Chemical Engineering undergraduate and graduate students, faculty, staff and other departmental friends gathered April 27 at the first of what will be an annual chemical engineering banquet, to celebrate accomplishments by students, faculty and staff in a fun setting. The banquet was held in the ballroom of the KSU Alumni building. Alfredo Alexander Rodriguez, senior in CHE, and James Edgar, CHE department head, served as the emcees for the event, which was attended by more than 120 people.

Edgar said of the banquet, “I’m so pleased with the turnout and participation of the students, faculty and staff. It was great to see the students recognize and express their appreciation of faculty who have been so influential to their academic careers. The staff and Alfredo had a lot of fun preparing for the banquet, and because of their efforts, everything went smoothly. Everyone had a good time. I’m looking forward to next year’s banquet.”

The bulk of the evening was spent honoring students, faculty and staff for a variety of awards (see page 11 for a complete listing). For the first time, three awards were given to student leaders who helped with Engineering Open House. Outstanding leadership recognition related to Open House was awarded to juniors, Ashleigh Herd and Michael Raymer, CHE open house co-chairs. The award for outstanding underclassman went to Andrew Woolley who designed the freshman/sophomore display that was awarded 1st place at open house. The award for outstanding departmental display was given to Kaitlin Kuecker, Scott Haner and Lucas Hartman, who designed the curriculum display, which also received 1st place at open house. Each award winner received $500.

Two awards for the faculty were made for the first time. The senior class chose Professor Mary Rezac as their Most Inspiring Faculty Member, and the entire ChE student body chose Assistant Professor Jennifer Anthony as Most Approachable. In addition to these awards, AIChE student body president Kaitlin Kuecker expressed the students’ appreciation to Emeritus Professor Walter Walawender for serving as their adviser for many years.

Rezac offered her thoughts on receiving an award from the students, “For me, the most significant recognition a faculty member can receive is that bestowed by their students. As

Continued on page 5
Message from the Department Head

Despite these austere economic times, the department of chemical engineering has been doing well, and I am optimistic about its prospects and opportunities for the future. The reasons are positive. This year, the vast majority of our seniors had jobs by commencement. The number of undergraduates enrolled for fall is 219—an eighth consecutive year of increase. In addition, two exciting initiatives are underway that will help the CHE department grow and improve.

The first initiative is the K-State 2025 visionary plan: To be recognized as a top-50 public research university by 2025. The plan has seven thematic goals and eight common elements that will raise the university’s stature. Several of these goals are already being implemented in the CHE department; here I focus on two.

Upgrade and establish new infrastructure

As described in this newsletter, our CHE research laboratories have undergone extensive renovations that will make them safer and more suitable for our current research. Furthermore, they are designed to promote collaboration among faculty—another aim of K-State 2025.

Expand participation of undergraduates in research and the creation of knowledge

Recently, the senior laboratory class, unit operations, was modified to include a research project. This is a significant departure from our traditional experiments, where procedures were described in detail and specific findings could be reliably expected. In contrast, for their research projects, students worked with faculty and graduate students to determine what experiments were needed. When the results were unexpected, they were forced to adapt and try different approaches. Students have been positive about this change and are more engaged in the experiments.

Many of our undergraduate students are also involved in research through other means as well, by taking independent research classes, or by working at a Research Experience for Undergraduates site, at K-State or another university, for 10 weeks over the summer.

The second initiative is the University Engineering Initiative Act (UEIA). Recognizing the economic importance of engineers, in 2010 the state of Kansas passed this legislation to increase the number of students earning B.S. degrees in engineering from Kansas universities by 600 within 10 years. This amounts to a 25% to 30% increase in enrollments for both the College of Engineering and the CHE department.

First-year investments from these funds will focus on expanding student recruitment to engineering, providing more help with retention so a greater percent of entering students complete their degrees in engineering, and planning for new facilities to accommodate increases in the engineering student body. In the future, the initiative will help the department grow by supporting the addition of more students and faculty. I am hopeful we can also increase the frequency courses are offered, so students will have greater flexibility in scheduling their classes as well as more elective courses to choose from.

Both of these initiatives have the potential to increase the value of and opportunities provided by choosing to study chemical engineering at Kansas State. We invite our alumni and friends to join us as we take advantage of these compelling circumstances.

Best wishes,

James H. Edgar

Details of K-State 2025 can be found at www.k-state.edu/2025/plan/2025-visionary-plan

A description of the UEIA can be found at www.engg.ksu.edu/ueia

Open House for Newly Renovated Durland Hall Laboratories

After years of planning, preparation and construction, renovation of the Durland Hall chemical engineering research laboratories will be completed in August 2012. To celebrate, the public is invited to an open house for the laboratories on Saturday morning, September 15.

