## The Cougar Engineer



Chasing a Dream

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### From the Dean

### Greetings Cougar Nation!

We hope you're having a great summer! At the University of Houston, we are rapidly preparing for a new academic year while continuing our path to Tier One status. At the UH Cullen College of Engineering, we have been diligently working to move our programs up in national rankings to establish a new level of excellence for our faculty, staff and students.

In many ways, our students already embody Tier One excellence. This spring, our Concrete Canoe, Chem-E Car, IEEE Robotics and VEX Robotics

teams dominated four local and regional competitions. These wins demonstrate the quality education and mentoring UH engineering students receive from our programs and faculty. We are incredibly proud of these students for their accomplishments as well as the many alumni who continue to support their efforts.

Part of our strategic plan outlines the need to improve the educational offerings for our current and prospective students. We are happy to announce that we will be launching an honors program in engineering this fall. The program is expected to provide high-achieving students a more comprehensive curriculum in addition to a variety of experiential learning activities such as undergraduate research.

Also, we are launching an executive master's of industrial engineering program, giving working professionals specialized training in project management and engineering administration. In addition, we are working to expand program offerings in biomedical engineering and petroleum engineering. All of these measures reflect the ever-changing needs of the engineering profession and our on-going mission to advance engineering education.

In this issue of The Cougar Engineer, we feature several alumni who are inspired to help others. Whether through their professions, through personal service or through financial support, these alumni are reaching out in their own ways to advance education and make a difference. We hope you enjoy our latest edition!

Go Coogs!

Joseph W. Tederco

Joseph W. Tedesco, Ph.D., P.E. Elizabeth D. Rockwell Endowed Chair and Dean





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Out of the Ordinary

here is a story behind every picture, ceramic vase and sculpture in Gus Kopriva's (1971 BSCE) Heights art gallery.

From the 1,000-year-old Nok Head from Nigeria to the Rembrandt etching, every piece has character—right down to his dogs.

"These were royal dogs," said Kopriva, stroking the head of Luna, one of his rare Peruvian Hairless dogs, in the back room of Redbud Gallery. "They are the dogs of the Inca and Peruvian empires. They are represented on the ceramic pottery of some of the early pre-Incan cultures. In fact, the reason they are so rare is that few made it through the Spanish Conquest back when the conquistadors would fight the breed with their dogs."

They'd be all but extinct, Kopriva said, had it not been for peasants who kept the dogs believing their bare, roughly 103-degree skin had healing powers.

Luna and Pluto were with him when he traveled back to Houston from Peru following "Amistad: Texas Art in Peru," an exhibit he curated at the Museo De La Nacion in Lima. The dogs, and the unique story that comes with them, are one of many treasures he's brought back from more than 175 exhibitions he has organized to share Texas art with visitors to museums across the world.

Few art lovers know, however, that prior to volunteering with art-focused nonprofits or starting Redbud Gallery, Kopriva received a civil engineering degree at the University of Houston. Since 1981, when he became heavily involved in the arts, he's been balancing the love with work at Dow Chemical.

To learn more, read the full story online at

—Erin D. McKenzie

Photo by Thomas Shea

**OUT OF THE ORDINARY** 

### Gala Honors Alumni

Six University of Houston Cullen College of Engineering alumni were recognized at the 2010 Engineering Alumni Awards Gala in June. Held annually since 1987, the event honored not only their contributions within the community, but also to the engineering profession.

Lifetime Achievement Award: Durga Agrawal (1969 MSIE, 1974 PhD IE), president and CEO of Piping Technology & Products

Distinguished Engineering Alumni Award: Delvin Dennis (1980 BSCE), Houston District Engineer for TXDOT; and John Randall (1975 BSEE, 1977MSEE, 1981 PhD EE), vice president of Zyvex Labs

**Distinguished Young Engineering Alumnus Award:** Carlos de Aldecoa Bueno (1997 BSIE), president of Maximus Coffee Group

Entrepeneur/Innovation Award: Tranh Tran (1995 MSEE, 2001 PhD EE), engineering manager at Texas Instruments

Abraham E. Dukler Distinguished Engineering Faculty Award: Leang-San Shieh (1967 MSEE, 1970 PhD EE), professor of electrical and computer engineering at the University of Houston



### Alumni in the News

Venkat "Selva" Selvamanickam (1988 MSME, 1992 PhD MatE) and his work with superconducting electrical wire was featured in an article in the May 2 issue of the Houston Chronicle. Selvamanickam joined UH as the M.D. Anderson Professor of Mechanical Engineering in 2009.

The Associated Press mentioned Bill Callegari (1972 MSCE) in a story about Texas lawmakers supporting the university's bid to join the Big 12. Callegari was elected to the Texas State Legislature in 2000. He is one of only two licensed engineers in the house of representatives.

Benton Baugh (1967 BSME), president and owner of the oilfield engineering and manufacturing company Radoil, offered his expertise on the recent Gulf oil spill in stories done by Channel 11 News and The Houston Chronicle.

