

COLLEGE OF
ENGINEERING

FALL 2014

IMPACT



Darren Dawson

Dean of the College of Engineering

KANSAS STATE
UNIVERSITY



PHASE IV PROGRESS

Clockwise from above: interior view of atrium link connecting Durland and Rathbone halls; west portion of expansion connecting to Fiedler Hall; southwest corner view of Phase IV, looking northeast from Denison Ave. and College Heights Rd. intersection; placing of the "final beam" — see opposite page.

Live photo stream and more at engg.ksu.edu/phaseiv



Milestone of 'final beam' celebrated with plaza signing event



Faculty, staff and students from the College of Engineering, and representatives from McCownGordon Construction gathered on the engineering plaza for the "beam topping out" ceremony, Friday, Oct. 17. The tradition involves signing the final beam of a construction project — in this case, the final beam of the Phase IV expansion. The 10-foot, wide-flange beam was placed at the far south end of the building at the top of the stairwell.

contents

Fall 2014

- Meet the dean. 2
- Undergraduate research 4
- Distinguished lecturer. 6
- Company of the Year. 7
- UEIA 8
- Seaton Society honor roll. 10
- Playing defense 12
- Noteworthy 14
- Alumni profiles 16

IMPACT

is published twice a year by the Kansas State University College of Engineering, Manhattan, KS 66506.

It is available on the web at engg.ksu.edu.

Issue No. 33, Fall 2014

- Editor Mary Rankin
- Photographers Bob Davis, David Mayes, Tommy Theis
- Design Lynda Carter, Bob Davis
- Contributing to content: K-State Communications and Marketing, K-State Foundation



Meet the dean

Darren Dawson became the 10th dean of the Kansas State University College of Engineering on July 1, 2014. He also holds the LeRoy C. and Aileen H. Paslay endowed chair. Dawson had previously been a professor and chair of the electrical and computer engineering department at Clemson University, where he held the endowed position of McQueen Quattlebaum professor. From 2005 to 2007, he served as the electrical and computer engineering department graduate coordinator.

Dean Dawson shared the following thoughts and comments in a recent question-and-answer session.

Q *What has the transition to Manhattan been like for you, your wife and your children? Have there been any major changes in moving from the South to the Midwest?*

Darren Dawson: The transition has gone very well. My children have plugged into their respective schools — David, age 10, fifth grade; and Jacklyn, age 16, 11th grade — and like it here very much. I'd say the biggest change for my wife, Kim, and I — for the whole family, really, has been the weather. We found the summer quite nice compared to the South, and we all really enjoyed September and the beginning of fall so early in the year. September is definitely a summer month in South Carolina.

Q *How would you describe your early months of working with faculty, staff and students in the college? And, you are co-teaching a course this semester — can you speak to that experience and why you chose to teach?*

DD: I've gotten to know faculty by attending their departmental meetings as well as their internal advisory board sessions. It is amazing how connected the alumni are here at the department level. But I'm getting to know the faculty in another way — it's my plan to visit all 150 of them, for 30 minutes to an hour, on site in their office space. So far I've done about 30, but I'm going to visit them all. I've learned more about this college in that one-on-one time than I've learned anywhere else since I've been here.

I've gotten to know the students by going to some of their events, design team activities and things like that. But another avenue is the classroom where I am co-teaching a senior-level controls course in electrical engineering, Control Systems Design, with Tim Burg, a new professor in that department, also from Clemson. I enjoy teaching and can't think of a better way to really get to know what it's like to be a faculty member in this college than to teach a course.

Q *What are some of your immediate goals as dean of the College of Engineering? And then, more long term?*

DD: I have two key short-term goals and two key long-term goals, and I'll separate them into goals for graduate students and goals for undergraduate students. Short term for the graduate program is to increase the number of Ph.D. students by 50 in the next three years. We're at 165 now. And then, our long-term goal is to double the number of Ph.D. students by 2025. With the undergraduate program, short term we want to build an academic success center that will play a key role in improving our retention numbers between the students' freshman and sophomore years in engineering. This will cover a broad umbrella of activities from tutoring to mentoring to academic coaching. We'll have physical space for this in the new building — an expanded area to what we've had for this in the past with the Carter Learning Center and, currently, an area in Fiedler Library. Our second or long-term goal for our undergraduates is to get more of them involved in undergraduate research. Right now we have about 150 to 200 taking part in this, and we want to double that number over the next few years.

Q *You have had past success at Clemson in increasing enrollment numbers. In light of the goals of the University Engineering Initiative Act (UEIA), how will you approach meeting increased enrollment and graduation requirements?*

DD: Improving retention is the best approach for increasing our enrollment numbers as required by the UEIA, and again this will be aided by the creation of the academic success center.

Right now, we have about 150 students leave the college between their freshman and sophomore years. If we figured out how to keep 75 of those 150 every year, we'd have no trouble meeting the enrollment and graduation requirements of the UEIA.

Retaining students must be our focus — retention is measurable and, in the long run, equally important to recruiting, which is harder to measure.

Q *What's it been like to arrive as dean in the midst of a major construction project? How will you approach the challenge of encouraging alumni and friends to actively support the Phase IV expansion plan?*

DD: I didn't see coming into the middle of a building project as any big deal, because when I got here, ground had been broken and things were underway. And there was another huge advantage — Dave Fritchen [ARE/CNS professor]. When you have someone of that skill and experience level overseeing the project, it makes all the difference in the outcome. Dave is doing such a good job for us. I'm not concerned about that at all. It's a challenge to raise money for bricks and mortar, but I have found the alumni and corporate friends of this college have a real proclivity for giving back. And with our outstanding development team of Lori, Brett and Jennie, we'll meet those goals, too.



Expanding opportunities now available for undergraduate research

The College of Engineering, in support of the university's goal to be recognized nationally as a top 50 public research institution, is stepping up efforts to enhance its undergraduate research program — one of the seven thematic areas of K-State 2025.

"We have vibrant research and graduate programs on all levels," said Noel Schulz, associate dean for research and graduate programs. "Faculty members are active in presenting and publishing their research activities, as well as advancing graduate and undergraduate students in technical skills of research."

To encourage this additional undergraduate research, three awarded programs and activities have been established: the Raj and Diana Nathan Undergraduate Research Excellence Award, Engineering Research for Undergraduate Awards and the Undergraduate Research Poster Forum.

