OkChE

Winter 1995

CAMS in the Global Community
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OkChE Magazine
Published by The University of Oklahoma School of Chemical Engineering and Materials Science 100 East Boyd, Room T-335 Sarkey’s Energy Center Norman, Oklahoma 73019-0628

OkChE is a product of CEMS and University Publications. Executive Editor, Conoco/DuPont Professor and Director Jeffrey H. Harwell; Managing Editor, Rick D. Wheeler.

This publication is issued by the University of Oklahoma and authorized by the director of CEMS.

1800 copies have been prepared and distributed at no cost to the taxpayers of the state of Oklahoma.

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By the time you receive this issue of OkChE you should have been called by an OU student about your annual donation in support of the School of Chemical Engineering and Materials Science. We are entering a new era of cooperation and coordination regarding fund raising efforts at the University. You will notice, for example, that our old stand-by OkChE envelope is not included in the magazine.

Fund raising for the department will now be handled by the University's development office. We plan to continue the OkChE magazine because of all the great comments we've received over the years from alums who feel it has helped them stay a part of the school.

If the University failed to get in touch with you this year, please don't delay that donation till next year! Give me a call at 405-325-5814, send me a fax at 405-325-5813, or e-mail me at jharwell@uoknor.edu and we'll make sure you have a chance to support your favorite part of the program this year! Program of Excellence scholarships will support more than 30 students this academic year; without your generosity this could never occur.

Your support also provides start-up funds for new faculty, support for the AIChe student group, special speakers, and student and faculty development activities for both teaching and research.

OkChE provides an absolutely critical margin of excellence for your school.

I hope you will enjoy this "international" issue of OkChE. Globalization is the buzz word in business and engineering! Your school has not been left out of the surge; in fact, we are leading the way in some key areas. We have special activities in Japan, Thailand, France and Argentina. I hope you enjoy reading about some of the experiences of faculty, students and spouses in these countries over the last couple of years. The pictures are really great.

Has your career led you to any significant foreign experiences? Or even any experiences that just make a good story? Please send us a brief note about it addressed to OkChE Magazine, c/o Rick Wheeler. We'll try to put the best stories in one of our future issues.

The program is going great guns! We have nearly 400 students enrolled in chemical engineering; this year's senior class will include over 70 new graduates. We continue to enroll record numbers of National Merit, National Achievement, and National Hispanic Scholars. We had 31 new ones just in this Fall's freshman class! I hope that you noticed CEMS listed in C&E News these last two years among the top ten programs in the U.S. in terms of research dollars spent in chemical engineering. This was not a fluke. Check C&E News next August and you will see us listed again. We are doing lots of exciting things, which we'll tell you about in the next issue of OkChE.

Please stay in touch. We love to hear from our alums. You have made us proud time and again.

Yours truly,

Jeff Harwell
Conoco/DuPont Professor and Director
CEMS in the Global Community
CEMS Helps an Ancient Culture Train Chemical Engineers for a 21st Century Economy

by Jeffrey Harwell

When, as the new director of the chemical engineering program, I decided to plunge head first into a cooperative venture to train graduate engineers in Thailand, I had one goal -- to give the faculty an opportunity to increase their publication rates and get preliminary data for proposals. This goal has indeed been reached, but I think most of those who participated in the program value more highly our new friendships and experiences with our new Thai friends.

Natural gas and gas derived products drive much of Thailand's booming economy. As a result, there is a severe shortage of engineers in Thailand, especially chemical engineers. There is also a demand for engineers with good English skills. If a Thai engineer speaks with a German, Chinese, Japanese, Vietnamese or Malaysian, the common language will be English. To increase the supply of such engineers to Thailand's growing chemical industry, The University of Oklahoma, The University of Michigan, Case Western Reserve University, and Chulalongkorn University began a joint program leading to a M.S. in chemical engineering or a M.S. in polymer science.

The universities patterned the chemical engineering program on our own at OU. Each student takes at least three of four core courses: Advanced Thermodynamics, Advanced Transport Phenomena, Advanced Kinetics, or Advanced Chemical Engineering Calculations. Electives offered to allow the student to complete a total of seven courses include courses like Polymer Processing, Colloid and Surface Science, Catalysis and Natural Gas Processing. The students also attend seminars given by visiting engineers and scientists from academics and industry.
Finally, each student must present a manuscript suitable for publication in a refereed journal based on original research supervised by both a U.S. and a Thai faculty member. During the first two years of the program, all the courses were taught by U.S. faculty. Beginning in the program’s third year, Thai faculty will begin teaching some of the courses.

Because of the heavy dependence on U.S. faculty, students take only one course at a time. Each course lasts four weeks. Three classes are offered between the end of May and the end of August so that U.S. faculty will not miss their classes at home. Another course is offered each November with a final offering over our Christmas break.

