

# CONNECTION

SUMMER 2014

## Greetings from the Department Head

### The department moves forward

Dear Alumni and Friends of the Virginia Tech Department of Chemical Engineering:

Greetings from Blacksburg. I hope this latest edition of the *ChE Connection* finds you well and happy. The past 12 months have been another busy and productive year for the department, with a number of important changes that impact our students, staff, and faculty. The most obvious change is our location. As I write this note, I sit in a new office in Goodwin Hall, formerly known as the Signature Engineering Building. The department completed its move from Randolph Hall just before the July 4th holiday, and we have been enjoying the new surroundings. The move was a major undertaking, uprooting all of our research activities and offices from Randolph. We are still in "recovery" mode – setting up our laboratories, arranging our offices, and getting used to our new surroundings. The only facilities that did not move are the ChE shop

which remains in the basement of Randolph, the U.O. Lab in Hancock Hall, and the offices and research space of our ChE biomedical faculty in nearby Kelly Hall.

Chemical engineering continues to be a popular major. Our graduating class in spring 2014 numbered 96. We continue to have one of the highest student/teacher ratios in the College of Engineering. An enrollment management plan was instituted in the past year by the college, and meant to limit the undergraduate population in a given major based on the number of full time faculty in the department. The plan is not an absolute cap, as it allows that all students with a 3.0 GPA or better to enter the major of their choice, regardless of numbers. We exceeded our target enrollment by nearly 40 percent because of demand for our major from outstanding students in the college. The faculty and staff have worked hard to maintain the quality of our undergraduate program in the face of



DAVID COX

such high enrollments. We were rewarded in the fall of 2013 by a *U.S. News & World Report* ranking of #20 for our undergraduate program. The enrollment demand has provided us with a number of faculty openings, and we anticipate adding two new faculty for the Fall 2014 semester.

On a sad note, we lost one faculty member this past year. Dr. Eva Marand passed

away after an extended bout with cancer. She is sorely missed.

Our continuing success as a department owes a tremendous debt of gratitude to our alumni who provide unrestricted financial donations to the department that we use to support our educational mission. With decreasing state support, your contributions are important in helping us maintain our quality of our programs through direct support of our teaching mission, student travel and recruitment, outreach, and a host of other uses. Thank you for your help!

We love to hear from our alumni, so please stay in touch. If you are in the area, I encourage you to stop by for a visit and see our new building. Even if you are unable to make it back to campus we would still very much like to hear from you. Please take a moment to complete the Alumni Information Form near the back of this newsletter, or the online form you can find through the "ChE Alumni" link on the right hand side of our departmental website (<http://www.che.vt.edu/>).

Best wishes,

David Cox  
Professor and Head

### ChE undergraduate program ranked #20 by *U.S. News & World Report*

In the annual college rankings released by the *U.S. News & World Report* in September 2013, the chemical engineering undergraduate program at Virginia Tech was listed

as 20th in the nation for 2014. This recognition for our undergraduate program is a tribute to the quality of our alumni, and their representation of the ChE department and Virginia Tech.

## DEPARTMENT NEWS

# ChE makes the move!

Over a period of three weeks from mid June to early July, the Chemical Engineering Department moved from Randolph Hall to the new Goodwin Hall. All the research labs, graduate students, office staff and faculty housed in Randolph Hall made the move. The ChE shop did not move, and is still in the basement of Randolph Hall, and the UO Lab remains in Hancock Hall.

*The new address for the department is:*  
**Department of Chemical Engineering**  
**Virginia Tech**  
**Suite 245 Goodwin Hall**  
**635 Prices Fork Road**  
**Blacksburg, Virginia 24061**



*Goodwin Hall, formerly known as the Signature Engineering Building – the new home of the Virginia Tech Chemical Engineering Department.*

## ChEGSA graduate student symposium

The Chemical Engineering Graduate Student Association (ChEGSA) hosted another successful Graduate Student Symposium on April 28, 2014. The one-day event featured 12

contributed oral presentations by our graduate students covering all aspects of graduate research in the department, a poster session, and reception in the evening, followed by a banquet.

