state of Texas five years later.

Since joining Anadarko in 2000, I have enjoyed a successful career. I have held engineering positions with increasing responsibilities, including production and reservoir engineering, E&P and midstream planning, international commercial negotiations, and program/project management. I've remained active in high school and college recruiting, encouraging students to pursue engineering careers.

In addition, I have held numerous leadership roles for the Society of Petroleum Engineers – Gulf Coast Section (SPE-GCS), including Education Chair (2010-2012), Scholarship and Internship Chair (2008-2010), Awards Banquet Chair (2006), and ELP Roughneck Camp Chair (2004). I'm also honored to be the recipient of several SPE-GCS awards, including Young Engineer of the Year (2008), Young Member Outstanding Service (2007), and Regional Service (2009).

For me, the SPE-GCS scholarship opened the doors to scholarship, internship and employment opportunities. Exposure to the engineering field and the oil and natural gas industry ultimately influenced my change in majors to Petroleum Engineering. I had the ability to focus on my education rather than attempt to balance education and employment.

I am happily married to Karla and am the proud father of two beautiful children, Sophia Alexis, 8, and Vincent Andres, 6. I firmly promote the Golden Rule and practice work/life balance. As the keynote speaker at the Society of Hispanic Professional Engineers' Regional Leadership Development Conference, my motivational speech focused on seven key drivers to personal and professional success:

- · No Goals, No Glory
- Failure is Not an Option
- Adversity is Opportunity in Disguise
- The Only Constant is Change
- Perception is Reality
- Build a Reliable Network
- Family: A Group Experience of Love and Support

# Petroleum Engineering Enhanced Oil Recovery Project Management Profitability Analysis Reservoir Simulation Dr. J. Roger Hite Inwood Solutions, LLC (713) 385-5343 hite@inwood-solutions.com

#### **REYNALDO SALUDARES**



Reynaldo is currently a West Texas Program Manager at Anadarko Petroleum Corporation.

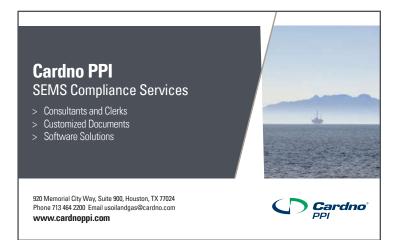
- Nimitz High School 1996
- University of Texas at Austin Bachelor of science, petroleum engineering

You can contact Reynaldo at reysal\_23@hotmail.com

For Corporate
Registration & Information:
spegcs.org/sponsorship-opportunity/

For Individual Scholarship Donation Information:

spegcs.org/spegcs-scholarship-fund/







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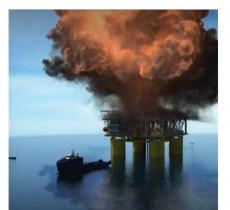
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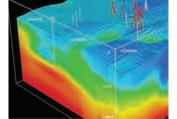










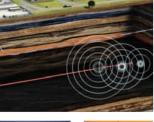


















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#### 54% Pass 2015 Petroleum PE Exam

NCEES and the State Engineering Boards released their 2015 Professional Engineering Exam results. Nationwide, the Petroleum Engineering Exam recorded a 54% pass rate. The Petroleum first time takers passed at a 61% rate. The pass rates for a few other engineering disciplines were:

Chemical	67%	Agricultural	71%
Civil	58%	Fire Protection	51%
Electrical	52%	Industrial	67%
Environmental	56%	Metallurgical	74%
Mechanical	67%	Mining	68%
Nuclear	42%	Control Systems	66%

The Petroleum pass rates in 2015 for a few states:

Alaska	80%	Louisiana	64%
California	60%	Oklahoma	80%
Colorado	78%	Texas	49%

What are the requirements to take the Petroleum PE Exam? Today, Texas requires that you have:

- 1. An engineering, math or science degree.
- 2. Passed the Fundamentals, or FE Exam.
- 3. At least four years of professional experience.