Just as important as the time spent by U.S. faculty teaching in Thailand is the time spent in U.S. laboratories by the Thai students. During 1994-1995, 15 Thai students worked in OU laboratories, side-by-side with OU graduate research assistants, learning the research skills developed in our laboratories. To date, two OU graduate students have traveled to Thailand to work with the Thai students on projects related to their own graduate research.

In order to give you the flavor of the Thai experience, three articles follow, one by a faculty member’s wife, a second by a graduate student and another by his wife.

To accommodate teaching and research responsibilities both at OU and in Thailand, John Scamehorn and other faculty have taught courses at Chulalongkorn structured over weeks rather than months. The Thai students have been equal to the challenge.

The developing research program at Chulalongkorn compliments that at OU. Students travelling both directions on research exchange have benefited as have faculty publication rates. CEMS Ph.D. candidate Jerry Newman assisted Nataya and other Thai students setting up experimental equipment of their own in a joint exploration of novel adsorption methods for method storage.

Ray Daniels, former CEMS Director who brought years of administrative experience to bear on creating the framework for interaction between Chulalongkorn and the three participating U.S. universities, and Jeff Harwell in Bangkok for spring graduation ceremonies.

Jeff Harwell, right, and Chulalongkorn faculty, Dr. Sujitra (far left), Dr. Kunchana (2nd left), and Dr. and Mrs. Somchai (2nd and 3rd right) and students visited the site of a new Thai Olefins plant engineered by Bechtel. It is just one of the plants under construction in Bangkok that will employ the graduates of the new Thai advanced degree program.
Faculty Wife Discovers “Thais set the standard for international hospitality”

EDITOR'S NOTE: Lynette Lobban is the wife of associate professor Lance Lobban, one of six Chem. E. faculty from The University of Oklahoma who have represented the Association of Big Eight Universities in a cooperative agreement with the United States Economic Assistance Mission in Thailand to initiate graduate programs in polymers and petrochemistry at Chulalongkorn University in Bangkok. Prof. Raymond Daniels, Jeffrey Harwell, Ken Starling, John Scamehorn and Rick Mallinson and graduate students John O’Haver and Cheryl Haskins also have taken part in the program.

When I first learned my husband had been asked to teach at Chulalongkorn University in Bangkok, Thailand, I was thrilled. My long-standing dream of becoming a world traveler was about to come true. I have always held a romantic vision of myself as a vagabond and my family’s frequent moves around the U.S. only increased this notion. So I looked forward to the upcoming journey with the attitude of a hobo who has just heard his next train.

The only thing different this trip would be that I had two preschool-aged children. The only thing. And the more time I had to think, the more the doubts set in. It was one thing to put myself in an exotic city of 8 million where I didn’t speak the language, couldn’t drink the water and, at times, so I heard, couldn’t breathe the air, but quite another to impose this startling change on my daughters. Hannah had just turned one, and although an ambitious walker, not a particularly stable one. What if she fell down on those infamously busy streets and got trampled by two million people who were late for work?

And how would Sarah, a child who thinks four hours at the Y-pool is merely a warm-up for six more at Discovery Zone, survive a 32-hour plane trip, not to mention six weeks in a hotel room? Was I mad, even to consider a place without a service elevator, VCR, and minivan?

Then an inner voice, the same one that had sent me on many an impromptu road trip, gave me a much needed shove in the back. I came to the decision that a mother who wouldn’t allow herself or her children to take chances was ensuring a fate more crippling than any misadventure encountered on the road, and the payoffs for taking such risks would be priceless.

So, with my new found optimism and a tingling sense one experiences on the brink of the unknown, I began to plan. We got travel books at the library and sticker books for the plane. We had enough carry-on luggage to tilt a 747, but we made the trip without tears or complaints.

We arrived in Bangkok around 3 a.m. where we were greeted by four of Lance’s students, who had cheerfully waited hours for our delayed flight, and from their countenance would cheerfully have waited several more. The trip to the hotel gave us our first taste of Bangkok traffic, which in my naivete I thought was heavy. Little did I know. Once we got to the hotel, Lance and I began to feel the full impact of 36-hour sleep deprivation, but the girls were ready to party. With the sheer single-mindedness of zombies, we managed to get them to sleep and life in our new home began.

By morning I was anxious to see the world beyond the walls of our hotel. I had read about a giant open air market, where folk art and other handmade goods from the northern regions of the country are brought in for sale.

My husband is not a shopper, but since the market was outdoors, and I was the only one with a plan, we departed, by taxi, to Chatuchak. What we didn’t know, after we were dropped off miles from our hotel, is that Chatuchak Park, where we found ourselves, and Chatuchak Market are two entirely different things. They are close enough geographically that we could have walked if we’d known where to look. Instead we wandered about the park for hours, curious as to where the merchants were hiding, approached only by vendors selling exorbitantly priced Cokes from wicker baskets. We finally stumbled, quite accidentally, onto the market, but by then none of us was in the mood to dally over cloth or crafts.