Gregory Bohuslav (2010 BSBioE) was guoted in the article "Soul Seeker: A Neuroscientist's Search for the Human Essence," featured in the Texas Observer in June.

### TV Show Features MULE

Catch the show, "Ultimate Weapons," on the military channel. Their episode, "Robotic Warriors," features the Multifunction Utility/Logistics and Equipment (MULE) vehicle Joe Zinecker (1982 BSEE, 1985 MSEE), program director for Future Combat Systems MULE Program at Lockheed Martin, and several other UH engineering graduates from his team are working to construct for the United State's Army. It is one of several futuristic unmanned war machines covered in the broadcast.



### Alumnus Publishes Book

John Okyere Attia's (1984 PhD EE) book, PSPICE and MATLAB for Electronics: An Integrated Approach, Second Edition came out in June. Attia is a professor and the department head of electrical and computer engineering at Praire View A&M University.

### **UH Earns Green Rating**

The University of Houston was named one of the most environmentally friendly colleges in the nation by The Princeton Review. The "Guide to 286 Green Colleges," honors a higher education institutions' commitment to environmental literacy programs, formal sustainability committees, use of renewable energy resources and recycling and conservation programs.

### **Stay Connected** facebook twitter Linked in Are you a user of Twitter, Facebook or LinkedIn? If so, connect

with your alma mater at one of the college pages on these social networking sites, and join our new page on Amplify!

As an added bonus, share one of your best memories from your years at the University of Houston Cullen College of Engineering and you'll have a chance to win a special prize! Send all memories to us via e-mail at cougarengineer@egr.uh.edu by Sept. 20, 2010. The winner will be chosen by our editorial staff and posted to our social networking sites.



### Mark Your Calendar

**Engineering Alumni Association** Annual Meeting and **Networking Social** UH Athletics/Alumni Center

### **UH ASCE/Civil Engineering Reunion**

Campus Recreation & Wellness Center

### 2010 EAA Football Tailgates

EAA Pavilion, Robertson Stadium

UH vs. Texas State

UH vs. UTEP

UH vs. Tulane Sept. 25 12 p.m. Tailgate, 2:30 p.m. Kickoff

UH vs. Mississippi State Oct. 9

UH vs. UCF Nov. 5

UH vs. Tulsa

HAPPENINGS

## **BEYOND** THE **PROFESSION**











FEATURE BY ERIN D. MCKENZIE | PHOTOS BY THOMAS SHEA

The famous scientist Albert Einstein said it best.

### Conly a life lived in the service to others is worth living.

It's a philosophy many Cougar engineers have taken to heart. Across the country, UH Cullen College of Engineering graduates are giving back to their communities not just by using knowledge they have gleaned from the coursework taken for their degrees. They are improving the world around them through service work.

Highlighted in our feature are four such engineering alumni who are learning that a little human compassion can go a long way. FEATURE

# NANCY CURRIE

••• Your dreams are worth fighting for. That's what I tell kids. If you really want to achieve great things in your life you are going to have to work at it. •• Even though it has been eight years since **Nancy Currie** (1997 PhD IE) gazed at the beauty of Earth from space, memories of the image still make her pause.

"There is no film, there is no video, not even a painting that can really describe how beautiful it is," said Currie, who logged more than 1,000 hours in space on four shuttle missions as a NASA astronaut.

The unique sight, few have glimpsed with their own eyes, was hard earned for Currie. But her journey there taught her an important lesson she now shares with schoolchildren across the country.

"Your dreams are worth fighting for," Currie said. "That's what I tell kids. If you really want to achieve great things in your life you are going to have to work at it. There are going to be obstacles to overcome, but they will make you stronger. Just find what you are passionate about and stick to it. That's what I did."

She uses anecdotes from her own life to provide encouragement, through her speeches, never to give up.

Now a retired Army colonel, it's a philosophy she's stuck by. Growing up in the small town of Troy, Ohio, Currie saw her future in her father's World War II flight stories.

"Those stories, his pictures—they made me want to become a pilot," she said. "Luckily, he never once explained to me that little girls don't grow up to be pilots in the Army."

Currie didn't let the lack of other women, or the fact she'd never once flown, stop her from following her dream. Though, at just 5-foot, her height almost ended it. That is until newly adjusted height requirements approved her for pilot training after finishing her bachelor's degree in biological science from Ohio State University.

"I had never flown before Fort Knox," Currie remembered of her Kentucky-based basic training. "We had been going through basic training there and crawling through the mud and then I was on my first helicopter ride. We were flying above the treetops, and I remember looking around and thinking, 'this is definitely what I want to do.' From then on I never looked back."

By the time she had earned her master's degree in safety from the University of Southern California in 1985, her flight experience and the sight of some of the first female astronauts grew her interest in space. Despite doubts by several around her, she added her name to the list of astronaut hopefuls.

