THE UNIVERSITY OF TEXAS AT AUSTIN PETROLEUM AND GEOSYSTEMS ENGINEERING

ALUMNI MAGAZINE

FALL 2012

ENERGY ONE

THE NEW DRILLING FRONTIER

CANCER SOLUTION MAGNIFIES OIL RECOVERY

AUSTIN PUTS ITS STAMP ON THE OIL & GAS MAP

WELCOME CLASS OF 2016
Welcome to the first edition of our alumni magazine – Energy One. I hope you enjoy the new format. This issue is packed with exciting research, and student and alumni stories on how your efforts are linking together to change the world.

It has been another rewarding and successful year at UT PGE. We have honored the past by recognizing another impressive class of Distinguished Alumni and tracing back the history of the department through the UT PGE documentary. In the present, we have added much needed faculty members and continued to bring in top-tier students. We are embracing the future with innovative faculty and student research and the launch of the Ben H. Caudle Student Excellence Center. Here are some of my favorite highlights from the year, which will be shared more in-depth throughout the publication:

**Farewell 2012, Welcome 2016** – This past academic year, we proudly graduated 119 undergraduate and 55 graduate students, who have moved on to accomplish great things in the energy industry. We are also thrilled to bring in a talented 2016 class with a solid number of students to the program – more than 90. This year, the department hosted an inaugural freshman fall retreat so the students could meet the faculty, build relationships with their cohort and receive an overview of UT PGE at the beginning of the semester - it was a great success!

**Faculty Expansion** – UT PGE has been bursting at the seams, so adding more faculty was a critical agenda item for the year. I’m pleased to announce, we have added two lecturers, who are both graduates of the department and were leaders in industry for many years. In addition, UT PGE is adding two new faculty members, who will be announced later in the fall of 2012. The lecturers started in August and the faculty members will join for the spring semester. We are thrilled to have these talented educators join the UT PGE family as they will enhance students’ learning experiences.

**Alumni Ties** – We are honored to have such committed alumni who stay deeply connected to the department. We had a record number of guests at last year’s Distinguished Alumni dinner and tailgate, which honored six more prestigious former students, who made a significant impact not only in the oil and gas industry, but also on Texas and even the world. We also hosted a well-attended SPE ATCE alumni reception – the best part of the evening was standing next to the PetroBowl team as they received their check for placing first in the competition!

**State-of-the-Art Labs** – Last May, Baker Hughes donated $1.7 million to help with the establishment of UT PGE as the global epicenter of drilling and completions-related teaching and research, led by Dr. Eric van Oort. The labs will have an interactive teaching aspect and an updated curriculum for undergraduates and graduates heavily emphasizing the modern fundamentals which are key to succeeding in industry. To create a fruitful program, Dr. van Oort has brought in one of the best from the field - Mike Cowan, a sponsored Apache Corporation research fellow and a pioneer of deep water cementing.

**CPGE Record Research Dollars** – CPGE conducts more than $18 million in research annually – more than any other PE department. The faculty continues to find key business solutions for industry through innovative research. One of the big ideas is using paramagnetic nanoparticles for increasing flow assurance in oil pipes, which comes from the Nanoparticle Engineering for Subsurface Processes research program, headed by Dr. Steve Bryant.

**Student Summer Success** – Samantha Perry, our new student recruitment specialist, hosted a successful summer undergraduate research program, which invited 20 top students from UT and the rest of the country to conduct game-changing research with our faculty members. It was nice to have some student action in the department as the bulk of the students left for the summer to pursue internships with industry or travel abroad. I think you will find their stories quite compelling and interesting.

Looking ahead at the academic year, there is a lot to be excited about at UT PGE. The construction of the Ben H. Caudle Excellence Center will be complete, so students have a welcoming and technologically sophisticated area to study and do homework. The department’s website will have a completely updated look with fresh content that will be user-friendly for all audiences. Lastly, I’m looking forward to reuniting with many of you at this year’s ATCE SPE alumni reception in San Antonio and at the Distinguished Alumni weekend this fall in Austin.

Thank you for your continued support in helping us remain a top ranked department and a leading research center. Hook ‘Em!
This summer, the entire world watched as athletes competed in the 2012 Olympic Games. Twenty-one Longhorns competed in London, bringing home 13 medals – nearly half of them gold. While cheering on our Longhorns, I realized the amount of work that goes into creating a champion: parents that foster their children’s natural abilities and stand behind them through competition; coaches that push athletes beyond their limit to break records and achieve personal bests; and sponsors that provide financial support, equipment, and uniforms to ensure the athletes can focus solely on achieving their goals.

The same type of support network exists for the 800 students in UT PGE. As chair of the department’s External Advisory Committee (EAC), it has been exciting to watch the number one ranked Petroleum Engineering (PE) program stay focused and continuously improve. And it isn’t easy – PE programs across the globe are striving every day to win that gold medal, so the EAC must use their influence with UT leaders to help the department secure new resources and funding to remain the preeminent PE program in the world. However, we can’t do it alone. In the same way parents, coaches, and sponsors support our Olympic athletes, so must parents, faculty, alumni, and corporate partners support our UT PGE students.

This fall, my own son is joining UT PGE’s Class of 2016. He will learn from faculty like Dr. Larry Lake who literally wrote the book on Enhanced Oil Recovery and Drs. Mukul Sharma and Jon Olson who are conducting more fracturing research than anyone else in the country. These are passionate educators who not only share knowledge but create it. Dr. Gary Pope leads the Center for Petroleum & Geosystems Engineering, the department’s research arm where faculty conduct $18+ million annually in sponsored research – more than any other competing department. Professors are developing new technology and finding answers to the problems that keep industry executives up at night. They bring those cutting-edge discoveries into the classroom while also teaching the fundamentals.

After being involved with drilling operations for more than 30 years, it was easy for me to get behind expanding UT PGE’s efforts to focus on drilling, completions and production operations. Technically, these subjects require a multiple discipline approach to solve many of the problems. In this light, we are very pleased with the recruitment of Dr. Eric van Oort, a 20-year industry veteran, who will bring drilling to the forefront at UT PGE! His research to reduce non-productive time and invisible lost time in well delivery operations is another venue for UT PGE to proactively engage industry. He is also building a cutting-edge lab to provide students from across the Cockrell School of Engineering access to a drilling simulator and real-time operations center, so they can experience the same challenges we’re dealing with in the real world.

Industry must have a constant supply of well-educated engineers and every UT PGE student who walks across the graduation stage – our version of a finish line – needs a whole team standing behind them. I encourage you not to just cheer from the stands, but to get involved. It takes hard running to stay in the same place, and we must run even faster if we want to improve. That is why it’s critical to help expand UT PGE’s faculty, build new labs, and support students with scholarships and fellowships.

Dr. Tad Patzek leads a faculty that is committed to tackling the next challenge and refuses to be content with past successes. There is always a personal best to beat or another competitor giving chase, so we must never let our support for the department wane. Please join me in doing what you can to keep UT PGE Always #1.
The New Drilling Frontier

BY KATHARINE GRIEVE
Drilling for oil and gas is more complex than ever before. Wells are diving into ultra-deep water, with water depths greater than 10,000 feet and wells exceeding 35,000 feet in measured depth, where robots roam and humans don’t exist. This scenario paints a picture comparable to space exploration – going into unknown territory that contains great risk. Yet, the human drive remains to recover more hydrocarbon resources such that society can continue to fulfill its growing energy needs.

Dr. Eric van Oort, a professor at UT PGE, is launching three new labs this fall funded by Baker Hughes. They will address current drilling issues and provide sound solutions for how to improve drilling safety and efficiency, while at the same time addressing the complex new drilling challenges confronting the industry.

“We want to build the best drilling and completions-related program in the world, and the generous funding provided by Baker Hughes is integral to achieving this goal,” said Dr. van Oort. “With this funding, our students and faculty will have access to state-of-the-art equipment and facilities that support world-class teaching and research as well as development of new technologies. Very few institutions in the world can claim the capabilities that these labs at UT PGE will have.”

The three labs will each focus on specific research and teaching topics:

Zonal isolation improvement – One of the key issues in today’s harsh offshore environments as well as onshore shale well construction is ensuring proper zonal isolation—a control method that ensures oil and gas do not migrate up the annular spaces of a well after a reservoir has been drilled. Future research discoveries could improve methods for deepwater drilling as well as resolve the current controversy on hydraulic fracturing.

Real-time operations center – The goal of this lab is to collect real-time data from participating drilling operations around the world in order to improve sensor failure analysis, complex data pattern analysis, develop automation control algorithms, etc.

Drilling automation and efficiency lab – Students in this lab will use scaled-down rig equipment to try and automate the drilling process. Drilling dynamics and efficiencies will be studied as well. The lab will further enable advanced prototyping and research and development before wells are drilled.

