The Cougar Engineer

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winter 2009



Pride of Place Father, Sons Find Success In Engineering Path



A Generous Heart UH Alumnus Honors Former Professor Through Gift







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On the cover: Illustration by Harriet Yim Photography by Thomas Shea NASA image by Sandra Joseph and Kevin O'Connel

From the Dean

Greetings Cougar Nation!

Since joining the University of Houston Cullen College of Engineering a year ago, I have implemented some changes in an effort to communicate more effectively with you, our Cougar family. All of you will continue to receive news about the college through Parameters magazine and our monthly electronic newsletter. And since we felt it was important to share more news and stories about your success, we decided to launch The Cougar Engineer—a magazine about alumni for alumni.



Throughout this publication you will find news, features and updates about fellow Cougar engineers. In particular, this inaugural issue is focused on stories that impact generations.

As many of you may know, the United Nations has recognized 2009 as the International Year of Astronomy. With the passing of NASA's 50th anniversary and the scheduled retirement of the shuttle program in a couple of years, we were curious to find out about the next generation of space exploration and what role Cougar engineers will play in the next wave of discovery. We've selected a handful of stories out of more than 150 alumni currently working at Johnson Space Center—we hope you enjoy learning about their jobs and how these alumni are solving some of the most interesting engineering problems.

Toward the end of the magazine, we also take a look back at something that has served many generations of Cougars: the Y Building. Although rumors have swirled for years, the Y Building will be demolished this year in preparation for a new engineering student center. We're gearing up for a major fundraising campaign and we hope you will join us in successfully launching a new student center to serve the many generations of Cougars to come. In the meantime, we hope you'll share your knowledge of the Y Building so that we can document its history.

We look forward to hearing from you.

Go Coogs!

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Frequent Flyer

By Erin D. McKenzie

He lives weekends amongst the clouds, challenging gravity and his own senses as he careens toward the earth at speeds near 20 mph. For Scott Elmer (1997 BSCE) the rush of the 70-second free fall has kept him jumping from planes at 18,000 feet for the last decade.

At the age of 42, the city engineer and director of public works for Missouri City is an accomplished formation skydiver. To date, Elmer has logged more than 4,000 jumps and claimed spots on the 2005 U.S. World Cup Team and with teams in seven U.S. Nationals competitions. He's captured some 25 medals and even satisfied a Texas state record by completing an air formation with 151 people.

"What's great about the sport is the people, the friendships you make," said Elmer. "I really enjoy the teamwork and the engineering of the formation skydives. The whole experience is a great thing to be a part of."

Exhibit in International Celebration Inspired by Alumnus' Book

A book co-authored by a NASA retiree and UH Cullen College of Engineering alumnus is the inspiration behind an exhibit currently featured at a Midwest museum.

Inspired by the book, The Arp Atlas of Peculiar Galaxies: A Chronicle and Observer's Guide, by Dennis Webb (1976 BSEE), the exhibit explores strange galactic star systems observed in the 1960s by astronomer Halton C. Arp. The exhibit is part of the International Year of Astronomy sponsored by the United Nations and the International Astronomical Union.

Webb, an amateur astronomer, collaborated with Jeff Kanipe, a Maryland-based astronomy writer, on the book. It's the product of 10 years of labor for 54-year-old Webb, completed prior to his retirement from NASA in November.

"A collection of peculiar things challenges the orthodox view of the world and intrigues artists and scientists alike," Webb said of the book, listed among Sky and Telescope Magazine's top astronomy products for 2008. "After 40 years, Arp's atlas is a visual masterpiece that captures this special territory."

Housed at the Schneider Museum of Art at Southern Oregon University, the exhibit runs through March 29.





Alumnus Tapped to Lead ASCE

D. Wayne Klotz (1976 MSCE) was named president of the American Society of Civil Engineers, the oldest national engineering society in the United States.

He was installed as ASCE president in November following a yearlong commitment as president-elect of the organization, and more than three decades in posts on ASCE committees and boards at the local, state and national levels.