Activities in undergraduate research and creative inquiry help undergraduate students in the following areas:

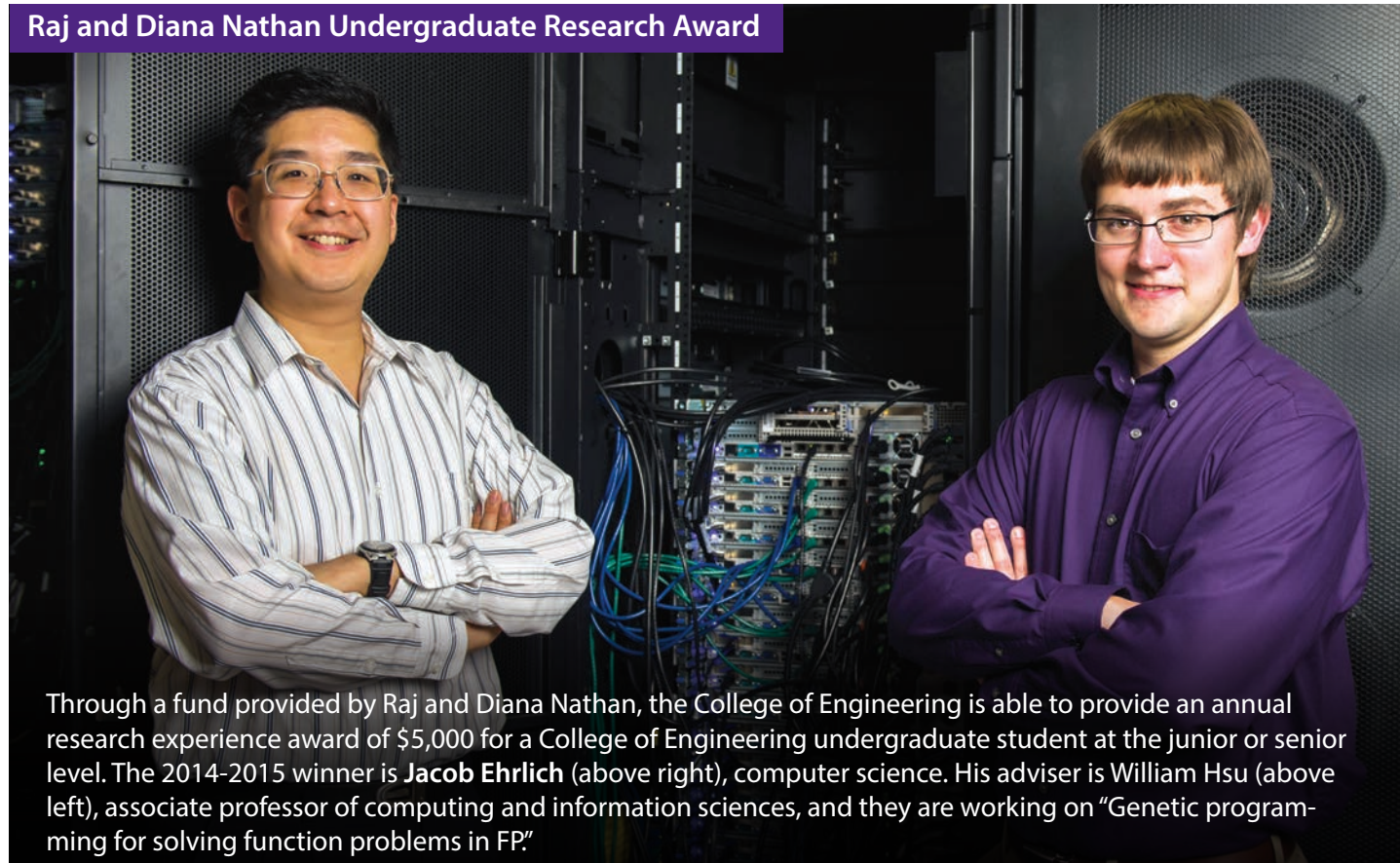
- Extend the learning experience beyond the traditional classroom setting, enhancing the overall experience within the major
- Stimulate additional problem-solving, critical-thinking and personal-reflection skills
- Encourage students to develop communication skills and investigative methods
- Provide more real-world experiences, increasing student interest and creating a more effective environment for learning some aspects of a discipline
- Promote participation in the continuum of learning — expanding the integration of general education and major-specific educational activities

Engineering Research Experience for Undergraduate Awards



The College of Engineering sponsored four Engineering Research Experience for Undergraduate Awards for 2014-2015, each recipient receiving \$2500 (clockwise from seated left): **Luke Snider**, biological systems engineering, with Asst. Professor Lisa Wilken, "Design and optimization of grain fractionation process"; **Bryce Garver**, industrial engineering, with Asst. Professor Jessica Heier Stamm, "Kansas public health preparedness stockpile planning under uncertainty"; **Yadira Porras**, civil engineering, with Assoc. Professor Kyle Riding, "Early-age thermal stress development of rapid concrete repair materials"; and **Christina Hagedorn**, mechanical engineering, with Asst. Professor Amy Betz, "Flow boiling research for enhanced thermal management."

Raj and Diana Nathan Undergraduate Research Award



Through a fund provided by Raj and Diana Nathan, the College of Engineering is able to provide an annual research experience award of \$5,000 for a College of Engineering undergraduate student at the junior or senior level. The 2014-2015 winner is **Jacob Ehrlich** (above right), computer science. His adviser is **William Hsu** (above left), associate professor of computing and information sciences, and they are working on "Genetic programming for solving function problems in FP"

College of Engineering Undergraduate Research Poster Forum



In spring 2014, a new activity was begun — the College of Engineering Undergraduate Research Poster Forum, which offers all engineering undergraduates a chance to highlight their research activities each semester. Winners at the spring 2014 contest were **Caleb Chiroy** and **Andres Martinez** (above right and left, respectively), both mechanical

engineering, splitting the first-place \$300 scholarship for their work with Asst. Professor Amy Betz, "Effects of micro-structured surface geometries on condensation heat transfer"; **Taylor Ochs** (above with Sr. Assoc. Dean Gary Clark), mechanical and nuclear engineering, with Professor Douglas McGregor, "Fabrication of current-generation microstructured

semiconductor neutron detectors," second-place \$200 scholarship; and **Kseniya Sheshukova** (above with Assoc. Dean Noel Schulz), biological systems engineering, with Asst. Professor Lisa Wilken, "Analysis of recombinant human serum albumin degradation in transgenic rice extracts," third-place \$100 scholarship.

