



SPRING 2012

CHEMICAL ENGINEERING

NEWSLETTER



CENTENNIAL CELEBRATION 1911-2011 A CENTURY OF PEOPLE AND PROGRESS

ON MY MIND



Welcome to the Spring 2012 issue of the Purdue Chemical Engineering Newsletter. We are living in exciting times and our educational and research efforts are bearing fruit.

2011 was a special year for Purdue Chemical Engineering: on June 14, 2011, the School of Chemical Engineering marked 100 years since the Board of Trustees approved the School's founding. Multiple events and activities took place throughout the year and you can read more about them on page 6 of this newsletter, or visit <https://engineering.purdue.edu/ChE/AboutUs/Centennial/>. We enjoyed having so many of our School's alumni return to celebrate with us for the main event on October 7-8, 2011! The theme of the Centennial was "A Century of People and Progress." As you will read the following lines and the rest of the magazine, this has never been truer, it is our people who drive our progress.

The 2011-12 academic year was auspicious for our faculty, alumni, and students. On October 21, 2011, I accompanied Professor Rakesh Agrawal to the White House to receive the National Medal of Technology and Innovation from President Obama. It was among my high notes as School Head to witness a faculty member of our School accept the highest honor an engineer can receive in the United States. We are

immensely proud of Dr. Agrawal's accomplishments and greatly appreciate the tremendous effort he puts into all his activities in our School: research, teaching and service.

In January 2012, David Pershing (BS 1970) was appointed president of the University of Utah. He becomes the third alumnus of our School to hold such a position, after Clifford Furnas (BS 1922), who was president of the State University of New York at Buffalo 1962-66 and Brage Golding (BS 1941, PhD 1948) who served as president of three universities: Wright State University 1966-72, San Diego State University 1972-77 and Kent State University 1977-82. Just yesterday, the National Academy of Engineering announced that two of our alumni were elected to join this elite organization: Dr. Richard W. Korsmeyer (MS 1980, PhD 1983) is currently Global Head of Licensing, Worldwide Pharmaceutical Sciences and Senior Research Fellow with Pfizer. Dr. Antonios G. Mikos (MS 1985, PhD 1988) is the Louis Calder Professor of Bioengineering and Professor of Chemical and Biomolecular Engineering at Rice University and, in addition, he is Director of the Center for Excellence in Tissue Engineering at Rice University.

With such great alumni and faculty, it is no wonder that our students are also blazing their own trails in Purdue history and beyond. Miranda McCormack, ChE junior, was appointed by the Indiana Governor as the student representative on the Purdue Board of Trustees for the 2011-2013 term – she is one of total 10 Trustees and the only student member. This is an outstanding accomplishment for Miranda but, considering that the previous student trustee was current ChE senior Tyler Teykl, it is a reflection of the extraordinary quality of our students and the effectiveness of the educational programs our School offers.

There are 490 undergraduate students and 124 graduate students enrolled for classes in the Spring 2012 semester. As we are wrapping up the renovation of five research laboratories in the original CMET building, we are preparing for a much needed overhaul of the Unit Operations Laboratory so that our students can be educated using equipment and facilities relevant to today's industrial reality. We want the ChE infrastructure to fully support our mission to "provide students with a rigorous and relevant education."

We invite you to visit our School, meet our people, and witness our unprecedented progress!

Arvind Varma
R. Games Slayter Distinguished Professor
Jay and Cynthia Ihlenfeld Head of Chemical Engineering

To make a gift to the School of Chemical Engineering please contact:

Diane Klassen, Director of Development and Alumni Relations
(765) 494-4065
dklassen@purdue.edu

TELL US WHAT YOU THINK:

Share your memories, react to a story, or let us know your thoughts about a particular issue. Write to us at chealumni@ecn.purdue.edu. In doing so, you grant us permission to publish your letter in part or in whole in an upcoming issue. We reserve the right to edit letters for length and clarity.

ADMINISTRATION:

Head: **Arvind Varma**

Administrative Director: **Cristina Farmus**

PROFESSOR RAKESH AGRAWAL RECEIVES NATIONAL MEDAL OF TECHNOLOGY & INNOVATION

Rakesh Agrawal, the Winthrop E. Stone Distinguished Professor in the School of Chemical Engineering, received the National Medal of Technology and Innovation from President Barack Obama on October 21, 2011. The award is the highest honor for technological achievement bestowed by the President of the United States. A citation for the award recognizes him for “an extraordinary record of innovations. These innovations have had significant positive impacts on electronic device manufacturing, liquefied gas production and the supply of industrial gases for diverse industries.” He is one of five recipients of the award in 2011.

Professor Agrawal holds 116 U.S. patents, nearly 500 non-U.S. patents and has authored 93 technical papers. He earned a doctorate in chemical engineering from the Massachusetts Institute of Technology in 1980, a master’s degree in chemical engineering from the University of Delaware in 1977 and a bachelor’s in chemical engineering from the Indian Institute of Technology –Kanpur in 1975.

Agrawal joined Purdue in 2004 following a successful 24 year at Air Products and Chemicals Inc. in Allentown, Pa. There, he focused on basic and applied research in gas separations, process development, gas liquefaction processes, cryogenics and thermodynamics. His current research is in energy-related areas involving the conversion of biomass to liquid fuels, processes related to low-cost solar cells, energy systems analysis and high-efficiency separations processes needed for industry and research.

Professor Agrawal is a member of the National Academy of Engineering, he served on National Research Council (NRC) panels that issued reports in 2004 and 2008 related to “The Hydrogen Economy.” He also has served on the National Academies Renewables Panel



for the Committee on America's Energy Future, and he currently is a member of the NRC's Board on Energy and Environmental Systems.

“Dr. Agrawal is well-deserving of this stupendous honor,” said Leah H. Jamieson, the John A. Edwardson Dean of Engineering. “He is not only leading research in his field but also helping to educate a new generation of chemical engineers.”

“This award is a fitting recognition of Rakesh Agrawal's outstanding work over the years, which continues to this day,” said Arvind Varma, the R. Games

Slayter Distinguished Professor and head of the School of Chemical Engineering. “Purdue chemical engineering is fortunate to have him as a distinguished faculty member.”

The National Medal of Technology and Innovation was created in 1980 and is administered for the White House by the U.S. Department of Commerce's Patent and Trademark Office. The medal “recognizes individuals who have made outstanding contributions to science and engineering,” according to the White House statement.