"I have served ASCE at every level," said Klotz. "I identify with the leaders at the branch and section level because I've been in their chair. I served on national committees as we grappled with complicated issues. I served on the board of directors when decisions were made that literally changed the direction of the

organization. All of these positions have prepared me for the ultimate privilege of leading ASCE in 2008-09."

Throughout his one-year term as president, Klotz will oversee some 143,000 members. He intends to dedicate his presidency to examining the society's priorities to ensure all activities related to ASCE deliver benefit to its members. In addition, Klotz has plans not only to advocate for the profession, but also develop a committee of young professionals to assess ways to cater to the next generation of engineers, a program he's already implemented among his company's nearly 130 employees.

Alumna's Play Among Few Selected for **Anniversary Celebration**

A play written by a UH Cullen College of Engineering alumna was among those performed recently at an anniversary



given to female playwrights. Mary Ellen Whitworth's (1984 MSEnvE) play, "Sinkhole," was one of five chosen from a regional competition to be featured in the 30th anniversary celebration for the Susan Smith Blackburn Prize.

Given annually to recognize women who have written exceptional full-length plays for English-speaking theatre, the Susan Smith Blackburn Prize was created in honor of Blackburn-a noted American actress and writer. Held at Houston's Alley Theatre, the spring celebration titled "Women in Theatre: Houston Voices," marked the prizes' milestone by saluting the accomplishments of

For more than 20 years, Klotz has served as president of the Texas-based Klotz Associates Inc., a consulting

engineering firm with offices in Houston, Austin, Lufkin and San Antonio. Among the firm's major projects are work on Interstate 45, the Westpark Tollway and most recently, the uptown line of Houston Metro's light rail system.



celebration acknowledging one of the most prestigious international awards

Whitworth and four others in the same city where Blackburn first became involved in theatre.

"I've always loved art, always loved plays," said Whitworth. "It was very exciting to be part of a celebration for such a wellknown award."

Her 10-minute play, inspired by author Susan Sontag, tells the story of a city attorney's discovery of a sinkhole that takes those who dare to enter into oblivion. It is one of some 30 plays she's written since the late 1980s, and one of several to win a contest.

When Whitworth is not writing, she works full time as executive director for the Bayou Preservation Association, a nonprofit devoted to protecting and restoring Houston waterways.

Building the Next Manned Space Vehicle JEN MADSEN

The future of manned space flight lies in the blunt, cone shaped spacecraft Jen Madsen (2003 MSEE, 2008 PhD EE) is diligently working to perfect.

Named after one of the most recognizable star formations in the sky, Orion will not only be the first new human-rated spacecraft to be introduced by NASA in more than three decades, but the first since Apollo to take astronauts to the moon. The wingless craft will be the successor to NASA's longtime space shuttle, tentatively scheduled for retirement in 2010.

'Orion will carry the crew in a capsule very similar to Apollo," said Madsen. It will be one component of the new exploration program, Madsen said, and will be launched into orbit by the Ares crew launch vehicle, which is being constructed simultaneously at Marshall Space Flight Center in Alabama.

Once complete, Orion's first mission will be to the space station near 2015. Short trips to the moon are scheduled to begin around 2020, and center on the creation of a lunar outpost facilitating longer stays. Future missions to Mars are expected to follow.

A member of the flight dynamics team for Orion, Madsen is using her engineering education from the University of Houston to design elements on the craft related to its guidance, navigation and control.

The 31-year-old's current work is focused on refining the craft's ascent and abort system. Fixed atop the capsule, the launch abort system will be capable of pulling the spacecraft to safety both on the launch pad and during ascent.

"We have all these goals, but really crew safety is number one," Madsen said. "One of the most critical times is when they are sitting on top of this huge crew launch vehicle that has solid rocket motors and a big tank of upper stage propellant. We are designing a couple different abort modes, so if there is a problem while they're launching, the crew would be able to come back safely."



Half a century ago, sending humans to space was the stuff of science fiction.