Distinguished speaker

Way Kuo featured speaker for National Academy of Engineering Seminar Series



Nuclear energy now provides roughly 11 percent of the world's electricity and 39 percent of global non-fossil-fueled electric power generation. However, in spite of its impressive safety record since its commercial use began in the 1950s, some level of opposition to nuclear power exists nearly everywhere it is used.

Way Kuo, professor and president of City University of Hong Kong and graduate of Kansas State University, presented "Critical Findings on Nuclear and Renewable Energies" at the College of Engineering National Academy of Engineering Seminar Series Oct. 3 in Fiedler Hall Auditorium.

"Risks are associated with any electricity generation source," Kuo said. "Use of coal, for example, has caused more human and environmental damage

than nuclear energy. Yet as most renewable sources are still intermittent and not suitable for generating base-load power, loss of nuclear power would mean an increase of fossil fuels, leading to additional greenhouse gas emissions. We need to strike a balance between energy needs, economic growth, and safety and sustainability."

Kuo completed his graduate work at Kansas State University, earning both master's and doctorate degrees in industrial engineering in 1977 and 1980, respectively. He was elected to the College of Engineering Hall of Fame in 2001 and is a past member of the dean's advisory council. His bachelor's degree is in nuclear engineering from National Tsing Hua University in Taiwan.

To read more, go to engg.ksu.edu/ergp/lectures/nae/bios/kuo.html



Company of the Year —

Dolese Bros. Co.

The 2014 College of Engineering Company of the Year is Dolese Bros. Co., based in Oklahoma City. Originally established in 1902 to furnish quarried rock for railroad construction, Dolese has since developed into a full-service construction supply and material operation, employing more than 1,000 people.

Today, Dolese operates more than 45 ready-mix plants, 15 aggregate facilities, a block plant and a masonry supply warehouse. The company is Oklahoma's largest supplier of ready-mix concrete, crushed stone, gravel and sand.

The College of Engineering Company of the Year is selected annually with the distinction awarded based on exhibited commitment to engineering

education, as well as high standards and quality performance in the engineering profession.

Honorees of Company of the Year demonstrate engagement with the College of Engineering in the following ways:

- Direct support for scholarships
- Faculty support/faculty chairs
- Hiring of K-State engineering students
- Research support
- Other areas of involvement — advisory council service, team sponsorship, etc.

Established in 1974, the Company of the Year event is hosted and sponsored by the K-State Tau Beta Pi Engineering Honor Society.

Largest gift in K-State history

In November 2013, it was announced Dolese Bros. Co. provided Kansas State University with a gift of company stock valued at \$70 million, making it the largest gift in university history. At the same time, Oklahoma State University and University of Oklahoma each received stock gifts valued at \$70 million from Dolese Bros. Co.

Dolese is annually buying back stock from the schools in support of the company's profit-sharing plan and long-term goal of becoming wholly employee-owned. Dolese hopes the stock will grow

in value over time and ultimately provide even greater help for the three universities to increase the number of engineering graduates.

The gift from Dolese Bros. Co. comes at an important time for the College of Engineering, as it embarks on several strategic plans, including the statewide UEIA initiative, the university-wide 2025 vision and the Phase IV engineering complex expansion.

By Hayli Morrison
Development communications coordinator
KSU Foundation

DOLESE DELIVERS

Founded in the earliest days of Oklahoma's statehood, Dolese Bros. Co. has more than 100 years of experience in taking the state's raw rock and transforming it into the roads, bridges, skyscrapers and foundations throughout Oklahoma and Louisiana. With more than 70 facilities and 1,000+ employees in two states, we have the history, experience and manpower to get you whatever you need.

The Collaborative Learning Center will be a team-oriented environment where the College of Engineering will support student success through the Scholars Assisting Scholars peer-mentoring and tutoring program.



Rendering of the Collaborative Learning Center, a part of the Phase IV expansion now underway

More than a number

“When I visited K-State for the first time, it was an excuse to get out of school for the day,” said Austin Green. “What I didn’t expect was to leave the visit wanting to attend K-State the next fall.”

Now a junior studying software engineering at K-State, Green recalls stark differences between his pre-college visit to K-State and his visits to other universities. After a day filled with direct interaction with faculty, small group discussion with peers, a personal tour of the College of Engineering, and individual analysis of his personal strengths and goals, Green’s decision was easy.

“What I took away from the visit was that at K-State I had a name and at other schools I felt like I was a number,” he said.

It also became clear that K-State leaders committed extensive resources to helping students succeed and were happy to take time to explain how those resources work. Green remembers feeling impressed by Scholars Assisting Scholars, a peer-tutoring program supported this year by corporate gifts from Chevron Phillips, ConocoPhillips, Dolese Bros. Co. and Phillips 66, along with a grant from the K-State Student Governing Association.

“At K-State, they focus on providing a quality, personal education,” said Green, who eventually utilized Scholars Assisting Scholars during some of his more difficult college classes.

That’s exactly the sort of compelling impression the College of Engineering hopes to replicate when doors open next fall for the Phase IV expansion of the engineering complex. Scholars



Rachel Hinten, senior, architectural engineering, peer tutor for the Scholars Assisting Scholars program, with Austin Green, junior, computer engineering

Assisting Scholars will be prominently placed in the Collaborative Learning Center near the atrium. Other features such as the design teams suite and specialized research laboratories are all focused on improving the student experience.

Faculty, scholarships, learning environment and student programs are all critical for Kansas State University to become a top 50 public research university and for the College of Engineering to meet the student retention goals of the statewide University Engineering Initiative Act.

“Now more than ever, prospective students are waiting to be wowed,” said Darren Dawson, dean of the College of Engineering. “They want to know we care about their individual potential

and their goals. We have worked hard to showcase our dedicated faculty and resourceful programs, and when Phase IV is complete, our physical learning environment will further reflect our commitment to student success.”

By Hayli Morrison

Development communications coordinator
KSU Foundation

How you can help

To learn how you can make an investment in the College of Engineering to support students, faculty or learning environments, please contact the engineering development team at 785-532-7609 or danielley@found.ksu.edu. View our progress at engg.ksu.edu/phaseiv.

“What I took away from the [first campus] visit was that at K-State I had a name and at other schools I felt like I was a number.”