BY: EMIL VENERE

AROUND

FACULTY AWARDS

RAKESH AGRAWAL – Received the National Medal of Technology and Innovation, 2011; Received Founders Award, AIChE, 2011; Elected member of the Indian Academy of Engineering, 2011

JAMES CARUTHERS – Named Reilly Professor of Chemical Engineering, Purdue, 2011

DAVID CORTI – Purdue University Faculty Scholar, 2011-16

NICHOLAS DELGASS – Received inaugural NACS Award for distinguished service in the advancement of catalysis, 2011

JULIE LIU – Received 3M Nontenured Faculty Grant, 2011; Received Scientist Development Grant from American Heart Association, 2012

DORAISWAMI RAMKRISHNA – Elected member of the Indian Academy of Engineering, 2011

ARVIND VARMA – Named fellow of the Industrial & Engineering Chemistry Division of the American Chemical Society, 2011; Named Fellow, American Association for the Advancement of Science, 2011

VENKAT VENKATASUBRAMANIAN – Named Reilly Professor of Chemical Engineering, Purdue; Elected Fellow, AIChE, 2011

LINDA WANG – Elected Fellow, AIChE, 2011

YUE WU – Received DuPont Young Professor Grant, 2010-13

NEW FACULTY



BRYAN BOUDOURIS

Assistant Professor
B.S., University of Illinois at Urbana-Champaign, 2004
Ph.D., University of Minnesota, 2009
Post-Doctoral Fellow, University of California, Berkeley, 2009-11

Research Interests:
Design of Optoelectronically Active Polymers;
Functional Block Copolymer Self-assembly; Polymer-based Electronics and Solar Cells



JEFFREY SIROLA

Professor of Engineering Practice
B.S., University of Utah, '67
Ph.D., U. of Wisconsin-Madison, '70
NAE Member; AIChE Fellow and President, 2005
Technology Fellow, Eastman Chemical (Retired)

Research Interests:
Chemical Process Synthesis;
Chemical Process Development and Technology Assessment;
Chemical Engineering Education

STAFF NEWS



DIANE KLASSEN joined our School as Director of Development and Alumni Relations in August 2011. Diane holds a Bachelor of Arts degree in Psychology (minor - Social Work) from IUPUI, where she also completed one year of graduate studies. After a number of leadership positions in various sectors, she served as (Lafayette) Division Director for the March of Dimes during 2006-08. She joined Purdue University working for the President's Council in July 2008 and has served as Director of Development for the School of Aeronautics & Astronautics for the past two years before joining us. Her experience and demonstrated fund-raising skills are an excellent addition to our team.

VERONICA SCHIRM, Undergraduate Office Administrator and Counselor, received the 2011 ChE Staff Excellence award from the School of Chemical Engineering.

CHE

STUDENT HONORS

AHMAD AL-KUKHUN, Graduate Student, Received a Bilsland Fellowship, Purdue Graduate School, 2011

ALVIN ANG, BS 2011, As a senior was part of the Purdue team that won the first prize in the PolyU Innovation and Entrepreneurship Global Student Challenge, Hong Kong, 2011

SHANE BATES, Graduate Student, Received an Andrews Environmental Travel Grant, Purdue University, 2011-12

RANJITA GHOSE, Graduate Student, Received a John Jink Company Graduate Fellowship, 2011-12

KEITH KRAL, Senior, Received Inaugural Centennial Scholarship, 2011

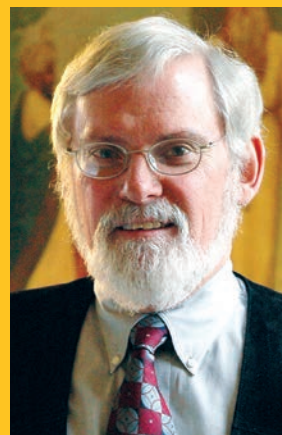
CALEB MISKIN, Graduate Student, Received Inaugural Centennial Fellowship, 2011

ANIRUDH SHENVI, Graduate Student, Received the Henry Ford Graduate Scholarship, College of Engineering, Purdue, 2011-12

CAITLIN SCHMITT, BS 2011, Purdue Engineering Student Council President, 2010-11

MARY JANE STINE, Graduate Student, National Science Foundation Fellow, 2011-14

TYLER TEYKL, Senior, Student member on the Purdue Board of Trustees, 2009-11



DAVID PERSHING
Elected President
University of Utah

David Pershing, BSChE '70, has been named President of the University of Utah. He received an Outstanding Chemical Engineer Award from the School of Chemical Engineering and a Distinguished Engineering Alumnus Award from the College of Engineering in 1999. Congratulations!

SPOTLIGHTS

MIRANDA MCCORMACK, *Appointed Student Trustee 2011-13*



Miranda McCormack, junior, was appointed by Indiana Governor Mitch Daniels on the Purdue Board of Trustees for the 2011-13 term. Miranda follows another ChE student on the Board of Trustees, Tyler Teykl, which is a testament to the high quality of our students. She is the only student on the board comprised of ten members.

Miranda is an Indiana native from Fowler. She is a participant in the Dow Chemical Co-Op program

which allows her to alternate between studying at Purdue and receiving paid on-the-job training from Dow. She spent the spring 2011 semester in Boston as a Co-Op student and flew back to Indiana for the student trustee interviews.

It is now 23 years running that we have had a Chemical Engineer on the Board and therefore held 1/10th of the vote and direction of the university. The majority of those years were served by Mr. Timothy McGinley (BS ChE '63, DEA '72, OChE '93, HDR 2010), who served 20 years total and 16 of those years as the Board's chair.

KALLI FULLENKAMP, *Serves as the Purdue Professional Practice Association (PPA) President, 2011-12*



Kalli Fullenkamp, senior, is the Purdue PPA President for the 2011-12 school year. In this role, she is responsible for coordinating all PPA activities, presiding over meetings, serving as an ex-officio member of all committees, and acting as the official spokesperson of the PPA. One of her most enjoyed duties is to be the student host for the Co-Op Hall of Fame inductees, which now has nine honorees, including Professor Neal Houze and Norm Gilsdorf (BS ChE '77).

Kalli completed a 5-term co-op with The Lubrizol Corporation and has accepted a full time position with Lubrizol Advanced Materials in Louisville, KY upon graduation in May 2012.

PPA has a history of presidents from Chemical Engineering, including Darrin Overby (Summer 2011), Adrienne Heinzelman (2010-2011), and Jonathan Rendak (2009-2010).

A CENTURY OF

By: Cristina Farmus

PEOPLE & PROGRESS

The Purdue University Board of Trustees approved the founding of our School of Chemical Engineering on June 14, 1911. To commemorate 100 years since the establishment, we declared 2011 as the Centennial Celebration Year. In Spring 2010, a 13 member committee comprised of professors, staff members, students and alumni met for the first time to discuss how this auspicious occasion will be marked. Through the 18 month long planning process, several initiatives took shape, culminating with the Main Event on campus during October 7-8, 2011.

CENTENNIAL COMMITTEE

ALUMNI

MICHAEL GRAFF (MS '79, OChE 2002, DEA 2008), President & CEO, American Air Liquide Holdings, Inc.

JEFFREY HEMMER (BS '80, OChE 2001, DEA 2009), Senior Vice President, The Sinclair Group, Ltd.

SURYA MALLAPRAGADA (PhD '96), Stanley Professor and Chair, Department of Chemical and Biological Engineering, Iowa State University

Rick Roberts (BS '76, OChE 2004, DEA 2007), Senior Vice President, Manufacturing, Chevron Phillips Chemical Company

FACULTY

ARVIND VARMA, R. Games Slayter Distinguished Professor; Head, School of Chemical Engineering

JOSEPH F. PEKNY, Professor

GINTARAS (REX) REKLAITIS, Burton and Kathryn Gedge Distinguished Professor

YOU-YEON WON, Associate Professor

STAFF

CRISTINA D. FARMUS, Administrative Director

JULIE A. PAOLILLO, Director of Development

UNDERGRADUATE STUDENTS

KYLE MORTON (BS 2010), ChE-SAC President 2009–2010

ASHLEY VACCHIANO (BS 2011), ChE-SAC President 2010–2011

PATRICK MEYER, ChE-SAC President 2011–2012

GRADUATE STUDENTS

JULIE RENNER, Graduate Student Organization President, 2009–2010

SARA YOHE, Graduate Student Organization President, 2010–2011

LAURA HIRSHFIELD, Graduate Student Organization President, 2011–2012

CENTENNIAL SERIES

Twelve alumni from various walks of life were selected by the planning committee to present seminars in our School during 2011. The seminars were grouped in three categories:

INDUSTRY

CHARLES DAVIDSON (BS '72, OChE 2005, DEA '05), Chairman/CEO, Noble Energy, Inc.