Interested? Contact the Texas State Engineering Board at (512) 440-7723 for application forms. State web sites are also available at: www.ncees.org/licensure/licensing\_boards. The Texas application deadline to take this year's PE Exam is July 15, 2016. This year's PE Exam will be given on Friday, October 28, 2016.

# **SPE-GCS Scholarship Fund Update**

We are excited to announce our third status update for our fundraising efforts: As of May 5, we have raised **\$79,160** to support our scholarship program! We have received donations from past scholarship recipients who wanted to give back, SPE-GCS Board of Directors members, GCS study group and committee leaders, SPE-GCS members and associates, and SPEi leaders, as well as company donations. We thank all our donors for their support and generosity.

For more information about our scholarship fund, scholarship program, or our current donor list, please visit www.spegcs.org/spegcs-scholarship-fund/. You will find testimonials from past scholarship recipients and learn the impact that SPE-GCS scholarships had on their lives and careers. If you have not yet donated, we invite you to visit our website and support our efforts as a fellow member of the SPE-GCS family and fellow industry professional. As a reminder, all donations are tax-deductible. We also encourage you to find out if your company has a matching program that could make your individual donation go even further!

#### **FUND STATUS**



**Committee: Young Professionals** 

# **Revolutionizing Energy via Technological Entrepreneurship**

The North American oil and gas industry has been turned upside down by the impact of technologies developed more than 40 years ago. A natural gas compression technology entrepreneur gives his perspective on how to start, fund and develop a technology company in the energy sector as a young professional.

#### **PEDRO SANTOS**



Pedro Santos was the Managing Director for the MIT Clean Energy Prize in 2009 and has pioneered technological and engineering developments in CNG and gas separations. He holds four issued patents and more than 19 pending applications.

Santos has received numerous technical awards, including the Goradia Innovation Prize, and has won technical and business

competitions. His companies have received grants from the National Science Foundation and the US Department of Energy's National Energy Technology Laboratory (NETL). He has been featured in Compressor Tech Magazine and Chemical Engineering Magazine. He received the Dominican Republic presidential award in 2012, which recognized the most accomplished professional in the country less than 35 years of age. In 2011, he was named to *Forbes* magazine's "30 Under 30" list in the energy category.

Before starting HICOR Technologies, Santos was an operations director with a Latin American affiliate of Ingersoll-Rand. He is one of the youngest professionals to have attained the US Department of Energy's Airmaster+ certification in compressed air systems, and he has completed more than 80 industrial energy audits for compression systems. Santos has a BS degree in engineering.

#### **EVENT INFO**

WFDNFSDAY

6.22.16

11:00 AM - 1:00 PM

#### **SPEAKER**

Pedro Santos Founder and CEO HICOR Technologies

#### **LOCATION**

Houston Technology Center 401 Pierce St Houston, TX 77002

#### **EVENT CONTACT**

Sahil Malhotra 832-854-7885 Sahil.Malhotra@chevron.com

#### REGISTRATION

spegcs.org/events/3241/

#### **MEMBERS**

\$20

#### NON-MEMBERS \$30

# **SPE Gulf Coast Section Emerging Engineers Conference**

The SPE-GCS Young Professionals (YP) board invites you to the 2016 Emerging Engineers Conference (EEC). This year, EEC will take place June 23 at the ExxonMobil Campus in North Houston. The theme is "Asset Management 2.0 - Driving Operational Efficiency in Challenging Environments."

EEC will host about 200 engineers who are within the first 10 years of their career, creating a forum to discuss trending topics with renowned professionals. Lectures and panel sessions will focus on actions YPs can promote to drive innovation and efficiency in operations, asset management strategies, and entrepreneurship, providing essential tools for career development.

The keynote speaker will be Vicki A. Hollub, President and Chief Executive Officer of Occidental Petroleum Corporation, who looks after worldwide operations and the company's chemical and midstream operations. Eleven other leading professionals will offer their perspectives on how to excel in your career.