While she didn't make it on her first try, she accepted an offer from NASA to be a flight simulation engineer on the shuttle training aircraft in 1987. It's when her outreach really got started. She began speaking at schools in her hometown, her former colleges and, on occasion, teaching "space" math in classrooms locally.

Still, she remained focused on becoming an astronaut—adding studies toward a doctoral degree in industrial engineering at the University of Houston to NASA work and now life as a single mother. But by 1990, her hard work paid off and she earned the title as the smallest astronaut in history.

While in uniform, she flew the Endeavour, Discovery and Columbia shuttles. When budget constraints made it impossible for NASA to construct a suit for spacewalks to fit her small size, she focused work on robotics.

During STS 88, the first International Space Station assembly mission, Currie used Endeavour's 50-foot robotic arm to retrieve the first Russian-made module, Zarya, and connect it to the American-made Unity module.

Currie flew her last mission in 2002, though she continues to work at NASA as the NESC Chief Engineer in charge of safety. Currie now lends her years of NASA robotics expertise as a referee and judge at robotic competitions regionally and elsewhere.

For as Currie puts it, beyond space, there is nothing she is more passionate about than inspiring kids to achieve their dreams.

"My parents didn't go to college," she said. "My math, chemistry and biology teachers really gave me confidence in my abilities and opened up opportunities for me that made me want to go to college and follow my interests."

The outreach she does, is her way of giving back to others what her high school teachers gave her: the motivation to reach for the stars. FEATURE

# <u>OKECHUKWU OFIL</u>

When **Okechukwu Ofili** (2004 BSME) arrived in Houston in January 2000, he didn't have much more than a suitcase and a single check from his parents to cover his first semester's tuition.

But it was enough, Ofili remembered, to jumpstart his family's promise to him: a college education in America.

"My dad really believes that one of your greatest investments is in a person," said Ofili. "In Nigeria, the educational system really wasn't robust, especially at the university level, so my dad made a promise that he would get us the best education he could possibly get us."

For Ofili, that was at the University of Houston.

Much like his life back in Nigeria, the next few years were a lesson in perseverance. Financially, college was always a struggle. Being an international student only made it harder as he applied for a small percentage of scholarships available to those with his status.

"My dad made a huge financial sacrifice to get me here," he said. "That check I came with was the only funding I ever received from Nigeria. The rest I had to figure out on my own. Those were some difficult times with lots of uncertainty."

It was so hard that about halfway through he made himself a promise.

"I really made a pact to myself that when I got out of college whatever I could give I would give."

Give, he has. For the last two years, he has personally financed a \$1,500 chaynge.org creative writing scholarship. This is in addition to helping sponsor scholarships for students in the UH Chapter of the Nigerian Student Association, which he belonged to as a student.

He's also sat on the scholarship board of the UH Engineering Alumni Association. For the last three years, he has not only helped raise money, but also delegated funds to deserving students from his alma mater in this role.

Yet, his influence doesn't stop there. His early life in Nigeria was largely behind the inspiration for another form of outreach—motivational speaking. As Ofili tells it, as a youth he was looked upon as a slow learner and branded as a failure by numerous instructors. This all culminated his eighth grade year, when he brought home a less-thansatisfactory report card. Instead of ranking in the middle of his class, Ofili fell to the 38th spot in a class of 40.

"I was really afraid because I was thinking about what my parent's reaction would be," he recalled. "I took my report home to my mom, who was in the kitchen cutting vegetables, and she didn't react. She didn't say anything. She just looked at it like 'OK it's just something normal.' It really upset me."

It was at that moment, he decided to change how the world looked at him. And, more importantly, how he looked at himself. Ofili started arriving early to class, asking his teachers questions and studying with the high achievers.

"That will always be the moment that changed the way I looked at things," he said. "I think that is key; if you change your perception about things, you can achieve a lot. I did, the next semester I was ranked 15 out of 40 in my class. It only got better from there."

He graduated from UH summa cum laude with a degree in mechanical engineering and is currently working at FMC Technologies where he designs subsea equipment for the petroleum industry.

Now, when Ofili speaks people listen. He has traveled the world speaking at churches, universities, even his own Nigerian high school about scholarships and internships, academics and navigating corporate America. The speeches, geared toward high school and college students, use important moments in his life—such as the report card story—to inspire students to achieve excellence.

Many will be featured in his first book, *How Stupidity Saved My Life*, scheduled to come out later this year.

"As long as I don't lose my voice, I'll speak and try to help people," he said. "It is something I can see myself doing for a long time. It's had meaning for a lot of people, including myself. It's the thing that's really kept me going—the passion for just seeing people's lives change because of this."



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FEATURE

# JAMES SLAUGHTER JR.

<sup>(</sup>I love helping people. Women's craft training gave me that chance, plus established a model that can be duplicated elsewhere when skilled construction labor is in short supply. **?** 

It's not uncommon for James Slaughter Jr. (1970 BSChE) to swap his business suit for a T-shirt and shorts on a workday.

