

Purdue University

**School of
Chemical
Engineering**

**2013-14
Year in Pictures**



ChE Strategic Plan 2010 – 2014

- **Vision:** Be widely recognized among the premier ranks of chemical engineering programs in the world.
- **Mission:** Provide students with a rigorous and relevant education, conduct field-defining research, and enhance the School's global impact.
- **Values:** Leadership, excellence and innovation, relevance and impact, commitment and responsibility, teamwork and partnership, diversity and respect, safety and sustainability.



ChE Strategic Plan 2010 – 2014

- **Research:** To pursue breakthrough research that extends the boundaries of chemical engineering into areas which promote sustainability and which will have the greatest positive impact on our global society.
- **Education:**
 - **Graduate Programs:** Recruit and retain high caliber graduate students from top-tier chemical engineering programs, provide challenging and relevant research programs, and a quality graduate level education.
 - **Undergraduate Programs:** Recruit and retain the most capable, motivated and diverse class of undergraduates, and help them to obtain a solid and relevant education throughout their Purdue experience.
- **Global Impact:** Educate undergraduate and graduate students who will be successful in a global environment. Cultivate and expand research relationships with prominent international research organizations.

ChE Strategic Plan 2010 – 2014

- **Development:** Secure and improve the School's financial foundation as a means to continually improve its programs and physical facilities, while balancing short and long term goals.
- **Engagement:** Encourage faculty, students and staff to develop a sense of personal responsibility and accountability for service at both the local and national levels. Promote entrepreneurial activity, leading to intellectual property, including invention disclosures and patents. Become a leader in sustainability on the Purdue campus.
- **Professional Development and Recognition:** Encourage all faculty, staff, and students to participate in activities that will enhance their career, develop their skills, and help them become more creative and productive. Actively promote recognition by internal and external award nominations.
- **Culture and Environment:** Create an environment where faculty, staff, and students are treated with respect and where superior teamwork is achieved. Enhance and expand safety activities and safety education.