— Austin Green

Seaton

SOCIETY

Founders | *The Seaton Society awards lifetime membership to its founders, those who have made a commitment in excess of \$100,000 to engineering education excellence, as of FY 2013–2014.*

Ray and Barb Adee
Clifford Alcorn*
Terrie and Arnold Allemang
Dale* and Betty Allen
Jim and Betty Allen
John Atherton
Gerald* and Barbara* Auerbach
Arnold Bandel*
Stan* and Enid Barnett
Marilyn Barrett*
Tom Barrett
John* and Ronnie* Bateman
Alan and Karen Bell
Walt and Alice* Bellairs
Mardi* and Walter Belter
Larry and Judy Bennington
Minnie Berges*
Steve and Deloris Berland
Bill and Phyllis Binford
Jim and Twila Blakely
Jerry and Barbara Boettcher
Nadalie Bosse and Larry Nettles
Thomas and Una Bowman
Marlin Breer and Joan Russell
Gray Breidenhal*
David and Pat Britton
Frank and Elizabeth Burke
Chuck and Linda Burton
Charley Carter*
Gene Carter and Rita Rodriguez
Donald* and Ilavere Chesnut
Richard Clarke*

Stephen and Karen Clegg
Ed and Jaclyn Cochran
Charley and Nancy Cole
Gib and Brenda Compton
Carl* and Ruth* Coonrod
Randy and Jacquie Coonrod
Dick and Mary Elizabeth Corbin
Lucile Hawks
Chris and Kimberly Hess
Ken* and Mary* Hewson
Bill* and Virginia* Honstead
Darrell and Nancy Hosler
Mike and Margie* Hulings
Sallie* and Cleve Humbert
Helen and Jim* Hurley
Mark and Mary Hutton
Ching-Lai* and Meilang* Hwang
Carl and Mary Ice
Gil Johnson*
Jim and Laura Johnson
Bruce and Jeane Johnson
Neal and Susan Johnson
Gary and Helen Johnson
Ike and Letty Evans
Judith Fan and Robert Reay
LT* and Eva* Fan
George* and Alice* Fiedler
Max Foote*
Charles Frankenhoff*
Jim and Lisa Garrison
Don Gemaehtlich
Mark Gerard

Gordon and Joyce Goering
Charlotte Gollobin
Jim and Carolyn Grier
Jim* and Patricia* Guthrie
Rosamond Haeberle*
Wayne and Barbara Harms
Bill Hauber*
Lucile Hawks
Chris and Kimberly Hess
Ken* and Mary* Hewson
Bill* and Virginia* Honstead
Darrell and Nancy Hosler
Mike and Margie* Hulings
Sallie* and Cleve Humbert
Helen and Jim* Hurley
Mark and Mary Hutton
Ching-Lai* and Meilang* Hwang
Carl and Mary Ice
Gil Johnson*
Jim and Laura Johnson
Bruce and Jeane Johnson
Neal and Susan Johnson
Gary and Helen Johnson
Ike and Letty Evans
Judith Fan and Robert Reay
LT* and Eva* Fan
George* and Alice* Fiedler
Max Foote*
Charles Frankenhoff*
Jim and Lisa Garrison
Don Gemaehtlich
Mark Gerard

Robert* and Avis* Kountz
Thayne and Leona Kraus
Linda Lee and Joe Moffitt
Robert* and Mildred* Lee
Don and Anne* Lenhart
Alan and Janice Levin
Ken and Lin Lewis
TW and Tzi Lin
Sam and Martha Logan
Harold and Olympia* Lonsinger
Scott and Karen Love
Pau and Janet Lu
Mike and Cindy Manley
Louie Marshall*
Ken* and Kay* Martin
Sandi Mauch-Bieber*
Dean and Lavon Morton
Laree Mugler
Elmer* and Vivian* Munger
Ed and Jan Murray
Phillip* and Jean* Myers
Dick and Mary Jo Myers
Diana and Raj Nathan
Jane Neff
Edwin* and Peggy* Newman
Marjorie Norton*
Carl Nuzman
Carl and Janet* Nuzman
Steve and Linnea Kirchhoff
Diane and Barbara Harms
Bill* and Mila* Kimmel
Charles Frankenhoff*
Jim and Lisa Garrison
Don Gemaehtlich
Mark Gerard

Tom and Connie Paulson
Perry and Virginia Peine
Charley Ponton
Van and Sharon Pooler
Walter Poos*
Keith Pugh
Jack* and Joan Ransom
Ken and Lin Lewis
TW and Tzi Lin
Sam and Martha Logan
Harold and Olympia* Lonsinger
Scott and Karen Love
Pau and Janet Lu
Mike and Cindy Manley
Louie Marshall*
Ken* and Kay* Martin
Sandi Mauch-Bieber*
Dean and Lavon Morton
Laree Mugler
Elmer* and Vivian* Munger
Ed and Jan Murray
Phillip* and Jean* Myers
Dick and Mary Jo Myers
Diana and Raj Nathan
Jane Neff
Edwin* and Peggy* Newman
Marjorie Norton*
Carl Nuzman
Carl and Janet* Nuzman
Steve and Linnea Kirchhoff
Diane and Barbara Harms
Bill* and Mila* Kimmel
Charles Frankenhoff*
Jim and Lisa Garrison
Don Gemaehtlich
Mark Gerard

Howard* and Irma* Spainhour
Doris Spray
John and Martha Stack
Warren and Mary Lynn Staley
Keith Steyer*
Sheldon* and Fern* Storer
Charles* and Karen Stryker
Ken and Marguerite* Stuckey
Bob and Ann Syler
Ray* and Virginia Richardson
Jim and Marty Tadtman
Tim and Sharon Taylor
Steve and Kay Theede
Del and Sharon Thielman
Spencer and Susan Tholstrup
Bob and Bernita Thorn
Frank and Barb Tillman
Charles Tillotson*
Bob and Betty Tointon
Charles* and Ruth* Turnipseed
William Ulrich*
William and Mary Urban
Ed and Eunice Wambsgans
Vern and Loma Wegeger
Richard Weidler
Frank Westerman Jr*
Doug and Cindy Smith
Lloyd* and Jacqueline* Smith
Sarah Smith
Allen Small
Bob and Lila Snell
Virgil and Jane Snell

James and Jean Mosimann
Ed and Jan Murray
Craig and Dalene Nelson
Rod Noble
Morgan and Kaye Powell
Craig and Rebecca Price
Cathy and Tom Ritter
Warren and Teresa Ross
Randy Sedlacek and Mary Ventura
Allen Small
Jim and Marty Tadtman
Herb and Mary Sue Whitney
Meg and Kris Yaege
George and Maggie Yeh

Land Grant Legacy Society

The Land Grant Legacy Society, a part of the KSU Foundation Presidents Club, honors alumni and friends who have chosen to support the university by including K-State in their estate plans or deferred gift arrangements, thereby ensuring future opportunities for the students and faculty of tomorrow, as of FY 2013–2014.