“There is a major need to create new systems and solutions as the outdated technology will not meet today’s or future needs, said van Oort. “Modernization of these programs is crucial for training the next generation of drilling and completions engineers, especially because the bulk of current petroleum engineers are approaching retirement.”

To create a successful program, Dr. van Oort has brought in one of the best from the field. Mike Cowan, a sponsored Apache research fellow and a pioneer of deep water cementing with more than 55 patents to his name, will serve as a key player in developing a zonal isolation program that arms students with knowledge in safe and efficient drilling as well as enhancing the current technology.

“With deep water now a major focus, there is a clear need among operators to solve the problem of having the cementation meet the required level of reliability and integrity,” said Cowan. “The research at UT PGE will be on the leading edge for the next generation of wells.”

The labs will become part of a first-class drilling program, which will have an interactive teaching aspect and an updated curriculum for undergraduates and graduates heavily emphasizing the modern fundamentals which are key to succeeding in industry.
CANCER SOLUTION MAGNIFIES OIL RECOVERY

BY KATHARINE GRIEVE

Petroleum engineering and the biomedical field are not generally highly correlated, but both areas have discovered the same potential solution that could solve one of their most significant concerns. Early research has demonstrated that paramagnetic nanoparticles have the power to create a force shield for healthy cells in humans and oil in transportation lines.

Nanotechnology is not new by any means; its application is used in a variety of consumer products including golf clubs and clothing fabrics, and it is quickly finding a home in science fields. The Center for Petroleum and Geosystems Engineering Professors Steve Bryant and Chun Huh have been working for several years with nanoparticles, which are 1/100th the diameter of a human hair.

The light bulb went off for Dr. Huh while reading a medical research paper on the subject. The paper suggested nanoparticles can attach to “bad” cells in cancer patients, burn them off and leave the “good” cells intact – a much less intense process than the current options of chemotherapy and radiation. He thought this application, particularly the idea of targeted heating, could transfer to his work in petroleum engineering.

“Magnetic nanoparticles deliver intense localized heating, which can help with subsea flow assurance as it prevents the formation of hydrates,” said Dr. Huh. “We have created a ‘nanopaint’ that is applied to strategic areas inside of the pipe that absorbs the remotely transmitted magnetic wave, similar to a microwave, raising the temperature locally. This process could improve the transport of oil, especially heavy oil, through pipelines.”

Dr. Bryant, who is leading the Nanoparticle Subsurface Engineering Consortium, said, “No other university is working on nanoparticles as much as UT Austin. We see the need as oil production is increasing for the first time in 30 years. This idea can help control costs for oil & gas companies and at the pump as the drilling and construction of wells has significant costs.”

Further research is required to test its true effect on enhanced oil recovery, but the initial findings showcase paramagnetic nanoparticles possess strong potential, which can positively influence our health and economy.

For more information on the project, contact Dr. Bryant – steven_bryant@mail.utexas.edu

The “Shell” of a New Research Approach

Last year, UT Austin signed a $7.5 million research partnership agreement with Shell to develop new technologies to improve unconventional oil and gas recovery. The partnership, named Shell-UT Unconventional Research, or SUTUR, is now entering the second year of the five year program, which is meeting critical challenges in advanced characterization, fracturing technology, and enhanced recovery processes for shale gas and oil, heavy oil, and other unconventional resource plays. Research funding is awarded through a proposal process that includes faculty from UT PGE, and the Bureau of Economic Geology (BEG) in the Jackson School of Geosciences.

In the first year of SUTUR, UT PGE was granted four major projects in the highly competitive review process, consisting of five internal reviewers and 20 from Shell. In the second year, UT PGE was successful in receiving another project that will fund Dr. Maša Prodanović’s research, in addition to the continuation of the other programs. The funding also provided Dr. Steve Bryant with new equipment to improve the quality of research conducted in his labs.

BEG Director, Dr. Scott Tinker, and UT PGE Department Chair, Dr. Tad Patzek, led the development of the partnership.

“The project’s design and layout is a new approach to working with industry,” said Patzek. “The Shell research program has allowed serious collaboration between BEG in the Jackson School of Geosciences and UT PGE. This interdisciplinary model is the new standard for how to conduct quality and valuable research that meets industry’s business needs.”

The large collaboration that includes expertise from a variety of areas allows for complimentary capabilities that will meet the partnership’s goals. The intended accomplishments are providing dynamic solutions to complex problems through published results, educating the public and taking the conducted research into the field to enhance current techniques and processes.
During the summer most departments at The University of Texas at Austin become quieter. Within UT PGE, however, summer brings an influx of talented students from all over the country who are interested in research. This year, the Summer Undergraduate Research Internship (SURI) welcomed 20 interns. With most of the interns majoring in engineering disciplines outside of petroleum engineering, SURI is aimed at exposing innovative and motivated undergraduates to research in petroleum engineering, discussing energy problems, and educating students on the many different career paths under the petroleum engineering umbrella.

SURI started as a vision to recruit and admit the best and brightest students in America to the masters and PhD program. Generously funded by the S.P. Yates Memorial Endowment for Student Projects, Chevron and Schlumberger, as well as several other UT PGE endowments, the program has doubled in size since its inception in 2009.
During the summer, students learn how to conduct high-level research and build relationships with graduate students, professors, and other students in their cohort.

The faculty and graduate students are committed to giving the students freedom to dig into research and discover new connections in data, run experiments, and come to their own conclusions.

“My research group is called the ‘data torturers,’” revealed Dr. Larry Lake. “They are looking for connections in disparate data to see what it can tell us. They are enthusiastic, for sure!”

Blake Zisman, a summer intern, is on Dr. Lake’s research team. “We are looking into enhanced oil recovery data and trying to find if there is any correlation between the types of enhanced oil recovery, and any patterns out there that could better inform us about what works and what doesn’t.”

Some interns have experience in summer research, but nothing on the level of what they are doing now.

Virginia Bolivar-Baez said, “I like that in this internship I know the whole experiment because I can devote forty hours to it a week, as opposed to only working on a small piece of a research project.”

The interns with physics, mechanical engineering, chemical engineering, and aerospace engineering backgrounds had the most to learn when entering the program, but they all agree that petroleum combines elements of all the sciences. “I thought that petroleum engineers were highly specialized, but they aren’t,” exclaimed Ruth Hahn, a Trinity University senior.

“You can do research that uses a wide variety of backgrounds from mechanical engineering to physics to environmental engineering. There is so much to research out there, and it’s exciting to know about this whole world that I wasn’t as aware of before.”

The Summer Undergraduate Research Internship gives students the opportunity to get involved behind the scenes of the research conducted at The University of Texas at Austin.

“It’s hard to find the time to do research during the school year,” Tanner Bowell, from the University of Minnesota explained. “It’s a good opportunity for students who are interested in research. I had an industry co-op, and this has created a nice balance for me. I’m able to see both sides.”

Even petroleum engineer majors at UT Austin are seeing another side of the university.

Zisman explained, “I’ve seen my professors in a different light—they are conducting this research because they want to make the processes that we use out in the field better. They are passionate about it in a way that is different from their teaching.”

A surprising part of the internship for Ghazal Amar was the level at which the environment is taken into consideration in research efforts.

“The CO2 sequestration is completely based in helping the environment,” said Amar. “Society’s perspective is that we are wrecking the earth, but I really like that the research is about making it environmentally friendly.”

Not surprising, however, is how much the interns enjoyed their time getting to know Austin and the company of their fellow interns.

Daniel Mendel, from Atlanta, said, “It’s unfathomable, the amount of things to do here, from the parks to the bodies of water to the restaurants. I don’t think I’ve eaten at the same place twice. There’s no lack of new things to try.” Tanner added, “‘Keep Austin Weird’ explains a lot. It’s very open here, with a very artsy crowd. It’s not like this in Minneapolis. It’s very different than what you think of when you think about Texas…but I do miss hockey.”

The summer research interns wrapped up their time in Texas with a trip to Pedernales Falls with Drs. Hilary and Jon Olson to observe and learn about different types of rock layers. Geology is a huge part of petroleum engineering, so the interns were exposed to the types of rock formations found here in Texas.

After the educational excursion, the summer research interns created posters that highlighted their research findings and presented them at department and university-wide poster presentation days.