We returned to the hotel where jet lag was waiting to drag us down like gravity. We all fell wearily and gratefully into bed.

By morning I was anxious to see the city. The city takes your senses by surprise. Turn a corner and you can be surrounded by a sea of blue and white uniforms, as ecstatic children charge from the school yard like pint-sized sailors on leave. Or you might be making your way through the congestion of Phya Thai Road, trying not to breathe, when suddenly the smell of magnolia, sweet and heavy, delivers you from the exhaust of a million gridlocked cars.
The city, with its 10 million or so inhabitants, is so immense it does not have a predominant skyline where you can look in one direction and say, "This is Bangkok." It takes all of 360 degrees to capture the city's vastness from its ancient temples and bamboo sampans to the acres of towering skyscrapers and Times Square neon. This juxtaposition of old and new is Bangkok's greatest charm.

The most challenging aspect of our adopted home was simply the logistics of getting anywhere with children. The snarled traffic is a chimera of chrome and unpredictable motion, with precious few chinks in its armor through which timid pedestrians may pass. Even when cars are slowed to a crawl, motorcycles and tuk-tuks can wipe out an unsuspecting jay-walker before the light turns green. The reality of Bangkok streets hit home the first time we tried to walk to MahBoon Krong, a six-story mega-mall two blocks from our hotel. After spending several minutes paralyzed on the curb, I realized that unless we were to spend our entire vacation on the front steps of the hotel, I would have to step out into traffic with two children whose heads could not be seen above an average bumper. Six lanes sprawled before us like an obstacle course for the quick and the dead.

Hannah, I packed with me in a sling, but holding Sarah's hand only slowed us down. I found the best method was to wait for a clear spot and send Sarah sprinting ahead, telling her to run for the curb and not look back, while Hannah and I followed in hot pursuit. I felt very much like Bambi's mother in her famous "Run for the thicket" speech, but I fared much better than my doe-eyed counterpart.

Before long we were going out on our own while Lance worked on campus. It isn't easy transplanting small town kids to a metropolis, but we improvised. We turned the World Trade Center into a playground, found every McDonald's in a five-mile radius and rode the tuk-tuks when boredom threatened. The colorful open-air vehicles, a cross between a motorcycle and golf cart, could be found on any major street, zooming in and out of traffic like go-carts with an attitude. If you took a tuk-tuk for more than a couple blocks, you were guaranteed a thrill.

Nobody loved this more than Sarah. While I kept a firm grip on Hannah, Sarah would shoot her arms above her head and say "This is like a roller coaster ride." She wasn't far off.

As much as I grew to love the city, my fondest memories are not of places, but of the people. If there were an international criterion for hospitality, Thais would set the standard.

From the maid who took the knife from me as I stood bewildered over a basket of exotic fruit, and deftly carved the gift into small succulent morsels, to the concierge who began bringing day-old bread to Sarah after he noticed her admiring the fish in the canal in front of our hotel, the Thai people were perceptive and accommodating.

One of the best examples I can give is on the morning Hannah awoke listless and hot after a very restless night. By midmorning she was still refusing food and liquids. She needed a doctor. I called Lance at his office and within minutes he called back and said a van was on its way to pick us up and take us to the university hospital. I was greeted, not only by the driver, but a Chula student, who had come along to help.

The wife of a faculty member, who works as an administrator at the hospital, met me on the steps of the hospital and whisked me through the paperwork. She accompanied me to the examining room and smoothed over any language barriers between the Thai doctor and the worried American mother. After Hannah was diagnosed with tonsilitis, she disappeared, returning not only with the prescriptions, paid in full, but also with popsicles for each of the girls.

I had been told Thais are fond of American children, but I was not prepared for the friendly onslaught of admirers we attracted whenever we left the hotel. On our walks, or in the malls, we would find ourselves surrounded by smiling faces and outstretched arms, wanting to hold the children or touch their blond heads.

The Chula students put grandparents to shame when it came to spoiling. Whenever we visited campus, the girls were showered with stuffed animals, chocolates, flowers, fruits, ice cream and best of all, attention. Sarah loved visiting the labs, where students would race her up and down the hallways.

The commitment to development of a first-class graduate program in chemical engineering at Chulalongkorn University's Petroleum & Petrochemical College presented a challenge to the U. S. faculty who taught many of the courses during the program's first two years. CEMS' Professor Lance Lobban managed to avoid a lengthy absence from family during the winter holiday season by taking them along with him for the adventure. He and daughter Sarah enjoyed the visit to the Royal Palace.