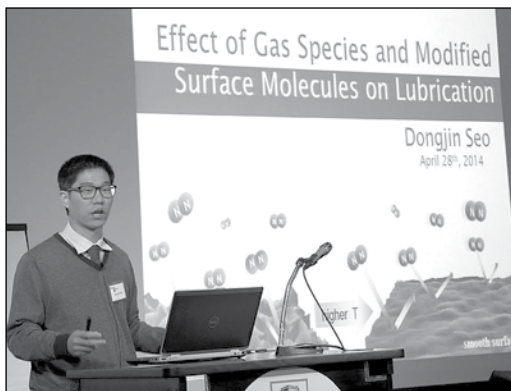
The program chair for the symposium was graduate student Margaret Cassin, assisted by co-chair Milad Radiom.

Highlighting the program was the plenary address given by Dr. Jacob Israelachvili, professor of chemical engineering at the University of California Santa Barbara, a member of both the U.S. National Academy of Science and the National Academy of Engineering.

## ABET accreditors visit ChE, COE

The engineering accrediting agency, ABET, visited October 13-15 to review all the undergraduate programs in the College of Engineering. The review went very well for chemical engineering and for the college as a whole. While no official results have been released, based on the exit report of the review committee we anticipate receiving a notice of full six-year accreditation sometime in the Fall of 2014.

The department thanks Michael Kender and Bill Doumas, members of our external advisory board, for their participation in the process.



*Graduate student D.J. Seo presents his work on the control of gas flow by surface modification.*



ISRAELACHVILI



FULLER

## Fuller gives Doumas Distinguished Lecture

The 2014 Bill and Ann Doumas / Dow Chemical Distinguished Lecture was presented by Prof. Gerald G. Fuller, the Fletcher Jones II Professor of Chemical Engineering at Stanford University. The lecture entitled "Interfacial Rheology of Biological Interfaces" was delivered on March 21, 2014.

## Where are the class composites from Randolph Hall?

Over the years it has been a common site to see visitors in the hallways of Randolph looking at the composite photos of our graduating classes. With the move to the new Goodwin Hall, there is insufficient wall space in a ChE common area to display all of the class pictures. To preserve this aspect of the Virginia Tech life, we have had a professional photographer digitize the composites, and our plan is to post them electronically on an interactive flat screen so visitors can call up their graduating class of choice. We hope to have this project completed soon.

## FACULTY AND STAFF NEWS

### ChE welcomes new undergraduate advisor and lecturer

Dr. Michael J. Bortner joined the department in the fall of 2013 as the new ChE Undergraduate Academic Advisor and Lecturer. Bortner earned his B.S. degree at Penn State, and his M.E. and Ph.D. degrees at Virginia Tech, all in chemical engineering. Prior to coming back to



BORTNER

Virginia Tech, Bortner worked for 10 years in process and product development as Vice President of Manufacturing Process Development at NanoSonic, Inc., and as a Senior Process Engineer at Nuvotronics, LLC. He also serves as an adjunct professor in Virginia Tech's Department of Materials Science and Engineering.

### Achenie Elected AIChE Fellow

Professor Luke Achenie has been elected a Fellow of the American Institute of Chemical Engineers (AIChE). Fellows are elite members of the AIChE who have been practicing chemical engineering for 25 years or more with demon-



ACHENIE

strated long-term excellence. Fellow status in the AIChE is a recognition of professional attainment, and significant accomplishment in engineering.

Professor Achenie, a member of the AIChE since 1991, has served the institute in a number of capacities, most recently as a member of the AIChE Foundation Board of Trustees.

After receiving his Ph.D. in chemical

See Achenie, page 4

### ChE staff members receive Dean's Awards

Diane Cannaday and Kevin Holshouser of Virginia Tech's Department of Chemical Engineering received the College of Engineering Dean's Award for Administrative Staff (Cannaday) and Technical Staff (Holshouser). This was the first-ever sweep by members of a single department to win both dean's staff awards. Congratulations to Diane and Kevin for these well-deserved honors!

At right: Diane Cannaday (right) and Kevin Holshouser (left) receive dean's staff awards for 2014.



### In memoriam: Prof. Eva Marand – educator, researcher, scholar, colleague

Dr. Eva Marand, professor of chemical engineering at Virginia Tech, passed away at her home on June 22, 2014 surrounded by her family following a protracted illness. She was 55.