Ghazal will take back some advice to her fellow Rice students, “Apply. Even if you don’t want to be a researcher right now, you never know what will excite you, what’s out there to find out, how you can possibly change the industry with your ideas. How cool is that?”
Statoil Gulf Services, LLC., (Statoil) partnered with UT Austin, specifically the Petroleum and Geosystems Engineering Department and the Jackson School of Geosciences, early this year on an interdisciplinary project that funds $5 million over five years for graduate student fellowships. Graduate fellows will exchange data, where applicable, and their research experiences with Statoil teams as each fellow is teamed up with appropriate research partners in Houston. The first class of eight fellows was selected in March 2012 in a competitive process that considered 20 applications in four different areas of interest:

1. Integration of geological, geophysical and petrophysical data in earth models
2. Trap integrity in salt basins; sub-salt imaging and seal vs. pore pressure challenges
3. Drainage of deep marine reservoirs; static and dynamic reservoir models and drainage
4. Unconventionals; improved development of drainage of shale plays

Areas 1-3 are focused on characterization and predictive models for the recent discoveries in the Gulf of Mexico, Wilcox formation in particular, while Area 4 focuses on Marcellus and Eagle Ford shale formations. Thus, all focus on poorly understood tight reservoirs providing prime opportunities for the fellows to get involved on the current research frontier.

UT PGE students did extremely well in the first competition earning five out of eight fellowships. The Jackson School of Geosciences was awarded the other three.

In Area 1, Ayaz Mehmani, a UT PGE PhD candidate advised by Dr. Maša Prodanović, will focus on, “Investigating Tight Reservoir Petrophysical Properties Using Multi-Scale Multi-Physics Network Modeling.” Further, Master’s student Michael Merrell, advised by Dr. Peter Flemings, a professor in Jackson School of Geosciences, proposed a winning project titled, “Predicting Pressure and Stress State Near Salt in the Mad Dog Region.”

In Area 2, Soheil Ghanbarzadeh, a UT PGE PhD student advised by Drs. Prodanović and Marc Hesse, an assistant professor in the Jackson School of Geosciences, was awarded a fellowship for his project, “Formation of Texturally Equilibrated Pores: Is Salt Always a Hydrocarbon Seal?” PhD candidate Siwei Li, advised by Dr. Sergey Fomel, associate professor in the Department of Geological Sciences, will receive a fellowship to work on “Waveform Tomography with Cost-Function in the Image Domain.”

In Area 3, Robin Singh, a PGE PhD student advised by Dr. Kishore Mohanty, a professor in the Petroleum and Geosystems Engineering Department, will work on “Gravity Stable Drainage Rate for Multicontact Miscible Gas Floods.”

Meanwhile, Damian Markez, a Masters student advised by Dr. Leslie Wood, a senior research scientist in the Bureau of Economic Geology, will be working on “Quantitative Seismic Geomorphologic Analysis of Pre-Pliocene Systems in the Mad Dog Area, Gulf of Mexico.”

Finally, both fellowships in Area 4 were awarded to UT PGE PhD students. Christopher Blyton, advised by Dr. Sharma, a professor in the Petroleum and Geosystems Engineering Department, will work on “Refracturing Optimization Considering Stress Reorientation Surrounding Horizontal Wells in Low Permeability Reservoirs.” Ming Gu, advised by Dr. Mohanty, will be supported in his work on “Proppant Transport in Hydraulic Fractures Intersecting Natural Fractures.”
Many veterans of the industry know that this hasn’t always been the case. Before the emergence of companies like Brigham Exploration, Texas American Resources, Jones Energy, Three Rivers Operating and countless others, Austin had always historically hosted operators, but was primarily known as the home of the Texas Railroad Commission. And while most companies working Texas oilfields had some sort of business in Austin—be it legal and lobbying firms or petroleum consulting firms—it was never known as a place companies preferred to locate their headquarters. It was just too far away from the field.

**Idea Shops**

The sale of Brigham Exploration to Statoil in late 2011 was a remarkable transaction not just because of its size—$4.4 billion—but because Brigham Exploration was based in Austin.

Composed of a team of outstanding Longhorns, Brigham Exploration was originally founded in 1997 in the Dallas-Fort Worth area explains Gene Shepherd (BSPE ’81, MBA ’86), Brigham Exploration’s Chief Financial Officer. “At the time, it was an out-of-the-box thought process that led to Brigham’s relocation. It was a tight real estate market in Dallas back then. We were mostly an ‘idea shop’ trying out new technology, not deep into production and operations at the time, so we didn’t need to be in downtown Dallas.

So we looked farther and farther outside of downtown for a suitable office. Bud (Brigham) loved Austin, and given that we were an idea shop we could move to Austin and it wouldn’t set us back.”

The decision to locate in Austin continues to impact the Brigham team. After the sale of Brigham Exploration to Statoil last year, Bud Brigham, Gene Shepherd, and other Brigham folks formed Anthem Ventures, LLC. Based in Austin, Anthem will focus on investment opportunities in emerging resource plays, as well as oil service and infrastructure. Further plans are afoot to launch Brigham Resources, which will build on the achievements of Brigham Exploration.

Another company that falls into the “idea shop” model is Three Rivers Operation Company LLC. Formed in 2009 by a group of seasoned Austin-based oil and gas executives, Three Rivers began pursuing mature assets in the Permian Basin just as the price of oil was coming off of historic lows. According to Engineer Wes Gibbons (BSPE ’09), Three Rivers employed leading-edge technology to gain an advantage at just the right time. The combination of technology and the opportunity to get in on the ground floor led Gibbons to leave a business management consulting job in Houston behind to relocate to Austin.

“I knew that they were growth-focused and small. That was what I was looking for,” said Gibbons, who began with a
wide array of responsibilities including operations, regulatory filings, tubing and casing procurement and the like, and is now heading into reservoir engineering and business development. “In Houston I was ‘in the industry’ but I wasn’t using my degree like I wanted to. Here in Austin, I have the freedom to use my degree in a lot of different ways.”

One aspect of being located in Austin was the workforce situation. Shepherd admits that the market isn’t as deep for petroleum engineers locally, but that didn’t pose a problem for Brigham. “Rarely did we lose somebody to another company,” he said.

Gibbons sees the workforce issue changing rapidly. “Coming back to Austin? It was a huge motivation for me.” And even though Three Rivers has just completed its sale to Concho Resources for $1B, Gibbons feels confident this is just the start. “There are a lot of opportunities here—especially for petroleum engineers who are looking for more than just a technical career.”

**QUALITY OF BUSINESS, QUALITY OF LIFE**

Shepherd doesn’t discount the Texas meccas for oil and gas production. “I’m sure there are benefits to being in Dallas or Houston that we’d like to see, but the quality of life is very high in Austin. It’s a great environment for raising a family, and it’s such a healthy city with so many great things to do—all the biking, parks and festivals.”

When asked why he and classmate Don Sparks (BSPE ’62) decided to headquarter Platt, Sparks in Austin, Ronny Platt (BSPE ’62) points to the unique intersection of legal and regulatory business that often defines the character of a capital city. “For a lot of our earliest clients, we came into contact with them through the law firms handling the regulatory filings with the Texas Railroad Commission. What we realized was that there were plenty of petroleum consulting firms but very little real engineering expertise. It was a market we thought we could serve—doing real engineering studies that small, independent, and private oil companies could trust.”

According to Shepherd, another benefit from Brigham’s point of view was UT Austin itself. “There is a lot of benefit to being here because of the opportunity to work closely with the university—it’s huge.”

Bradley Sparks, Chief Financial Officer of Laredo Oil, said that his company relocated from Tucson, Ariz. in 2010 for not only the quality of life opportunities in Austin, but also because of the promise of working with UT PGE—both on technology and on its workforce. “What we do with gravity drainage is technically very complex, so it was important to have access to the best talent coming from a university like UT Austin,” said Sparks. “Plus, we get to be close to one of the best, if not the best, petroleum engineering programs in the country, and have already partnered with UT PGE faculty on some of our most challenging technology issues.”

“What’s really cool about being in Austin,” said Shepherd, “is that you get an opportunity to build something from the ground up. To start at the ground floor—ordering pencils and signing office leases—and see the enterprise through all the way to the successful sale of the company, that’s tremendous.”

In fact, Shepherd would tell today’s UT PGE students to consider seriously the options for great careers they might find in Austin. “I used to tell petroleum engineering students to go get a job in a big company. I don’t know that I would give the same advice today, given my experience here in Austin.”

Just three years after graduating, Gibbons offers a similar observation: “this isn’t the place for hardcore reservoir engineering careers, but if you’re entrepreneurial and want something different, you can find it in Austin.”
Much-needed renovations are under way to the Fancher Student Lounge, the Learning Resource Center (student computer lab), and the Reading Room on the 3rd floor of UT PGE. The combined renovation will be named to honor Dr. Ben H. Caudle, Professor Emeritus of UT PGE.

The funding for the renovations has been provided through generous gifts from dozens of Dr. Caudle’s former students, including Paul Woodul (BSPE ’73), Gary Thomas (BSPE ’72), Carol and Ken Nelson (BSPE ’70, MSPE ’73), Gwyn and Don Sparks (BSPE ’62), Valerie and Jeff Sparks (BSPE ’83), Jerry Windlinger (BSPE ’74, MSPE ’76), Betty and Wayne Greenwalt (BSPE ’72), and many, many other alumni representing over 40 years of Dr. Caudle’s teaching excellence and commitment to his students.