The concept of spacecrafts and tales of travel beyond the edges of Earth to outer space were only found in the pages of Robert A. Heinlein, Jack Vance and Isaac Asimov novels.

It was not until 1962 that NASA made history by making Astronaut John Glenn the first American to orbit the Earth. In the years that passed, NASA continued to bring ideas from these novels to life—landing astronauts on the moon, completing more than 120 missions with the space shuttle, launching probes to Mars and partnering to build the International Space Station.

Since the space agency was created 50 years ago, NASA has been pioneering the future of space travel. Plans for the next 50 years are not much different. The agency is scheduled to explore half the solar system—conducting surveys of Mars and Saturn, studies of the Earth and sun as well as in-depth probes of Mercury and Pluto. By 2020 NASA is expected to launch the first manned missions to the moon in the successor to the space shuttle where astronauts will begin building a lunar outpost.

> University of Houston-bred engineers, accounting for more than 150 of NASA Johnson Space Center employees, are on the front lines of these new developments. The following stories offer a look into the lives of several Cullen College of Engineering alumni and their contributions to the future of space exploration.

Features by Erin D. McKenzie

Photos by Thomas Shea

The design of Orion, coupled with the launch abort system, is predicted to make the crew exploration vehicle nearly 10 times safer than the space shuttle, according to NASA.

But before the system is just right, many more months of work will continue behind the walls of the Johnson Space Center and at testing sites in White Sands, N.M. Multiple flight tests in New Mexico will assess the launch abort system's ability to respond to disasters both on the pad and during ascent.

At the space center, Madsen is using computer simulations, data analysis and coding to factor in altitude, velocity, atmospheric and vehicle configuration changes. Her math background is helping her to account for these factors, better ensuring the launch abort system's smooth operation.

"It is a lot of work, but it's one of those things that's so critical," she said, "and one you hope you never use."

Madsen, who helped establish the NASA team tasked with the design of the ascent and abort system, was recognized with the center's highest award in April. The JSC Director's Commendation honored both her leadership and technical contribution in establishing the Orion Project's ascent and abort capabilities.

Her devotion is helping NASA engineer the next generation of space travel and provide tools that could help offer answers to questions about what exists in the empty regions of the universe deemed space.

"What we are doing here is really a part of history," Madsen said. "People aren't just going to stay on Earth, people want to go explore space, see what's out there." Michael Lammers and Brian T. Smith sit at the flight director's desk in Mission Control at NASA's Johnson Space Center.

BRIAN T. SMITH & MICHAEL LAMMERS

As a flight director, Brian T. Smith (2004 MSAeroE) may have one of the toughest, white-knuckle jobs at NASA.

At the helm of his roughly 20-person mission control room, order must be maintained, calculations doubledchecked and policy followed 100 percent of the time.

Even in the most intense, palm-drenching situations, the 36-year-old is trained not only to think levelheaded, but also radiate calm.

Anything less than pure accuracy from Smith and his flight control team, at least in this room, could cost an astronaut injury or even their life.

"This is a very serious responsibility," said Smith, a nearly three-year veteran of the post. "There is a saying in our

business, to always be aware that suddenly and unexpectedly we may find ourselves in a role where our performance has ultimate consequences."

Smith, one of two University of Houston alumni to hold the post, is penned on a roster that includes just 28 active flight directors. Michael Lammers (2004 MSAeroE) was named to the position in May.

Both are among 77 people to serve the position throughout NASA's 50-year history.

One of the most elite posts at the agency, the title has been held by grizzled veterans that include Eugene "Gene" F. Kranz who led mission control when Neil Armstrong and Buzz Aldrin became the first men to walk on the moon in 1969. A year later, Kranz helped the crew of

Apollo 13 return safely to Earth after an oxygen tank exploded en route to the moon.

GHT DIRECTOR

Like Kranz and others before them, Lammers and Smith's University of Houston education, along with experience picked up through years of work at NASA, will help them to lead the next generation of mission control.