Two panel sessions will focus on key aspects of successful careers. "Asset Management: Key Factors for Improving Efficiencies in Mature and Newly Planned Assets" will present how to drive efficiencies of development strategies for mature and newly planned assets, highlighting the role of young engineers. "YPs in Oil & Gas: Steering Your Career Path Amid the Industry's Crests and Troughs" will highlight professional development, opportunities for innovation, and the path to entrepreneurship.

In addition, a Technical e-Poster Competition with a new format will encourage participants and the audience to dive into in-depth technical discussions and will offer the chance to win great prizes.

#### **KEYNOTE SPEAKER: VICKI A. HOLLUB**

Additional Speakers:

Akshay Sagar, Global Business Manager at Halliburton

Basak Kurtoglu, Vice President - Energy Acquisition & Divestitures at Citi Investment Bank

Chris Riccobono, DWEP Subsurface Manager at Chevron

Denis Pone, President and CEO at Upcurve Energy

John Linderman, Chief Reservoir Scientist at Exxon Mobil

Jay Graham, CEO at Memorial Resource Development

Manuel Cossio, Reservoir Engineer at Pioneer Natural Resources

Pavitra Sainani, Planning Advisor at ExxonMobil

Shantanu Agarwal, Partner at Energy Ventures

Shauna Noonan, Chief Production Engineering and Operations at Occidental Petroleum

Simeon Eburi, Decision & Economic Analysis Advisor at Chevron

#### **EVENT INFO**

THURSDAY

6.23.16

7:30 AM - 4:30 PM



**MORE INFO** spegcs.org/EEC

#### LOCATION

ExxonMobil Campus 22777 Springwoods Village Pkwy Spring, TX 77389

#### **EVENT CONTACTS**

Ernesto Valbuena 832-854-6103 ernesto.valbuena@chevron.com

Aniket Kumar 832-386-9940 aniket.av5@gmail.com

#### **MEMBERS**

\$75 (Pre-registered by 6/10/16) \$100 (after 6/10/16)

#### **NON-MEMBERS**

\$85 (Pre-registered by 6/10/16) \$110 (after 6/10/16)

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# **SPE Gulf Coast Section Roughneck Camp**

Supporting the current market climate, this year's theme is "Riding the Energy Roller-Coaster: Challenges and Opportunities for YPs in a Cyclic Oil & Gas Industry." Our keynote speaker is Bruce Culpepper, President of Shell Oil.

Presentations by distinguished speakers will cover various aspects of the oil and gas business. Two panel sessions will feature a number of rising stars in the upstream sector, and the panelists will discuss "unconventional" opportunities which exist during the downturn. A networking event will be held at Straits in CityCenter.

#### **SPEAKERS**

Bruce Culpepper, President of Shell Oil Company
Sophie Hildebrand, Exploration Director GOM at BP
David Payne, VP, Global Drilling & Completion at Chevron
Angela John, SVP Marketing and Supply, NGLs and Sulphur at BP
Ron Holsey, Global Digital Commercial Leader at GE Oil & Gas
and more...



**EVENT INFO** 

THURSDAY

7.21.16

8:00 AM - 5:00 PM

#### **LOCATION**

Shell Woodcreek Complex 200 N Dairy Ashford Rd Houston, TX 77079

#### **EVENT CONTACT**

Abe Abraham 832-638-5705 aabraham@eagleenergy.com

Venkata Ajay Gundepalli 806-319-0270 Venkata.gundepalli@gmail.com

#### COST

\$50 Members \$25 Students/MiT

MORE INFO: spegcs.org/RNC









#### **Members in Transition Initiative**

FIFTH SEMINAR SERIES

The SPE Members in Transition Seminar Series covers topics of interest to SPE members who are between jobs during the current industry downturn or who are looking for new career opportunities. The fifth seminar in the series will include "Review of Courses Offered by University of Houston Small Business Development Center," "Negotiation & Conflict Resolution - Proven Techniques to Achieve a Win/Win Solution," and "An Entrepreneur's Guide to Attracting Startup Capital," as well as a discussion of resources for SPE members.