Since announcing the planned renovations, the department has engaged in some office shuffling that will result in nearly doubling the size of the Fancher Student Lounge. This is being accomplished through the removal of numerous walls and the reconfiguration of offices on the outer perimeter of the 3rd floor’s northwest corner. New technology is being provided through a generous gift from LINN Energy, LLC.

“When my former students sprung this on me, I was dumbfounded and astonished,” said Dr. Caudle about the announcement last fall. “I hope that this benefits the students, makes it a better learning experience for them.”

On Saturday, November 10, UT PGE will unveil the renovated spaces during the 2012 UT PGE Alumni Reunion and Tailgate. The start time for the reunion and tailgate, as well as the unveiling that aligns with the premiere of the UT PGE documentary, will be announced approximately one week before the game. Visit www.UTPGEAlways1.org for the latest information. We hope to see you there with Dr. Caudle and hundreds of alumni and students on November 10!
THIRD ANNUAL DISTINGUISHED ALUMNI PROGRAM: RECOGNIZING LEADERS WHO KEEP UT PGE ALWAYS #1

The UT PGE Distinguished Alumni Program honors six individuals annually for their outstanding contributions to the oil and gas industry, shining a light on their technical and business accomplishments, as well as their leadership in promoting the oil and gas industry.

UT PGE’s Alumni Committee is pleased to announce the 2012 Distinguished Alumni honorees, which include:

JOE C. WALTER, JR. BSPE ‘49
JAMES C. “JC” ANDERSON BSPE ‘54
ARLEN L. EDGAR BSPE ‘57
DR. KERMIT E. BROWN MSPE ’59, PHD ’62
DR. VARADARAJAN “DW” DWARAKANATH MSPE ’92, PHD ’97
STEPHEN E. SKINNER BSPE ‘01

The third annual Distinguished Alumni Reception and Dinner is set for Friday, November 9, 2012, at The Driskill Hotel in Austin, Texas. The reception will begin at 6:00 p.m., and the dinner at 7:00 p.m. The UT PGE Alumni Reunion will take place on Saturday, November 10, at the UT PGE Department. The time for the reunion will be announced at the beginning of November due to football scheduling.

As of press time, the UT PGE DA Reception and Dinner is underwritten by Chevron, Anadarko, Carrie Colbert, Hilcorp, Goldston Oil, Ursa Resources Group II, Russell and Heather Parker, Terry and Susan Perkins. Premier Sponsors include Jerry & Cherry Windlinger and Marathon Oil. Sponsors include Discovery Operating, Inc., Jeff & Elizabeth Edgar, Richard & Lois Folger, Pinkston Energy, LLC, Platt, Sparks & Associates, Don & Jeff Sparks, Sunflower Oil, Inc.

If you or your company is interested in sponsoring this unique tribute to UT PGE’s alumni, please contact Heath Hignight (512-471-3208; heath@mail.utexas.edu), or visit www.utpgealways1.org/sponsor

THE PGE STORY HITS THE BIG SCREEN

For more than 80 years, UT PGE has cultivated a culture of scientific and engineering inquiry, of business innovation and entrepreneurism, and policy leadership that helped place Texas and the U.S. at the helm of the global energy sector. Now thanks to the leadership of a few motivated alumni, UT PGE will have a professional historical documentary film that tells the story of how UT PGE’s 4,200 alumni and faculty, past and present, changed the world and how the future generation will have the same, if not a greater, impact.

The idea for the documentary came from a discussion between Shahid Ullah (BSPE ‘82), and Dr. Gary Pope at the 2011 UT PGE Distinguished Alumni Reception & Dinner.

“Energy is the most important industry in the world today, and UT PGE’s contributions going back many decades have led to the industry’s contributions to global economic growth,” says Ullah. “We felt we needed to find a way to document this important history.”

Ullah worked tirelessly to find other alumni interested in supporting the project. Together with David Kennedy (BSPE ‘81), Greg Pipkins, Sr. (BScHE ’81, MBA ’84), Russell Parker (BSPE ’00), and Richard Calloway (BSPE ’82), Ullah secured funding to enable the project to get off the ground. “UT PGE is the best petroleum engineering department in the world, and we have to make sure that graduates past, present, and future know it,” says Ullah.

With a length of approximately 25 minutes, the film will premiere on Saturday, November 10, during the 2012 UT PGE Alumni Reunion and Tailgate (see page 25). After its premiere, the film will be targeted to air on The Longhorn Network and utilized as a recruitment tool.
The film will include several sets of character interviews that will interweave throughout the 80-year story of the department and its alumni. Tying the film together will be the role of the subject matter experts who can offer a perspective outside of the department. The film will include interviews, historical photos and b-roll (supplemental video footage) to best tell the story of UT PGE.

Austin-based Alpheus Media has been working throughout the summer to film alumni, current students, faculty, and oil and gas industry executives. Alpheus has told award-winning stories for clients and partners including the Lance Armstrong Foundation (LIVESTRONG), PBS, The University of Texas, the Sundance Preserve, Discovery Networks, UT System, EnviroMedia, and the Dolph Briscoe Center for American History at UT Austin. Their work has been showcased on network and cable television, at film festivals, and in the New York Times. The company has earned several awards, including Emmys, Hugos and Tellys.

There’s still time to get involved! Alumni and friends who make a gift to this project of $250 or more by October 15 will be listed in the film’s credits. For more information, contact Heath K. Hignight, UT PGE Development Officer, at 512-471-3208 or heath@mail.utexas.edu.

SPE ATCE ALUMNI RECEPTION

UT PGE is headed south to San Antonio for the Society of Petroleum Engineers (SPE) Annual Technical Conference and Exhibition (ATCE) alumni reception. Last year’s event in the Rocky Mountains was well received by former students, so this year we are excited to have the UT PGE family on the River Walk! Please join us for drinks, passed appetizers and mingling with fellow alumni, current students and faculty.

Monday, October 8, 2012
5:30 – 7:00 p.m.
Grand Hyatt, 600 E. Market St., Room “Texas D,” San Antonio, TX

RSVP: www.utpgealways1.org/spe-reunion

Questions: Contact
Katharine Grieve at 512-471-3269

NEW PGE WEBSITE LAUNCH

The Petroleum and Geosystems Engineering website is receiving a makeover, launching in October. The new, user-friendly site will offer exciting features that will meet the needs of future and current students as well as alumni and industry. You will have the opportunity to connect with UT PGE through meaningful avenues including:

ROTATING FEATURE STORIES – The four carousel articles will highlight innovative faculty research projects, students making a difference at UT PGE and prominent alumni positively impacting industry or academia.

HIRE A UT PE – Looking to hire a talented intern or full-time employee? Visit the “Hire A UT PE” page under the “Alumni & Industry” tab to view resumes and Linked-In profiles of students seeking to obtain a position in industry.

PHOTO OF THE DAY – Since a picture is worth a thousand words – PGE is showcasing all the wonderful experiences of our faculty, students and alumni through a camera lens. From the labs in CPE building to the North Slope of Alaska, we are highlighting how PGE is changing the world. If you have a photo to submit, please send it to: Katharine Grieve, katharine.grieve@austin.utexas.edu

There’s still time to get involved! Alumni and friends who make a gift to this project of $250 or more by October 15 will be listed in the film’s credits. For more information, contact Heath K. Hignight, UT PGE Development Officer, at 512-471-3208 or heath@mail.utexas.edu.
WELCOME CLASS OF 2016

UT PGE is thrilled to welcome the 2016 class. The undergraduate students started their college journey around the 2012 London Olympics and will close the books with the 2016 Olympics in Rio de Janeiro. Successful UT PGE students share a lot of common characteristics with Olympic athletes: highly motivated, committed, team players and knowledge seeking. In addition, the four-year experience will have rewarding and challenging moments as students will be tested.

This class is unique as they participated in the first ever Freshman Fall Retreat sponsored by BP. The day-long event:
• Provided incoming students with a sneak preview of UT PGE
• Allowed students to build meaningful relationships with their cohort
• Taught the importance of obtaining internships and joining student organizations
• Introduced students to faculty and staff members

One neat story out of the freshman class is a set of incoming fraternal twin girls, Emma and Jessica Fogarty, who both share a passion for petroleum engineering. When asked why they chose UT, Emma said, “I know I will be held to high standards, but provided with a ton of great resources. Also, both my mom (Susan Whitten Fogarty) and grandpa (Harry Dreggors) came to school here, so I saw it was a good university.”