Sarah Lobban didn't have to pick up the karaoke mic to make a hit in Thailand. She and her baby sister Hannah attracted the adulation of the family-focused Thais everywhere they went in Bangkok. Here she enjoys the company and attention of, from left, Jane, Mui, Aor, and Noi.
The Best By-Product:  
Great Friends

by John O'Haver

John and Kevie O'Haver hosted several Thai students during their visit to do research in CEMS labs. The students called them their “American Mom and Dad”.

Thai students visiting OU got their first ever look at snow during a ski trip to Wolfcreek, Colorado with the O'Havers. From left, Valee, Porn, Kevie, John, Tee, Luke and Nat.

I have twice had the great pleasure of going to Bangkok with the students and faculty of the Petroleum and Petrochemical College of Chulalongkom University. These trips have had a profound impact upon me personally and professionally.

During my first visit I stayed in Bangkok for three and a half weeks, working directly with six or seven of the students on their research projects. During this time I got to meet the few students with whom I had previously communicated, as well as meeting more than a dozen additional students. I acted as a senior graduate student, giving helpful (I hope) suggestions on experimental procedure and analysis. I participated in laboratory work and brainstorming/problem solving sessions. The graduate students, six of whom had met me at the airport, warmly included me in their community, and took incredible care of me. They took me to lunch and supper almost every day, much of the time refusing to let me pay. They accompanied me everywhere to make sure that I didn't have any problems with the language barrier or transportation. The faculty and the students made sure that I got to do a little sight-seeing on weekends, which I thoroughly enjoyed. It was very difficult when the time came for me to leave to say good-bye to all of the faculty and students who had become my very good friends.

It was with joy then that I learned that many of them would be coming to the United States to work on finishing their research and writing their theses. A total of sixteen came to the University of Oklahoma, for periods ranging from 3 weeks to 5 months. We arranged for them to stay in the student dorms, providing bedding and towels. The students worked very hard at their research and writing, but still found some time to see a few sights around the U.S. My wife and I took several of the students horseback riding, which was a lot of fun, especially when we trotted and cantered a few times! We then took one group to Colorado to see the Royal Gorge and to go skiing. Keeping in mind that the record low in Bangkok during these students lifetimes is 64°F, it was a little of a shock for them to wake up in the van to 0°F. They took lessons and by the end of the day made a run from the top of the mountain. It was a great day. It was difficult to say good-bye as they left to return to Thailand.

My wife and I then got to go to Bangkok in order for me to work with what will be the second graduating class. I worked most of the days, while the first graduating class took my wife sight seeing, shopping, eating, shopping, sight seeing, shopping, eating... We ate lunches and dinners with many of the faculty members, getting to see and appreciate more of the Thai culture, The last weekend we were there a group of the graduates took us to the ocean, paid for our hotel and meals, and showed us a wonderful time. We were not ready to leave when our brief two and a half weeks was up.

It is difficult to summarize the whole experience without sounding excessive. My wife and I both came to love the Thai people, Thai food, and Thai culture. We e-mail or write many of the students regularly. A few of the students (some who went to Colorado with us) call my wife and I "mom and dad". We have made some life-long friends, and have memories that we will treasure for years to come. We look forward to returning to Thailand sometime, and seeing our "Thai children" and friends, as well as more of that beautiful country.
Affection & Kindness of Thai’s Diminishes Distance

by Kevie O’Haver

When my husband John returned from his first trip to Thailand, in August of 1994, he was filled with enthusiasm about two things, Thai people and Thai food. He had been overwhelmed with the welcome he had received from the Thai students, and the friendships that had developed as they worked together on their research projects, and they introduced John to Thai food and culture.

In November of 1994, I had the opportunity to finally meet some of the students that I had heard so much about. Over the next 6 months, a total of 16 students from Chulalongkorn University visited the OU campus. Although we could never repay them for the way they had taken care of John while he was in Thailand, we did our best to demonstrate some American hospitality while they were in the U.S. I guess we did a pretty good job, since several of the students refer to us as their “American Mom and Dad”.

We enjoyed learning more about the Thai culture, and had some fun opportunities to introduce them to American life. Sometimes it was interesting trying to find common ground to explain things, like why we have a Christmas tree, or why we stop at stop signs even if no one else is there.

They also taught us a lot about that which the American culture seems to have lost touch with, like sticking together as a group even if it is inconvenient, and being respectful and considerate to the people around you. We shared some adventures together, like an all night drive to Colorado so that some of the students could see snow for the first time and try snow skiing.

We enjoyed having a number of the students in our home for meals. American food was a bit difficult for many of the Thai students. They are not too impressed with mashed potatoes, and cheese was pretty foreign to them, but they sure liked our chocolate and fried chicken. We had fun giving them a taste of home by having them over to cook Thai food. By the time the last group left, we were making more of the food ourselves and getting compliments on how much it tasted like home. We also practiced learning Thai words in preparation for our next trip to Thailand. We still can’t carry on a conversation in their language, but we have an extensive food vocabulary.