MICHAEL GRAFF (MS '79, OChE 2002, DEA 2008), President & CEO, American Air Liquide Holdings, Inc.

NORM GILSDORF (BS '77, OChE 2010, DEA 2010), President, Process Solutions, Honeywell International

WILLIAM (BILL) YOUNG (BS '66, OChE '94, DEA '94, HDR 2000), Venture Partner, Clarus Ventures, LLC

ACADEMIA

KRISTI ANSETH (BS '92), Tisone Distinguished Professor, Chemical & Biological Engineering, University of Colorado-Boulder

ADITYA BHAN (PhD 2005), Assistant Professor, University of Minnesota

JENNIFER CURTIS (BS '83), Distinguished Professor, University of Florida

SURYA MALLAPRAGADA (PhD '96), Chemical and Biological Department Chair and Stanley Chair in Interdisciplinary Engineering, Iowa State University

ENTREPRENEURSHIP/OTHER PURSUITS

DEBORAH GRUBBE (BS '77, OChE '94, DEA 2002, HDR 2010), Owner, Operations & Safety Solutions, LLC

ROBERT HANNEMANN (BS '52, MD '59, OChE 2000), Professor of Chemical and Biomedical Engineering, Purdue University

EMILY LIGGETT (BS '77, OChE '99, DEA 2004), CEO, Nova Torque, LLC

MICHAEL OTT (BS '74, OChE 2002, DEA 2007), President/CEO, Polysciences Inc.

All seminars were recorded and are available for viewing at <https://engineering.purdue.edu/ChE/AboutUs/Centennial>. Our students, faculty, staff and guests appreciated the opportunity to hear from these successful alumni on how the School of Chemical Engineering at Purdue shaped their career path and planted the seed for their achievements.

1911-2011

CENTENNIAL LECTURES

The Centennial main event was held on campus during October 7-8, 2011. Activities debuted in the Dow auditorium/Forney G140 at 1.00 pm on October 7 with senior Ryan Patet welcoming the guests, followed by Professor and School Head Arvind Varma who gave a brief update on the current state of the School. Mirroring the Centennial Seminar Series organization, three speakers from Academia, Industry and Entrepreneurship took the stage. Academia lecturer Nicholas Peppas (former faculty member 1972-2003, currently the Fletcher Stuckey Pratt Chair in Engineering, University of Texas Austin), gave a vivid description of how the School of Chemical Engineering at Purdue came to life, the original efforts to grow the program, transformation into a prominent name in education and research, and evolution to the current position of being recognized among the premier ranks of engineering programs in the world.

As the entrepreneurship lecturer, Robert Weist (BS '62, OChE 2005) led the audience through his endeavors from a young chemical engineer at Esso Research & Engineering Co., to legal counselor at Abbott, then successful entrepreneur with Amgen and finally with his own start-up, Koloa Rum in Hawaii.

For the industry lecture, Paul Orefice (BS '49, HDR '76, OChE '93) recounted the earlier days of the program, as well as the contribution chemical engineers have made in industry in general and Dow in particular. He commended Purdue ChE's ability to remain an island of academic activity not influenced by political trends.

CENTENNIAL PANELS

The lectures were followed by three parallel panels where alumni, faculty and students discussed current issues in ChE, success strategies as a student and young alum, as well as industry, academia and entrepreneurship trends.

INDUSTRY

JEFFREY HEMMER (BS '80, OChE 2001, DEA 2009), Senior Vice President, The Sinclair Group, Ltd.

MICHAEL RAMAGE (BS '66, MS '69, PhD '71, DEA 1986, OChE '93, HDR '96), Executive Vice President, Exxon Mobil Corporation, (Retired)

RICK ROBERTS (BS '76, OChE 2004, DEA 2007), Senior Vice President, Manufacturing, Chevron Phillips Chemical Company

RONNA ROBERTSON (BS '92), Maintenance Senior Department Manager, Roquette America Inc.

ACADEMIA

ABBIE GRIFFIN (BS '74, OChE 2000), Presidential Professor, University of Utah

DUNCAN MELLICHAMP (PhD '64, OChE 2007), Professor - emeritus, University of California

EVOLUTION SCULPTURES

Multiple materials were prepared to celebrate the Centennial, including banners in every classroom and a timeline wall wrap with a selection of important events in the School history. The highlight of the Centennial visual campaign was unveiling the Evolution sculpture executed by Cincinnati artist Nicholas Yust, installed in the Henson Atrium on a wall spanning three floors.



President Córdova unveiled the dual structure representing the evolution of a student in ChE. The colorful but random pattern of the left sculpture depicts students entering the ChE program, with diverse backgrounds, various dreams, but with their sights set on achieving their individual career goals. Graduating students who have been shaped by their education, with their dreams within reach, proudly wear the black and gold colors as depicted in the right sculpture. They take with them skills, memories and learning experiences as they prepare to join the ranks of Purdue trained Chemical Engineers, ready to add their mark on the society and to help move the world forward.

ANTONIOS MIKOS (MS '85, PhD '88, OChE 2008), J. W. Cox Professor, Rice University

JAMEY YOUNG (PhD '05), Associate Professor Chemical Engineering, Vanderbilt University

ENTREPRENEURSHIP/OTHER

DONALD DUNNER (BS '53, OChE 2001, DEA 2001), Lawyer/Partner, Finnegan, Henderson, Farabow, Garret & Dunner

LINDA HUFF (BS '70, OChE '91, DEA 2000), President, Huff & Huff Inc.

TIMOTHY MCGINLEY (BS '63, DEA '72, OChE '93, HDR 2010), Principal, House Investments, Inc.

GERALD SKIDMORE (BS '54), Chairman, Skidmore Sales & Distributing Company, Inc.

CENTENNIAL ENDOWMENT HISTORY BOOKS

In February 2011, a group of dedicated alumni, members of the Industrial Advisory Council, professors and staff held the Centennial kickoff event in Naples, FL. On that occasion, plans for a Centennial Endowment were revealed, with the proceeds to be used in perpetuity to recognize outstanding Chemical Engineering students. Through generous contributions from alumni, an Undergraduate Centennial Endowment was established in September 2011, with a base value of \$100,000. James Schorr (BS '54, DEA '74, HDR '87, OChE '93) spearheaded a mailing campaign to ensure the success of this initiative. The first scholarship totaling \$5,000 was given to Keith Kral, Senior. Contributions towards the endowment are still accepted.