CHE School Parameters

**Founded
1911**

**139
Graduate
Students**

**Forney
Hall**

**CMET
47,110 asf
Addition
44,544 asf**

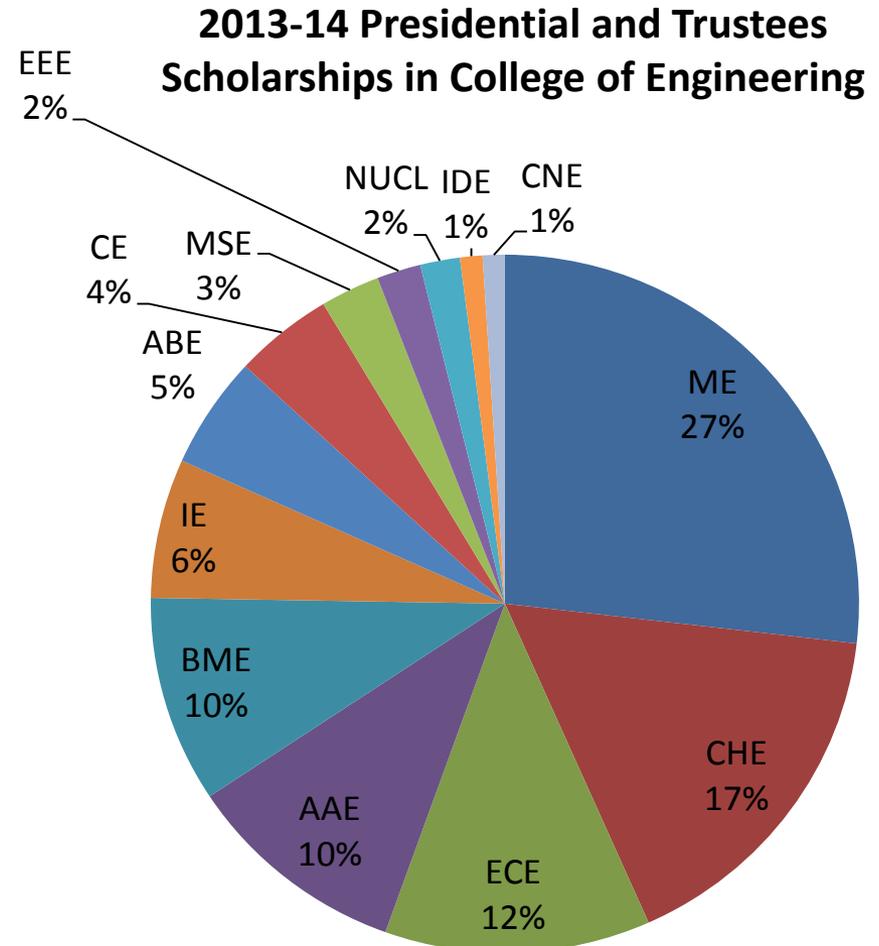
29 Staff

30 Faculty

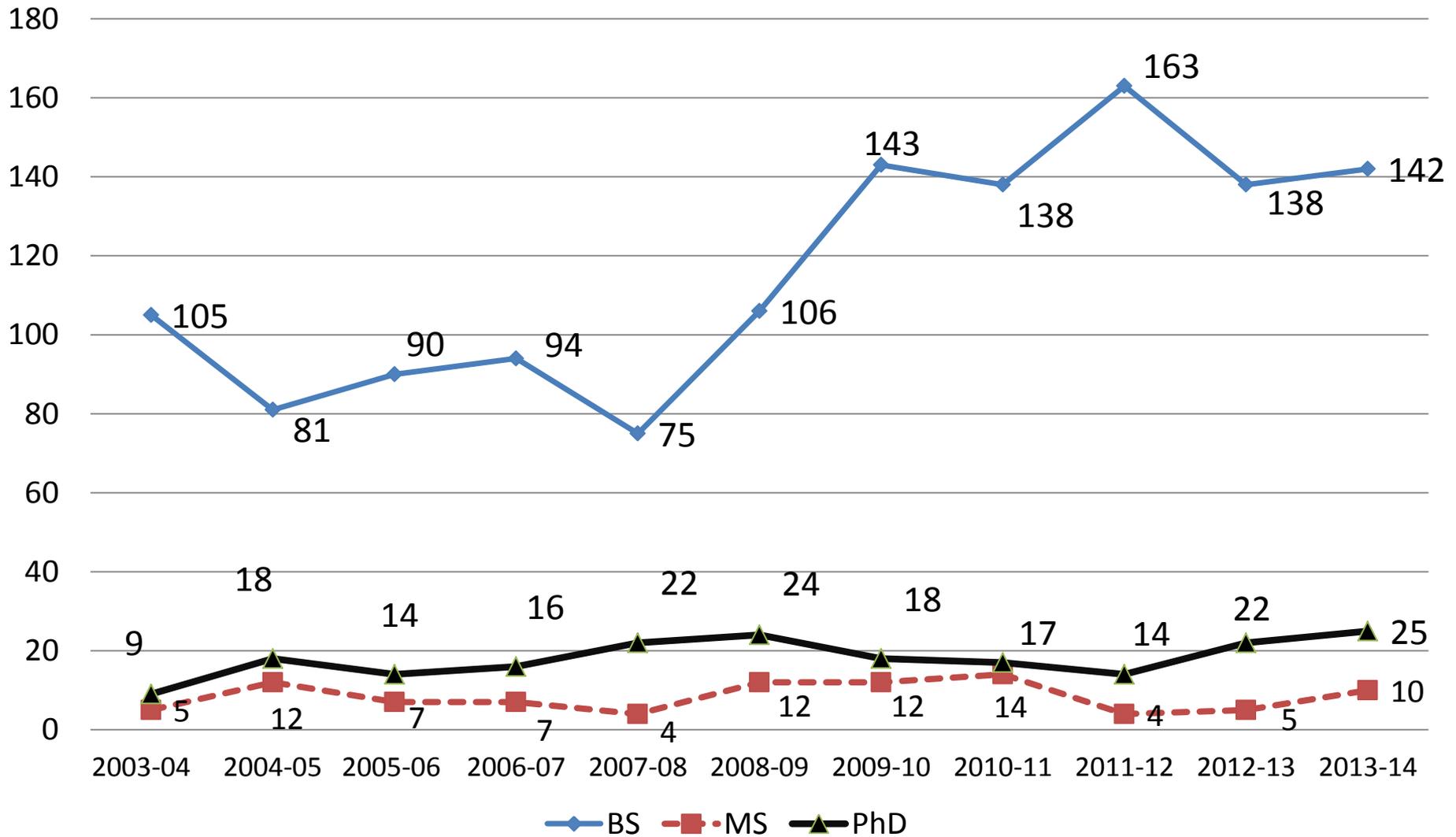
**555
Undergraduate
Students**

Presidential and Trustees Scholarship Information

- Although ChE students accounted only for 10% of the fall 2013 enrollment in the College of Engineering, they received 17% of the total Presidential and Trustees Scholarships in the College.
- 30% of all ChE undergraduate students receive Presidential and Trustees Scholarships (fall 2013).
- 60% of our undergraduate students have a GPA of 3.2 or higher (AY 2013-14.)



Degrees Conferred



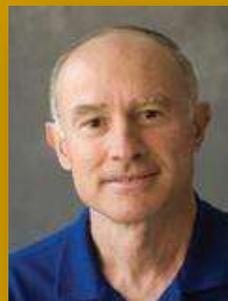
Chemical Engineering Faculty



Mahdi Abu-Omar
PhD, Iowa State, 1996



Rakesh Agrawal
ScD, MIT, 1980



Osman A. Basaran
PhD, Minnesota, 1984



Stephen P. Beaudoin
PhD, NC State, 1995



Bryan W. Boudouris
PhD, Minnesota, 2009



James M. Caruthers
ScD, MIT, 1977



David S. Corti
PhD, Princeton, 1997



Elias I. Franses
PhD, Minnesota, 1979



Raj P. Gounder
PhD, UC Berkeley, 2011



Robert E. Hannemann
MD, Indiana, 1959

Chemical Engineering Faculty



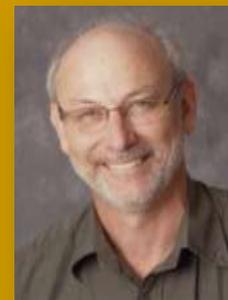
Michael T. Harris
PhD, Tennessee-
Knoxville, 1992



R. Neal Houze
PhD, Houston, 1968



Jeffrey P. Greeley
PhD, Wisconsin
Madison, 2004



James D. Litster
PhD, Queensland, 1985



Julie C. Liu
PhD, Caltech, 2006



Jeffrey T. Miller
PhD, Oregon State, 1980
(To join Spring 2015)