On a makeshift stage, setup at one of his company's construction sites, the Houston native will belt out rock and country songs with a few of his fellow employees who happen to have some musical talent.

The gesture, Slaughter says, is all in the name of motivation.

"It's just my way of trying to pick up employees, especially if it's been a tough job or we are a little behind," said Slaughter, president of S&B Engineers and Constructors, a full service engineering and construction company his father helped start in 1967. "It's a motivator for employees."

"There was nowhere for me to go up before," the 33-year-old While he has paused to do this periodically for the last 15 said. "I'm making \$7 more an hour now and I don't have years, this business owner's big heart extends much farther to worry so much about bills. I've bought a bigger house than just encouraging others with a few musical notes. for my family, and I'm enjoying what I'm doing. There are Two years ago, he started a program to help women in the opportunities for me now-the one's I always wanted."

community better themselves.

It was shortly after Motiva Enterprises' announced they planned to significantly expand their Port Arthur refinery. With S&B named a major subcontractor on the monumental \$9 million expansion, Slaughter was faced with the major challenge of finding enough skilled workers to man the project. So he came up with a unique idea.

He designed a program that would train local women to fill the shortage.

"The jobs most women get in construction leave no room for growth," Slaughter said from his Houston office. "I wanted to put women in non-traditional construction jobs, and train them in craft skills that right now only about 2.7 percent of women in construction have. That's not much. There are more than 7.5 million in the industry and just over 200,000 are women."

With the economy beginning to rebound, Slaughter is looking to hire graduates of the program that may be lacking jobs. He is considering training more. These women, just like those previous, will not only learn valuable craft skills through a combination of hands-on and classroom instruction, but be The majority of Slaughter's recruits have been single mothers working minimum wage jobs at fast food restaurants, grocery assured one of Slaughter's famous musical performances at stores and the like. But Slaughter has stood by a promise. their graduation.

If they enroll in S&B's four-month Women's Training Program they will be paid to learn pipefitting and welding skills that increase their pay and advance their careers in the construction industry.

For Farrah McCurley that is exactly what Slaughter delivered.

A Port Arthur native and single mother of two boys, McCurley spent years in construction's lowest paying jobs. Never was anyone interested in helping her move up.

Always willing to learn, McCurley earned her chance with Slaughter's program and is now a pipefitter for S&B. The job, she said, has made it easier to provide for her family and allowed her to help achieve her dream of advancing in construction.

So far, his program has graduated 54. It was even recognized in 2009 with The Construction Users Roundtable (CURT) Award for its uniqueness. Since its implementation, Dow Chemical has started to use the model to train women in craft skills for projects and BP America is preparing to do so as well.

"This is a program I really believe in," Slaughter said. "Implementation of the women's training program put more women in construction crafts that, in turn, address the national skilled worker shortage. Not to mention, women in our area have been able to increase their income very significantly over minimum wage to make better lives for their families."

FEATURE

# KIN TOPPS

**Kim Topps** (1996 BSEE) has a lot of people to thank for her upbringing.

An uncle for his subtle hints at deeper life lessons, and individuals with the Houston YMCA for instilling in her proper etiquette. Even her neighbor, an electrician, who made the effort to feed her early fascination with electricity.

She credits them all, and many others, with molding her into the well-rounded person she is today.

"They say it takes a village to raise a child, and that was certainly true for me," said Topps. "After my parents' divorced when I was just eight, my mom was left a single parent. But she had lots of people step in and help inspire me and encourage me to do well."

Their investment, Topps said, caused her to strive for excellence throughout her life. Especially, when it came to her education.

While her journey to a bachelor's degree began at Lamar University on a track and field scholarship, it ended at the University of Houston after the demands of being an athlete and the distance from her family became too great. It's where she thrived, devoting herself fully to exploring the possibilities in engineering and joining the Program for Mastery in Engineering Studies (PROMES) and continuing with Alpha Kappa Alpha Sorority.

And there has been lots of service work with children in Topps' own community. It's a move her own mentors inspired.

"All my teachers, church members, neighbors and family are really my motivation for giving back," Topps said. "Now it's become part of who I am—trying to make the world better than how you found it."

### And she has.

So much so, that earlier this year she was presented the Elmo Delasbour Humanitarian Award. Given annually by the Red Cross for exceptional community service work, it is named after a longtime firefighter who made it his mission to educate citizens on fire safety issues.

Listening to Topps share the ways she gives back, it's easy to see why she was selected.

For the last six years, she has coordinated the wish list for some 70 children at the DePelchin Children's Center. She regularly serves Houston's homeless at Star of Hope and Bread of Life as well as gives her time to mentor troubled teenage boys through AKA High School Leadership Development Program, a program she created with her sorority.

At her Pearland church the list is even longer, and includes teaching vacation bible school and the church's praise dancing group. She even started a program, The Spirit of Excellence Award, to honor high achievers in the congregation.