JAMES SCHORR, KEITH KRAL, ARVIND VARMA

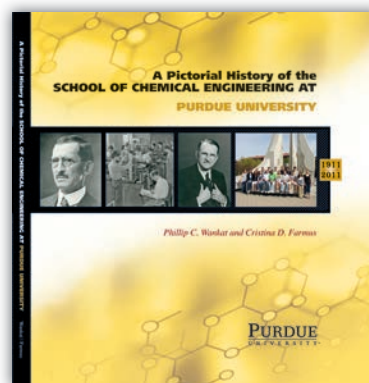


JAMES SCHORR, CALEB MISKIN, ARVIND VARMA

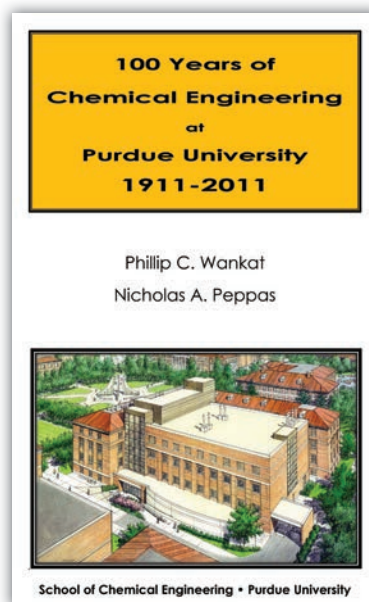
A previously undesignated endowment in our School was repurposed as a Graduate Fellowship Centennial Endowment, with a base value of \$200,000. The proceeds will be used to recognize outstanding first year graduate students. The first fellowship totaling \$3,000 was given to Caleb Miskin (BS Brigham Young University) who joined our School in fall 2011, and is working towards his PhD degree with Professor Rakesh Agrawal.

Epilogue The theme of the celebration was “A Century of People and Progress”. Although our discipline has evolved significantly over the past 100 years, there are several constants that transcend time: we continue to provide rigorous and relevant education to our students, our research thrives in fundamental and new

One of the major initiatives for the Centennial Committee was updating the history book written by Professor Nicholas Peppas on the occasion of the 75th School anniversary in 1986. While evaluating the options for the update, the committee concluded the best approach was to publish two books: a pictorial version of the history where the timeline would be depicted through pictures, and an exhaustive version where all the details would be recorded, including the name of each student who graduated from our School with a BS, MS or PhD degree.



A *Pictorial History of the School of Chemical Engineering at Purdue University, 1911-2011*, by Phillip Wankat and Cristina Farmus, was given as a gift to all participants who attended the Centennial dinner on October 7, and is available for distribution on Amazon.com.



“100 Years of Chemical Engineering at Purdue University, 1911-2011”, was co-authored by Professors Peppas and Wankat. At 625 pages, it has earned “The Big Book” informal title and is only available as a free downloadable pdf on our website at <https://engineering.purdue.edu/ChE/AboutUs/Publications/index.html>.

field-defining programs, and our engagement in the professional community continues to grow. With 10,178 alumni (7,710 living), our School has made its mark on the society, impacting and improving the quality of life for people not only in United States, but all across the globe.

CENTENNIAL DINNER

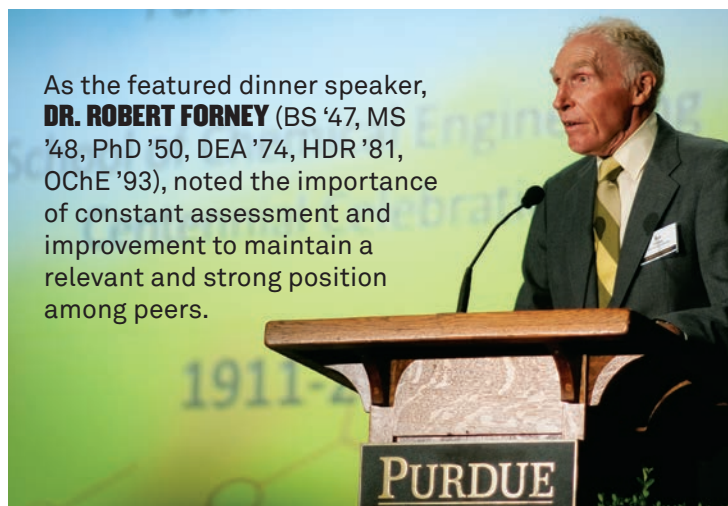


The events on October 7 culminated with a reception and dinner hosted in the North and South Ballrooms at the Purdue Memorial Union. 305 alumni, professors, staff members, and friends joined the celebration and reminisced about their time in the School.

Junior Miranda McCormack, freshly appointed to the Purdue Board of Trustees, mentioned how the path for her was paved by other outstanding ChEs, starting in 1979 with the inaugural student trustee on the Board, Russel Cox (BSChE '80), followed by Timothy McGinley (BSChE '63) who, with 20 years (16 of those as Chair) on the Board holds a longevity record, and most recently by ChE senior Tyler Teykl who precedes Miranda as the student Trustee.

Leah Jamieson, Dean of Engineering, gave an account of how ChE alumni, students and faculty exemplify the College strategic mission "to advance engineering learning, discovery, and engagement in fulfillment of the Land Grant promise and the evolving responsibility of a global university."

In his remarks, Professor Varma mentioned how each person present for the Centennial left a mark on the School and was affected by the School's activities. He recognized the distinguished and named professors, Honorary Doctorates, Distinguished Engineering Alumni, Outstanding Chemical Engineers, members of the Industrial Advisory Council and members of the Capital Campaign committee and thanked them for their extraordinary commitment and dedication to the School.



As the featured dinner speaker, **DR. ROBERT FORNEY** (BS '47, MS '48, PhD '50, DEA '74, HDR '81, OChE '93), noted the importance of constant assessment and improvement to maintain a relevant and strong position among peers.

WOMEN IN CHEMICAL ENGINEERING



FRONT ROW: MIRANDA MCCORMACK, JUNIOR; PROFESSOR LINDA WANG; SUSAN HARDMAN (BSChE 1983); JULIA ALEXANDER (BSChE 1984); ROBERTA GLEITER (BSChE 1960); DEAN LEAH JAMIESON
SECOND ROW: MARILYN GLENN FORNEY (BSChE 1947), LISE SIGWARD (BSChE 1978); MICHELLE SMITH (BSChE 1984)
THIRD ROW: LINDSEY WILLIAMS (BSChE 2010); RONNA ROBERTSON (BSChE 1992); LISA JOHNSON (BSChE 1989); DEB GRUBBE (BSChE 1977);
BACK ROW: GWYNNE JOHNSON (BSChE 1977); CAITLIN SCHMITT (BSChE 2011); SANDRA MAREK (BSChE 1979); ASSOCIATE DEAN MELBA CRAWFORD

UP CLOSE **FACULTY** DR. JAMES CARUTHERS

By: April Fidler



Dr. James Caruthers was named Reilly Professor of Chemical Engineering in February 2011. His eyes light up as he talks about teaching 5th and 6th graders to build an electric car during 4-H Roundup. “Get them to build,” he says, and you can instill in them a love of technology. “Make it cool, and you take away the geek-factor,” which keeps tweens and teens from developing a love of engineering. Dr. Caruthers uses his 9th grade daughter as an example of the standard teen’s view of science and engineering. When he explains to her about some of the projects he’s working on, she playfully calls him a ‘geek.’ However, the construction of an electric car allows Dr. Caruthers to tap into a young student’s yearning for a set of wheels to teach the fundamentals of engineering. Whether that student goes on to become a chemical engineer at Purdue or a master machinist elsewhere, Dr. Caruthers knows that it is that early love of engineering that will be the driving force behind that student’s future career choice.

When he’s not working with the 4-H council, integrating science and technology

into the 4-H curriculum or at the Bauer Community Center in Lafayette, teaching after-school kids the science behind rubber band catapults and electromagnetic cranes, Dr. Caruthers discusses leading the electric vehicle Grand Prix at Purdue for the past two years. The events did much to showcase alternative-energy vehicles, as well as encourage a larger venue—featuring multiple colleges—last May, at the Indianapolis Motor Speedway. Outside the EV operations and hands on learning, Professor Caruthers leads a large research group focusing on emerging technologies, energy storage, and polymer mechanics.