# Program 1: Review of Resources Offered by University of Houston Small Business Development Center

The University of Houston, Small Business Development Center (SBDC) will present on the business advising services and business workshops available to all entrepreneurs in the SBDC network.



**GEORGE AMANZIO** has worked as Vice President of Commercial and Small Business Lending for such companies as Bank Atlantic, Florida Community Bank, and Amegy Bank of Texas. Amanzio holds a bachelor's in business administration from Northwood University. He has specialized certifications focusing on sales management, credit analysis, and leadership.

# Program 2: Negotiation & Conflict Resolution - Proven Techniques to Achieve a Win/Win Solution

This workshop will introduce you to a practical, user-friendly approach to negotiation and conflict resolution known as the mutual gains model. As we explore the seven elements of the mutual gains negotiation framework, you will learn to prepare for all types of negotiations, identify the issues at the heart of a conflict, seek solutions that benefit all parties, and measure the results of your negotiation.



MARIA FITCH specializes in negotiation, conflict resolution, communication, and leadership training at Weatherford. Previously, she worked at Cambridge International Consulting, based in Caracas, Venezuela, providing training and negotiation consulting. She has an MA in international peace and conflict resolution from American University and a BA in interdisciplinary studies from University of Iowa.

#### Program 3: An Entrepreneur's Guide to Attracting Startup Capital

Tom Powell has led several companies through cyclical market growth and contraction for maximum profitability. He is passionate about free enterprise and international trade based on his expertise as an innovative investment manager, with particular expertise in credit risk analysis, distressed debt recovery, and deal structure.



**TOM POWELL** is a leading financier with expertise in investment banking, commercial banking, mortgage banking, alternative asset management, corporate finance, and governance. Powell's career began in 1988 in Silicon Valley at Wells Fargo Bank, where he was named the youngest Vice President in the company's then 140-year history. Most recently, Powell founded and successfully grew a

diversified private investment company, Resolute Capital Partners (f/k/a ELP Capital), an alternative investment firm specializing in serving middle-market borrowers and real estate developers

#### **EVENT INFO**

FRIDAY

6.3.16

10:00 AM-3:00 PM

#### **SPEAKERS**

George Amanzio Director of Advisory Services, Small Business Development Center, C.T. Bauer College of Business University of Houston

Maria Fitch Employee Development Advisor Weatherford

Tom Powell Senior Managing Partner Resolute Capital Partners LTD

#### **LOCATION**

Houston Technology Center 410 Pierce St Houston, TX 77002

#### **EVENT CONTACT**

C. Susan Howes 713-553-5020 c.susan.howes@gmail.com

Alex McCoy 713-366-5653 Alexander\_mccoy@oxy.com

MEMBERS/NON-MEMBERS \$15

#### NOTE

Registration is capped at 30

#### SPE-GCS CONNECT

#### EVENT

# RECAP





SPE-GCS volunteers attended the Hargrave High School Career & College Expo and the Elkins High School Career Fair for Engineering. Both events provided great opportunities for volunteers to talk to numerous students and educators about SPE, engineering, STEM, and their careers in the oil and gas industry. Students learned more about the real-world applications of various engineering disciplines.



The SPE-GCS Drilling Study Group organized the Annual Drilling Symposium at the Southwestern Energy office on April 14. This year, we focused on cost-saving innovations to improve drilling efficiency. The symposium was sold out four days before the event, with more than 100 registrants. The full-day event featured 14 presentations, including Steven L. Mueller, Southwestern Energy CEO, as keynote speaker. The symposium leaders are (left to right): Mohammed Dooply, Dan Moore, Xianping Wu, Joe Tison, Ben Gunawan, Mojtaba Shahri, Ernie Prochaska, and Nii Ahele Nunoo.