Eva was born in Prague, Czechoslovakia, and came to the U.S. with her family in 1969. Valedictorian of her high school class, Eva graduated with honors from the University of Illinois then went on to complete her Ph.D. in polymer science and engineering at the University of Massachusetts, Amherst. She worked at the



MARAND

Dow Chemical Company in Midland, MI, for two years before coming to Virginia Tech as a postdoctoral fellow. In 1992 she was hired as an assistant professor of chemical engineering, was tenured and promoted to associate professor in 1999, and promoted to professor in 2008.

Dr. Marand's research interests focused on the development and study of polymeric and hybrid organic-inorganic membranes, particularly in understanding the role of molecular structure, morphology and molecular interactions on gas selectivity and permeability. She holds five patents, published approximately 70 scientific papers, and edited two books.

Eva is survived by her husband Hervé Marand, and three children Alena, Alex and Anika.

## FACULTY AND STAFF NEWS

### Rajagopalan wins Dean's Award for Research Excellence



Professor Padma Rajagopalan received the Dean's Award for Research

Excellence for 2014 during the annual College of Engineering reception and awards ceremony in May. Rajagopalan was recognized for her outstanding work in tissue engineering.

### Two recognized as "Favorite Faculty"

Each year, students living on campus are allowed to recognize faculty "who have positively impacted their learning experiences at Virginia Tech."

Housing and Residence Life, a department within the Division of Student Affairs, recognizes these outstanding faculty members annually through the "Favorite Faculty" Program.

This year's recipients include two members of the Chemical Engineering Department: Dr. Michael Bortner and Dr. Preston Durrill. Congratulations Mike and Preston!



*Drs. Durrill (left) and Bortner (right) receive recognition from students as Favorite Faculty.*

### Achenie

*Continued from page 3*  
engineering from Carnegie Mellon University in 1988, Achenie worked as an engineer with Shell Development Company before joining the chemical engineering faculty of the University of Connecticut in 1991. He moved to Virginia Tech in 2007. He has published over 120 technical articles and two books. Achenie is a pioneer in flexibility analysis in process and product design. He has developed new formulations taking into account the accuracy of uncertain parameters in physical models. In addition, his expertise in molecular modeling has been applied to computer-aided molecular design of solvents, and molecular dynamics studies of organic/inorganic membranes for separation of gas mixtures.

### NIH awards Chang Lu grants for research in epigenetics

Dr. Chang Lu was awarded two new research grants this year from the National Institute of Biomedical Imaging and Bioengineering (NIBIB) of the National Institutes of Health. Both projects are related to the application of the ultrasensitive microfluidic molecular assays developed in Lu's lab to study biomedical processes.

In a \$1.3 million, four-year R01 grant with Lu as the principle investigator, he will work with Dr. Liwu Li of



LU

biological sciences at Virginia Tech, and Dr. Kai Tan of the University of Iowa Carver College of Medicine to examine temporal dynamics in epigenetic and transcriptional regulations during atherosclerosis development using single live

mice.

In a \$422,000, two-year R21 project, Tan and Lu, serving as multiple principal investigators, will profile the epigenomes involved in stem cell differentiation.

### Oyama tapped by American Chemical Society



OYAMA

Professor S. Ted Oyama received the 2014 Distinguished Researcher Award from the Division of Energy

and Fuels of the American Chemical Society.

The award was for his work in the area of inorganic membranes and heterogeneous catalysis and, in particular, in the hydrodesulfurization and hydrodenitrogenation of petroleum and coal-derived feedstocks.

The VIRGINIA TECH DEPARTMENT of CHEMICAL ENGINEERING  
**CONNECTION**

Kiran organizes international workshop on supercritical fluids and energy



**Erdogan Kiran, front row center, stands with workshop participants in Brazil.**

With funding from the National Science Foundation, Dr. Erdogan Kiran, professor and former department head, organized an international workshop on supercritical fluids and energy.

The workshop was held in Campi-

nas, Brazil during December 8-11, 2013, and brought together more than 100 researchers from 20 countries.

Kiran is an internationally recognized leader in the field of supercritical fluids with contributions spanning the

past three decades.

He is the founder and the editor-in-chief of the *Journal of Supercritical Fluids*, which celebrated its 25th year in publication during the workshop.