Ray and Barb Adee
Clifford Alcorn*
Terrie and Arnold Allemang
Dale* and Betty Allen
Jim and Betty Allen
John Atherton
Gerald* and Barbara* Auerbach
Arnold Bandel*
Stan* and Enid Barnett
Marilyn Barrett*
Tom Barrett
John* and Ronnie* Bateman
Alan and Karen Bell
Walt and Alice* Bellairs
Mardi* and Walter Belter
Larry and Judy Bennington
Minnie Berges*
Steve and Deloris Berland
Bill and Phyllis Binford
Jim and Twila Blakely
Jerry and Barbara Boettcher
Nadalie Bosse and Larry Nettles
Thomas and Una Bowman
Marlin Breer and Joan Russell
Gray Breidenhal*
David and Pat Britton
Frank and Elizabeth Burke
Chuck and Linda Burton
Charley Carter*
Gene Carter and Rita Rodriguez
Donald* and Ilavere Chesnut
Richard Clarke*

Stephen and Karen Clegg
Ed and Jaclyn Cochran
Charley and Nancy Cole
Gib and Brenda Compton
Carl* and Ruth* Coonrod
Randy and Jacquie Coonrod
Dick and Mary Elizabeth Corbin
Lucile Hawks
Chris and Kimberly Hess
Ken* and Mary* Hewson
Bill* and Virginia* Honstead
Darrell and Nancy Hosler
Mike and Margie* Hulings
Sallie* and Cleve Humbert
Helen and Jim* Hurley
Mark and Mary Hutton
Ching-Lai* and Meilang* Hwang
Carl and Mary Ice
Gil Johnson*
Jim and Laura Johnson
Bruce and Jeane Johnson
Neal and Susan Johnson
Gary and Helen Johnson
Ike and Letty Evans
Judith Fan and Robert Reay
LT* and Eva* Fan
George* and Alice* Fiedler
Max Foote*
Charles Frankenhoff*
Jim and Lisa Garrison
Don Gemaehtlich
Mark Gerard

Gordon and Joyce Goering
Charlotte Gollobin
Jim and Carolyn Grier
Jim* and Patricia* Guthrie
Rosamond Haeberle*
Wayne and Barbara Harms
Bill Hauber*
Lucile Hawks
Chris and Kimberly Hess
Ken* and Mary* Hewson
Bill* and Virginia* Honstead
Darrell and Nancy Hosler
Mike and Margie* Hulings
Sallie* and Cleve Humbert
Helen and Jim* Hurley
Mark and Mary Hutton
Ching-Lai* and Meilang* Hwang
Carl and Mary Ice
Gil Johnson*
Jim and Laura Johnson
Bruce and Jeane Johnson
Neal and Susan Johnson
Gary and Helen Johnson
Ike and Letty Evans
Judith Fan and Robert Reay
LT* and Eva* Fan
George* and Alice* Fiedler
Max Foote*
Charles Frankenhoff*
Jim and Lisa Garrison
Don Gemaehtlich
Mark Gerard

Robert* and Avis* Kountz
Thayne and Leona Kraus
Linda Lee and Joe Moffitt
Robert* and Mildred* Lee
Don and Anne* Lenhart
Alan and Janice Levin
Ken and Lin Lewis
TW and Tzi Lin
Sam and Martha Logan
Harold and Olympia* Lonsinger
Scott and Karen Love
Pau and Janet Lu
Mike and Cindy Manley
Louie Marshall*
Ken* and Kay* Martin
Sandi Mauch-Bieber*
Dean and Lavon Morton
Laree Mugler
Elmer* and Vivian* Munger
Ed and Jan Murray
Phillip* and Jean* Myers
Dick and Mary Jo Myers
Diana and Raj Nathan
Jane Neff
Edwin* and Peggy* Newman
Marjorie Norton*
Carl Nuzman
Carl and Janet* Nuzman
Steve and Linnea Kirchhoff
Diane and Barbara Harms
Bill* and Mila* Kimmel
Charles Frankenhoff*
Jim and Lisa Garrison
Don Gemaehtlich
Mark Gerard

Howard* and Irma* Spainhour
Doris Spray
John and Martha Stack
Warren and Mary Lynn Staley
Keith Steyer*
Sheldon* and Fern* Storer
Charles* and Karen Stryker
Ken and Marguerite* Stuckey
Bob and Ann Syler
Ray* and Virginia Richardson
Jim and Marty Tadtman
Tim and Sharon Taylor
Steve and Kay Theede
Del and Sharon Thielman
Spencer and Susan Tholstrup
Bob and Bernita Thorn
Frank and Barb Tillman
Charles Tillotson*
Bob and Betty Tointon
Charles* and Ruth* Turnipseed
William Ulrich*
William and Mary Urban
Ed and Eunice Wambsgans
Vern and Loma Wegeger
Richard Weidler
Frank Westerman Jr*
Doug and Cindy Smith
Lloyd* and Jacqueline* Smith
Sarah Smith
Allen Small
Bob and Lila Snell
Virgil and Jane Snell

James and Jean Mosimann
Ed and Jan Murray
Craig and Dalene Nelson
Rod Noble
Morgan and Kaye Powell
Craig and Rebecca Price
Cathy and Tom Ritter
Warren and Teresa Ross
Randy Sedlacek and Mary Ventura
Allen Small
Jim and Marty Tadtman
Herb and Mary Sue Whitney
Meg and Kris Yaege
George and Maggie Yeh