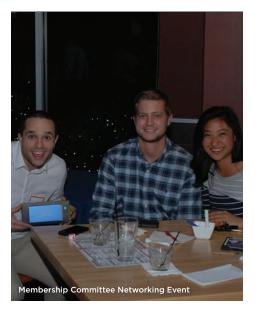








On April 14, SPE-GCS members enjoyed an evening of networking at the Houston Texans Grille. During the free event, attendees also had the opportunity to get a professional head shot photo taken.





















#### SPE-GCS CONNECT

#### EVENT

# RECAP

The 43rd Annual SPE Gulf Coast Section Golf Tournament was held April 11 at the Kingwood Country Club. It raised funds for the SPE-GCS Scholarship Fund.

















Many thanks to our volunteers who shared their time, effort, and smiles on April 10 at the Beacon homeless shelter in downtown Houston. We helped the community by serving lunch, clearing tables, and doing laundry, and we had a chance to network with each other. It is a pleasure to see returning enthusiasts as well as new faces. Thanks for your strong support, and see you at our next events!















# 2016-17 SPE-GCS Board of Directors

On April 21 at the monthly Board of Directors Meeting, the SPE Gulf Coast Section Board unanimously approved the following slate of candidates put forward by the Nominating Committee:

According to the SPE-GCS Bylaws, these candidates for Officers and Directors At Large will stand elected unless a petition is signed by 100 members of the Section to nominate additional candidates, in which case a special meeting will be held to have an election with a guorum of 50 paid members present.

Committee Chairs are appointed by the Section Chairman

Sr. Reservoir Engineer, ConocoPhillips

#### **VICE CHAIR | TREY SHAFFER**



Senior Partner, Environmental Resources Mgmt.

Past Section/SPEI Service:

SPE-GCS Director at Large, HSSE-SR Study Group Chair, SPEI
Board, HSE Executive Committee, Audit & Training/Programs/Mtgs
Committees BS Environmental Design, Texas A&M

#### **VICE TREASURER | PRASHANT SAINANI**



Past Section/SPEI Service: YP Treasurer, YP Outreach Chair, ATCE Recovery Mechanisms & Flow in Porous Media Committee member BS Petrol. Engineering, Texas A&M

#### SECRETARY | MARISÉ MIKULIS



Director, Baker Hughes
Past Section/SPEI Service:
At Large Director 2010-11; ATCE Session Chair, Digital Energy, Reservoir Monitoring, Management & Information
BS Geology & Math, Tufts University

#### SOCIAL CHAIR | JAMES JACKSON



Retired Account Representative, Halliburton
Past Section/SPEI Service:
Tennis Tournament Chair since 1979, Houston Oilman's Tennis
Tournament Committee; SPE member for 37 years
BS Petrol. Engineering, UT at Austin

#### COMMUNICATIONS. CHAIR | BRYAN MARLBOROUGH



Managing Dir., Operability Consulting, LLC
Past Section/SPEI Service:
PF&C Study Group volunteer, Industry & Media Presence Chair
MBA Candidate, Rice University
BS Petr. Engr. Technology – E&P, Nicholls State University



# AT LARGE DIRECTOR #1 MOHAMMAD TABATABAEI

Reservoir Engineer, Marathon Oil Past Section/SPEI Service: Reservoir Study Group Chair, ATCE Production Monitoring & Control Committee, Editorial Review Cmte. PhD Petrol. Engineering, Texas A&M MS Petroleum Engineering, Univ. of Louisiana at Lafayette



AT LARGE DIRECTOR #2
ROBERT ESTES

Mgr. R&D - Sensor Physics, Baker Hughes Past Section/SPEI Service: Northside Study Group Chair and Treasurer, HPHT Workshop Session Chair. Inventor with 22 patents. Also a member of IEEE, SPWLA, IADC, IMAPS. BS Electrical Engineering, University of Florida



SR. ACCOUNT MGR ERNIE PROCHASKA

Business Development Mgr, NOV
Past Section/SPEI Service:
Drilling Study Group Chair and Treasurer.
Also a member of API, AADE, IADC, and IADD. Bachelors Finance, Univ. of Texas Arlington