# STUDENT NEWS



Joseph L. Accolla, Arjana D. Adami, Pralgnash Agrawal, Taran Aggarwal, Sulten J. Al-Rammah, Michael J. An, Benjamin R. Argo, Daniel J. Aube, Victoria R. Baggstrom, Michael B. Bestwick, Chris A. Breckman, Donovan C. Bu-Hugnh, Julian A. Carlucci, A. Taylor Carter, Abigail M. Casey, Brandon C. Casey



Wenzu Chen, Brian T. Chee, Jacob T. Cinciripini

## Chemical Engineering



Nicholas D. Conte, Meredith G. Cook, Carly M. Davis



Kelsey N. Donaldson, Jacob E. Dubin, Albert A. Fralinger IV, Alex J. Frantz



Justin M. Frey, Elliot R. George, Matthew J. Gianneli, Kaitlin R. Glee



Cole J. Golf, Sarah J. Green, Michael T. Halstead, Yousef M. Hanif

## Class of 2014

Sevens Photography, Inc. Christiansburg, VA



Ryan J. Iachini, Seth D. Jergenson, Mitchell P. Jew, Akhil Jindal



D. Scott Jones, Jeremy-Eduard T. Jorge, Michael J. Kim, Jeremy B. Laubach, Jennifer N. Maddrey, Kris W. Mumino, Matthew J. Murgousaki, Christine A. Meigs, Nathaniel J. Mozar, Matthew D. Mengel, Mehanie M. Merrick, Taylor G. Miller, Mohamed S. Mohamedali, Travis W. Murphy, Andrew S. Nadler, Thanh H. Nguyen



Grady F. Farber, Joclyn L. Paulik, David J. De Pena, J. Luke Pilcher, Austin D. Pote, J. Tyler Prillaman, Robert T. Redman, Michael T. Reifer, Allison M. Reiter, Andrew J. Riley, Joey A. Roberts, Manica G. Romine, Rebecca B. Rose, Grant C. Sandin, Joshua D. Savage, Matthew G. Schoch



Lin Shao, Logan E. Shinholser, Ian M. Smith, Matt J. Smoots, Jeremy M. Spruill, Amogh Srihari, Charles M. Sturman, Christopher W. Tempelman, Edwin Torres, Felix Tran, Christopher A. Tryfonos, Amy N. Wong, Jeff Wanner, Michael R. Whitacre, David O. Zamor

## STUDENT NEWS

### Chem-E Car team wins regional competition

Virginia Tech's Chem-E-Car team earned first place in the 2014 American Institute of Chemical Engineering student event held at the University of Virginia on March 29. The competition tests the ability of the undergraduate team to design, build, and control a vehicle that is both powered and stopped by a chemical reaction. Seventeen teams representing 15 other prestigious universities competed. This is the second year in a row that the Hokies have placed in the competition as the team finished second in 2013. The team will head to the national competition in Atlanta in November 2014.

Virginia Tech's team consisted of two seniors: team leader Meredith Cook of Fort Worth, Texas and Amy Wang of Chantilly, Virginia, two juniors: Coogan Thompson of Grundy, Virginia, and Jessica Kersey of Gloucester, Virginia, one sophomore: Yining Hao of Chengdu, China and one freshman: Bobby Hollingsworth of Springfield, Virginia. All are chemical engineering majors. Their faculty advisor is **Peter B. Rim**, the Joseph H. Collie Distinguished Visiting Profes-

sor of Chemical Engineering.

The team is grateful for the alumni support of Steve Cope of Exxon-Mobil,

who graciously provided funding for the project, and Joe Collie, who funded the Collie Professorship.



*The ChemE Car team members, from left to right, are: Coogan Thompson, Meredith Cook, Yining Hao, Amy Wang, Jessica Kersey, and Bobby Hollingsworth.*

### Mays receives 2014 Howe Award



Christine (Christy) Mays was selected as the 2014 James Lewis Howe Award recipient for the Department of Chemical Engineering. This award from the Blue Ridge chapter of the American Chemical Society recognizes the outstanding achievements of graduating seniors in the chemical sciences. In addition to receiving top marks in her courses at Virginia Tech, Mays has also been actively involved in community activities and service, including New Life Christian Fellowship Church, the Marching Virginians, and the Virginia Tech student chapter of  $\Omega X \Sigma$ , where she serves as vice president.