David and Heather Bradford
Wayne and Stephanie Buhner
Daniel and Judi Burk
Brenda Burnes
Kent Buster and Gitta Banks
Marie Cecil
Ramin and Ashley Cherifat
Gary and Barbara Clark
Warren Corbet
Dick and Mary Elizabeth Corbin
Roger and Nancy Coulter
Nancy and Michael Czinege
Darold and Debbie Davis
Anthony and Theresa Dearth
Raymond and Nancy DeLong
Lionel and Debra D'Luna
Chuck and Joan Dorgan
Les Doty
Jeff Dougan
Ryan and Carly Dreiling
Bob DuBois
Charles and Jean Eby
Edwin and Casee Eisele
Blaine and Carolyn Englund
Patrick and Rita Ewert
Warren and Joleen Ewert
Helen Fairbanks
LT Fan*
Roger Farrell and Trish Horn
Jon Feldhausen
Jane and Gilbert Ferguson
Dennis and Debra Floyd
Ron Fowles
Jerry and Donna Friesen
Jay and Tiffany Gaines
Tara and Matthew Gazzaway
Robert and Melanie Green
Randy and Deb Groves
Jeff Guthrie
Ken and Cynthia Habiger
Marvin Hachmeister
Janell and Todd Harman
Milly and Joe Harner
Lucile Hawks
Tadhi and Douglas Hayes
Clay and Ruth Heady
Brent and Bonnie Heidebrecht
Dean Hiebert
Ray and Marlene Hightower
Jim and Jada Hill
Mark and Beth Hodges
David and Janet Holsinger
Carl and Terri Hopkins
Justin and Debora Hoppas
Darrell and Nancy Hosler
Ed and Ming Hsu
Hud and Jill Huddleston
Kay Hummels
Andrew Huschka
Kyle and Laura Huschka
Jeff and Jeanne Jelinek
Eric Johnson and Pam Dlabal
Jim and Judy Johnson
Jerry and Terry Johnston
Kenneth and Marilyn Johnston
Clay and Lynette Jones
Emily Jones
Jane and Nelson Jordan
Miles and Cortney Keaton
Bradford and Cynthia Wick
Dennis and Lynn Wienck
Audrey and Gisela Kennedy
William and Rebecca Kennedy
Mary Lee Kind
Robin and Lynn Klover
Jim and Susan Koelliker
Greg and Nicole Korte
Randall and Celia Koudele
Larry Kraus
Mike and Vera Lackey
Jim and Diana Lee
Don Lenhart
Jeanenne and Blase Leven
Jane Ley
Thomas and Nancy Logan
Kit and Stephanie Mailen
Harry and Elaine Manges
Jerry and Lori Marr
Larry Martin
Dana and Liz Mathes
Nancy and John Matthews
Mick and Nancy McAluffe

Every effort has been made to produce a comprehensive listing of donors for the calendar year July 1, 2013, through June 30, 2014. We apologize for any incorrect listings, misspellings or omissions, and extend our sincere thanks for your support. Questions about the donor list should be directed to Lori Rogge, Senior Director of Development, College of Engineering, Kansas State University Foundation, 2323 Anderson Ave., Manhattan, KS 66502; 785-532-7539 or 800-432-1578.

Playing defense

Peggy and Gary Edwards



How you can help

To learn how you can make an investment in the College of Engineering to support students, faculty or learning environments, please contact the engineering development team at 785-532-7609 or danielley@found.ksu.edu.

Cyberterrorism is a reality of modern warfare, but a K-State research team is helping governments and corporations guard against the threat.

Simon Ou's development of proactive cybersecurity measures for large-scale systems has received a lot of attention. The associate professor of computing and information sciences has earned grants and contracts valued in the multimillions with industry, the U.S. Air Force and the National Science Foundation.

A K-State faculty member since 2006, Ou prides himself on the fact that his research is grounded in the real world. As the Peggy and Gary Edwards chair in engineering, he understands how private philanthropic support helped make such experience possible.

"Private support enables students and faculty researchers to get real-world experience working among practitioners and understanding the challenges they face," Ou said. "Getting to know people and their problems has meant a lot to me in creating a bigger impact from the research. I want to really create something useful for the real world."

Ou has incorporated graduate and undergraduate students into his research processes. He has also served as adviser for the Cyber Defense Club, where K-State students discuss the latest cybersecurity technology with each other and with researchers working in the field.

When the Phase IV expansion of the engineering complex opens in fall 2015, the new Cyber Defense Lab will provide a state-of-the-art home for the Cyber Defense Club to meet and for cybersecurity research and development.

As state funding for higher education continues to decline, philanthropic support is all the more valuable as the K-State College of Engineering moves toward national prominence. In particular, privately funded faculty chairs and professorships are a key way to recognize and retain high-performing faculty members like Ou.

"We cannot overstate the tremendous value of private philanthropy from alumni, friends and corporate partners," said Darren Dawson, dean of the College of Engineering. "Our college can expand and improve facilities, recruit and retain the best faculty and do all the things expected of a world-class college — all because individuals care to invest in the next generation. It is an honor and we are truly grateful."

"Private support enables students and faculty researchers to get real-world experience working among practitioners and understanding the challenges they face."

— Simon Ou

By Hayli Morrison
Development communications
coordinator
KSU Foundation

CIS department head accepts post as NSF program director



As part of an effort to develop a better understanding of the fundamental properties of computer and network systems, and to create better abstractions

and tools for designing and analyzing future engineered systems, **Gurdip Singh**, professor and department head of computing and information sciences, has accepted an assignment as program director with the National Science Foundation, or NSF, at its headquarters in Arlington, Virginia.

Since late July, he has served as a program director for the cyber-physical systems and computer systems research programs. Both are

a part of the computer and network systems division of the Computer and Information Science and Engineering Directorate of the NSF.

"Cyber-physical systems are an area of emphasis for the Computer and Information Science and Engineering Directorate at the NSF," Singh said, "and offer great potential for interdisciplinary research. K-State currently has several grants from the cyber-physical systems program focusing on medical device systems, sensors and power distribution systems."

Singh has received more than \$14 million in research funding while at Kansas State, either as principal investigator or co-principal investigator, much of which has been funded by the NSF. He received the NSF Research Initiation Award in 1992 and NSF CAREER Award in 1995.

Singh heads the pervasive sensor network laboratory in the college, which is focused on developing tools and methodologies for designing applications and middleware for real-time embedded systems and sensor networks. He has participated in and led several multidisciplinary research and educational projects, including the Center for Sensors and Sensor Systems funded under the university's Targeted Excellence Program.