Emma and Jessica Fogarty

Emma and Jessica shared the aspects of college they are looking forward to the most. Emma said, “I have always been interested in math and science, so petroleum engineering is exciting to me. I think there are great opportunities for women in the petroleum field too.” Jessica added, “I’m most looking forward to living on my own and having the ability to choose my own path.”

Both girls shared how lucky they felt to be able to share a similar college experience as they will have a great support system within each other, which will help them succeed. Both have set high goals for themselves as well. “I want to be more involved than just academics. It’s important for me to get internship experience and potentially study abroad. I’m also excited about joining a sorority and meeting a ton of new people,” said Emma.

KEY HIGHLIGHTS
FROM THE INCOMING FRESHMAN CLASS (excluding transfer students):

• Number of Students: 93
  • Average SAT: 1370
  • Average HS Rank: Top 7% (93%)
  • HS Valedictorians: 2
  • Males: 71 (76%)
  • Females: 22 (24%)
  • In-State Students: 81 (87%)
  • Out-of-State: 12 (13%)
Petroleum and geosystems engineering students don’t spend their summers off of school lounging by the pool, but rather gaining solid field experience in internships or traveling abroad to learn about different cultures. Three UT PGE students shared their interesting summer adventures that made a significant impact on how they think about their majors and the world.

Every day, at six o’clock in the morning, the alarm clock would urge Victoria Dean out of bed. It was earlier than she’s used to waking, even during the school year. Every morning, she would check the weather, put on light clothing underneath her standard issued FRC’s (fire resistant clothing) and secure her hair back and tight, as a safety precaution for working on a rig.

Dean was one of the few freshman interns with Chesapeake Energy, based in Oklahoma City, Okla. She shadowed someone different on any given week; one of the frequent activities was heading out to the field to experience what it’s like to be a rough neck. On the first day, she was warily regarded by the men.

“The men walked on eggshells at first around me,” Dean said. “They weren’t sure how sensitive I would be with the heavy machinery. Once you force them to allow you to help, you start to become one big happy family.”

Dean’s advice for any students seeking an internship as a freshman: “take advantage of presentations and programs aimed at helping you get an internship, know about the company that you’re talking with, and (although she admits it’s cliché) believe in yourself.”

Dean thought her internship paid off in the end. “This internship has really put everything into perspective,” said Dean. “You see what you learn in the classroom at work in real life and, most importantly, no matter how many formulas you have, unexpected problems will arise. The fun part is solving them!”

Halfway around the world, Sarah Woodard traveled abroad. This was not her first rodeo; Woodard has traveled around Europe before - she crossed the pond last year and backpacked for six weeks with her sister. However, this time she wanted to go alone, “I’m a photographer and wanted to take things at my own pace.”

Due to the strong number of international travelers during the summer, Woodard was not lonely on her trip.

“I found new friends every day,” said Woodard. “The best friend I made was from London. We toured Barcelona together, road tripped through Croatia, and even snuck into Plitvice Falls.”

Celebrating the beginning of the summer in Barcelona was her favorite moment abroad. Standing under a foreign sky, with fireworks exploding overhead, music in the streets, and dancing on the beach until sunrise with a friend from The University of Texas at Austin was an experience that will stay with her forever. And if her memory fades, her photos will last.

Jason Koplin had been an intern at Shell for two summers in a row, but this summer was different. He was assigned to work on a critical component of the Perdido Spar, which is the world’s deepest drilling platform, located two miles south of Galveston, Texas. The riser is a giant pipe that is 8,000 feet long which connects the platform to the sea floor.

“My summer included travel to Port Fourchon, La. to organize the yard where the riser would be inspected and repaired, to the Perdido Spar, and time at One Shell Square as a drilling engineer intern where I made actual contributions to the team. It was a heck of a busy summer,” said Koplin.

Koplin was most impressed by the caliber of people he met while working at Shell.

“I was surrounded by the most intelligent, supportive, and team-oriented people I have ever met,” said Koplin.

Koplin spent a large amount of his time watching engineers run subsea operations, exploring the rig, and managing the Riser Yard.

When asked about advice he would give to students looking for internships, Koplin had these words of wisdom to share: “Be excited and show it. Companies want to hire people who demonstrate that they want to work for them.”
PGE is a world-renowned petroleum engineering department, but there is more to the department than just petroleum. Since 1999, the Petroleum Engineering Department has partnered with the Jackson School of Geosciences to offer an interdisciplinary degree in geosystems engineering and hydrology (GEH).

Students who choose to major in GEH not only get a background in petroleum engineering, but also a solid foundation in geology and the movement of water underground. For the first two years GEH students are almost completely devoted to geology, with classes in geosciences.

William Luu, a junior GEH major, has found that the options for him have been diverse. “In a big university like UT, being in a unique major has really helped me stick out and thrive,” said Luu. “Because GEH is interdisciplinary, your classes cover a broad range of topics, so you are able to customize your own degree and tailor it to your interests.”

Luu has taken advantage of the resources available to him within PGE as well as in the Jackson School of Geosciences. Career centers, job boards, and career expos are open to him in both schools, so marketing himself to a wide audience has been easier.

“You can really sell yourself however you want, according to the company that you’re interviewing with for a position,” said Luu.

Set to graduate in the spring of 2014, Luu secured his first internship last summer, which brought into perspective his educational PGE experiences. “I was a Summer Undergraduate Research Intern for UT PGE. My supervisor and I worked on the topic of asphaltene decomposition and how it affects well pipes.”

In addition to his internship, Luu has taken advantage of other opportunities within UT PGE. He attended Shell’s Jack Hirsch Memorial Drilling and Production Camp this past winter. “It gave me a great overview of the operations side of industry, and gave me a real-life view of what I’m working on every day.”

Luu said the career possibilities are endless. “I could go into industry or graduate school. GEH covers petroleum engineering well, but there is also the possibility of doing environmental work. I think we add value to research since we bridge the gap between geosciences and energy. I’m excited to see what the future holds.”

Matthew Lake graduated with a degree in geosystems engineering and hydrology in 2000. He was among the second graduating class after the program’s creation and has found that the GEH degree has taken him in directions he did not anticipate when he registered for his first class.

“My first semester I was enrolled in calculus, chemistry, physics, geology and PE 101,” said Lake. Geology was my favorite class, so when the degree was created as a dual degree between petroleum engineering and geological sciences I thought why not and signed up.”

Lake admits obtaining the GEH degree wasn’t easy. “Petrophysics and thermodynamics were tough courses, and I had to take an environmental engineering graduate course that was also very difficult,” said Lake. “The GEH degree offered a broader understanding of geological sciences than the PE curriculum, which I’ve always felt is a differentiating advantage for me.”

Lake didn’t jump into the petroleum engineering field headfirst after his graduation.

“My internship was technology driven, and I didn’t want to leave Austin, so I started working for a relatively new software company in town that focused on oil and gas economics,” said Lake. “By August, I was working at TRC Consultants, the developers of PHDWin.”

With the GEH degree being relatively new, Lake has spent time educating employers about his major. “The GEH degree at that time, and my understanding is still this way, was somewhat obscure and required explanation,” said Lake. “The important part, however, was that it was an engineering degree from UT, and I think that explaining it as a dual degree linked to PE got people comfortable.”

When talking about advice he would give students contemplating the GEH degree, Lake said students should think hard about what they want to do with their lives.

“If you are more drilling, oil and gas production, and reservoir physics oriented, then PE is probably a good fit,” said Lake. “If geology, hydrology, geophysics, and environmental engineering is interesting to you, then GEH may be the major for you.”

The biggest thing for Lake is to not be afraid to be different and forge your own path.

“At the end of the day, it doesn’t matter if you are a GEH or a PE; you have the skill set to succeed.”
MEET THE PRESIDENTS - Q & A

Two popular student organizations within UT PGE are the Society of Petroleum Engineers (SPE) and American Association of Drilling Engineers (AADE). Both organizations elected a talented senior to take the reins this fall. The presidents shared their goals, ideas and aspirations, among other things, for the year.

SOCIETY OF PETROLEUM ENGINEERS - DOUG McMASTERS Email – doug.j.mcmaster@gmail.com • SPE Website – http://www.speut.com

What are your goals this year for the organization?
Our major goals include: increased communication with younger students, new outreach to local high schools, expansion of membership to and the inclusion of other types of engineering students and creation of a relationship with the Austin SPE Professional Chapter. Additionally, we would like to refine our existing meetings and events and clearly define and communicate our expectations with companies that come share and visit. We also hope to develop our website and Facebook page with more information and resources for the students to help them with their job search, general knowledge and networking contacts.

Do you have any exciting events or trips to conferences planned?
This year, SPE’s ATCE is in our backyard! Hopefully, since San Antonio is closer, we will be able to take a larger group of students to the conference for networking, learning and fun. Last year our PetroBowl team won the competition, so the big aim is to be there to support our new PetroBowl team and win the competition again. Wish us luck!