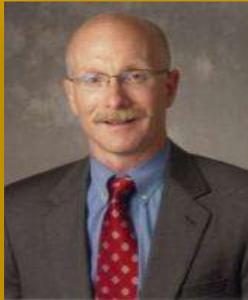


John A. Morgan
PhD, Rice, 1999



Zoltan K. Nagy
PhD, Babes-Bolyai, 2001

Chemical Engineering Faculty



Joseph F. Pekny
PhD, Carnegie Mellon, 1989



R. Byron Pipes
PhD, Texas-Arlington, 1972



Vilas Pol
PhD, Bar-Ilan, 2005



Doraiswami Ramkrishna
PhD, Minnesota, 1965



Gintaras V. Reklaitis
PhD, Stanford, 1969



Fabio H. Ribeiro
PhD, Stanford, 1989



Kendall T. Thomson
PhD, Minnesota, 1999



Arvind Varma
PhD, Minnesota, 1972
Head

Chemical Engineering Faculty



Nien-Hwa Linda Wang
PhD, Minnesota, 1978



Phillip C. Wankat
PhD, Princeton, 1970



You-Yeon Won
PhD, Minnesota, 2000



Chongli Yuan
PhD, Cornell, 2007

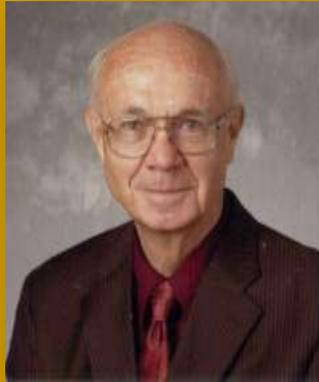


Enrico N. Martinez
Visiting Professor
PhD Notre Dame, 1972

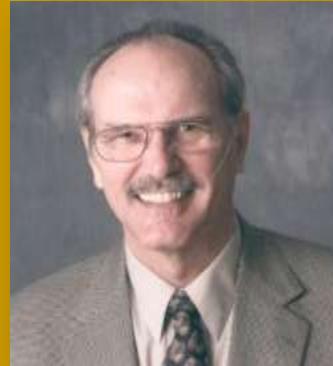


Jeffrey J. Siirola
Professor of
Engineering Practice
PhD Wisconsin Madison,
1970

Chemical Engineering Emeritus Faculty



Ronald P. Andres
PhD, Princeton, 1962



W. Nicholas Delgass
PhD, Stanford, 1969



Robert A. Greenkorn
PhD, Wisconsin, 1957



Nancy W. Y. Ho
PhD, Purdue, 1968



George T. Tsao
PhD, Michigan, 1960

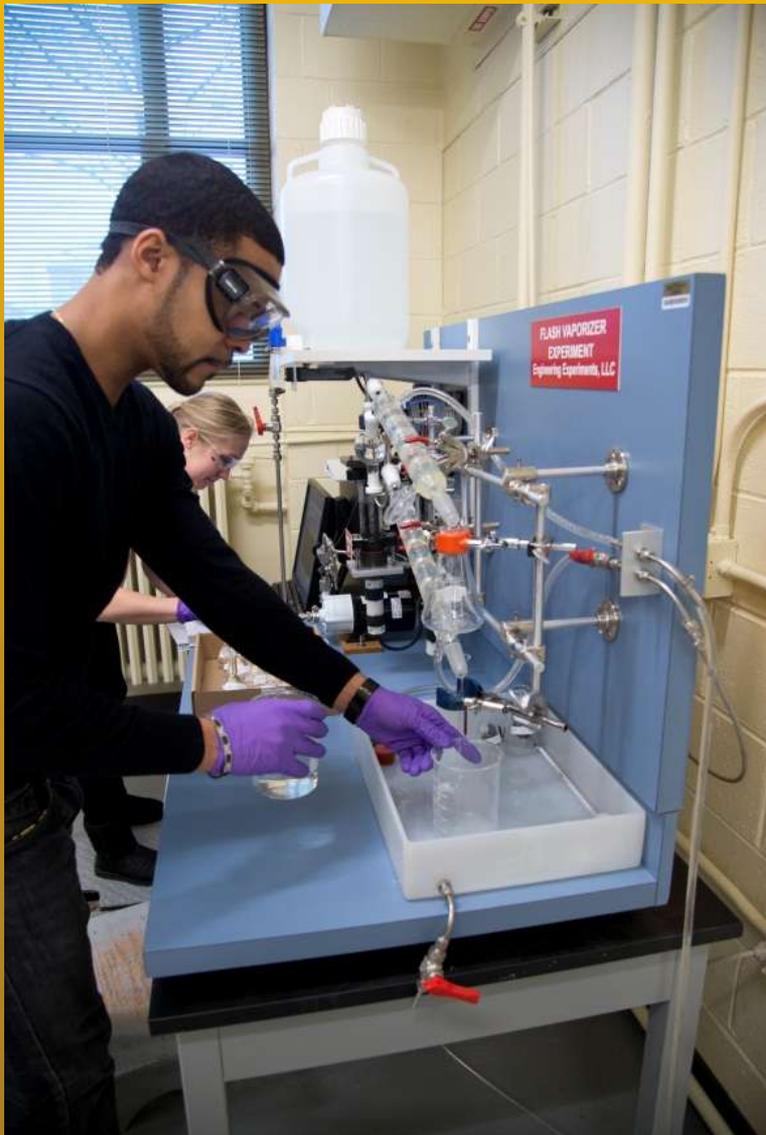
Class of 2014 – group 1



Class of 2014 – group 2



Unit Operations Laboratory After Renovation



Fall 2013



Unit Operations Laboratory After Renovation



Fall 2013

2013 College of Engineering Staff Excellence Awards, November, 2013



Jenny Mamph, Customer Service Excellence Award

New Faculty Additions

January 2014



Carl Laird
Associate Professor

B.Sc., University of Alberta, 2000
Ph.D., Carnegie Mellon University,
2006

Research Interests: Large-scale nonlinear optimization, parameter estimation, and parallel computing.