In May of 1995, John and I were both able to go to Thailand. This time, the ‘students’ were now “graduates” with jobs. They were attentive and generous to John when he was there before, but this time, they were determined to take even better care of us, since they were newly employed. The faculty at Chula also reached out to make us feel welcome and comfortable, taking us on tours, out to lunch, shopping and to dinner. I don’t remember a day going by that someone didn’t show up to take me somewhere. We were even able to take a weekend trip to the ocean, as the guests of some former students, and visit a fruit orchard to pick rambutan and mangosteens.

I think the biggest challenge about visiting Bangkok is probably getting around town without a guide. Because the cab drivers are often from out of town, you need a good map, and a Thai phrasebook. The drivers can’t always read the map, but you can tell them, turn left, turn right etc. We were very proud of ourselves the first time we managed to direct a taxi to a silk shop on the far side of town from the university. Taxi manners are a bit different than in the U.S. In Bangkok, you flag down a taxi, and then ask if the driver will take you where you want to go. If the traffic is especially bad, or it is close to shift change time, he may decline and then you try another cab. You can’t blame them for wanting to avoid getting stuck on the opposite side of town in the worst traffic in the known universe. Complaining about the traffic is the dominant topic on the talk radio stations we were told. The Thais say that the traffic jams provide them with a lot of quality family time when families carpool to work and school. I think that reflects a lot about the Thai culture. They have a talent for compromise and making the best of difficult situations.

Visiting Bangkok requires some adjustments in thinking for Americans. The culture is much more formal, and manners more important. It is reflected in dress as well as the language, where each phrase expresses respect for the listener and awareness of their status. We are inclined to rely on our government to protect us with well enforced laws about health and safety. In Bangkok, everyone knows not to drink the tap water, and to watch out for yourself and your companions when crossing the street. Thailand is not America. It has its own special culture and personality which should be explored and appreciated. We risk offending them when we try to impose our own cultural expectations on the Thai people.

John and I were truly touched by the warmth and consideration of the people in Thailand. We made some special friends and are eager to return to renew our acquaintance. We have much to learn. Our e-mail conversations with some of them have taught us a great deal about their sense of humor and fun. We discovered that it really is possible to ‘shop till you drop’, especially in the tropical heat, and it is also possible to gain weight on Thai food. Even so, we are ready to go back soon and hopefully stay longer. The friends we made in Thailand make it seem like our second country, and somehow the distance between us seems greatly diminished by the affection and kindness we experienced there.
Dr. Daniel Resasco, left, brought with him opportunities for CEMS to collaborate with several Argentine universities in research that will lead to new pollution control technologies, new opportunities for utilizing natural gas, and improved routes to liquid transportation fuels. Argentine engineers Walter Alvarez, middle, and Carlos Querini have been working closely with Resasco at OU for several months.

Dr. Richard Mallinson discusses novel methods of methane conversion with researchers at Tianjin University in China. Drs. Gen-hui Xu and Chang-Jun Liu (standing right) have made extensive research visits to OU. Fei He, seated, utilizes Tianjin’s new x-ray photoelectro spectroscopy apparatus.

Laboratory of C1 Technology located at Tianjin University, Tianjin, Peoples Republic of China. (C1 refers to the single carbon of methane, the primary constituent of natural gas, and its derivatives.) Professor Xu collaborated with Professors Lance Lobban and Rick Mallinson on research into novel ways of converting methane to ethane and ethylene using a combination of electric charges and catalysts. Dr. Mallinson paid a visit to Tianjin University during July 1994 to present related results in a seminar and to develop plans for further collaboration and joint research proposals. A joint memorandum or understanding was signed between the two institutes during that visit. This has resulted in the Chinese laboratory sending a visiting professor, Dr. Chang-Jun Liu, during the 1994-95 academic year and continuing through the Fall of 1995 to continue research on electrically driven methane conversion.
OU-Blaise Pascal Research Exchange Program Opens Door to Further Collaboration
by Roger G. Harrison

My research program has benefited greatly from six French students who came to do research in my laboratory over a period of five years. These students were from the Department of Biological Engineering at Blaise Pascal University in Clermont-Ferrand, France. Clermont-Ferrand is a city of 250,000 that is 180 miles south of Paris. The students came here for a five month internship that is required at the end of their B.S. program. These students are highly motivated and talented, and they work very hard with minimal supervision. When they return to France, they give a presentation on their research to a panel of professors. Three of the students were coauthors of papers that have been published on the work they did here.