When asked what it meant to receive the honor of being named Reilly Professor of Chemical Engineering, he responded with a shy grin. “You’ve been acknowledged by your colleagues. You’ve accomplished something beyond normal expectations.”

Professor Caruthers has been with the school since 1977 when he joined as an assistant professor, after obtaining his PhD from the Massachusetts Institute of Technology.



PROFESSOR CARUTHERS (3RD FROM RIGHT), WITH PRESIDENT CORDOVA (5TH FROM RIGHT) AND THE TEAM THAT STARTED THE ELECTRIC GRAND PRIX.



2011 GRAND PRIX

UP CLOSE ALUMNI

NORMAN L. GILSDORF BSCHE '77



NORMAN GILSDORF
PRESIDENT, HONEYWELL PROCESS SOLUTIONS

BEING CREATIVE WITH CHEMICAL ENGINEERING

Chemical Engineering is sometimes not the first subject matter people think of when they talk of creative careers and creative people, but if you don't have the desire to explore complex issues and solve problems, then don't enter the challenging world of Chemical Engineering.

In my 35 years since leaving Purdue, I have been fortunate enough to travel around the world many times over, and meet many different people, at all levels, from countless different cultures. The one thread in common is the entrepreneurial spirit and the creative desire to make life better for future generations. This creativity can take many forms, but the desire to build solutions to complicated problems is consistent around the globe.

My training as a Chemical Engineer has helped me across many cultures to break down complex challenges into logical manageable sections and then to help my customers, partners and colleagues develop implementable solutions. I have been lucky enough to work with some of the brightest people in my industry, who research, develop and are continually inventing products and processes. Honeywell Process Solutions is a business of 13,000 people, located in more than 100 countries, working on projects which cross refining, petrochemical, gas processing and many other major manufacturing industries.

Learning to be creative can come in many guises, and is often not how you would imagine. Three years after graduation I found myself in what was then the Soviet Union, staging a one man sit in, physically, inside the reactor of a poorly constructed aromatics complex which, the Soviets had

informed Moscow, had to be started on December 25th. In a time of no cell phones, or even faxes, I had to use the logic that it would be harder to inform Moscow that they harmed a foreigner than to delay the start-up.

My controversial 'sit-in' (and fame) luckily worked and we were able to fix the issue and start production a few days after Christmas. During that period, I learned a lot about myself, and began to rely on my own intuition and creativity to help work with my global customers and to solve their problems.

When I was an undergraduate at Purdue I always dreamed of traveling the world and being able to work with exciting people on interesting projects. Luckily the dreams I had while at West Lafayette have come true. Creativity and an entrepreneurial spirit are the foundations of my success.

As one looks at the ever flattening world, we constantly hear about challenges of energy management, environmental concerns and a growing range of new products or materials to meet the needs of future generations. While some see these challenges as foreboding, I see them as opportunities for the 'creative' engineer. It is exhilarating to imagine the possibilities that Chemical Engineering can bring in the next 100, 50 or even 10 years.

Creativity is key to solving the world's toughest challenges. Purdue is all about starting the process of unlocking that potential in the minds of students. Purdue helped me define my goals, and has always been a source of continual importance for me.

UP CLOSE

YOUNG ALUMNI

CAITLIN SCHMITT BS 2011

By: April Fidler



Caitlin Schmitt, as a vivacious student in Chemical Engineering, was an example of what hard work and dedication can achieve. She also found time to preside over the Purdue Engineering Student Council (PESC). As president of the 40-person council, she was responsible for orchestrating a wide range of events every year. Job seminars and fairs, such as the Industrial Roundtable in the fall -- which boasts 300 companies in attendance -- and the job expo in February

-- which plays host to 90 companies in the engineering field -- allow PESC the opportunity to highlight the careers that are possible with a degree in Engineering. Caitlin ensured the success of these fairs by encouraging the council and its many sub-committees to meet and exceed their obligations when planning the events.

Under her guidance, the PESC hosted other gatherings, such as golf and volleyball tournaments; engineering Olympics, which encourage students to showcase their mental and physical prowess; and elementary and secondary student outreach programs, which allow youth to develop an appreciation for science and engineering. She also found time to work on various research projects related to her major. In one such project, she researched reducing the negative effects of kidney dialysis. However, her favorite project involved childhood leukemia. "It's good to make a personal connection" she declares, having known someone with the disease. She goes on to explain that it encourages her to work harder to solve the problem. The projects, she says, allowed her to combine her love of chemistry with her love of medicine. With her outgoing attitude and passion for life, it's easy to imagine that this young lady from a small town in southern Indiana will be going on to do great things.

Caitlin graduated in May 2011 and is now attending medical school at A.T. Still University in Missouri to study family medicine.

UP CLOSE

UNDERGRADUATE STUDENT

AUSTIN GREALISH SENIOR

By: April Fidler



Having endured mountain warfare training at the Ethan Allan Firing Range in Jericho, Vermont, Cadet Master Sergeant Austin Grealish knows the meaning of hard work and perseverance. As a senior in Chemical Engineering at Purdue -- who plans to minor in Environmental Engineering -- and a member of Purdue's Army Reserve Officer Training Corps (ROTC) program, Grealish has learned to balance his love of chemical engineering with his passion to serve his

country. The cadet stumbled upon chemical engineering by accident. After taking a chemistry course to complete his engineering general courses at Purdue, he was hooked. To Grealish, a chemical engineering degree provides a way to combine his love of engineering with his interest in chemistry.

Another passion is Grealish's commitment to serve his country. The Army ROTC program allows him to fulfil his vision of joining the military and enables him to further his education. "After my first year, when I saw the opportunities available to commissioned officers, I knew it was the right choice," said the cadet. Five days a week, Grealish conducts physical training for the ROTC program, while a lab is held once a week to help the cadets work on their leadership and planning skills. "ROTC gives you the chance to develop leadership skills in a fast paced, exciting, physical environment," he says. The Illinois native's goal is to become a commissioned officer and continue in the U.S. military as an army engineer.

He has combined the work ethic learned in the School of Chemical Engineering with the spirit and determination forged in the Army ROTC program. Grealish plans to utilize his engineering background and the leadership skills gained in the ROTC program to help him achieve success in all his future endeavors.

UP CLOSE

GRADUATE STUDENT

ON THE OTHER SIDE OF THE CLASSROOM By: Cristina Farmus



SANTOSH APPATHURI (LEFT) AND KRISHNARAJ SAMBATH

I met with graduate students Santosh Appathurai (5th year) and Krishnaraj Sambath (4th year) a few minutes after the class they co-taught in Spring 2011, ChE 320 Statistical Modeling and Quality Enhancement, was over. Full of energy and humor, they shared their thoughts on teaching, studying, doing research, and becoming well rounded professionals. This is the first time graduate students are teaching a Chemical Engineering class in our School, making it a unique experience for the 164 undergraduate students enrolled and the two instructors as well.

Santosh and Krishnaraj obtained their undergraduate degrees a year apart at the Indian Institute of Technology, Madras. Upon graduation, they both had offers in industry with prominent international companies, but they chose to continue for graduate studies to further pursue their love of mathematics and physics at the encouragement of their thesis advisors. They chose Purdue because of the interactions they had with Professor Venkat Venkatasubramanian while he was visiting IIT Madras and both of them are currently members of Professor Osman Basaran's research group.