Singh has a doctorate and a master's degree in computer science from State University of New York at Stony Brook, and earned a Bachelor of Technology degree in computer science from the Indian Institute of Technology, New Delhi. He was the recipient of Kansas State University's Frankenhoff Outstanding Research Award in 2007.

Wanklyn named assistant dean for recruitment



Craig Wanklyn has accepted the position of assistant dean for recruitment in the College of Engineering. He also will have an

appointment as assistant professor in the department of architectural engineering and construction science. His duties include overseeing recruitment of new students for the college, and serving as adviser for both the Engineering Ambassadors and Steel Ring student organizations.

Wanklyn has a bachelor's degree and a master's degree in architectural engineering from Kansas State University, and had been an associate with M-E Engineers Inc. in Wheat Ridge, Colorado, since completing his graduate degree in 2006. He is a licensed professional engineer in the state of Colorado.

Interim head named for CIS

Scott DeLoach has been named interim head of the department of computing and information sciences in the College of Engineering. He assumes the duties of Gurdip Singh, current department head, who has accepted a two-year assignment as program director with the National Science Foundation in Arlington, Virginia.

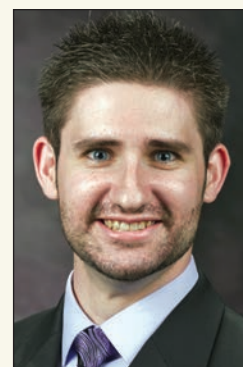


DeLoach, professor of computing and information sciences, joined the department in 2001. Before coming to K-State, he was an assistant professor at the Air Force Institute of Technology and was an officer in the U.S. Air Force for 20 years. He received his bachelor's degree from Iowa State University, and his master's degree and doctorate from the Air Force Institute of Technology, all in computer engineering.

Hoffman joins recruitment office

Dave Hoffman has accepted the position of recruitment coordinator for the College of Engineering. His previous experience includes serving as prospective student services representative and transfer counselor at Rogers State University in Claremore, Oklahoma, as well as director of softball operations at the University of Missouri-Kansas City.

Hoffman has bachelor's degrees in advertising and sociology from Kansas State University, and a master's degree in higher education administration from the University of Missouri-Kansas City.



Faculty awards and honors | 2014 recipients



Back row, left to right: **Mohammad Hosni**, MNE professor, Robert R. and Lila L. Snell Distinguished Career Award for Excellence in Undergraduate Teaching; **Malgorzata Rys**, IMSE assoc. professor, Charles H. Scholer Faculty Award; **Steven Eckels**, MNE professor, Myers-Alford Memorial Teaching Award; and **Kevin Wanklyn**, MNE instructor, James L. Hollis Memorial Award for Excellence in Undergraduate Teaching

Front row, left to right: **David Steward**, CE professor, Frankenhoff Outstanding Research Award; **Bruce Snead**, engineering extension director, Larry E. and Laurel Erickson Public Service Award; **Mustaque Hossain**, CE professor, Clair A. Mauch Steel Ring Advisor of the Year; and **Todd Easton**, IMSE assoc. professor, Commerce Bank Undergraduate Teaching Award

College of Engineering 2015 Events Calendar

- Engineering Career Fair* **Feb. 10-11**
- Seaton Society Celebration* **March 28**
- Engineering Open House* **April 10**
- All-University Open House* **April 11**
- Spring Commencement* **May 15, Graduate School**
 **May 16, Undergraduates**

Recognitions

'51 Herbert Timm (CHE), Topeka, Kansas, continues work on a project he calls "the nitroglycerine engine and electrical power plant."

'56 John Brooks Slaughter (EE), professor in the Ming Hsieh Department of Electrical Engineering at the University of Southern California — Viterbi School of Engineering and the USC Rossier School of Education, has been awarded the 2014 Reginald H. Jones Distinguished Service Award, the highest honor conferred by the National Action Council for Minorities in Engineering.

'75 Tim Taylor (CHE), has been appointed president of Phillips 66, Houston, Texas, promoted from his position of executive vice president — commercial, marketing, transportation and business development — at the company.

'78 Randy Groves (EE), chief technology officer of Teradici, has been named one of the Top 25 Innovators of 2014 by CRN.

'81 Walt Bleser (CE) has been named a "Rising Star of the Railroad Industry" by Progressive Railroading Magazine. He is a director, railway asset management, with the Georgetown Rail Equipment Co., Denver, Colorado. The designation recognizes 20 individuals under 40 who are considered the rail industry's top young talent.

'87 Greg Lynch (CNS), regional vice president for the general contracting firm of Rogers-O'Brien in Dallas and Austin, led efforts in opening the company's new office in Houston, Texas.

Paul Pfannenstiel (IE) recently celebrated the 10-year anniversary of PM Contracting Inc., a Kansas City-based mechanical contracting firm he founded in 2004. His son, Zack, is a freshman in mechanical engineering, and son, Cole, a senior in business, both at K-State.

'88 Gregory Burns (ARE), Coeur d'Alene, Idaho, serves as president of Facility Operations Consultants. He is a licensed professional engineer and LEED certified.

David Todd (ME), Anchorage, Alaska, is manager, maintenance and operations support, for ConocoPhillips Alaska's Kuparuk Oilfield on the Arctic North Slope of Alaska. He has worked for ConocoPhillips for more than 26 years in a variety of upstream and downstream assignments in Asia, Europe and North America.

'96 Michelle Munson (EE), CEO of Aspera — a unit of IBM that provides software for high-speed file transfer, was recently featured in an interview in the Business Day section of the New York Times. nytimes.com/2014/10/19/business/michelle-munson-of-aspera-on-aways-respecting-the-opportunity.html

'99 Michelle Soupir (BAE), assistant professor in agricultural and biosystems engineering at Iowa State University, has been recognized with a New Holland Young Researcher award from the American Society of Agricultural and Biological Engineers.

'01 Amanda Brownlee (ARE, M.S. ARE), senior associate with WSP, San Francisco, California, was named to Consulting-Specifying Engineer's 40 Under 40 list, which honors young people for dedication to their profession and service to the community.

'04 Jason Jullie (ARE), associate electrical engineer with ccrd, Dallas, Texas, was named to Consulting-Specifying Engineer's 40 Under 40 list, which honors young people for dedication to their profession and service to the community.

'05 Brian Kaufman (CMPEN), graduated law school at Arizona State University in 2013 and is now working as a patent attorney in Chandler, Arizona.