For Lammers, the reality of working at NASA and being chosen for the role of flight director is a dream come true.

"I've always been interested in aerospace and probably always wanted to work here," said the 36-year-old lowa native. "I'm honored to be considered in the same place as some of these accomplished individuals before me. Hopefully, I can live up to their reputation."

Lammers began work as an instructor in NASA's space flight training division in 1996. Still a contractor with United Space Alliance, he served in this role until 2000 when he started as a space station attitude determination and control officer and later a telemetry, information, transfer and attitude navigation flight controller. He became a NASA employee in 2004. Prior to his selection into the 2008 flight director class, Lammers was lead station communications and tracking officer.

In the fall he finished flight director training, joining Smith and a host of other veterans to set up shop in mission control's hot seat.

Smith has already served nearly three years in the flight director position, logging more than 4,500 hours in his current post and as a communicationstracking officer, held previous to it. In his time as flight director, he has managed NASA's operation related to the European Space Agency's Automated Transfer Vehicle—helping it dock and undock with the International Space Station in 2008.

Prior to his arrival at NASA, Smith helped develop the space station

communication system's hardware. As a hardware engineer for L-3 Communications Systems East, he was tasked to design, build and test the systems for a training module of the space station. Three years later, Smith's post as a flight controller at NASA reunited him with the space station hardware, this time as an operator.

As flight directors, Smith and Lammers oversee the International Space Station Mission Control room where both take turns leading a team of flight controllers, support personnel and engineering experts. Each of these experts monitor a particular element of the station, making their recommendations to the flight director who offers the final word.

to assisting in the docking of cargo vehicles.

The ground team, which occupies mission control 24 hours a day, is responsible for doing everything from ensuring the station does not lose attitude control and spin uncontrollably However, mission control is not always where you will find these men. Their roles as flight director are two-fold.

"When you see a mission playing on TV, and you see the shots inside this room, what you don't see on the TV is the years of preparation that have gone on outside of this room to get ready for this particular mission," Smith said. "So when we're not in here, it means we are back in our office or in meetings somewhere preparing for missions coming in the future."

Through their efforts both inside mission control and out, Lammers and Smith are traveling the world and planning missions that will lead NASA into its next 50 years.

Testing Planes, Teaching Astronauts CHARLES USTIZ

Charles Justiz (1987 MSComE, 1991 PhD ME) has climbed to altitudes twice as high as the average commercial airliner, and experienced flight at a rate faster than the speed of sound.

In his post as a research pilot for NASA, the 57-year-old has even bumped elbows with a few astronauts—training them to make some 20,000 shuttle approaches before the real deal.

"I've trained all of them," said Justiz over the whirl of T-38 engines at NASA's Ellington Field. "I've been up with moon walkers, shuttle pilots, I even flew with a Mercury astronaut that was still here. Great aviators, all of them."

The Miami native first grasped the controls of an aircraft at the age of 12, and found himself instantly hooked.

"I remember I could just barely reach the pedals," Justiz said of his experience in the yellow J3 Cub. "The motor was sticking out of the side of the airplane, and the fuel indicator was just a cork on the bottom of a coat hanger, bobbing around in front of me."

At 16 he took his first solo flight with the Civil Air Patrol, and earned his pilot's license a year later. Upon graduation from the Air Force Academy, he began work as a flight instructor for the Air Force—moving on to NASA six years later. If years in flight were not enough, his pilot's flight log clinches the fact he's no amateur—revealing more than 25,000 hours in flight on some 80 different types of planes.

.

To hold a post flying noncertified, supersonic jets. Justiz has to be experienced to stay safe at altitudes and speeds that can challenge even the most veteran pilot.

"We don't fly just any airplanes, we fly difficult airplanes, very unforgiving of mistakes," Justiz said. "If you go above mach one, everything changes on an airplane. They react differently in those conditions, and we have to be prepared for it."