"This award is presented to any student that maintains the A and B honor roll as well as has satisfactory conduct," she said. "It is pretty powerful for a child when the whole church stands up for you."

It was the inspiration behind the 4.0 GPA she maintained while pursuing her master's degree in business administration from LeTourneau University.

"I had to set an example," she recalled. "I couldn't ask these kids to do something I wasn't. And they held me to it, believe me."

She's juggled these commitments amidst a 13-year career as an engineer for NASA and her longtime side business, Top Event Planners. Though it's often a challenging load, Topps said, she wouldn't have it any other way.

"To me, you always make time for what's important, and volunteering certainly is. You just never know when you could be faced with a difficult situation," said Topps, who in February was laid off after the NASA program she was developing software for was terminated. "I don't ever want to think that I'm too busy to stop and encourage someone."



To me, you always make time for what's important, and volunteering certainly is. You just never know when you could be faced with a difficult situation," said Topps, who in February was laid off after the NASA program she was developing software for was terminated. "I don't ever want to think that I'm too busy to stop and encourage someone. ">

# CHASING DREAM

By Erin D. McKenzie

personality or even his signature University of Houston suspenders.

Underneath his UH baseball cap is a full head of silver locks.

At 85 years old, Hall is the oldest person enrolled at the Cullen College of Engineering, but he's just as sharp and dedicated as the more than 2,700 others occupying space in the engineering classrooms. So much so that he tried his hand at skydiving recently to validate a safety analysis for an assignment in his system safety engineering course.

"It got me an A," Hall said, "not to mention my thrill of a lifetime."

While it's more difficult for Hall to read due not only to his age, but a childhood injury that took his right eye, he remains committed to earning his doctoral degree in industrial engineering. "I'm trying to finish by the time I'm 88, so I have two years to work," he snickered. "I hear it's hard to get a job after you are 90, but, of course, I haven't checked this out yet."

While this timeline gives him three more years, Hall admits, he isn't rushing anything.

Prior to this latest higher education goal, Hall dabbled in studies at four other universities before landing at UH. It's a choice he called the right one. Here, he earned two bachelor's degrees while working full-time as an engineer for various contractors supporting NASA and the space program. Then 11 years after earning his bachelor's degree in industrial engineering, he completed work for his master's degree in safety from the University of Southern California while working for Ford Aerospace.

"Now that I'm retired, I actually get a chance to really focus and soak everything in," he said, noting it's part of what has made pursuing this degree so special.

So far, this grandfather of seven is two years into the requirements for his Ph.D. It is a quest, Hall said, he had been thinking about starting ever since he and his wife, Myra, gave an endowed scholarship in industrial engineering in 2005.

Slowly, he's been making progress toward its completion—commuting in by city bus to take, on average, two classes a semester.

Each day he wears his dedication to UH and the drive to fulfill a dream, which have both made an impression on many he encounters.

Financially, he and his wife have provided endowed scholarships not only to the Cullen College, but the College of Natural Sciences and Mathematics, the College of Education, the Conrad N. Hilton College of Hotel and Restaurant Management and the Moores School of Music in the College of Liberal Arts and Social Sciences. These gifts have brought many University of Houston students closer to their own goals.

But it's been Hall's decision to follow his own higher education dream so late in life that has allowed him to touch so many on and off campus.

He is a true testament to the fact that it's never too late to learn.



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SPOTLIGH

#### Class Notes



### BY ERIN D. MCKENZIE

hen John Berry Rogers (1950 BSME) attended the University of Houston Cullen College of Engineering things were a lot different. The roads were not paved, buildings on campus lacked air conditioning and men didn't always have a choice to enlist in the military and go to war.

It was a world far different than the one known by most spring graduates Rogers walked the stage of Hofheinz Pavilion with May 15. Yet despite the differences, just like them, Rogers was celebrating a milestone. He was collecting on a privilege that war didn't allow him 60 years ago when his United States Navy unit was called to provide support in the Korean War, forcing him to miss his graduation ceremony.

The chance to finally recognize his achievement was nearly indescribable. "My education from the University of Houston was something I always treasured," said Rogers, who turned 91 in May. "To be able to finally recognize my accomplishment, it's really something special."

Never receiving his mechanical engineering degree with all his peers was a regret Rogers shared with his grandson, Toby Hooper, at the Armed Forces Bowl game Dec. 31.

"We braved the cold to support the team," Hooper recalled of the trip Rogers took with him, another grandson and a great-grandson. "It was at that time that he told us the story that he had always wished he could have gone through

commencement. I just had to see if I could do something."

So Hooper began contacting university staff. Eventually he reached Renia Lusby, an events assistant

coordinating commencement, who said Rogers' family was hard to ignore.

"I hope one day I have grandchildren that care about me like Toby cares about his grandfather," said Lusby. "As soon as he shared the story of his grandfather, that's all I needed to hear."