Vilas Pol
Associate Professor

B.Sc., Pune University, India, 1996
Ph.D., University of Bar-Ilan, Israel, 2005
Post-Doctoral Research Associate, 2008-10; Research Scientist, 2010-present, Argonne National Laboratory

Research Interests: Electrochemical engineering, nanoparticle technology, materials science, energy storage devices and environmental technology

Distinguished Engineering Alumnus

February 2014



Richard Korsmeyer, MSChE '80, PhD '83

Senior Research Fellow and Head of External Technology and Collaborations for Worldwide Pharmaceutical Sciences, Pfizer Inc.

Distinguished Engineering Alumnus

February 2014



Antonios G. Mikos, MSChE '85, PhD '88

Louis Calder Professor of Bioengineering and Chemical and Biomolecular
Engineering, Rice University

Pinnacle Award

February 2014



Jay (BSChE '74) and **Cynthia Ihlenfeld** (center) with Provost **Tim Sands** (left) and **Arvind Varma**

Presidential Safety Award

February 2014



VP and Treasurer Al Diaz (left) with the ChE Safety Committee receiving the 2014 Purdue Presidential Safety Award

Professor **Fabio Ribeiro**, Industrial Education Director **Gabriela Nagy**, Professor **Robert Hannemann**, Instrumentation Director **Yury Zvinevich**, Graduate Students **Erik Sheets and Rohit Jaini**, Building Deputy **Jeff Valley**

Chem-E Car Competition



Purdue ChE Chem-E Car Team at the Spring 2014 Regional Competition

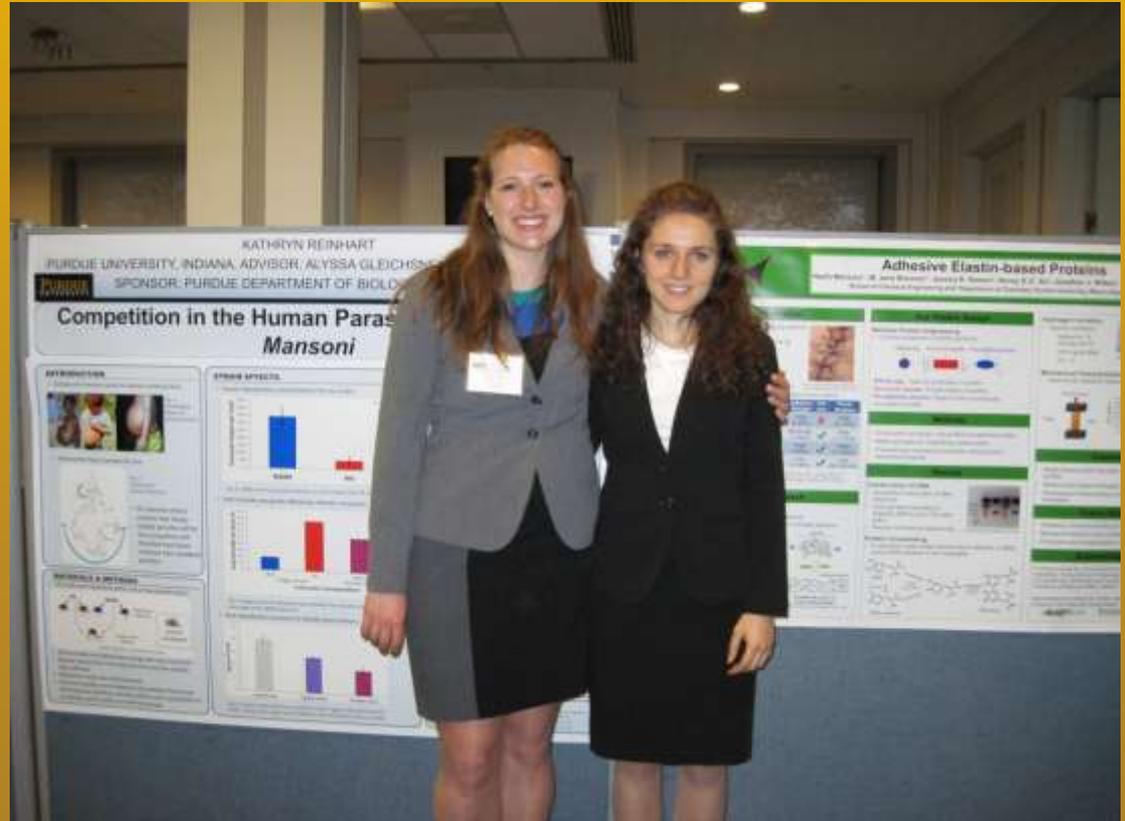
Soybean Competition



Nicole Devlin (right), graduate student, and **Yanssen Tandy** (BS 2014, center), were part of the team that won the Student Soybean Product Innovation Contest sponsored by the Indiana Soybean Alliance, Purdue, 2014.