This is the first major renovation to Durland Hall since it was built in 1976. The renovated laboratories will better meet current and future research needs of the department. They have been modernized to be safer and more energy efficient, and will provide adequate space so faculty can consolidate all of their experiments into single laboratories. Chronic problems associated with fume hoods and the air conditioning in the original laboratories will also be addressed by the renovation. The labs are designed to facilitate collaboration among research groups, thus rendering it possible to carry out large multi-disciplinary investigations.

Research projects to be performed in the renovated laboratories will include those pertaining to renewable energy, catalysis, semiconductors, transport phenomena and biosorptions. These projects will afford excellent educational experiences to graduate as well as undergraduate students.

A 25% increase in laboratory space was achieved by combining nine laboratories and nine student offices to create five laboratories. To accommodate the changes, all offices of chemical engineering graduate students were moved to new space in Seaton Hall in fall 2010.

The initial concept was proposed by Professor Mary Rezac. Following a campus-wide competition, it was the single proposal permitted by K-State to be submitted to the National Science Foundation. Professors Rezac and Peter Pfommm developed the NSF proposal, which was submitted in fall 2009 and funded in fall 2010. Professor James Edgar, in his capacity as department head, has served as project manager. Through competitive bidding, the architect firm of Clark Erensen Partners was selected; and in March of 2011, it initiated the laboratory design with CHE faculty. All equipment from the existing laboratories was temporarily placed in storage or in other laboratories by December 2011. In February 2012, Farrell Construction was awarded the contract for this project, and it immediately began construction by demolishing the existing laboratories.

The original estimate for the renovation was $1.8 M, but the actual cost rose to $2.4 M. The NSF award, made under the American Recovery and Reinvestment Act of 2009, was for $1.6 M. Fortunately, the university, college and department were able to cover the difference by relying on donations from alumni and corporate supporters.

This renovation has required enormous cooperation, patience and ingenuity of the chemical engineering faculty, students and staff. To temporarily lose 4,000 square feet of laboratory space greatly inconvenienced the faculty, who still needed to meet the milestones required of their research, and students who wanted to graduate without any delay. The faculty had to consolidate their laboratories, and in the process had to abandon fragmentary, sometime promising, unfinished research that they had accumulated over their careers. The faculty whose laboratories were not renovated graciously shared their space with their displaced colleagues.

The departments of biological and agricultural engineering, electrical and computer engineering and civil engineering, and Nanoscale, Inc., all made space available to the department. David Threeit, the department’s research technologist, was a tremendous help during this process, as he moved Continued on page 7
**Double Duty—Student Athletes and CHE Majors**

As the 2012 Summer Olympic Games in London are currently completed, we are reminded of the dedication, motivation and talent it takes to be a top athletic competitor. Considering chemical engineering is not a field generally associated with athletic prowess, it is particularly noteworthy to recognize that four of our current undergraduate students balance their studies while competing as student athletes for Kansas State University. Larissa Laffey and Nicole Smith are members of the equestrian team, Luke Hibbeler is on the men’s track team, and Anna Gomez Aleman holds a spot on the women’s tennis team.

**Equestrian Team**

Larissa Laffey, a senior from Byfield, Mass., is one of the rare riders competing in both English riding events—equitation over fences and equitation on the flat. She joined the K-State equestrian team in 2009. As one of the top-scoring riders on the 2011–2012 team, Laffey was named to the 2012 All-Big 12 equestrian team in 2009. As one of the top-scoring riders on the 2011–2012 team, Laffey was named to the 2012 All-Big 12 equestrian team in 2009.

**Men’s Track Team**

A senior from St. Louis, Mo., Luke Hibbeler competes as a 400-meter hurdler and in the 4 x 400 relay for the men’s track team, and occasionally in an open 400- or 600-meter race during the indoor season. Running track since he was a high school freshman, Hibbeler helped this year’s team place fourth at the Big 12 championships, its highest finish since the inaugural 1997 championship. He shared his favorite inspirational motto for track runners as the classic “Slow and steady wins the race.”

**Women’s Tennis Team**

Ana Gomez Aleman is a senior from Murcia, a city on the southeast coast of Spain. She competes in both singles and doubles tennis and was recognized with the Mulcahy Sportsmanship Award at the 36th annual Milwaukee Tennis Classic this past year. After graduation, Gomez Aleman may stay in the U.S. to pursue a master’s degree or decide to work at a Spanish company involved in the development of alternative or sustainable energies and ecological fuels.