After receiving the proper blessings from those above her, Lusby arranged for Rogers to walk in commencement. With details falling in place, Hooper called his grandfather—who was unaware of his efforts-a month prior to graduation to share his quest to give back the opportunity Rogers had lost so long ago.

"I wasn't really expecting it," Rogers said. "To tell you the truth, I got a little tearyeyed at the gesture."

The degree had always meant a lot to him. The son of a sharecropper, he was the first in his family to earn a high school diploma, let alone a college degree.



He grew up in rural Erath County, Texas. After high school he worked on a chicken farm until the Depressionera agency, the Works Progress Administration, enrolled him in a training program teaching machine shop operation and landing him work as a machinist at Reed Roller Bit in Houston. It wasn't long before the Japanese would attack Pearl Harbor, and four months later, the cruiser USS Houston would fall to the Japanese.

"When it sunk over 1,000 lives were lost," Rogers said of the USS Houston. "They were trying to recruit people in the city to replace these men."

So on May 25, 1942, Rogers was among 1,000 to volunteer to replace the Houston crew by enlisting and taking the Navy oath in a street ceremony in downtown Houston.

He would serve three-and-a-half years as a machinist mate in World War II—missing the birth of two of his three children—before being honorably discharged and returning to Houston. But these sacrifices for his country had earned him his first opportunity, at 27 years old, to pursue a college education at UH with the military's GI Bill.

Thousands of veterans, just like Rogers, enrolled at UH following the war. Like Rogers, many raised their

families in the makeshift quarters they once called Veteran's Villagerows of trailers setup as temporary housing on university grounds.

Though the GI Bill helped fund Rogers' education, he needed money to support his family, so he went back to his former job at Reed Roller Bit. Still, it was difficult to get by. Soon, Rogers said, he made the difficult decision to re-enlist in the military as a Navy reservist to supplement his family's income.

Two years later, Rogers would receive news that would make his knees buckle and change the plans for his approaching graduation celebration.

grades of Q.

"That's what they did back then," he said. "It meant I was successfully passing at the time of termination, so I was able to get my degree."

He saw his degree for the first time when he returned to Houston after a year and a half on the USS Glendale.

The document, now yellowed and the black jacket dusty and scratched, is more than just paper bound in leather to Rogers and his family. The degree started a tradition for his three daughters, their five children and his 10 great-grandchildren. Through his dedication to the pursuit of higher education each know that no matter what is thrown at you, a college degree will always be worth striving for.

The Cougar Engi

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The Navy had called his reserve unit to active duty. It happened so fast, there wasn't even time to finish his last two classes. He had to leave three weeks shy of the end of the semester. Like many veterans, his transcript reflects this—showing two

### 1950s

Arthur Reine (1950 BSME) was named a fellow of the American Society of Mechanical Engineers.

### 1960s

Durga Agrawal (1969 MSIE, 1974 PhD IE) was awarded the Texas Industrial Engineering Lifetime Achievement Award in April. The award recognizes industrial engineering graduates of Texas who have made significant career achievements.



Dean Joseph Tedesco and Hamid Parsaei chair of the department of industrial engineering, with alumnus Durga Agrav

### 1970s

**Rick Coneway** (1973 BSCE, 1976 MSCE) was named Civil Engineer of the Year by the Austin branch of the American Society of Civil Engineers. The branch presented the award to Coneway for distinguishing himself in the field of education, awards and service to the civil engineering profession, branch and community. Coneway was recognized at the Engineers Week Awards Luncheon on Feb. 17 at the Radisson Hotel in downtown Austin.

George Hall (1956 BS Math, 1977 BSIE) received a Distinguished Service Award from the University of Houston Alumni Association.

#### 1980s

Abdeldjelil "DJ" Belarbi (1986 MSCE, 1991 PhD CE) was presented an award for outstanding teaching in distance courses from Missouri University of Science and Technology's Global Learning Division in April. Belarbi taught at the university prior to taking over as chair of the UH Department of Civil and Environmental Engineering in late 2009.

#### 1990s

Michael Gapinski (1994 BSME) is now senior vice president and wealth advisor with Morgan Stanley Smith Barney. Mike and his wife, Kim (1994 BA, russian studies), live in Kingwood, Texas, with their son, Donovan.

Domenic Ippolito (1996 BSEE) earned his JD from University of California Berkley's Boalth Hall School of Law in May 2009, and started working as an associate at HOWREY LLP in East Palo Alto in September. He passed the California State Bar Exam as well as the patent bar exam, and looks forward to his second career as a patent attorney.

Anita Bargas (1997 BSME) welcomed granddaughter, Sarah Nicole Bargas, on Jan. 28. She weighed 7 lbs., 7 oz.



Nancy Currie (1997 PhD IE) was inducted into the UH Department of Industrial Engineering's Academy of Distinguished Alumni.

#### 2000s

Ashish Bagga (2003 MSEnvE) was named the 2010 Young Engineer of the Year by the American Society of Indian Engineers. Since 2007, he has been an active member of the organization where he now serves as vice president. He currently works with the environmental consulting firm, Malcolm Pirnie.