I visited Blaise Pascal University on June 6 and 7, 1995. I toured the research facilities in biochemical engineering and biochemistry and also had the opportunity to visit the nearby National Center of Agronomical Research. I gave two lectures at Blaise Pascal University, one on my research on antimicrobial peptides and the other on CEMS undergraduate and graduate programs. I had discussions of ways that we can collaborate on research and am now following up on some proposals that we can write together. This trip gave me an opportunity to really get to know the professors there in biochemical engineering. Two of them had us (my wife and two teenage sons also were on the trip) to their homes for dinner, and they and their families separately took us on the weekend to see sights near Clermont-Ferrand that included medieval castles and Romanesque churches. We also had dinner at the home of the coordinator of the engineering exchange program, who is a civil engineer. All of these professors and their families were very hospitable to us.

Third International Conference on Supercritical Fluids, Strasbourg, France
by Professor Lloyd L. Lee

This was my first trip to Strasbourg, even though I had spent some years in France a long time ago. This meeting is triennial (three years ago it was in Boston!) There were speakers from more than twenty countries, representing the wide-spread interests and disciplines of the subject: supercritical fluids. The meeting was co-sponsored by the French Chemical Society and the German University of Hamburg. It took place on the north side of the town de Congrès. It is a supramodern structure (something like the Buckminster Fuller geodesic dome). I was pleased to meet many friends and colleagues, Cor and Ludo from Holland, Vladimir from Moscow, Hank from Oak Ridge, and Pablo from Princeton (sometimes you have to travel around the globe to meet people closely! To go far is to return). I had a wonderful poster on some esoteric topic like: "the orientational structures of nonspherical molecules in a supercritical solvent". I did catch one or two stray onlookers to stare at my poster (I quickly took some pictures to show its popularity). I attended many fascinating sessions. This meeting was pretty upbeat about supercritical studies. (The Boston meeting was all doom and gloom.) I was glad to see that people were happy.

The city was built around the Notre Dame Cathedral of Strasbourg. The cathedral, started in 1015 and added to over the years, is more than 600-900 years old with spires over 466 feet high. The city was called Argentoraturn in Roman times. The first impression I had of the city was that it was very clean. The second impression was it was very expensive! I enjoyed taking a promenade through the platane-lined streets, canals, and squares. If you go there, do not forget to sample the local delicacies: onion pies, Alsatian wine, and choucroute. They were ou-la-la good. I also read up on history which Strasbourg is full of. I came, I saw, and I left with fond memories.
David Bondurant, BSChE '66, has been named manager of Texas Eastman's Engineering Department in 1994. Bondurant competed master's and doctoral degrees from the University of Illinois. He joined Texas Eastman in 1970 as a chemical engineer assigned to R&D. He became a senior chemical engineer in 1974 and a development associate in 1980. Bondurant began serving as a research associate in 1984. He had served as manager of Engineering Research & Pilot Plant Operations since 1989.

Jay K. Morris, BSChE '81, MSCChE '82, has been posted to the London offices of Chevron UK Ltd. on assignment to the Britannia Development which is a joint venture of Chevron and Conoco to bring on production of one of the largest gas fields in the North Sea. He is working in the construction group and is responsible for fabrication of the drilling facilities to go on the offshore platform. His team has developed some innovative contract strategies he hopes will set a new lower benchmark for costs of North Sea offshore facilities. Construction started this year with first gas expected to be delivered in 1998.

Kevin J. K enamley, PhD MetE '86, has been assigned for a three year period to the Facilities Engineering Department of ARCO Indonesia. Kemelley is working in a production environment with more than 200 offshore platforms. He serves as a senior advisor in corrosion and materials science for a department of 20 national engineers.

Ngoc-Chau Th Thai, BSChE '86, moved from Con Edison in 1988 to Lockheed Martin in Fort Worth, Texas. She has three children, Gloriae, aged 7, Sophia, 4, and Erik who is one.

Jennjue Wu, PhD '87, has been appointed associate professor on the faculty of National Chung-Hsing University in Taiwan. Prior to his appointment, Wu had worked in the Polymer Science and Technology Division of the Industrial Technology & Research Institute, Union Chemical Laboratories. During his six years there, Wu served as manager of Polymer Processing, Polymer Compounding, High Performance Polymers and was promoted to deputy director of the Polymer Division. Wu will be putting his expertise in polymer blends, emulsion polymerization and application of polymer materials to use developing research programs in polymeric surfactants and their synthesis from petroleum intermediates in the newly-formed department.

Jason S. Anderson, BSChE '92, recently published a paper with R. Rico-Martinez and L. G. Kevrekidis of the Dept. of Chemical Engineering at Princeton on the the topic “Continuous-time nonlinear signal processing: a neural network based approach for gray box identification”.