Posters on the Hill

April 2014



Haefa Mansour (Senior) participated in the 2014 “Posters on the Hill” event in Washington, DC

Women in ChE Seminar

April 2014



**Roberta Gleiter (BSCHE '56) and
Ronna Robertson (BSCHE '92)**

Women in ChE Seminar

April 2014





Purdue ChE Spring Newsletter

SPRING 2014
CHEMICAL ENGINEERING
NEWSLETTER

UNIT OPERATIONS LABORATORY **THEN AND NOW**



April 2014

Arbor Day

May 2014



Senior Banquet

May 2014



Senior Banquet

May 2014



Senior Design Project Team Awards

May 2014



Staff Retreat

July 2014



GSO Research Symposium

August 2014



GSO Research Symposium Awards

August 2014



GSO Research Symposium Awards

August 2014



2014 GSO Officers



Nicole Devlin

President



**Agnes
Mendonca**

**Vice President
and Treasurer**



Sydney Hollingshead

**First-year
Representative**

2014 GSO Officers



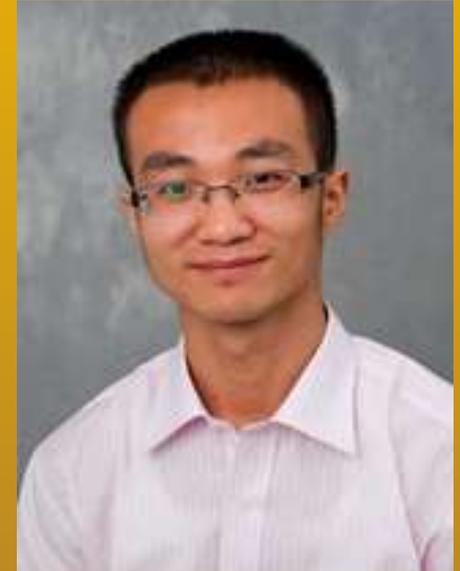
Kevin W. Brew

**Student
Advocacy
Officer**



Arthur Dysart

**Inter-GSO
Events Committee
Representative**



Yanran Cui

**Purdue
Graduate Student
Government
Representative**

2014 GSO Officers



Michael Cordon

**Social Events
Committee
Co-chairperson**



John Di Iorio

**Sports Events
Committee
Co-chairperson**



Nathan J. Davis

**Outreach Committee
Chairperson**

2014 GSO Officers



Arthur J. Shih

**Co-curricular
Committee
Chairperson**



**Gautham Madenoor
Ramapriya**

**Sustainability
Committee
Chairperson**



Xin Zhao

**Safety Committee
Chairperson**

AIChE

**Austin Tackaberry, senior
Chair of the National
Executive Student
Committee**

AIChE, 2014-15

Selected for the
John J. McKetta Undergraduate
Scholarship Award
AIChE, 2014



Society of Women Engineers

Julia Hom, senior

Chair of the Purdue SWE
Organization, 2014-15



2014 Industrial Roundtables

- 4 out of the 9 organizers are ChE students (pictured below from left) :
 - **Louis Perkins**, junior (Facilities Coordinator)
 - **Courtney Kelly**, sophomore (Student Affairs Coordinator)
 - **Lilly Myers**, junior (2014 IR Director)
 - **Hannah Cook**, sophomore (Hospitality Coordinator)

- 399 companies signed up for fall 2014 IR
- 147 companies hiring ChEs



ChE Student Ambassadors

Class of 2015



Isaura Frost



Krystopher Jochem



Elizabeth Geller



Katherine Loehr

ChE Student Ambassadors

Class of 2016



Alex Muller



Andrew Parker



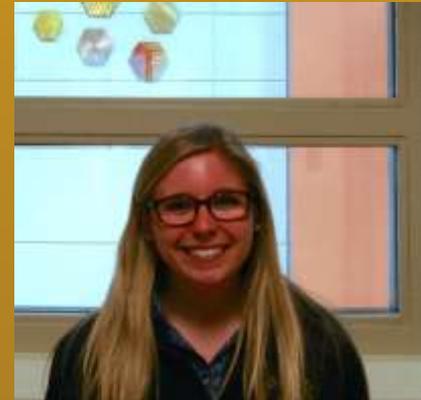
Katherine Tomera



Lilly Myers



Beata Strubel



Chelsey Wallace

ChE Student Ambassadors

Class of 2017



Kirsten Ivkovic



Devin Zuck

BP Whiting Refinery Tour

September 2014



2014 OChE Awards



Rob Crane (MSChE '94, PhD '97)
Planning Executive
ExxonMobil Research & Engineering

2014 OChE Awards



Jefferson (Jeff) C. Lievense (PhD '84)
Executive Vice President of Process Technology, Genomatica
with Professor Linda Wang and Head Arvind Varma

2014 OChE Awards



Stephen (Steve) R. Murrill (BSChE '71, center, President and owner of Profile Plastics in Lake Bluff, Illinois
With Marilyn and Robert Forney (left) and his family

Scholarship Banquet

October 2014



Scholarship Banquet

October 2014



Republic Services Recycling Tour

October 2014



Robert T. Henson (BSChE '36) Celebrates 100th Birthday

October 2014



ChE-SAC and AIChE Pancakes

November 2014



Blood Drive

November 2014



R. Byron Pipes

Faculty Careers Celebration

November 2014



Graduate Student Awards



Elcin Icten (right) received the
2014 Women & HiTech Scholarship as part of
Leading Light Awards given by the Women & Hitech Organization

Graduate Student Awards



Emre Gencer
Outstanding Teaching Assistant

Grad Student Awards



From Left: **Aniruddha Kelkar** (Outstanding Research Award), **Kaiwalya Sabnis** (Magoon Teaching Award), **Rohit Jaini** (Magoon Teaching Award), **Frank Devilbiss** (Outstanding Service Award), **McKay Easton** (Magoon Teaching Award),