Hanskarl Borck (2003 BSChE) and Beth Kungel Borck (2003 BA sociology and 2003 BA theatre) welcomed son, Konrad Wesley Borck, on June 23, 2009. He joins sister, Isabella.

Matthew Whiteside (2003 PhD IE) was inducted into the UH Department of Industrial Engineering's Academy of Distinguished Alumni.

Julio Salinas (2004 BSCE) was named the 2010 Young Engineer of the Year by the Houston chapter of the American Society of Civil Engineers. An active member of the organization since 2006, he holds roles as the student chapter chair and the younger member technical chair. He has been working with Texas Department of Transportation since graduating from UH nearly six years ago.

Carol Schmidt (2007 BSChE) was named the 2010 Young Engineer of the Year by the South Texas Section of the American Institute for Chemical Engineers. Last year, Schmidt served as chair for the organization's young professionals group, and continues to help as their advisor. She is a process engineer for Waldemar S. Nelson and Company Inc., where she works on offshore oil and gas platform design projects.

Archana Sharma (2007 MSEnvE) was named the 2010 Young Engineer of the Year by the Southeast Texas Chapter of the Texas American Water Works Association, where she serves as their correspondence chair. She works as a design engineer with CDM Inc., a consulting, engineering, construction and operations firm. While at CDM, she earned her Engineer-in-Training and Leadership in Energy and Environmental Design Accredited Professional certifications in 2007 and 2009, respectively.

Nizar Aouni (2009 PhD ME) received a Humboldt Research Fellowship to conduct research at the Leibniz University Institute of Continuum Mechanics in Hanover, Germany.

#### In Memoriam

Harold Douglas Jones (1950 BSCE) died in April.

Donald Kedzie (1952 BSME) died in February.

Thomas Robichaux (1970 MSEnvE) died in June 2009.



## Magazine Names Graduate One of Top People in Civil Engineering Profession By Erin D. McKenzie

arry Ward (1984 BSCE), president of Harken-Reidar, was among 15 individuals to be named the most prominent in civil engineering by the magazine, Civil Engineering News.

"The Power List," featuring Ward and other industry professionals came out in the May issue of the publication. It was the first year the monthly magazine compiled a list—influenced largely by their readers—of top professionals in industry today.

"We selected people on The Power List from nominations from our readers and from editors' picks," said Shanon Fauerbach, editorial director for Civil Engineering News. "I've known Harry for years and he's always pushing for civil engineers to adopt technology to benefit their practice, their firms, their clients and other constituents. Also he's an adjunct professor, showing that he is truly passionate about the profession. Through his business, his writings, his speaking engagements,

and his role as an educator, he is certainly impacting the civil engineering industry with a message about the benefits of innovation."

Ward has advocated to improve guality control in design through the use of computer aided design/drafting (CADD) and 3-D technology since he was first trained on the software when it was just emerging in the 1980s. Since then, he has certified hundreds on Autodesk, Bentley, SiteOps and Carlson engineering design software through his company, Harken-Reidar. He was also one of the first people to be certified on 3-D/GPS Machine Control in 2002 and now uses his knowledge of 3-D civil engineering in the construction field—moving earth with robots.

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He joins the likes of Jack Dangermond, the founder of Environmental Systems Research Institute, which is the world's largest mapping software company; and Gen. Henry Hatch, the retired chief of engineers and

commander at the U.S. Army Corps of Engineers, on the magazine's list.

"I'm pretty awe struck by it," said Ward of the honor, from his office in Front Royal, Va. "I was not surprised to see any of these others on the list, just me!"

Throughout his career, he has written six college textbooks covering new engineering design and drafting technologies. One of his books is used in courses on all of ITT Technical Institute's campuses. Beyond his books, he writes for Point of Beginning, one of the largest surveying magazines; and Site Prep, a monthly publication focused on the construction industry.

He is a certified professional engineer and an adjunct professor of civil and infrastructure engineering at George Mason University where he has taught engineering design, computations and CADD courses since 1997. Within weeks of receiving the honor from Civil Engineering News, he was also named the 2010 Outstanding Adjunct Professor of the Year by George Mason.

### A Generous Student Supporter By Erin D. McKenzie

Alumnus endows \$1 million scholarship to assist working undergraduates

**William Brookshire** (1957 BSChE) knows all too well just how difficult getting a college education can be.

Beyond finding time to study and adapt to new surroundings, by far, the biggest obstacle for most college students is money.

That's why, for the last 20 years, Brookshire has been devoted to taking a little of that financial burden off the shoulders of students in Texas and Louisiana. Through multiple scholarships and a fellowship, Brookshire has changed the lives of hundreds at his former Lufkin high school, area community colleges and universities.

Now, through a \$1 million gift, he is establishing the William A. Brookshire Endowed Scholarship at the University of Houston. Expected to fund its first scholarships next year, the gift will assist undergraduate students who balance full-time course work with a job that has them working at least 20 hours a week.