Mays joins a long line of Virginia Tech chemical engineers, going back three generations. Originally from Allentown, Pennsylvania, Mays has undertaken internships with Intel in Chandler, Arizona, ExxonMobil in Fairfax, Virginia, Eastman Chemical in Kingsport, Tennessee, and GE Aviation in Cincinnati, Ohio. After graduation, she plans to work as a process engineer with Intel.

### Othmer Award goes to Thompson



Coogan Thompson, a junior chemical engineering student from Grundy, Virginia, is the recipient of the 2012-2013 Donald F. Othmer Sophomore Academic Excellence Award, presented by the American Institute of Chemical Engineers. The Othmer Award recognizes the sophomore who has maintained the highest scholastic standing of any member of the AIChE student chapter. Thompson has served as a teaching assistant for general chemistry courses at Virginia Tech, a Hokie Camp Counselor, and a substitute teacher in the Buchanan County school system. The award consists of a certificate and a complimentary copy of Perry's Chemical Engineers' Handbook.

## STUDENT NEWS



LOUFAKIS

### Loufakis awarded Gerondelis Foundation scholarship

Graduate student Despina Nelie Loufakis was awarded a scholarship by the Gerondelis Foundation for her academic performance and research activities. The scholarship carries a cash prize of \$5000. Loufakis is a fourth year graduate student working with Dr. Chang Lu on the development of microfluidic devices for cellular analysis.

### B.S., M.S., and Ph.D. degrees awarded

The department awarded 96 B.S. degrees during the spring 2014 graduation. The department also awarded the following M.S. and Ph.D. degrees over the past year.

**Abtahi, Seyyed M. Hossein** (M.S.)

*Synthesis and Characterization of Metallic Nanoparticles with Photoactivated Surface Chemistries*

Advisor: Richey Davis

**Christie, Christopher** (Ph.D.)

*Calcium/Phosphate Regulation: A Control Engineering Approach*

Advisor: Luke Achenie

**Grandelli, Heather** (Ph.D.)

*Formation of Cyclodextrin-Drug Inclusion Compounds and Polymeric Drug Delivery Systems using Supercritical Carbon Dioxide*

Co-Advisors: Erdogan Kiran and Abby Whittington

**Hassanisaber, Hamid** (M.S.)

*Flow-Through Electroporation in Asymmetric Curving Microfluidic Channels*

Advisor: Chang Lu

**Iarikov, Dmitri** (Ph.D.)

*Molecular Thin Films and Their Role in Controlling Interface Properties*

Advisor: William Ducker

**James, Gregory** (Ph.D.)

*Investigation of Hydrodynamic and Depletion Interactions in Binary Colloidal Dispersions*

Advisor: John Walz

**Ji, Shunxi** (Ph.D.)

*Manipulating Colloidal Stability in Complex Fluids*

Advisor: John Walz

**Lerkkasemsan, Nuttapol** (Ph.D.)

*Modeling of Bioenergy Production*

Advisor: Luke Achenie

**Mastropietro, Dean** (Ph.D.)

*Interfacial Phenomena and Surface Forces of Hydrophobic*

Advisor: William Ducker

**Meyer, Kevin** (Ph.D.)

*Improved Prediction of Glass Fiber Orientation in Basic Injection Molding Geometries*

Advisor: Don Baird

**Radiom, Milad** (Ph.D.)

*Correlation Force Spectroscopy for Single Molecule Measurements*

Advisor: William Ducker

**Pavurala, Naresh** (Ph.D.)

*Oral Drug Delivery – Molecular Design and Transport Modeling*

Advisor: Luke Achenie

**Quigley, John** (Ph.D.)

*Advanced Thermoplastic Nanocomposite Processing Using a Supercritical Carbon Dioxide Aided Melt Blending Method*

Advisor: Don Baird

**Rabie, Feras** (Ph.D.)

*Synthesis, Characterization, Membrane Fabrication and Gas Transport Behaviors of Liquid Crystal Polymer Materials*

Co-Advisors: Steve Martin and Eva Marand

**Shin, Du Hyun** (Ph.D.)

*Host-Guest Assemblies for Functional Interfaces via Langmuir-Blodgett and Self-Assembly Technique*

Advisor: Steve Martin

**Yang, Quan** (Ph.D.)

*Molecular Dynamics Simulation of Penetrant Transport in Composite Poly(4-methyl-2-pentyne) and Nanoparticles of Different Types*

Advisor: Luke Achenie

# STUDENT NEWS



From left to right, are: Terry Papillon, director of Virginia Tech's University Honors Program, Christy Mays, Veronica Kimmerly, and Michael Bortner, ChE undergraduate advisor.