Nicole Smith, a junior, came to K-State from Beaverton, Ore. She joined the equestrian team in 2010 as a Western rider. Smith intends to pursue a career as a chemical engineer in the pharmaceutical industry. This year the K-State equestrian team hosted the annual Big 12 championship in Manhattan, where they placed third.

When asked about the biggest challenge of being a student athlete while majoring in one of the university’s most challenging curricula, Gomez Aleman’s general consensus was not surprisingly the struggle with time management. “Every student has to study, go to class and do homework, but as student athletes we also have to practice and travel to compete,” she said.

Luke Hibbeler agrees, saying, “I typically won’t finish classes and practice until about 7 p.m. From there I have to immediately start on homework and finish in time to get enough sleep for a 6 a.m. workout. Then on the weekend, if I’m not traveling for a meet, I have early morning practices. It doesn’t leave much ‘me’ time, but I do enjoy being busy.”

“Our sports take time and dedication, so I would say that the biggest challenge is following the rhythm of the classes when we leave for a competition. Engineering classes are tough, and missing classes due to competition is something harmful for the student athletes,” Gomez Aleman said.

Clearly, it takes an Olympic-level dedication for these students to succeed both in their academic studies as well as on their athletic teams. So the next time you are cheering on your Wildcat at a sporting event, be sure to give extra support to the chemical engineering student athletes.

**ChemE Inaugural Banquet**

The first-ever chemical engineering banquet drew over 120 students, faculty, staff and alumni.

Costs for the banquet were generously covered by ConocoPhillips, and three ConocoPhillips employees and K-State alumni attended—Marla Benyshek, B.S. 1980; Joshua Linn, B.S. 2011; and Chad Scantlin, B.S. 2002. Benyshek said, “All of us ConocoPhillips representatives had a great time at the banquet and thank Dr. Edgar for inviting us to join the festivities. It is always fun to come back to campus and be able to interact with the students and faculty. It seemed like the banquet was a great success and congratulations to all those who were recognized with special awards.”
Creating Your Legacy Through an Endowment

Endowed gifts provide a steady income stream to stimulate new ideas, provide seed funding for innovative projects, improve program quality, recruit and retain outstanding faculty, and attract talented graduate and undergraduate students.

By creating an endowment and investing in the future of the College of Engineering, donors can make a difference that will last beyond their lifetimes. For the donor, endowing the College of Engineering, donors can make a difference by creating an endowment and investing in the future of students.

Endowed gifts will enable the college to sustain and enhance our leadership roles in cutting-edge interdisciplinary research, graduate training and undergraduate teaching. By making an endowed gift to support faculty development, donors increase the resources available for the dean to recruit and retain the best and brightest. Endowed gift commitments may be paid over a multi-year period.

We appreciate your consideration. Please visit our online giving page at Chemical Engineering Excellence Fund or contact Lori Rogge, Sr. Director of Development, College of Engineering, 785-532-7539 or by email at lorrir@found.ksu.edu, for more information.

Newly Renovated Laboratories (continued from page 3)

To show our appreciation for all involved in this project, the previously mentioned open house will be held on Saturday, September 15 from 11:00 AM to 1:00 PM. Laboratory tours and opening remarks by James Edgar and K-State President Schulte will take place by the newly renovated laboratories on the second floor of Durland Hall. Visitors will also have the chance to talk with CHE faculty and graduate students about their research. Following these activities, lunch will be served in the Rathbone Hall atrium. The department looks forward to showing this new laboratory space, as well as our appreciation to alumni and corporate supporters whose donations helped make this renovation possible.
Chemical Engineering M.S. and Ph.D. Graduates

December 2011
Mohammed Hussain, Ph.D. – (Pfromm) ConocoPhillips
Yi Zhang, Ph.D. – (Edgar) Post-doctoral associate, University of Minnesota
Yi Zhang, Ph.D. – (Edgar) Post-doctoral associate, Brown University
Seloman Quansah, distance M.S. – (Schlup)

August 2012
Ronald Michalsky, Ph.D. – (Pfromm) Post-doctoral associate, ConocoPhillips
Michael Hollock, distance M.S. – (Schlup)

Chemical Engineering B.S. Graduates

December 2011
Leal, Jose – Seeking
Lienemann, Scott – NCRA

May 2012
Adair, Ryan – Seeking
Alexand Rodriguez, Alfredo – Returned to Bolivia
Alkhatib, Ahmed – Jubail Industrial City, Saudi Arabia
Colston, Jonathan – University of Kansas Medical School
Graham, Augustus – Hospira