James Keen and Haley (Miles) Keen, both BSChE '93, are working as Process Contact Engineers for Exxon Chemical Company's Baytown Chemical Plant in Texas. James works in a Butyl Polymers plant which produces elastomers used in tires, bubble gum, shoe soles and automotive belts and hoses. Haley works in the Aromatics plant which produces benzene, toluene, xylenes, and several heavy aromatic solvents sold to manufacturers of styrene, polyester, PET for uses in plastic soda bottles, paint, and agricultural chemicals. They are both responsible in their respective departments for daily monitoring of unit operations for problems and possible optimizations, and for conducting tests and developing projects to increase unit efficiency or capacity. They both play a major role in unit process hazards analyses as required by OSHA and environmental items including permitting and reporting. James is a member of the Exxon United Way campaign and the Chemical Administration Building Safe Work Practices Team. Haley has represented Exxon as a local school science fair judge and was involved in "Kids at Work" day. She is chairperson of her department's Safety Committee and a member of the Basic Chemicals Division Safety Council. She also is a member of the OU Exxon Recruiting Team. James and Haley reside in Seabrook, a suburb of Houston near Galveston Bay, with their cat, Zipper, and dog, Skeeter. In their free time, they enjoy water sports, mountain biking, C&W dancing and working out at the gym. Jimmy's hobbies include landscaping, computer games, and keeping up with OU football and basketball. Haley enjoys cross-stitching, piano and leading a Girl Scout troop. Both competed in the
First Askew Scholarships Awarded

CEMS has awarded the first two endowed scholarships which were made possible by a matching fund established by alumnus Richard G. Askew. The announcement was made at a reception during the Fall 1995 meeting of the OkChE Board of Directors.

Julio Carlos Cabrera, a National Hispanic Scholar from Coral Springs, Florida, was named the first recipient of the Laurance S. Reid / Richard G. Askew Chemical Engineering Alumni Scholarship.

James K. Wilson, a National Achievement Scholar from Houston, Texas, was named the first recipient of the Richard L. Huntington / Richard G. Askew Chemical Engineering Alumni Scholarship.

In 1993, Askew established a fund of $100,000 to be used to encourage contributions to support a program of endowed undergraduate scholarships in the CEMS through a benefactor matching program.

Under the program, scholarship gifts of $10,000 or more by individuals, including corporate matching funds, will be matched on a 1:1 basis, and the resultant endowment fund bear the name of both the donor and the benefactor.

Richard G. Askew received a B.S. and M.S. in Chemical Engineering in 1947 and 1948 respectively. After a thirty-seven year career in a variety of domestic and internation assignments, he retired as Senior Vice President of Phillips Petroleum Company and President of Phillips Chemical Company, with responsibility for the company's worldwide chemical operations.

Faculty Wife, continued from p.7

were showered with stuffed animals, chocolates, flowers, fruits, ice cream and best of all, attention. Sarah loved visiting the labs, where students would race her up and down the halls on rolling office chairs or toss her back and forth till their arms gave out. Hannah was kissed and cuddled, and grew so accustomed to the attention she would walk by a table of complete strangers two or three times if no adoration were immediately forthcoming.

Since our hotel and Lance's office were less than a block away, we met for lunch nearly every day. My favorite meals were in the company of Chula students, not only because they knew some of the best restaurants, but because of the sense of community and good humor I always felt at their table.

The faculty and staff took on extra duty during our weeks in Bangkok, serving as tour guides on sight-seeing trips to the Grand Palace, Floating Market, and Temple of the Emerald Buddha, not to mention kid-friendly destinations like the zoo and Safari World. With the students' help, we even made it back to the once elusive Chatchuk Market, and shopped all 35 acres of it to make up for lost time.

One day when I had taken the kids to the World Trade Center, I heard Christmas carols playing over the intercom and felt my first pang of homesickness. Back in the States, people were decorating trees and roasting chestnuts, while I was still in short sleeves, peeling pomelos and eating mangoes. I am enough of a traditionalist that I missed Oklahoma's sunny winter days and wind-whipped nights in front of the fireplace. I realized it was time to go home.

At our going away party I was handed a microphone and asked if I wanted "to say a few words." There were many things I was hoping to say with some degree of eloquence. How much I appreciated all the help we were given, how grateful I was for the chance to explore this exotic city with such expert guides, and how humbled we were by the generosity of those who simply refused to remain strangers. But as I took the mike and looked out over the now-familiar faces, many of whom I knew I would never see again, my throat tightened and barely let me get out a hoarse "thank-you" before I was left without any words at all. I only hope the tears filled in the blanks.
CEMS Academic Achievement Award Recipients

Spring 1995

Kathleen Lorengo, F. Mark Townsend Scholarship
Darrel A. Reynard, Pamela Pesek Johnson Award to an Outstanding Senior in Process Design
Laura M. Worthen, Robert Vaughan Award for Excellence in Undergraduate Research
Swee S. Quah, American Institute of Chemical Engineers Award for an Outstanding Junior in ChE
Mark R. Powers, CEMS Outstanding Sophomore Award
Li Peng Chong, CEMS Outstanding Senior Award