What drives your passion for the organization?
A major reason I got involved with SPE was I wanted to make the sharing of knowledge about petroleum engineering and the oil industry easier to communicate. As a result, I am looking for methods, materials, props and equipment to demonstrate with when we perform community service events at Explore UT, Introduce a Girl to Engineering Day and classroom use for demonstration and explanation of engineering principles. This is extremely important to me and very valuable to the industry for transparency and for technical and public education. To help facilitate this effort, I am looking for donations of working models, field equipment, educational material and/or funding to create, develop or purchase our own. If you are interested in contributing, please contact Heath Hignight, the PGE Development Officer: heath@mail.utexas.edu.

AMERICAN ASSOCIATION OF DRILLING ENGINEERS - TIM WINTER
Email – timw722@gmail.com • AADE Website – http://utaade.org

What are your goals this year for the organization?
My top priority for AADE this year will be continuing its growth. Over the last three years the attendance at meetings has more than doubled. This year I want to continue reaching out to other engineering students interested in drilling, and encourage them to attend our meetings and events. Another one of my main goals is to develop a mentoring program where new students can get help from an upperclassman with their resume, questions about the industry, what to expect during an interview, etc. To continue the growth of AADE, I believe it is important to start involving PGE students as soon as they enter the department.

Do you have any exciting events or trips to conferences planned?
AADE is hoping to take a group of its members on a rig/facilities tour this year after the success we had at Hilcorp’s Eagle Ford asset last fall. On October 5, AADE will be hosting its third annual sporting clay tournament that serves as a great networking event and our main fundraiser for the year.

What type of presidential legacy do you hope to leave behind?
I hope to be remembered for bringing PGE students together with each other and industry representatives through professional and social events. I also would like to make sure that AADE is recognized around campus for its involvement in community service activities.
Dr. Patzek’s Polish Professorship

President of the Polish Republic bestowed upon Dr. Tad Patzek, a native of Poland, the title of “Full Professor,” granted through a vote of the Council of Ministers. The promotion case was submitted by the Mining and Metallurgy University (AGH) in Cracow, which has the largest petroleum engineering department in Poland. This honor is the highest academic rank one can receive in Poland, outside of the Academy of Sciences.

Chun Huh Honored as IOR Pioneer

Dr. Chun Huh, a UT PGE research professor, was honored with the prestigious IOR Pioneer Award at the 18th SPE Improved Oil Recovery Symposium last spring in Tulsa, Okla. The IOR Pioneer award is given every other year to leaders in the field of IOR research. Drs. Mohanty, Pope, Lake, Hocott, Caudle and Schechter, of this department, have been honored with this award at previous meetings.

PGE Students Sweep PhD Division in Gulf Coast Competition

UT PGE sent five students to compete in the SPE Gulf Coast Regional Paper Contest last spring in Baton Rouge, Louisiana. The students were pitted against teams from Texas A&M, Texas Tech, University of Houston, and Louisiana State University, in the PhD, MS, and BS divisions.

The UT PGE students showcased their talents by excelling in several contest categories. PGE swept the PhD division, with Mahdy Shirdel placing first and Javad Behseresht placing second. In the MS division, Gaurav Sharma placed third. Both Christopher Blyton and Philip Flores gave strong papers in the MS and BS divisions, respectively. Mahdy will now compete in the SPE International Competition at the SPE ATCE conference this fall in San Antonio.

Ayaz Mehmani wins Student Award at International InterPore Conference

Ayaz Mehmani was the 2012 winner of the Procter & Gamble Student Award for an outstanding student poster presentation at the 4th International InterPore Conference on Porous Media & Annual Meeting at Purdue University.

Mehmani, a PhD candidate in the Petroleum and Geosystems Engineering Department advised by Dr. Maša Prodanović, presented a poster titled: “Investigating Gas Permeability in Shales Using Multi-physics and Multi-scale Network Modeling” coauthored by Drs. Prodanović and Javadpour of UT Austin. Mehmani impressed the awards committee by successfully combining multiscale 3D pore network models with novel transport equations for gas transport on nanoscale that result in nonlinear, pressure dependent permeability estimates and shed light on nanometer scale control on transport properties.

Dr. Bommer Receives Teaching Award

The Academic Affairs Committee of the Student Engineering Council (SEC) hosts Faculty Appreciation Week each year in March. It is an annual spring tradition in which engineering students vote to recognize one outstanding engineering faculty member from each department. In 2012, Dr. Paul Bommer received the prestigious award for UT PGE! He was celebrated at a dinner hosted by the SEC where he was honored by both students and faculty.

In addition to his solid research and presentation skills, Mehmani is also a Statoil Graduate Fellow, has a GPA of 4.0 (on 4.0 scale), is fluent in five languages and is active in UT Austin student organizations.
UT PGE Adds Perry and Winn to Staff

During the 2011-12 year, two talented professionals joined the UT PGE staff, bringing a wealth of knowledge to the department as both were already members of the Longhorn family. Samantha Perry is the new Recruitment Support Specialist, assisting PGE with recruiting the best and brightest students through strong programs and strategic campus visits as well as serving as a resource and advocate for current students. Previously, Samantha served as the Admissions and Recruiting Coordinator for the McCombs School of Business, Business Honors Program as well as a Hall Coordinator with the Department of Housing and Food. She earned her bachelor’s degree in Political Science from the University of Alabama and her master’s degree in Higher Education from Florida State University.

In June 2012, UT PGE welcomed John Winn as the new Senior Administrate Associate. John is responsible for the department’s purchasing, accounting, conference room setup and support and backup to technical staff. John traveled a short distance to UT PGE from the Faculty Innovation Center (FIC) housed in the Mechanical Engineering department, where he served for nearly 15 years as the Office Manager and Procurement Officer. A warm PGE welcome to both Samantha and John!

Dr. Peters’ Book Series Release

UT PGE retired professor Dr. Ekwere Peters’ highly anticipated three volume book series on “Advanced Petrophysics” has been released and is available for purchase on Amazon.com.

A practical, fast-paced approach to teaching the concepts and problems common in petroleum engineering that appeal to a wide range of disciplines, this series covers core topics and includes full-color CT and NMR images, graphs, and figures to illustrate the practical application of the material.

The books provide a basic understanding of the physical properties of permeable geologic rocks and the interactions of oil, water and gas with their interstitial surfaces, with special focus on the transport properties of rocks for single-phase and multiphase flow.

Based on Dr. Peters’ acclaimed graduate course taught at UT PGE, “Advanced Petrophysics” features over 140 exercises and a series of real-world projects that enable the reader to apply the principles presented in the text to build a petrophysical model using well logs and core data from a major petroleum-producing province.

Srinivasan and Balhoff Receive Prestigious SPE Awards

Drs. Sanjay Srinivasan and Matt Balhoff both received prestigious national awards from the Society of Petroleum Engineers (SPE). Dr. Srinivasan was selected as the winner of the SPE Faculty Pipeline Award for 2012. The award is given to a faculty member in petroleum engineering who has developed innovative techniques to recruit PhD students into a PE program who have a preference for going into academia rather than into the industry. With PGE’s talented PhD pool, it is clear Dr. Srinivasan’s efforts have been quite successful.

Dr. Balhoff was selected for the SPE Teaching Fellow Award for 2012. In the pilot program, SPE is recognizing PE faculty who have developed innovative techniques to teach petroleum engineering students. The techniques Dr. Balhoff has demonstrated are different teaching methodologies in class, innovative ways of interacting with the industry, presentation material which combines the fundamental knowledge students require, the technological advances the industry has made, and better methodologies to interact with the students. Thanks to Dr. Balhoff UT PGE students receive strong teaching, resulting in enhanced learning.
Philip Charles Crouse (BSPE ’73, MBA ’75) passed away on July 10, 2012, at the age of 60. He was born in Brooklyn, New York, on July 14, 1951. Philip graduated from Permian High School in Odessa, Texas, in 1969 and married Cindy Warman the same year. He attended The University of Texas at Austin and received his BS in petroleum engineering with honors in 1973 and his MBA in 1975. His career began in the West Texas oil fields as a roustabout, and later he worked for Getty, Texaco, and Humble. Moving to Dallas after graduation, he joined Atlantic Richfield in long range planning. Then at Champlin (UPRC) he developed E&P strategies for development of Long Beach fault blocks. In 1978, he was instrumental in applying for regulated pricing options. He was nominated by Sun to the Conference Board Congressional Fellow program and was chosen as one of 10 participants from a spectrum of corporations. At age 28, he was the youngest participant in the program’s then 10-year history. He served as a senior staffer on the U.S. Senate Committee and was responsible for a $5.5+ billion budget segment. Upon completion of the program, Philip was chosen as part of a Senate staff team to assist the incoming President Reagan’s transition team in the area of agriculture (since he was from Texas “farm” country). Returning to Dallas, Philip opened Philip C. Crouse and Associates, Inc. a consulting practice which took him to more than 30 countries. He was among the first advocates of horizontal well technology. He consulted with Japan Drilling Company, ADMA-OPCO, and other companies in the use of new technology areas. This led to 23 years of providing courses and conferences in horizontal drilling, coiled tubing, geosteering and data management and integration through Petroleum Network Education Conferences (PNEC). Philip was a Distinguished Member and life member of the Society of Petroleum Engineers where he served as a director to SPE International and trustee to the AIME. He authored many articles, training manuals and gave more than 800 speeches to the international petroleum community. Philip was member of Highland Park United Methodist Church, a 32nd degree Mason, and a member of Scottish Rite Free Masons. He was married to his high school sweetheart, Cindy, for 42 years. They enjoyed life together traveling, boating, golfing, fundraising and volunteering and being with each other and their families and friends, and enjoying their second home in Arkansas.