May 2012
Hanec, Scott – CHS
Hartman, Lucas – OxyChem
Hoffman, Timothy – Graduate Student at K-State
Kim, Namhun – Returned to South Korea
Kuecker, Katelyn – 3 M
Lamb, Stephanie – Bettis
Mayo, Ashley – Nitride Solutions
McBride, Aren – Seeking
McFadden, Wesley – Schlumberger
Morris, Shane
Moses, Caitlin – Dow Chemical
Mouais, Talal – Yanbee Industrial City, Saudi Arabia
Nelson, Richard
PACE, Bill
Penney, Michael – Hospira
Podrbarac, Josh – Hospira
Saller, Steve – HollyFrontier
Shishkin, Evgeniy – Koch
Strecker, Jordan – Hospira
Sung, Jongsueun – Returned to South Korea
Ternes, Alexandra – Seeking
Tholstrup, Jordan – Hospira
Trumpy, Rachel – Hospira
Upson, Ryan – Hospira
Walmann, Timothy – University of Kansas Medical School
Wolters, Laura – Dow Corning

In Remembrance

Weesam Kassim Alkhatib (1999) died April 14, 2012, after a long battle with a rare form of cancer. He was born Jan. 22, 1978, in Baghdad, Iraq. He graduated from the University of Kansas Medical School in 2003. Alkhatib completed a general surgery residency at the University of Kansas in 2008 and began a vascular surgery fellowship at Stanford University in Palo Alto, Calif., in 2010. After graduating, he became a clinical instructor of surgery at Stanford University at the VA Medical Center in Palo Alto.

Alkhatib is remembered as a loving, protective brother and son. He was a role model to his siblings and inspired them to pursue their studies and higher education. Alkhatib was a passionate surgeon who loved to teach and encourage others. He was dedicated to his craft and the well-being of his patients. Alkhatib was a compassionate friend, devoted colleague and fiercely loyal supporter of the Kansas State Wildcats.

Herbert M. Timm (1951) has written, published and copyrighted a book of poetry, Poetry and Psychology.

Sigifredo Castro Diaz (PhD, 2003), a bioprocessing engineer with the university’s Advanced Manufacturing Institute, was named by the Ad Astra Kansas Initiative as one of the top 150 scientists ever to work in Kansas throughout its 150 years of statehood. Diaz develops and tests new bio-based products and processes.


Faculty and Staff Notes

L.T. Fan, CHE, professor, and his co-author, Tengyan Zhang, contributed one chapter and several appendices to the recently published monograph, Recent Advances in Sustainable Process Design and Optimization, published by World Scientific.

Chris Aikens, CHE instructor, and his wife, Christine, welcomed Damien Leonard into their family July 13. He weighed 10 lbs. 5 oz. and was 22 1/4” long.

Alumni Notes

Herbert M. Timm (1951) has written, published and copyrighted a book of poetry, Poetry and Psychology.

Sigifredo Castro Diaz (PhD, 2003), a bioprocessing engineer with the university’s Advanced Manufacturing Institute, was named by the Ad Astra Kansas Initiative as one of the top 150 scientists ever to work in Kansas throughout its 150 years of statehood. Diaz develops and tests new bio-based products and processes.

In Remembrance

George H. Smith (BS, 1940) passed away Sept. 6, 2011. He worked at Ashland Oil and is survived by his wife, Mary Gene Smith.


He was born Jan. 22, 1978, in Baghdad, Iraq. He graduated from the University of Kansas Medical School in 2003. Alkhatib completed a general surgery residency at the University of Kansas in 2008 and began a vascular surgery fellowship at Stanford University in Palo Alto, Calif., in 2010. After graduating, he became a clinical instructor of surgery at Stanford University at the VA Medical Center in Palo Alto.

Alkhatib is remembered as a loving, protective brother and son. He was a role model to his siblings and inspired them to pursue their studies and higher education. Alkhatib was a passionate surgeon who loved to teach and encourage others. He was dedicated to his craft and the well-being of his patients. Alkhatib was a compassionate friend, devoted colleague and fiercely loyal supporter of the Kansas State Wildcats.

He is survived by his parents Kassim and Sorkel Alkhatib, Woodland, Calif.; his sisters Aveen (KSU CHE 2006), London, Canada, and Cheen, Dallas, Texas. The family asks in lieu of flowers, people contribute to a memorial project dedicated to both Weesam and his late younger brother, Shwan Alkhatib (KSU EE 2009), who died unexpectedly March 12, 2012, while attending to Weesam who at that time had been undergoing chemotherapy. Details on this project will be forthcoming.
Where in the World Are the ChemEs?