'06 Matthew Peterworth (ARE), technology specialist with Henderson Engineers Inc., Lenexa, Kansas, was named to Consulting-Specifying Engineer's 40 Under 40 list, which honors young people for dedication to their profession and service to the community.

'07 Brandon Damas, (ARE), senior account manager with HTS, Dallas, Texas, was named to Consulting-Specifying Engineer's 40 Under 40 list, which honors young people for dedication to their profession and service to the community.

'11 Ed Zuiss (IE), Overland Park, Kansas, is a line haul engineer at FedEx Ground.

'12 Bryant Denning (ARE), Madison, Wisconsin, is a member of the design team of Affiliated Engineers Inc., selected as the engineering firm to work on the electrical system and infrastructure of the Phase IV expansion of the College of Engineering. In travelling back and forth from Madison for the job, Denning reports working now as a professional with former professors, as well as having the rewarding experience of directly contributing back to the college and people who helped direct his career path.

IMPACT

We are interested in following the career paths and accomplishments of our alumni, focusing on promotions, advancements, awards and honors, job changes and of course, retirements, as well as death notices. Please send your information in these categories to—

**Impact Editor
College of Engineering
128 Dole Hall
Manhattan, KS 66506**

email: impact@engg.ksu.edu

Deaths

'52 Warren L. Roepke (ME), Ingram, Texas, died June 9, 2014, at the Audie Murphy VA Hospital in San Antonio, Texas.

'59 Vernon R. Clark (EE), Bartlesville, Oklahoma, died Dec. 25, 2013.

'63 Stuart Curtis, Sr. (IE, M.S.'75), Marco Island, Florida, died June 22, 2014. He was semi-retired from and co-owner of Curtis Machine Co., Inc., Dodge City, Kansas. He was the holder of two gearbox design

patents, one of the reasons that Curtis Machine became the largest manufacturer of right-angle and off-angle bevel gear boxes — in its torque range — throughout the world.

A member of the industrial engineering advisory council at Kansas State, Curtis also received the College of Engineering Distinguished Service Award in 1994 and was inducted into the college's Hall of Fame in 2002. He was a charter member of the Presidents Club at K-State, and past member of both the President's Economic Task Force for the State of Kansas and advisory council for the Advanced Manufactur-

ing Institute at K-State. Curtis is survived by his wife, Janie; two sons, Stuart Jr. and John; and five grandchildren.

'02 Mark M. Jilka (ME), Manhattan, Kansas, died June 26, 2014, as the result of an automobile/bicycle accident. He worked as a mechanical engineer at Dymax in Wamego, Kansas, and had served 10 years active duty in U.S. Navy, and was still active in the Naval Reserves, holding the rank of Lieutenant. Jilka is survived by his father, eight siblings, and many nieces and nephews.

Faculty

Liang-tseng "L.T." Fan, university distinguished professor, Mark H. and Margaret H. Hulings chair in engineering, and former department head of chemical engineering, died Aug. 4, 2014, in Manhattan, Kansas.

A native of Taiwan, Fan received a B.S. from National Taiwan University, an M.S. from Kansas State University ('54) and a Ph.D. from West Virginia University, all in chemical engineering; and an M.S. in mathematics from West Virginia University. He returned to the department of chemical engineering at Kansas State as instructor in 1958, became full professor in 1963 and served as department head for 30 years beginning in 1968. While serving as department head, Fan was instrumental in securing funding for the construction of Durland Hall. In 1984 he was appointed as a Kansas State University distinguished professor.

Fan served as director of the Institute for Systems Design and Optimization at Kansas State. He was also managing partner, Solidi-waste Technology, L. P.; president, Lique-



fied Fossil Fuels Corporation; president, Heartland Composites Development Corporation; and president, SF Materials Corporation.

In addition, Fan was co-chairman, research and development, Green Source Holdings, LLC, and developed the patented technology behind the company. In that position, he oversaw continuing efforts to expand the use of that technology in hydrocarbon extraction.

Fan authored or co-authored seven books, some of which have been translated into foreign languages; several hundred refereed journal articles; and many non-refereed articles. He is credited with 18 patents. His publications are widely referenced as evidenced by more than 6,000 listings in the Science Citation Index.

A recipient of numerous awards and honors, he was a Fellow of the American Institute of Chemical Engineers and the American Association for the Advancement of Science.

He was preceded in death by his wife, Eva, in April 2014; and is survived by a son, Tso Yee; a daughter, Judith; and four grandchildren. A memorial has been established at the KSU Foundation for the L.T. Fan Lecture Series in Chemical Engineering.

Notice of nondiscrimination

Kansas State University is committed to nondiscrimination on the basis of race, color, ethnic or national origin, sex, sexual orientation, gender identity, religion, age, ancestry, disability, genetic information, military status, veteran status, or other non-merit reasons, in admissions, educational programs or activities and employment, including employment of disabled veterans and veterans of the Vietnam Era, as required by applicable laws and regulations. Responsibility for coordination of compliance efforts and receipt of inquiries concerning Title VI of the Civil Rights Act of 1964, Title IX of the Education Amendments of 1972, Section 504 of the Rehabilitation Act of 1973, the Age Discrimination Act of 1975, and the Americans With Disabilities Act Amendments Act of 2008, has been delegated to the Director of Institutional Equity, Kansas State University, 103 Edwards Hall, Manhattan, KS 66506-0124, (Phone) 785-532-6220; (TTY) 785-532-4807.

76224-11/14-25,968

Dean's advisory council Oct. 23-24, 2014



Current members

Sue Barsamian, EE '81
Stan Clark, BAE '67, '71
Lynda Dawson, NE '83
Ray Dempsey, IE '90
Chuck Grier, CNS '73

Kendall Harris
Mark Hutton, CNS '77
Steve Johnson, IE '75
Rich Kerschen, CE '64
Mike King

Steve Kirchhoff, ME '79
Raj Nathan
Tom Paulson, CE '73
Randy Pope, EE '77
Vicki Scharnhorst, CE '82

Mark Schonhoff, CS '88
Sabrina Schriener, EE '92
Doug Sterbenz, ME '85
Jim Tadtman, CE '67
Spencer Tholstrup, CHE '81

Cindy Wallis-Lage, CE '85
Keith Warta, CE '84
Kent Wray, CE '68
Meg Yaege, ME '79, '84