UG Student Awards



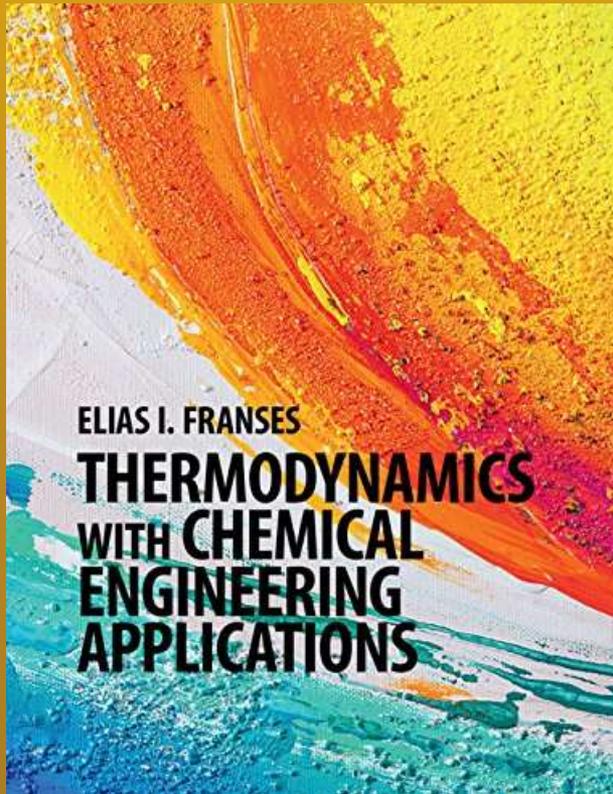
Justine Morris

- **Haefa Mansour**, senior - received Barry Goldwater Scholarship, 2014; Donald F. & Mildred Topp Othmer Scholarship Award, AIChE, 2014
- **Jasmine Morris**, BS 2014, received the Louis Sudler Prize in the Arts, Purdue, 2014
- **Beata Strubel**, junior – received the Donald F. Othmer Sophomore Academic Excellence Award, AIChE, 2013-14
- **Kenneth Tan**, BS 2014, received the Martin C. Jischke Outstanding International Student of the Year Award, Purdue, 2014

Books

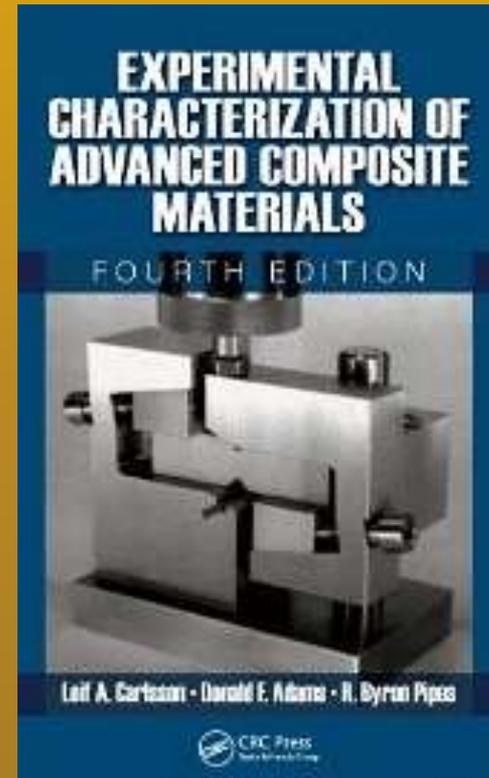
Elias I. Franses

Thermodynamics with Chemical
Engineering Applications
Cambridge University Press, 2014