Robert Rosswell Durkee, Jr. (BSPE ’52), of Austin, Texas, passed away on Tuesday, December 27, 2011, at the age of 82. He will always be remembered as a loving husband, father, grandfather, and friend. Bob was born in Wichita, Kan., to Robert and Dora Becker Durkee on December 4, 1929. He graduated from Lamar High School in Houston, Texas, in 1948 and The University of Texas at Austin with a degree in petroleum engineering in 1952. He was a member of the Longhorn Football Team in 1948 and 1949. Bob leaves behind his cherished wife of 58 years, Jean Kellner Durkee, their three sons, and seven grandchildren. Bob’s petroleum engineering career spanned over 60 years in Louisiana and Texas. During this time he held engineering and executive management positions with Standard Oil of Indiana (Amoco), Ballard & Cordell Corp., Celeron Oil & Gas Corp., GLG Energy, and Capital Resource Management. Bob was a registered professional engineer and a member of the Society of Petroleum Engineers. He was a member of the Friends of Alec Petroleum Engineering Foundation, the University of Texas Chancellor’s Council, and the Ramshorn Society. Bob was also a member of Kappa Sigma Fraternity, Tau Chapter (63 years), Texas Exes, the Royal Court as Duke to King Gabriel XLVI of the Mardi Gras Krewe of Gabriel,
Chairman of the Southern Oilman’s Tennis Tournament, and a member of the Oilers Little League Football coaching staff. He was elected to the first Resident Council at Querencia at Barton Creek and served as Treasurer from 2007 to 2009. Bob’s wishes were that any donations go to the scholarship he established for undergraduate petroleum engineering students at The University of Texas at Austin. To make a gift in Bob’s memory, please contact Amanda Brown at (512) 471-4046 or amanda.brown@austin.utexas.edu.

BRIAN JAMES JENNINGS
(1960 – 2012)

Brian James Jennings (BSPE ’84) of Dallas, Texas, passed away on May 28, 2012, at the age of 51. He was born in Cleveland, Ohio, on September 9, 1960. Brian leaves behind his wife, Lisa Cavalier Jennings, and their daughter and son, and his father, brother, and sister as well as many other extended family and friends. He received his BS in petroleum engineering from The University of Texas at Austin in 1984. He began his professional career at ARCO International Oil & Gas, a subsidiary of the Atlantic Richfield Company, then went on to receive his MBA from the University of Chicago’s Graduate School of Business in 1989, with concentrations in finance and accounting. From 1989 through 1999, Jennings held various investment banking positions in the natural resource and energy M&A groups at Kidder, Peabody, Lehman Brothers and UBS Paine Webber before becoming Senior Vice President Corporate Finance & Development and Chief Financial Officer of Devon Energy Corporation. He then served as the Chief Financial Officer of Energy Transfer Partners’ L.P. Jennings went on to establish Rise Energy Partners in March 2008 and served as the President and Chief Executive Officer.

CLARENCE EDISON KIRBY
(1929 – 2012)

Clarence Edison Kirby (BSPE ’58), known to friends as Kirby and to loved ones as Poppy, passed away on March 28, 2012, at the age of 82. He was born on September 21, 1929, in Waskom, Texas. He graduated as valedictorian from Waskom High School in Waskom and attended Kilgore Junior College. He graduated from Centenary College in Shreveport, La., with a BS in Geology in 1955 and The University of Texas at Austin with a BS in petroleum engineering in 1958. Kirby served as a SP4 in the U.S. Army with the 653rd FAOB (Field Artillery Observation Battalion) during the Korean Conflict. He was employed by Halliburton Services for 32 years and was a District Superintendent of both the Perryton and Pampa districts in Texas, as well as District Manager of the Hays, Kansas district. Kirby was a member of the Society of Petroleum Engineers and the American Petroleum Institute. Kirby was an active member of Pollard United Methodist Church of Tyler. Left to cherish his memory are his loving wife of 55 years, Patsy Aliece Henry Kirby; their two sons and two daughters; and one grandson and three granddaughters. Clarence’s wishes were that any donations be made to The Department of Petroleum Engineering at The University of Texas at Austin. To make a gift in Clarence’s memory, please contact Amanda Brown at (512) 471-4046 or amanda.brown@austin.utexas.edu.

Brian served on the Board of Directors of Arch Coal, Inc. and on the External Advisory Committee for the Department of Petroleum Engineering at The University of Texas at Austin. Jennings was an incredibly loving husband and father. He took tremendous pride in the accomplishments of his children, and spending time with his family was his greatest joy. He will be remembered by his beloved family, friends and business associates for his total commitment to everything he did in life, his unbelievable intelligence, compassion, love of culture, travel, art, music and sports, humbleness, integrity, and witty sense of humor. His family requests that donations be made to The Christopher and Dana Reeve Foundation at www.christopherreeve.org, or 636 Morris Turnpike, Suite 3A, Short Hills, New Jersey 07078.
UT PGE REMEMBERS

STANLEY C. PHIPPS
(1935 – 2012)

Stanley C. Phipps (BSPE ’53) passed from this life on May 21, 2012, at the age of 77. Stanley was born in Sherman, Texas, on January 2, 1935. Stanley leaves behind his wife of 51 years, Jemmy Kay Phipps, and their two daughters and five grandchildren. Stanley was a petroleum engineer in Dallas for D.R McCord & Assoc. and their subsequent companies for 18 years, when he resigned and went to work in Algeria for two years as a consultant to Sonatrach, the national Algerian oil company. In 1978, he left Algeria to become a consultant to Petrofina Brussels, Belgium where most of his work was done in Luanda, Angola. He also did a few small assignments in Stavanger, Norway and Milan, Italy. After 20 years of commuting by air, he decided it was time to retire. Stanley loved his work and was very proud of his high ethical standards displayed in his work with many people of other lands and cultures. He was a 1953 graduate of Sherman High School and was salutatorian of his class there. He was a 1958 graduate of The University of Texas at Austin where he graduated in the top five percent of his engineering class. Stanley’s wishes were that any donations be made to the “Friends of Alec” engineering scholarship fund at The University of Texas at Austin. To make a gift in Stanley’s memory, please contact Amanda Brown at (512) 471-4046 or amanda.brown@austin.utexas.edu.

JACK ZARROW
(1925 – 2012)

Jack Zarrow (BSPE ’47), a Russian immigrant’s son who built a philanthropic pipeline that continues to fuel various charity efforts in and beyond Tulsa, Okla., passed away on February 2, 2012, at the age of 86. Zarrow’s survivors include his wife, Maxine; his brother, Henry; three children; four grandchildren; and one great-granddaughter. Born in Tulsa in 1925, Jack C. Zarrow was the third child of Russian immigrants Sam and Rose Zarrow. Jack Zarrow married Texas-native Maxine Foreman in 1947, the same year he graduated from The University of Texas at Austin with a degree in petroleum engineering. He joined his older brother’s company, Sooner Pipe and Supply Co., later that year. He went on to become executive vice president, as well as president and CEO of the Zarrow family’s growing stable of nonpipeline oil enterprises. Business success would enable the Zarrows to support countless causes and charities, such as The Maxine and Jack Zarrow Family Foundation and the Zarrow Families Foundation. He also served on the boards of many Tulsa institutions, including the University of Tulsa and the Gilcrease Museum, where he was a former chairman and a director emeritus. Zarrow also served on various boards and committees throughout Tulsa and Oklahoma. A member of both the Tulsa and Oklahoma halls of fame, Zarrow received many awards and honors. As a distinguished graduate of the Cockrell School of Engineering, Jack and his wife Maxine were also responsible for establishing 11 endowments at The University of Texas, ranging from engineering professorships and graduate fellowships to K-16 teaching awards and scholarships for future teachers.
DISTINGUISHED ALUMNI
Reception and Dinner

Friday, November 9, 2012
Reception 6:00 p.m. • Dinner 7:00 p.m.