Reacting the right way to unexpected scenarios in flight is exactly what Justiz teaches his astronauts. He's spent 28 years at NASA coaching them to communicate in flight, and simulating what it is like to land the shuttle in the cockpit of a highly modified G2 airplane.

As NASA looks to the future, the alumnus and adjunct professor at the college will be challenged to use both his piloting and engineering background to assist in developing methods to prepare next-generation astronauts to fly to the moon.

KETAN CHHIPWADIA

Ketan Chhipwadia's (1998 MSME) opinion bears heavy influence on what NASA astronauts wear to and from space.

For the last six years, the crew-escape subsystem manager has worked to perfect the survivability aspects on the longtime orange, Advance Crew Escape Suits worn by astronauts during space shuttle launch, orbit and entry.

> In these years, Chhipwadia and his team have implemented a GPS tracking device, redesigned the life preserver for smaller statured astronauts and revamped the communication system on the orange suit.

As NASA prepares to travel back to the moon later this century, the University of Houston alumnus is faced with his latest challenge—reworking survivability aspects of a new suit.

The suit, which will be worn in the Orion spacecraft during launch and landing, will require engineers to combine



SUZAN VOSS

Astronauts and cosmonauts conducting experiments and learning to live in the International Space Station have Suzan Voss (1993 PhD IE) to thank for extra research room in low-Earth orbit.

Throughout more than two decades at NASA, Voss has helped to join both the U.S. lab and Russian module to the space station.

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the white, 300-pound Extravehicular Mobility Unit worn during space walks with its light 92-pound counterpart.

"The agency's goal is for the new suit system to be used for launch and entry as well as space walks," said Chhipwadia. "It will need to be a completely new suit to properly balance the competing requirements; well, that's what our respective teams will have to carefully resolve as the decisions made today will impact our country's space program the next 20 plus years."

While he and other NASA engineers work to establish and maintain the crew survivability facets necessary for the next generation space suit system, he continues to ensure the safety of astronauts engaged in the flights remaining before shuttle retirement.

It's an effort he holds close to his heart.

"I've made this my life passion—crew survivability," he said. "Every decision is based on the premise that if this doesn't work, the crew may not come home."



_Bridging Gap Between Earth, ISS

As manager of the Launch Package Management Office, she is using remaining space shuttle missions to the research facility not only to help complete it's assembly, but conduct scientific research and support technology tests furthering the advancement of Orion, the successor craft to the shuttle.

"We are supporting detailed test objectives being conducted on the shuttle missions to the space station to test technologies to be used by Orion such as a new navigation sensor system," said Voss. "This provides an on-orbit test demonstration and allows data collection to characterize performance of systems being developed for Orion."





By Erin D. McKenzie

evin and Steven Ivers (both 2008 BSBioE) didn't always plan to follow in their father's footsteps.

In fact, a degree in engineering was the furthest thing from their minds—each had their hearts set on medical school.

It was the close ties their father— Terrance "Terri" Ivers (1980 BSME) has with his alma mater that led them to the University of Houston Cullen College of Engineering.

Not long after a conversation with Matthew Franchek, professor and chair of mechanical engineering and director of the biomedical engineering program, did the lure of the pre-med programs at Tulane, Texas Tech, Texas A&M, Lehigh and Creighton universities quickly begin to fade.

"I wanted to go into medicine before this," said Steven, noting that both he and his brother—two siblings in a set of triplets—gave up offers at nine universities to attend UH. "I came to UH because of the new biomedical engineering program; it was the most unique and exciting option among all others. The future for this program seemed so bright, which led us to the decision to come here."

It was bright.

At the Cullen College, Steven and Kevin's love of math and science

decades earlier.

where I am today."

management role in industry.

Now the president of an international engineering, project management and services company, AMEC Paragon, Terri is proud to show his gratitude to the college. He has spent years giving his time on advisory boards and campaigns to ensure the college can give others the same bright future he's enjoyed.

the same.

Both have decided to continue their graduate studies at UH—Steven in biomedical engineering and Kevin in vision science and physiological optics at the UH College of Optometry.