Teaching a class was an unexpected but welcomed opportunity for them. As Krishnaraj explained "I always had this idea about an academic career in the back of my mind, but being in front of a class has brought it to the front." When asked what they like best about teaching, they excitedly agree that seeing someone's face lit up when understanding an idea they have just explained is not a myth, but a rewarding

reality. The challenge, as Santosh put it, is to "Explain with a few words in a limited amount of time what is already evident to me." A favorite moment and a reinforcement of the great job they were doing came after a midterm exam, when a student stopped by to say that he liked what they do in class.

Being on the other side of the classroom gave them a greater understanding and appreciation of their professors and the work they do. They received 10-15 emails a day from students and they have changed the expectations of how soon to expect and deliver a response. They now observe professors in the classroom with a different lens and pay attention to various teaching styles, to extract and adopt the most effective techniques.

While teaching this course, they both continued their research activities and publication writing. Although the

hours they put in their work are long, they are thankful for the new things they are learning and the chance to develop new perspectives on known subjects. "When more responsibility is trusted on you, you become more streamlined," notes Santosh. They are both grateful for the guidance and support received from Professor Basaran, their advisor, as well as the freedom he granted them to structure their work. They specifically want to recognize Professors Harris (who is also Santosh's co-advisor and taught ChE 320 before), Ramkrishna, and Varma for entrusting them this responsibility and being a constant source of support and encouragement.

From an instructor perspective, they acknowledge it takes significant effort and concentration on the part of the students to excel when taking 5-6 courses a semester, but good time management skills are a sign of maturity and can be learned. They encourage students to study outside the classroom, take more ownership of the bachelor's degree and match the effort the School and the professors are investing in their success.

Outside work, they both enjoy traveling. Krishnaraj has fond memories of a road trip to California with a colleague from his research group, while Santosh recounted the month long trip he sponsored for his parents and sister across the United States in the summer of 2010. They are both active in advising undergraduate students at IIT Madras; their goal is to share their experiences and knowledge so their mentees make an informed decision about graduate school early in the process.

In Memoriam: **PROFESSOR ALBRIGHT**

By: Cristina Farmus



Professor Lyle Albright, a beloved faculty member for generations of students, passed away on December 27, 2010.

He received all his degrees in Chemical Engineering from the University of Michigan: BS (1943), MS (1944), PhD (1950). Following a few years on the ChE faculty at the University of Oklahoma (1951-55), he joined our School and in Fall 1955 as an Associate Professor, was promoted to Professor rank in 1958. He became a Professor Emeritus in May 1991 after nearly 36 years of service. Except for a quirk in the retirement law passed by Congress in the late 1980's that required professors to retire at age 70 for a transition period, Professor Albright would have set the record for years of service in our School.

During his academic career, Dr. Albright directed the research of over 100 graduate students for a total of 122 theses. He remained active in retirement until late in 2010, came to School daily, and regularly published articles in archival journals - he had one article in press at the time of his death. His scholarly contributions include some 231 articles in archival journals and ten books. Among other editorial activities, he was a member of the editorial advisory board of Encyclopedia of Chemical Processing and Design (J.J. McKetta, Editor), Marcel Dekker, 1976-2002, which comprises a total of 69 volumes. Perhaps his greatest achievement, editing "Albright's Chemical

Engineering Handbook" published by Taylor and Francis in 2009, was done after retirement. This was a labor of love that took 10 years to complete and is the first ChE handbook to be edited after the Perry's ChE Handbook, which was first published in 1934 and is now at the 8th edition.

Prof. Albright received a number of recognitions, including School of Chemical Engineering Shreve Prize three times, the College's Potter Award in 1988, and AIChE's Van Antwerpen Award in 2003. He was a member of the American Institute of Chemical Engineers since 1948, a Fellow since 1973, and served on the board of directors between 1982 and 1984; he also served as an accreditation visitor to 10 ChE schools.

Professor Albright worked for several companies before settling for an academic career. His most notable assignment was his contribution to the Manhattan Project for production of plutonium, at Hanford, Wash., from 1944 to 1946, while working for E. I. du Pont de Nemours and Co. His experience on that project is recounted in an article published by TCE Today in December 2008 and can be read at https://engineering.purdue.edu/ChE/AboutUs/News/index.html?type=Spotlight&batch_page=6. He consulted with many companies throughout his career.

Outside the classroom and research laboratory, he was a talented magician and regularly charmed his daughters, friends, and neighbors with his tricks. He was a member of the International Brotherhood of Magicians since 1937 and entertained audiences as large as 10,000 people when he had a chance, such as the construction workers at the Hanford site or the campers at the annual trips he took to Michigan.

He was an avid swimmer and visited the Purdue Aquatic Center daily for his exercise until a few months before passing away. Every spring he used to bring a bucket of peonies to Forney Hall and visited all offices to offer flowers to the ladies of the School.

Professor's Albright professional achievements are memorable and set a high standard for any faculty member or student. However, he is most admired and remembered for his genuine interest in the wellbeing of his students and mentees, kind demeanor, energetic presence, and considerate interactions.

He will be sorely missed by countless admiring students, staff, and faculty colleagues.

In Memoriam: **PROFESSOR SQUIRES** *By: Phillip Wankat*



Professor Robert G. Squires received his BChE degree from RPI (1957), and MSE (1958), MS Math (1960) and PhD (1963) degrees from the University of Michigan, under the direction of the well-known catalysis scientist Prof. Giuseppe Parravano who had previously worked as an assistant to Giulio Natta (Nobel laureate, 1963). Shortly after his arrival in 1962, Squires established an ambitious program in catalysis, working initially with IR spectroscopy and then with other spectroscopic techniques. In the 1970's, along with W.N. Delgass, he established the catalysis research program of the School which is still a major component of the School's research portfolio.

Although his research interest was in kinetics and catalysis, Squires' teaching interests extended to thermodynamics. Generations of alumni know him as the gifted teacher of ChE 311 (now ChE 211) and ChE 439 (now ChE 348). For years, Squires and his wife Carol invited students over to their house, conveniently located within walking distance on Salisbury Street, for informal evening chats with snacks. Other than the Catalyst Club, this was the only informal opportunity many students had to get to know a professor as a person. Many of our alumni recall these visits vividly and fondly – they made a lasting impression.

Bob was widely recognized in the School as a “Teaching Guru” and willingly shared his secrets with new faculty as they began their teaching careers. He received almost every important local and national teaching award, including Purdue's prestigious 1981 Amoco Foundation Award, now the Murphy award. Squires was the first ChE faculty member to win this award, which recognizes the best University teachers. He won the Shreve prize as the best teacher in ChE six times (1976, 1981, 1987, 1990, 1992, and 1996) and the Potter award as the best teacher in the College of Engineering twice (1977 and 1991). Nationally, Bob won the ASEE Western Electric Award in 1977 and the Chemical Manufacturers Association Catalyst Award in 1985.

In the 1980's and 1990's Squires combined his interests in teaching and research and began to focus his full energy on new ways to help students learn. In that effort he pioneered the development of videos that allowed students to do experiments virtually that were impossible to do in the unit operations laboratory. The virtual environment also allowed development of troubleshooting skills. Working in collaboration with Rex Reklaitis and others, he developed collaborations with a number of companies to produce these videos. The resulting videos were beta tested at Purdue and distributed nationally. For this work Squires and Rex won the Corcoran Award from ASEE Chemical Engineering Division for the best paper in Chemical Engineering Education in 1991, and Bob won the ASEE Carlson Award for educational innovation in 1995.