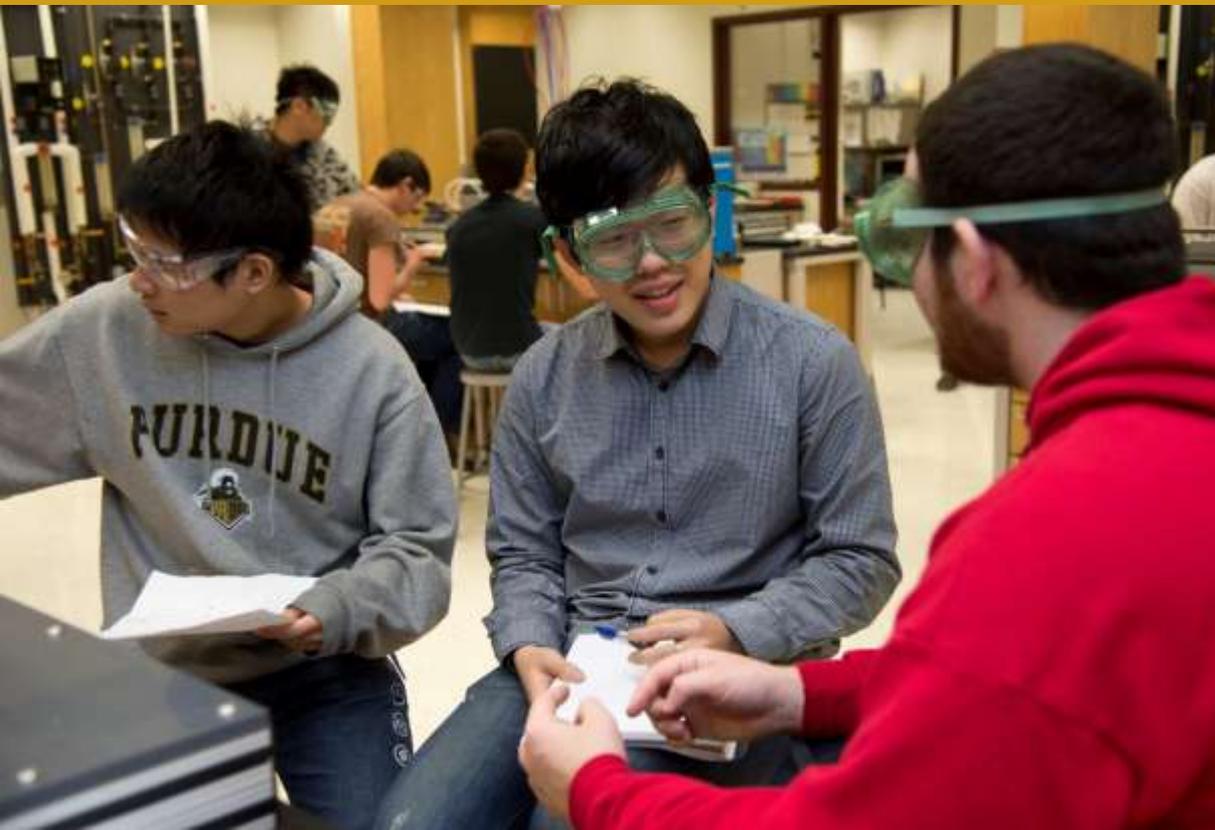


R. Byron Pipes

Experimental Characterization of
Advanced Composite Materials
Fourth Edition, CRC Press, 2014