Program of Excellence Scholars 1995-1996

Anthony Wayne Anderson
Miami, Oklahoma

Bacon Dawn Michelle
Owasso, Oklahoma

Elizabeth Kay Breutzman
National Merit Scholar
Anchorage, Alaska

David Jake Bullard
Tishomingo, Oklahoma

Julio Carlos Cabrera
National Hispanic Scholar
Coral Springs, Florida

Mary Katherine Couch
Muskogee, Oklahoma

Phillip Joseph Doerpinghaus
Jenks, Oklahoma

Anil Vagish Gollahalli
National Merit Scholar
Norman, Oklahoma

Scott Adam Hagstrom
National Merit Scholar
Del City, Oklahoma

Beth Alison Heath
Hennessey, Oklahoma

Alan Charles Hepp
National Merit Scholar
Merrillville, Indiana

Gregory Dale Hicks
Bartlesville, Oklahoma

Brian Alan Link
National Merit Scholar
Moore, Oklahoma

Kathleen Jean Lorengo
Butte, Montana

David Jason Magstadt
Ponca City, Oklahoma

Kevin Patrick McAllister
Beaumont, Texas

Michael Ray Nixon
Antlers, Oklahoma

James Brett Pate
Oklahoma City, Oklahoma

Nancy Suzanne Perkins
Edmond, Oklahoma

Dirk Aldon Perrin
Snyder, Oklahoma

Mark Robert Powers
National Merit Scholar
Lexington, Tennessee

John C. Rasmussen
National Merit Scholar
McAlester, Oklahoma

Richard Youshin Ro
Stillwater, Oklahoma

James Donald Rolston
National Merit Scholar
Rosharon, Texas

Yasmine M. Salama
Ponca City, Oklahoma

Sam Elie Sawaya
Yukon, Oklahoma

Gennady Slobodov
Palo Alto, California

Sandra Y. Snyder
Menomonee Falls, Wisconsin

Kyle Christopher Sparks
Ft. Smith, Arkansas

Steven J. Stewart
National Merit Scholar
Columbus, Mississippi

Jennifer M. Strojny
National Merit Scholar
Biloxi, Mississippi

Matt R.Trow
National Merit Scholar
Harrah, Oklahoma

De Quang Vu
National Merit Scholar
Oklahoma City, Oklahoma

James K. Wilson
National Achievement Scholar
Houston, Texas
B.S.
David J. Archer
Teffany C. Amic
Meggan E. Baker
Kimberly D. Bekes
Kevin L. Blakley
Raymond E. Bristol
Dalana S. Chandler
Li Peng Chong
Kin Fall Chung
Christy L. Crowe
Michael S. Hankinson
Michael E. Helm
Kristine H. Hua
Tanya A. Hurst
Jeanine E. Judd
David C. Kendrick
Scott J. Kersey
Cassiday A. Kess-Momoh
Mazen Labben
Peter Lich Kim Le
Ying Shian Lee
Correy W. Lipps
Yoke Loon La
Scott W. Lynch
John B. Madden
Dannielle M. Martin
Radha Masilamani
Jordan P. Merrell
Ashley R. Moody
Brian M. Moore
Karolina Oetman
Yew Boon Ong
Toby D. Owen
Ellena A. Plaza
Benjamin B. Pool
Talee Karl Redkorn
Darrell A. Reynard
Evan L. Russell
Brian T. Summers
Patrice J. Tompkins
Thuy Ngoc Truong
Ashley D. Ukens
Abdel R. Urriola
Robert A. Valle
Thuy T. Vu
Kim R. Warram
Teresa L. Webb
Douglas S. Wilkins
Kenyatta T. Wilson
Choi Yoke Wong
Seng Leng Wong
Khalif Anuar Zainal

M.S.
Biren D. Ajmera
Maria Del Pilar Arevalo
G. V. S. Bhanumurthy
Umesh N. Choori
Mario A. Coelho
Martina I. Dreyer
Nuriye Duman
Doris L. Gonzalez
Anil Kumar Gupta
Marina A. Ionova
Sanjay Kadavere
Christopher J. Loughran
Amit Mani
John May
Scott A. Smith
Rajesh Subramanian
Jerry M. Taylor
Choon H. Teo
Manoj Kumar Tyagi
Shurang Xin
Weikang Xin
Yuefeng Yin

Ph.D.
Saeed Al-Zahrani
Chris Haught
Barbara A. Krebs-Yuill
John H. O’Haver
Chung-Ching Yu

There appears to be a trend developing among CEMS’ international travellers...
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