"I grew up in a working family and didn't get much encouragement to go to college. Education was the difference between me being a laborer and what I am today," said Brookshire, the co-founder and current chairman



of S&B Engineers and Constructors Ltd. "I just want to help others have a chance to do the same."

The first in his family to earn a high school diploma, Brookshire's quest to become college educated was a trying lesson in time management and penny pinching.

A scholarship to play football for Kilgore College, a community college in Kilgore, Texas, offered him his first chance at this. There, Brookshire said, he and the coach recognized he was better at math and science than football and after a year Brookshire transferred to UH. He had just enough money to pay for his first semester before he was forced to take on a full-time job during the day while attending classes at night year round.

"I couldn't afford the tuition without working," the distinguished alumnus remembered during a visit to campus in May. "Even working full-time, it took just about all of my \$250-a-month paycheck to cover tuition."

Yet Brookshire pushed on, graduating with his bachelor's degree in chemical engineering in 1957 while working at Shell.

"When I went to work for Shell as a lab technician I was in a group that had about 30 professionals in it, and all but three had Ph.D.'s," he said, noting that after some encouragement from his boss, he went on to pursue graduate degrees at Louisiana State University.

He earned a master's in 1959 and Ph.D. in 1961, both in chemical engineering, without acquiring any debt, thanks to a fellowship and other financial assistance. Six years later, he anteed up his life savings of \$7,000 and borrowed another \$3,000 to start S&B Engineers and Constructors with fellow UH civil engineering graduate, James Slaughter Sr. (1954 BSCE). Since then, the business has grown from two people to more than 4,000 with offices located across the world.

Despite his good fortune, Brookshire still hasn't forgotten what it took to get him here and how those early struggles to realize his dream of higher education made him the person he is today. It's been the driving force behind his work to provide the finances for others to realize their own educational goals.

Through a number of scholarships, Brookshire supports students at Lufkin High School and the top two community colleges where his employees receive their education. At his company there are additional programs in place not only to help his employees earn degrees on the

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company's dime, but, through the Brookshire Foundation, he also provides full-ride scholarships to their children and grandchildren. And at LSU he started a fellowship in chemical engineering, which he considers a thank-you for the financial assistance that helped him earn his graduate degrees.

While he's given generously to helping others better themselves throughout the years, the gift to UH is the largest single donation he's made. He calls it his attempt at making it easier on the students, who much like he once did, work hard as undergraduates to afford the chance at a college education.

"I can't fathom kids graduating from college with debt," he said. "This just seemed like the right thing to do to make it a little easier for the kids who want to help themselves."

### Moments in History

This next year we celebrate where we've come from, as 2011 marks our 70th anniversary.

In honor of this milestone, we plan to highlight some of the more defining moments in our history. From becoming accredited to accepting the Cullen name, many instances turned us into the premiere institution we now are. Centrally located in the heart of industry, today the college trains more than 2,700 students yearly to solve some of the biggest challenges facing society.

Our hope is that Cougar engineering alumni will assist us in mapping out the details of the college's beginnings. Share with us your photos and other documents and, especially, your memories! We want to know what it was like when you went to school at the Cullen College. So tell us everything—what the campus looked like, how much tuition was, what a graduation ceremony was like, what buildings you took classes in, really, anything!

Help take us into the future by remembering our past. Because, despite the many years that have gone by and the faces of both faculty and students that have changed, our mission has always been the same—to transform lives through education.

To share your memory of the college, send an e-mail to cougarengineer@egr.uh.edu.



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### THE SCHOOL OF ENGINEERING of

THE UNIVERSITY OF HOUSTON



An Engineering Career for You

- 1. The Y Building, which still stands on campus, once served as space for the college's laboratories.
- 2. Engineering Building One was first completed in 1967.
- 3. Engineering students work during a drafting class, one of the many courses added in 1939.
- 4. The University of Houston Engineering Society in 1944. Formed in 1934, it was one of the oldest clubs on campus.
- 5. The University of Houston entrance as seen in 1947.
- 6. Students are pictured in an engineering lab in 1949.
- 7. Students work on the 100 H.P. Boiler. The entire installation of the boiler, with the exception of the high-pressure lines, was done by students in 1949.

END NOTE

### UNIVERSITY of HOUSTON ENGINEERING

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### CHANGE SERVICE REQUESTED



**Matthew Steele** (2000 BSChE) has made a place on campus that is truly a Coog's house. "From the floor to the ceiling, it is all UH," said Steele of The Den. After seeing a need, he opened up the bar across from the Campus Recreation and Wellness Center with several business partners in 2008. "This is something we always wanted when we were here," said Steele, the bar's lead investor and president of the exploration and production company, Ursa Resources Group. "We hope it becomes a meeting spot for many generations of Cougars as the university continues to grow." The Den (www.uhdenbar.com) is open daily from 11 a.m. – 2 a.m. for drinks and sandwiches.