Chemical engineering faculty and students take the opportunity during the summer to learn new things, practice their skills and talk about their work with colleagues throughout the world. Where have KSU ChemEs gone this summer? See the pictures below to find out.

James Edgar attended a National Science Foundation Conference held at the Baltimore harbor (pictured).

Jaron Meyer pictured in a tankhouse where stainless steel cathodes are plated with 99.999% copper, worked for Freeport McMoran Copper and Gold on the hydro-metallurgical processing side of the mine in Morenci, Arizona.

Kathryn Zaleski worked at GE Aviation in Arkansas City, Kan.

Jessica Long worked as a refining technical services process intern at the Phillips 66 Ponca City Refinery.

Glenn Hafenstine worked for Burns & McDonnell in Kansas City, testing gypsum slurries from scrubbers at power plants.

Keith Hohn pictured by the Neues Rathaus, attended the 15th International Congress on Catalysis in Munich, Germany.

Natalie Truman worked at Cargill Meat Solutions in Fort Morgan, Colo., developing and implementing an energy-saving project.

Student News

Undergraduate Student Scholarship Winners

Chevron Phillips Chemical Engineering Scholarship ........................................ Alex Marsh
Dick Corbin Chemical Engineering Scholarship ........................................ Kevin Diehl, Eric Fletcher, Jordan Strecker
Dow Chemical Company Foundation Scholarship ...................................... Eric Fletcher
Gordon and Joyce Goering Engineering Scholarship ..................................... Jonathan Coloton
Art Hiser Chemical Engineering Scholarship ........................................... Lawrence Barrett, Gannon Bauer
C.J. Hsu Engineering Scholarship ............................................................... Gannon Bauer
Joe Hyer Scholarship .................................................................................. Andrew Woolley, Stephen Ziss
Benjamin G. Kyle Scholarship ..................................................................... Jordan Strecker
John C. Matthews Scholarship ..................................................................... Eric Strand, Jordan Strecker
Harold G. Owens Memorial Scholarship ....................................................... Austin Neufeld
Sparks Foundation Scholarship .................................................................... William Pace
Steyer Chemical Engineering Scholarship .................................................. Jason Wahaus
Henry T. Ward Memorial Chemical Engineering Scholarship ................. Jason Wahaus

Graduate Student Scholarship Winners

Larry Erickson Graduate Student Fellowship ................................................. Ronald Michalsky, Sean Tomlinson
William H. and Virginia Honstead Fellowship ............................................ Neha Diman, Mandeep Kular, Ronald Michalsky, Fan Zhang

Student Awards

- The chemical engineering department placed 3rd for Outstanding Department at the 90th annual K-State Engineering Open House in April. The award was a reflection of strong performances in the freshman/sophomore display—1st place for Claire Markey, Steven Bish and Andrew Woolley; curriculum display—1st place for Katelyn Kuecker, Scott Haner and Lucas Hartman; and technical display—1st place for Jessica Long and 2nd place for Kevin Cooper.
- Laura Wolters was named St. Patricia at Open House.
- Mandeep Kular received the Graduate Student Travel Award.

- Neha Dhiman placed 3rd in the engineering, math and physics division at the Kansas Research Forum.
- Fan Zhang received the KSU Graduate Student Council Travel Grant Award. He also received the North American Membrane Society Annual Meeting Student Travel Award.
- Clint Frye received the NSF East Asia and Pacific Summer Institute (EAPS) Award. The EAPS program was formed to promote scientists and engineers to participate in the global scientific community, thus creating globally aware researchers in the United States with collaborators overseas.
- John Stanford, Liz Boyer, Leslie Schulte and Leidy Pena enjoy Teatro della Scala in Milan, Italy, while attending the 20th European Biomass Conference.
- Clint Frye (at right), pictured here in Kamakura, Japan, travelled Japan as part of the East Asia and Pacific Summer Institute.
Let us know what you’ve been up to!

We would like to feature alumni news in future issues of ChemE News. Please fill out the section below and mail it to Keith Hohn, Department of Chemical Engineering, Kansas State University, Manhattan, KS 66506-5102; e-mail to hohn@ksu.edu; or fax to 785-532-7372. Thank you.

Name _____________________________________ Degree/year _____________________________________
Title _____________________________________ Company name _____________________________________
Business address __________________________________ Phone _____________________________________
Home address __________________________________ Phone _____________________________________
News/accomplishments ______________________________________________________________________
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