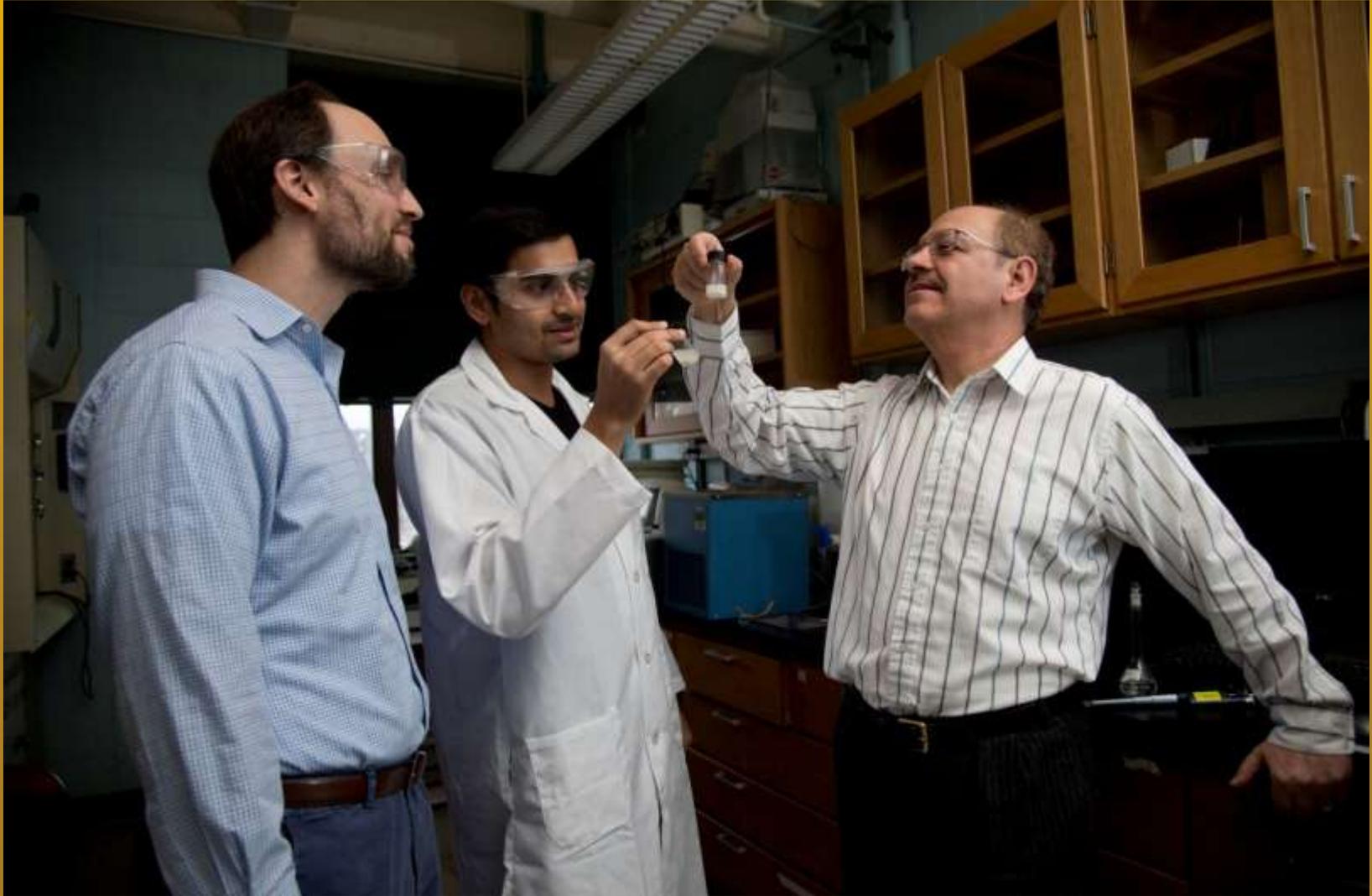
Fundamentals Lab



Fundamentals Lab



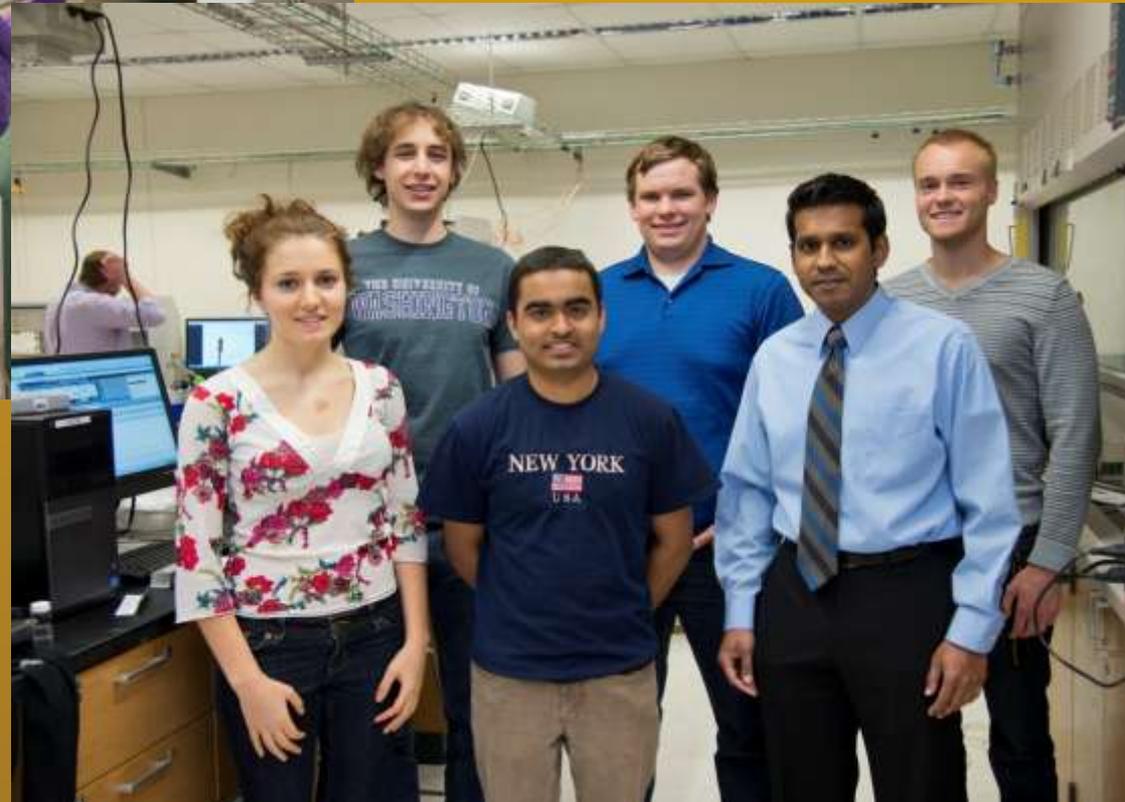
Research Focus Corti and Franses



Research Focus Boudouris



Research Focus Gounder

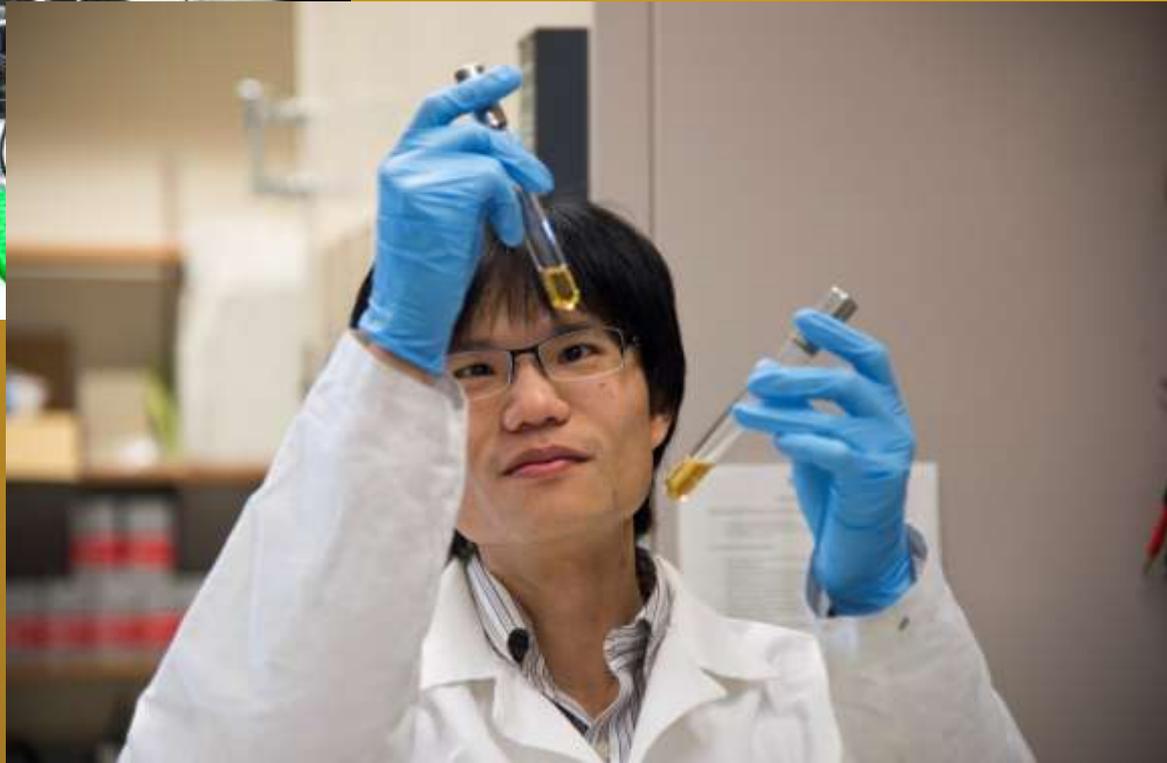


Research Focus – Ramkrishna



Research Focus

Liu



Research Focus Pol



Research Focus Morgan



Research Focus Agrawal



Thank you!