Squires' interest in students led him to accept the position as the coordinator of the ChE Cooperative Engineering Education Program in 1982 when Neal Houze stepped down upon becoming Director of co-op for all engineering. Bob continued as coordinator of the ChE program until he retired.

Squires was heavily involved in many national societies, particularly the Industrial and Engineering Chemistry Division of the American Chemical Society, which he served as Chair in 1980, and he was elected a Councilor of ACS.

At the time Bob retired and accepted Emeritus status in December 2004, he held the record (42 years) for longevity on the faculty. At the time of the Centennial in 2011, he was tied for longevity on the faculty.

Professor Squires passed away November 6, 2011. Family members, students, staff, and faculty colleagues mourn his loss.

PURDUE CHE **OUTSTANDING** CHEMICAL ENGINEER **AWARD**



2010

WILLIAM GREER *Left* (BS '45, MS '49), Executive Director for Production Services, Eli Lilly (retired)

HAROLD IGDALOFF *Center* (BS '47), President, Sungro

PETER KRAEMER *Right* (BS '88), Vice President for Supply, Anheuser-Busch



2011

JAMES HOOVER *Left* (BS '49), Director of Security Systems, Ely Lilly (retired)

GERALD SKIDMORE *Right* (BS '54), with wife Sally, Owner, Skidmore Sales & Distributing Company, Inc.

PURDUE **COLLEGE OF ENGINEERING** DISTINGUISHED ENGINEERING ALUMNI **AWARD**



2011

ELLEN TOBIAS *Right* (BS '83) Vice President, External Drug Product Manufacturing, Eli Lilly

Behind the Scenes: **JEFF VALLEY, BUILDING DEPUTY**

By: April Fidler



DR. VARMA (L) PRESENTING THE INAUGURAL CHE STAFF EXCELLENCE AWARD TO JEFF VALLEY

No one knows the School of Chemical Engineering's Forney Hall better than Jeff Valley. As building deputy, Jeff has had a hand in the daily operations and upkeep of every square inch of the building - new and old, since 1995. With a warm smile and a positive attitude, Jeff Valley ensures that Forney Hall's operations run smoothly, despite the dust and noise of the recent addition and renovation. Although Jeff's official title is that of building deputy, in truth, his position more closely resembles that of guardian angel to the many patrons of the 200,000 square foot building that the School of Chemical Engineering calls home.

With quiet determination and a "can do" attitude, he has helped to painlessly ease the faculty and staff into their new space by assisting in office moves, working to minimize construction noise, and acting as a contractor liaison due to his in-depth knowledge of the building. His hard work and dedication have led to recognition by way of the University's One Brick Higher award and the inaugural ChE Staff Excellence award he received in 2006 and 2010, respectively.

His duties do not limit to assisting with new construction or renovations, he is also a key member of the School safety committee, oversees security of the building, maintains inventory and records; issues keys; coordinates Physical Plant repairs and Building Services cleaning schedules; initiates work orders and verifies their completion; as well as meets any other requests that faculty, staff and students may ask of him.

Jeff gained much of his expertise by growing up working summers for a company that constructed grain storage systems, as well as working for his general contractor uncle. "That is where I was introduced to and learned the different trade skills, as far as electrical, plumbing, heating and air, mechanical, cement, etc." However, by handling his own construction company for five years before coming to Purdue is how he gained experience managing daily operations. He now applies what he learned as building deputy at Forney Hall.

Jeff's role was instrumental in the addition and renovation of Forney Hall. The construction projects for the School of Chemical Engineering are being managed by the Purdue Construction Department, thus he must stay in touch with Purdue inspectors and handle questions from outside contractors. He must notify staff and faculty of impending noise, disruptions of utilities, and other annoyances that may occur. "Although we try to anticipate, prepare and take necessary precautions, the noise, dirt and dust, and especially the vibrations felt throughout the building, have at times had an extremely adverse affect on research being conducted, as well as everyday work in the offices," says Valley.

Jeff has been able to excel at managing Forney Hall's transformation, as well as tend to his own responsibilities as building deputy. He manages each task with professional confidence and respect for those affected by the constant construction and renovation, earning everyone's trust and appreciation.

ALUMNI

1950-1959

ROBERT H. BUCKMAN, BS 1959, wrote *Building a Knowledge-Driven Organization*, published by McGraw Hill.

RICHARD STEPHANS, BS 1957, retired after a second career as an engineering consultant. His recent assignment was at Nevada Test Site performing sub-critical nuclear experiments. Colonel Stephens is the author of two system safety engineering books. He is a Fellow in the System Safety Society and was a Director on the Board of Certified Safety Professionals.

1960-1969

JOSEPH S. ALFORD, BS 1966, was elected to AIChE Education and Accreditation Committee.

ROBERT E. GADOMSKI, BS 1969, HDR 2000, received the Krannert School of Management Leadership Award in 2010.

MYRON KUHLMAN, BS 1968, was named Society of Petroleum Engineering Distinguished Lecturer in 2011.

DUNCAN MELLICHAMP, PhD 1964, received the CACHE Award of the ChE Division, ASEE, 2010 for outstanding contributions to Computing in Chemical Engineering.

CHARLES E. STANBERY, BS 1961, retired after a 46 year career with the United States Air Force, Boeing-North American, Litton PRC and ARINC.

1970-1979

KENT M. SPROAT, BS 1970, is the Vice President of Manufacturing of Marrone Bio Innovations, Davis, CA.

DAVID TIRSELL, BS 1970, is the Faith Relations Manager for Macomb County Habitat for Humanity. He enjoys using engineering problem solving skills to mobilize funds and volunteers to build or rehab homes for low income families.

PAUL J. QUINN, BS 1971, retired after a full time medical practice. He now works part time with Samaritan's Purse in Haiti as a hospitalist and medical mission worker.

CLIFFORD W. BROWNING, BS 1972, is the Editor-in-Chief and member of Advisory Board of *The Trademark Reporter*®.

MARK G. WHITE, MS 1973, retired from Mississippi State University. He continues to work part time as a research professor in the Energy Institute to help commercialization of technology licensed to Harrelson and Associates.

RAYMOND ERIC ZBACNIK, BS 1973, joined SSOE Group in 2011.

CARL T. BEHR, BS 1974, is a Captain with Delta Airlines.

GARY P. BURNS, BS 1976, is the Supply Chain Operations Manager for Lyondell Basell Chemical Company, Houston, TX.

JOHN HOSMER, BS 1967, MS 1969, retired from Constellation Energy. Currently, he operates a small consulting firm servicing the nuclear industry.

OTTO KUHN, BS 1976, was promoted to Head Brewmaster of the Anheuser Busch Merrimack Brewery, NH.

ELEFTERIOS PAPOUTSAKIS, PhD 1979, received the 2010 International Metabolic Engineering Award.

REAGAN STEPHENS, BS 1976, is Vice President of Operations, Interplastic Corporation, St. Paul, MN.

MICHAEL LADISCH, PhD 1977, was elected a Fellow of the American Association for Advancement of Science and a Fellow of the American Chemical Society, 2011.