#### SPE-GCS

#### TAMU STUDENT CHAPTER

#### SUCCESS AT ALL LEVELS IN STUDENT PAPER CONTEST

Texas A&M University seized the stage at the Gulf Coast North America Student Paper Contest with Karin Gonzalez placing first in the PhD division, Hanyu Li placing first in the master's division, and Melissa LeRoy placing first in the undergraduate division. Isaac Zhukovsky placed second in the master's division. These students worked hard to come up with innovative ideas and then present them clearly in front of the judges. From determining estimated ultimate recovery with wave propagation models to optimizing waterfloods in thin bed sandstone, our students demonstrated exceptional knowledge of a wide range of topics.

#### Adaptive Grid Refinement Improves Gas Injection Modeling

#### - Karin Gonzalez

This work introduced a new method for creating adaptive mesh refinements and coarsening in compositional reservoir simulation. The methodology targeted individual cells for refinement based on forecasted compositional fronts and quadtree grid-size analyses. Application of the new approach optimized spatial discretization across the simulation grid, resulting in improved computational performance and better representation of complex fluid phase behavior.

#### Wave Propagation Models Capture Pressure Diffusion Behavior in Heterogeneous Unconventional Reservoirs -Hanvu Li

Determining estimated ultimate recovery (EUR) using information from the boundary-dominated flow regime is not a practical achievement in unconventional (low permeability) resources since the time required to reach this flow regime is significant (typically years). In response to this problem, the ultimate objective of this research project was to determine EUR of horizontal wells with multistage fractures using only information obtained after wells reached interference between adjacent fractures. We took the first step toward achieving this objective by simulating the boundary condition in heterogeneous reservoirs using the reflection and transmission mechanism of electromagnetic wave propagation to capture the pressure diffusion behavior. Accurate EUR determination can optimize well spacing and limit the number of unnecessary wells drilled, saving millions of dollars in capital investments.

#### Pattern Realignment Optimizes Waterflood in Thin Bed Sandstone – Melissa LeRoy

The objectives of this study were to determine the remaining waterflood potential for a deep, thin-bed sandstone reservoir with an existing waterflood and to propose a plan to maximize the economics of future field performance. The solution was to realign existing patterns by converting selected current producers to injectors, which allows for the production of hydrocarbons not initially contacted by the waterflood. The dominant benefit of this approach to increasing recovery is that it does not require drilling new wells to increase production. These recommendations are being implemented in the West Verden Hoxbar Unit in Caddo County, OK, where studies show that these conversions are economic at oil prices as low as \$29/barrel.



**Student Paper Contest** 

#### **Student Chapter Directory**

#### **HOUSTON COMMUNITY COLLEGE**

Raymond McCoy rqm3rd@yahoo.com

#### RICE

Yongchao Zeng yz42@rice.edu

#### **TEXAS A&M**

Alex Lambros Alex.Lambros@tamu.edu

#### **UNIVERSITY OF HOUSTON**

Mohamad Salman president@uhspe.org

#### TEXAS A&M - PRAIRIE VIEW

Aja Castano ajac762@yahoo.com

# DIRECTORY

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#### **VICE TREASURER**

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#### **CAREER MANAGEMENT**

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Kathy MacLennan, SPE-GCS 713-457-6813 kmaclennan@spe.org

#### **GULF COAST SECTION COORDINATOR**

Open

#### **Committee Chairs**

#### **AUXILIARY**

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Robin Smith, Halliburton 713-907-1694 robin.smith@halliburton.com

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#### **OILFIELD GAMES**

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# SOCIETY OF PETROLEUM ENGINEERS GULF COAST SECTION

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# CALENDAR

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY Research & Development	FRIDAY  Members in Transition (MiT)	SATURDAY
			1	2	3	4
5	6	7	8	9	10	11
		HSSE-SR		Board of Directors		
12	13	14	15	16	17	18
		International	Business Development Career Mgmt & Cont. Education	Young Professionals		
19	20	21	Young Professionals <b>22</b>	23	24	25
26	27	28	29	30		