PRIDE

Father, Sons Find Success In **Engineering Path**

has flourished, much as their father's fondness of the subjects did three

"Engineering is an incredible education to have as your base," said Terri. "The curriculum prepares you better than any other degree. It has helped take me

Terri's degree is what allowed him to fulfill his dream of working in a

Since graduating magna cum laude in May, his sons are working to do

Each is conducting research. Steven is working in the Cullen College's Biomedical Optics Laboratory under the direction of Assistant Professor Kirill Larin. He's using optical coherence tomography—similar to an ultrasound to detect gold nanoparticles to help investigate the idea of contrast agents and biological disease targeting agents. Kevin is using his biomedical engineering background to study adaptive optics for non-invasive imaging of the retina with Assistant Professor Jason Porter in the hopes to better understand the underlying mechanisms of glaucoma.

Both say they couldn't have picked a better path than engineering.

- "It's been a positive experience for me," Kevin said. "I look forward to getting my Ph.D. within the next five years, and it all started with biomedical engineering."
- "I think it's great to continue the tradition of going to UH for engineering. My experience has been really positive," Steven added.

Their father is just glad he could share his alma mater and an education that has brought him great success with his sons.

"I just wanted Kevin and Steven to find a career that is fulfilling to them," Terri said. "With engineering as a background I think all doors will be open."



Alumnus, National Academy Member Brings Engineering Experience to UH

By Erin D. McKenzie

The machinist vice perched amongst University of Houston coffee mugs, award plaques and family portraits in Benton Baugh's office may be the alumnus' most prized possession from his college years.

That's because Baugh (1967 BSME) crafted the tool bearing the UH name as a requirement for his junior-level design course at the Cullen College. It's been with the entrepreneur on his ride from Camco Inc. draftsmen to president and owner of Houston-based Radoil Inc., where it's helping him to invent new offshore drilling and oilfield products.

It's a tool that's aided in bringing his patent count to 103, and is serving as an inspiration for the hands-on coursework he's helping to implement at the university.

Baugh joined the college's department of mechanical engineering in the fall where he is playing an integral role in expanding the machine design curriculum, said Matthew Franchek, professor and department chair. More specifically, Franchek said, Baugh is using his engineering expertise to assess the relevance of the redesigned curriculum, intended to link engineering theory to real-world systems and equipment using more traditional, hands-on projects. This is expected to include mechanical dissection, where students are tasked with disassembling and reassembling machines to better teach design concepts and principles.

In addition to lending his years in the field to redesign curriculum, Baugh will serve as a guest lecturer in various mechanical engineering classrooms.

Baugh, who is a licensed professional engineer in Texas, brings a master's and Ph.D. from Kennedy-Western University to the college.

He is the founder of the ASME/UH Cajun Crawfish Boil, which for 20 years has been the official kick off to the Offshore Technology Conference.

As a member of the National Academy of Engineering for the past ten years, Baugh is considered an expert in subsea equipment used in offshore oil production. His appointment as adjunct professor brings the total number of NAE members in the college to eight.

Class Notes

1960s

George L. Donohue (1967 BSME) has co-authored a book titled *Terminal Chaos: Why U.S. Air Travel is Broken and How to Fix It.* The former associate administrator for

research and aquisition at the Federal Aviation Administration, Donohue is now a professor of systems engineering and operations research at George Mason University.

1970s

Phillip G. Dolezal (1971 BSME) is now the manager of engineering and construction for Sempra LNG, a company that develops, builds and operates liquefied gas receiving terminals.

Gary F. Goodheart (1974 BSCE) was named senior vice president and director of corporate development for Civil & Environmental Consultants Inc. He has worked out of the company's Chicago office since 2004.

Steven Edward Collier (1976 BSEE) is vice president of business development at Milsoft Utility Solutions, which was named by *INC Magazine* as one of the 5,000 fastest growing private companies in America.

Leo P. Garcia (1978 BSCE) heads up the Houston office of The University of Texas Office of Facilities Planning and Coordination. The branch provides project and construction management for all UT projects built at the Texas Medical Center.