The Driskill Hotel
604 Brazos Street • Austin, TX 78701

Tickets are $125 each and seats are limited.

2012 HONOREES

Joe C. Walter, Jr. BSPE ’49
James C. “JC” Anderson BSPE ’54
Arlen L. Edgar BSPE ’57
Dr. Kermit E. Brown MSPE ’59, PhD ’62
Dr. Varadarajan “DW” Dwarakanath MSPE ’92, PhD ’97
Stephen E. Skinner BSPE ’01

UT PGE ALUMNI REUNION AND TAILGATE

SATURDAY, NOVEMBER 10, 2012

UT PGE Department – Corner of Speedway and Dean Keeton

Time: TBA once kick-off is set

UT PGE is thrilled to host the third annual alumni reunion and tailgate prior to the Iowa State vs. Longhorns football game – this year’s event is filled with monumental department moments that our dedicated alumni have brought to fruition, including the Dedication of the Ben H. Caudle Student Learning Excellence Center and UT PGE Documentary Premiere. Please join fellow alumni, current students and faculty for FREE food and fun outside of the UT PGE Department!

Questions? Contact Heath Hignight at (512) 471-3208 or heath@mail.utexas.edu
CONGRATULATIONS GRADUATES

BSPE & GEH GRADUATES
DECEMBER 2011

Abshire, Austin
Chiu, Tzufang
Darby, Wilson
Dholakia, Niyant
D’Ortona, Thomas
Fasshi, Samad
Fischer, Bret Alexander
Ford, Erin
Fu, Yao
Giraldo, Mateo
Golo, Artur
Gutierrez, Guillermo
Hatley, Sarah
Kim, Eugene
Nguyen, Joseph
Patterson, James
Roussel, Jeremy
Schroeder, Katherine
Schuyler, Ryan
Shaffer, Celeste
Stolyarov, Nikita
Sublett, Bradley
Sullivan, John
Wang, Botong
Wendt, Cameron

MSPE GRADUATES
DECEMBER 2011

Arlanoglu, Cagdas
Ayoub, Daniel
Christine, Chichi O.
Fu, Joseph Yuchun
Ghadimipour, Amir
Goudarzi, Ali
Hernandez, Angelica
Jerath, Kanay
Kocababuc, Berkay
Marouby, Philippe
Owoputi, Olarinde
Popielski, Andrew C.
Solairaj, Sriram
Walker, Dustin L.
Wang, Wenli
Yadav, Himanshu

PHD PE GRADUATES
DECEMBER 2011

Abdollah Pour, Rohollah
Dehghanpour, Hassan
Mollaei, Alireza

BSPE & GEH GRADUATES
MAY 2012

Aitkulov, Almas
Anwar, Ryan C.
Barratt, Nolan Ryan
Barth, Megan Elizabeth
Blais, Cara Anne
Boyle, Allison Diane
Brady, Philippe Byron
Brandon, Wesley Banks III
Brannon, Brittany Lynn
Brown, John Foster
Builes, Juan Esteban
Bullock, Austin Glen
Byrd, Andrew Michael
Carruthers, Phillip C.
Chabala, Ryan Joseph
Chou, Andrew Ander
Clark, Bernard Francis IV
Coddou, Stephen John
Coffey, Clay Allen
Cole, George William III
Collins, Thomas Reed
Connolly, Brian Anthony
Crow, Devin Ellis
Cruz, Kacie
Davis, Kevin Wade
Donald, Audrey Rae
Doungphae, Rattanun Ohm
Ferrell, James Patrick
Flores, Phillip Jeffrey

Jocelyn Perroux and Girijaa Ramlakhan
Fredrickson, Matthew C.
Goloway, Christina Marie
Gomez, Omar Oziel
Han, Kawnhee
Handoko, Eric
Haque, Mustafa Hasansadi
Hoang, Timothy Vu
Joseph, Philip Cater
Kalteyer, John William
Kuykendall, Sydney Erin
Lansford, Landon Addison
Lucero, Randi Paige
Luna, Matthew Bryce
Ma, Duli
Magruder, Agustin Logan
Maruwada, Pragnya S.
Maxwell, Price Adams
McPherson, William Joshua
Muir, Clifford Edward III
O’Donnell, Amy Lauren
Olatunji, Jameel Adebola
Osterhus, Andrew Edward
Patteson, Douglas Markham
Paz, Cynthia Analis
Perroux, Jocelyn Michele
Pitts, Zachary Len
Pollard, Clay Austin
Qiu, Jiale
Quadir, Samir Guler
Qutob, Najy Waseem
Rabb, Carson Paul
Ramlakhan, Girijaa E.
Regal, Cory Mark
Reyes, Jose Francisco
Rhyne, Craig Tyler
Roling, Ashley Lynn
Sanchez Rivera, Daniel
Schulz, Eric Clinton
Sendze, Versheri M.
Sovil, Robert Eugene Jr.
Stell, Thomas Robert
Strnadel, Barrett N.
Studdert, Logan Patrick
Sullivan, Taylor J.
Swanson, Nell Cameron
Todor, Cameron Mark
Tomblin, Sydni Michelle

Tysor, Robert Chan III
Vela, Salvador Gumecindo
Vera, Ricardo Robespier
Wall, William Hayden
Waters, George Armstrong
Watson, Scott Thomas
West, Matthew Scott
White, Victoria Piper
Whitworth, Kassi Ann
Wright, Tyler James
Wilkinson, William Earle
Worrell, Garrett
Zhang, Li

MSPE GRADUATES
MAY 2012

Bhowmik, Sayantan
Blyton, Christopher
Coleman, Stuart
El Chidiac, Cedric
Kim, Eric Youngwoong
Kozaki, Chie
Murphy, Michael
Onbergenov, Ulan
Ribeiro, Lionel
Singh, Harpreet
Xie, Yihao

PHD PE GRADUATES
MAY 2012

Betancourt, Soraya
Ghanbarnezhad Moghanloo, Rouzbeh
Lee, Kyunghaeng
Metin, Cigdem
Yu, Haiyang

BSPE & GEH GRADUATES
AUGUST 2012

Alonso, Daniel Venture
Ausburn, John Aaron
Awosanmi, Afolabi Omotayo
Burck, William Davis
Chapa, Blanca

DOuvry, Christopher Louis
Fu, Qiang
Immaraj, Joel Varun
Knapp, Charles Avery
Lee, Boum Hee
Marrow, Ashley Elizabeth
Midura, Justin Doyle
Molina, Alberto Luis
Rogers, Richard William IV
Spring, Abiola Cecily
Tso, Chak Hau Michael
Velasquez, Ray Alexander

MSPE GRADUATES
AUGUST 2012

Abdulbaki, Mazen
Allahverdiyev, Parviz
Azom, Prince Nnamdi
Bahorich, Benjamin
Checkai, Dean
Ghasemi Doroh, Mojtaba
Hamza, Syed Farrukh
Li, Xue
Reynolds, Harris
Rodrigues, Neil
Salies, Natalia
Tiple, Kyle
Winters, Matthew
Zhang, Hang

PHD PE GRADUATES
AUGUST 2012

Saadatpoor, Ehsan
Sakhaee-Pour, Ahmad
Sun, Tie
Tao, Qing
Yuan, Changli
Zhang, Tiantian
The University of Texas at Austin
Petroleum and Geosystems Engineering
1 University Station C0300
Austin, TX 78712-0228

KEEP IN TOUCH

We enjoy receiving alumni news so we can profile it through our communication materials and outlets.

Please continue to share how you are changing the world!

UPDATES, NEWS AND PHOTOS MAY BE SENT DIRECTLY TO:
Katharine Grieve
The University of Texas at Austin
PGE Department
200 E. Dean Keeton St., Stop C0300
Austin, TX 78712-1585
Phone: (512) 471-3269
katharine.grieve@austin.utexas.edu

UT PGE THANKS 2012-13 WORKFORCE INITIATIVE COMPANIES

UT PGE will award a record number of merit-based scholarships to undergraduate students thanks to the generous support of the following companies for the Workforce Initiative program. These companies support excellence in academics and are key to the long-term success of student recruitment and retention efforts.

PLATINUM ($50,000+)
BP • Chevron • ConocoPhillips • Hilcorp

GOLD ($35,000)
BHP Billiton • Chesapeake Energy
EOG Resources
Pioneer Natural Resources

SILVER ($25,000)
Anadarko • Apache • Devon • Hess
Marathon Oil • OXY • Shell • Statoil

BRONZE ($15,000)
Baker Hughes • Newfield • Schlumberger

PhD student, Kelli Rankin