1980-1989

RICHARD A. D'ARDENNE, BS 1980, residing in Astana, Kazakhstan, is working on the Kashagan field development, North Caspian Operating Company B.V.

JAMES W CORNELISSEN, BS 1980, was promoted to General Manager in July 2011 at Tate & Lyle, Singapore.

HELEN ANN LEONDIS CORBITT, BS 1982, retired after 28 years at Eli Lilly and Company.

JENNIFER SINCLAIR CURTIS, BS 1983, received a Fulbright Senior Research Scholar Award at the University of New South Wales.

JAMES B. ROBB, BS 1984, joined the Board of Trustees of Wadsworth Atheneum Museum of Art and the Advisory Board of Purdue Global Policy Research Institute.

BRIAN ELPERS, BS 1986, is the Manufacturing Director for Eastman Chemical in the Eastman's Coating and Plastics Esters Department in the Cellulose Esters Division, Kingsport, TN.

PEDRO ARCE, PhD 1990, was named Distinguished Faculty Fellow at Tennessee Technological University.

JEANNINE M. SIVIY, BS 1987, accepted a position as Principal Consultant with SDLC Partners.

CHRISTOPHER BOWMAN, BS 1988, PhD 1991, is recipient of the 2011 Professional Progress Award from the American Institute of Chemical Engineers.

ANTONIOS MIKOS, PhD 1988, received the Society for Biomaterials' 2011 Founders Award for long-term, landmark contributions to the discipline of biomaterials.

STEPHEN STANDIFIRD, BS 1989, was named Dean of the Schroeder Family School of Business Administration at the University of Evansville, IN.

Send your updates to chealumni@ecn.purdue.edu. Due to the large number of responses, we can only publish the most recent updates, with the rest to be included on our website at <https://engineering.purdue.edu/ChE/People/Alumni/index.html>

UPDATE

1990-1999

KENNETH KELLEY HARRIS, BS 1992, was awarded Rank II status and Instructional Certification for Science and received Army Commendation Medal for Service from Blackjack Battalion, 4th CAV BDE, Fort Knox, KY, 2010. He joined 1st Branch, 1st Group, 3rd Brigade at the Combined Arms Joint Training Center at Camp Atterbury, IN as an Observer Controller/Teacher for Battalion and Brigade Command and Control Staff Simulation Exercises.

RONNA ROBERTSON, BS 1992, was elected a Fellow of the Society of Women Engineers, 2011. Ronna previously served as the SWE President during 2005-2006.

JEFFREY D. VARNER, BS 1992, PhD 1997, Assistant Professor, School of Chemical and Biomolecular Engineering, Cornell University, received the NSF Career award, 2010.

CARROLETTE WINSTEAD, BS 1995, became Project Manager - Environmental Remediation Engineer at Haley & Aldrich in Tempe, AZ.

ELEANOR O. DIAMSE, BS 1996, completed her B.S. in Nursing at University of Colorado at Denver and obtained her RN license in February 2011.

MARK BYRNE, MS 1997, PhD 2003, was named The Daniel F. & Josephine Breeden Distinguished Professor, Auburn University, AL. He was also elected a Fellow of the American Institute for Medical and Biological Engineering, 2011 and received Highest Teaching Distinction and Gerald & Emily Leischuck Endowed Presidential Award for Excellence in Teaching.

ERIC DOUBLER, BS 1997, was promoted to Corporate Process Analysis Manager within PNC's Finance Department.

MICHAEL SCHOPLER, BS 1997, was promoted to R&M Business Advisor at BP headquarters, London. He will work in the Planning, Performance & Reporting group within the Refining & Marketing division and is responsible for competitive analysis.

JENNIFER NEWTON, BS 1999, was promoted to Training & Manufacturing Programs Manager covering Lafarge Cement manufacturing locations in North America, Central and South America.

2000 - 2011

ALVARO M. TIMOTHEO, BS 2000, was promoted to Sales Manager for North America for the Pulp and Paper Recovery Boiler division at Andritz, Atlanta, GA.

IRINA BURMENKO, BS 2000, is now the Engagement Manager at Trinity Pharma Solutions.

NATHAN HUBER, BS 2000, completed General Surgery Residency at the University of Cincinnati, and returned to Indiana to join the Lafayette Surgical Clinic.

VANESSA CRUM OWENS, BS 2001, was promoted to manager of Latin American, Canadian and Australian business markets of Intuitive Surgical.

Tanmay Lele, PhD 2002, Assistant Professor, Department of Chemical Engineering, University of Florida, received the NSF Career award, 2010.

JAMIE (METZGER) DREWRY, BS 2004, was recognized as a Rising Star in Intellectual Property Law by the *Indiana Super Lawyers* magazine.

KYLE KOSTROSKI, BS 2004, PhD ChE 2008, received the 2010 BP Tallow Chandlers Award, given for excellence in the innovation and application of technology by BP worldwide.

ADITYA BHAN, PhD 2005, Assistant Professor, Department of Chemical Engineering and Materials Science, University of Minnesota, received the NSF Career award.

SALOMON TURGMAN COHEN, BS 2005, is a postdoctoral associate at Cornell University, Department of Chemical and Biomolecular Engineering.

JAMEY D. YOUNG, PhD 2005, Assistant Professor, Department of Chemical and Biomolecular Engineering, and Assistant Professor of Molecular Physiology and Biophysics, Vanderbilt University, received the NSF Career award.

MATT KIEFER, BS 2006, retired from professional basketball in Germany and Spain and is working with Regulatory Compliance Associates FDA related issues, operational issues, and global due diligence.

SELEN CREMASCHI, PhD 2006, Assistant Professor, Department of Chemical Engineering, University of Tulsa, received the NSF Career award and the 2010 Teaching Excellence Award given by Tau Beta Pi.

AJAY JOSHI, PhD 2007, received one of the five Tallow Chandler's Award given in 2011 for outstanding contributions to research and technology. This award is given to employees who are less than thirty years old and is sponsored by Tallow Chandlers livery company in UK.

BALACHANDRA B. KRISHNAMURTHY, PhD 2008, was promoted to Software Development Engineer- II, Amazon.com, Karnataka, India.

JEFF DOMBEK, BS 2008, was promoted to Global HyCO Reliability Engineer, Operations Excellence group, Air Products, Laporte, TX.

NANETTE R. BOYLE, PhD 2009, received the Research Publication Award, Chemical Engineering, Purdue, 2011.

QUIJIE GUO, PhD 2009, received the Research Publication Award, Chemical Engineering, Purdue, 2011.

ROBERT CUNNINGHAM, BS 2010, is a process engineer with International Paper.

VISHESH SHAH, PhD 2010, received the Faculty Lecturer Award, Chemical Engineering, Purdue, 2011.



Non-Profit Org.
U.S. Postage
PAID
Purdue University

School of Chemical Engineering
480 Stadium Mall Drive
West Lafayette, IN 47907

SOLUTION MAKER

Boilermakers are trained problem-solvers. Driven to find eco-friendly answers to worldwide problems. They seek ways to fuel the world. Rid it of disease. And keep people safe. When the world looks for solutions — it finds Boilermakers.

WE ARE PURDUE.
WHAT WE MAKE
MOVES THE WORLD FORWARD

WWW.PURDUE.EDU

JOHANNA SMITH
COLLEGE OF ENGINEERING
SCHOOL OF CHEMICAL ENGINEERING
SOPHOMORE, BEERING SCHOLAR



EA/EOU

PURDUE
UNIVERSITY