1980s

Dennis P. Morris (1983 BSEE) was named president of Armament Systems, a \$750 million business unit of BAE Systems North America that develops gun, cannon, artillery and launcher systems for the U.S. military.

Mary E. Whitworth (1984 MSEnvE) was reappointed by Texas Governor Rick Perry to serve on the Gulf of Mexico Program Citizens Advisory Committee. She is the executive director of the Bayou Preservation Association in Houston.

Michael John McDavid (1986 BSME) and his wife Susan welcomed home Josephine



1990s

Missouri City

2000s

10 ounces.

"Josie" Elizabeth McDavid on May 18, 2008. He can be contacted at lbi@tstar.net.

Gabriel Cuadra (1988 BSChE) is now manager of compliance, work processes and management systems for BP America at the Texas City Refinery.

John Winter (1988 PhD ChE) is vice president of process engineering for Range Fuels Inc., a company that focuses on green energy and the production of cellulosic ethanol. Previously, he was vice president of engineering at Evergreen Energy.

Scott Elmer (1997 BSCE) is a recipient of the American Public Works Association's Top Ten Public Works Leaders of the Year Award. The national honor is presented yearly to individuals demonstrating excellent career service in the public works profession. Elmer is a city engineer and public works director for

Alfred Castillo Jr. (1998 BSCE, 2002 MCE) is the group leader for performance chemicals maintenance at St. Charles Operations, a subsidiary of The Dow Chemical Company.

Monica Moussighi (1999 BSEE, 2005 MEE) is studying intellectual property law at the University of Houston Law Center. She plans to graduate in 2010.

Brad Lirette (2001 BSChE) and his wife Ericka welcomed home Jana Michael Lirette on March 29, 2008. She weighed 7 pounds,

Brian Sebastian Daly (2002 BSChE) received the Outstanding Young Professional Award from the South Texas Section of the American Institute of Chemical Engineers last spring. He married Virginia Hui on Nov. 3, 2007.

> Colby Wright (2002 BSCE) and his wife Sonia welcomed home Julia Marie on July 11, 2008. She weighed 7 pounds, 2 ounces.

Masood Anjom (2003 BSEE) graduated from the University of Houston Law Center in 2006 and is now practicing intellectual property law at Baker Botts LLP.

Greg Barnes (2003 BSChE) married Erin Verkauf on Jan. 19, 2008. He is attending Emory University's Goizueta Business School in pursuit of his MBA.



Ji au El 2

Aimee Sanderson (2003 BSCE) married James L. Edwards on Sept. 20, 2008. She is an engineer at Jones & Carter Inc. and he is a material handler for Amercable Inc.

Jim Winter (2002 BSCE) and his wife Songkhla welcomed home Grace Elizabeth on May 6, 2008. She weighed 6

pounds, 10 ounces. The Winters' also have a three-year-old daughter, Abigail Rae.

Nathan Schmidt (2005 BSME) married Carol Schmidt (2007 BSChE) in June 2007. Carol is the chair of the young professionals advisory board for the American Institute of Chemical Engineers South Texas Section.

Aaron N. Webb (2005 BSEE) married Christina Gastelum, a UH finance major. He is currently working as an account executive for Protos Inc.

In Memoriam

Virgel Berkstresser (1951 BSCE, 1952 MSCE) died Sept. 6, 2007.

James Ross Collins (1961 BSEE) died April 20, 2008.

Lloyd Kenneth McDonald (1962 BSEE) died April 15, 2008.

Leo Strom (1966 BSIE) died in October 2008.

Ruperto Garcia (1978 BSME) died April 8, 2008.

J.T. (Tom) Elrod, professor emeritus of industrial engineering, died Oct. 17, 2008. He was the founding chair of the department.

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A GENEROUS UH Alumnus Honors Former Professor Through Gift By Erin D. McKenzie

VVilliam C. Miller Jr. (1955 BSPE) never w shied away from hard work growing up on his parents' farm in Freestone County, Texas.

As a youth, Miller spent hours working with mules to make ready the family land for corn, cotton and maize—caring for the plants and later helping with the harvest.

The time spent on the nearly 120-acre farm is what taught Miller to value hard work and determination throughout his life.

It was these values, instilled by his parents, along with the push from a University of Houston educator that helped to lay the foundation for his future success in the petroleum business.

Last year, the 86-year-old—who operates his own petroleum company—felt it was time to give back a few of his hard-earned dollars to the University of Houston Cullen College of Engineering.

Miller pledged \$1 million to establish an endowment at the Cullen College. Dubbed the William C. Miller Endowed Chair of Engineering, the gift will provide additional support to faculty to advance teaching and research.

William C. Miller Jr. shows off his University of Houston class ring in the library of the Petroleum Club in San Antonio.

Legacy

The gift, Miller said, was given in honor of Charles V. Kirkpatrick, the college's former dean who was a professor when Miller attended the Cullen College. Kirkpatrick, now a professor emeritus at the college, convinced a young Miller to persevere when times got hard.

"I wasn't doing too great," Miller recalled about meeting requirements to complete his degree more than 50 years ago. "I had been out of high school since 1939, and didn't go back until about 1949. It was a tough transition, but he wouldn't let me quit. Without his guidance and encouragement, I may not have completed my education."

It was Miller's University of Houston education that took him from rough neck to area engineer with Texaco and on to chief engineer of Blanco Oil Company. For more than 40 years, he has served as president of his San Antonio-based business, W.C. Miller Operating Company, where he still averages a six-day workweek.

"I attribute all the hard work to my parents that had me out doing the work early," said Miller, who in 2004 was recognized by the UH Engineering Alumni Association with the Distinguished Engineering Alumni Award. "If I had it to do all over, I don't think I'd change a thing."

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End Note The Y Building

F or at least half a century, the Y Building has been a firm reminder of the University of Houston Cullen College of Engineering's humble beginnings.

With each passing semester, the scars from the Y Building's years of faithful service become more noticeable. So much so that this spring administrators pegged the sheet-metal structure to be demolished, making way for a new \$30 million engineering student center.

To ensure the history of the Y Building is not lost to faded memories, we have poured through old newspapers and books, even chatted with a few alumni in an attempt to document the building's past.

Although the extent of its full story continues to be researched, many have gladly offered up fond and funny anecdotes about their time spent in the building as a tribute to the university fixture thought to have been constructed in the 1940s.

We have dedicated this section in the first issue of *The Cougar Engineer* to sharing a few snippets of what some, who know it best, remember. "When I first came over as dean and took a look at that building, I wondered then if it was going to fall down," said late Dean Frank M. Tiller of the Y Building that housed the entire engineering facility, including the dean's office, until 1955. "We actually had an engineering analysis of the structure done to see if it could withstand the force of a hurricane."

—Frank M. Tiller⁺,

Cullen College of Engineering Dean from 1955–1963

Whether you have knowledge of the history or just a great memory to share, we'd love to hear from you! Please direct comments to the college's office of communications by phone at 713-743-4220 or via e-mail at cougarengineer@egr.uh.edu.

"We built the first concrete canoe in that building in 1975. The first one weighed 247 pounds, so we built a second weighing 97 pounds and a third weighing 95 pounds. We raced the lighter versions down the San Antonio Riverwalk and came in second just seconds behind the University of Texas, then went on to also place in regionals."

—Tom Sofka (1975 BSCE)

"When I was in school it was being used as the engineering lab building. Directly behind it was the psych building where they kept monkeys. Well, one of those nice monkeys got loose and made it into the lab building. We had all seen it in the beams, and for days administrators sent janitors by to catch the monkey. I still remember the first time our instructor saw it come flying out of the rafters. He just pointed and went 'da, da, da, da.' We all got quite a laugh out of it."

—Cecil Lee Holder (1960 BSPE)



A LOOK B



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