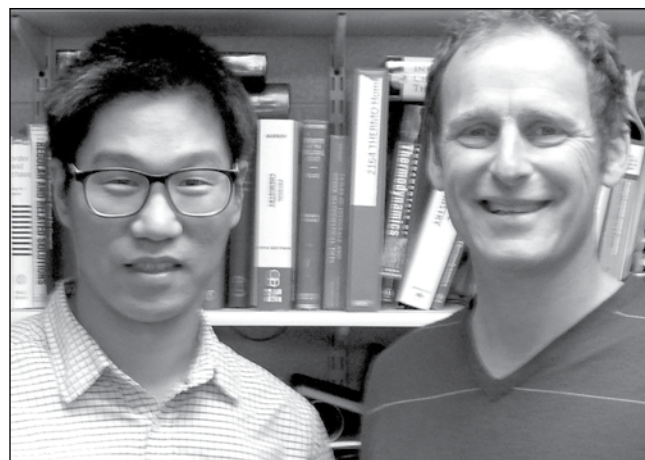
## Mays and Kimmerly receive scholarships from Honors Program

Two chemical engineering seniors, Christine Mays and Veronica Kimmerly, were awarded University Honors Academic Merit Scholarships.

This scholarship program provides funding to rising sophomore, junior, and senior honors students from any Virginia Tech department who have distinguished themselves by going above and beyond the traditional high academic standards of the Honors Program. Congratulations Christy and Veronica!

## Work of Seo and Ducker highlighted in PRL

Graduate student D.J. Seo and Professor William Ducker's recent paper in Physical Review Letters (PRL) entitled "*In Situ* Control of Gas Flow by Modification of Gas-Solid Interactions" was chosen as an editor's suggested reading and highlighted on the PRL website as a "focus article" spotlighting exceptional research.



From left to right, are: D.J. Seo and William Ducker.

Virginia Tech  
 Chemical Engineering Department  
**CONNECTION**

David Cox..... Department Head  
 Jane Price..... Coordinator  
 David Simpkins..... Designer

The Virginia Tech Department of Chemical Engineering *Connection* is a publication for the alumni of the Chemical Engineering Department published by the Chemical Engineering Department, Virginia Tech, Blacksburg VA 24061.

*Virginia Tech does not discriminate against employees, students, or applicants on the basis of race, color, sex, sexual orientation, disability, age, veteran status, national origin, religion, or political affiliation. Anyone having questions concerning discrimination should contact the Office for Equity and Inclusion.*



## CLASS NOTES

The information below was taken from the mail-in response cards that the department received during the past year, or through the on-line alumni feedback form. The on-line form can be accessed via the Alumni Feedback tab on the left-hand side of the department's home page ([www.che.vt.edu](http://www.che.vt.edu)). Our goal is to continue to publish all such information that we receive so that our alums can stay connected both to the department and to each other.

**1938**

**Watson Warriner, Sr. (B.S.)**

Watson joined DuPont in 1939 and worked in the Design and Construction Divisions until mid 1955. In recent years, Watson has worked with the Atomic Heritage Foundation to chronicle his work on the Manhattan Project. His contributions to the Foundation can be accessed at the Atomic Heritage

Foundation website (<http://www.atomicheritage.org/>). His bio is available at <http://www.atomicheritage.org/profile/watson-warriner-sr>, his interview can be seen on YouTube at <http://www.manhattanprojectvoices.org/oral-histories/watson-c-warriner-srs-interview>. A pamphlet he helped produce entitled "Train to the Manhattan Project" is available as a pdf file at [http://www.atomicheritage.org/sites/default/files/](http://www.atomicheritage.org/sites/default/files/resources/Train%20handout%20Final%20for%20Web.pdf)

[resources/Train%20handout%20Final%20for%20Web.pdf](http://www.atomicheritage.org/sites/default/files/resources/Train%20handout%20Final%20for%20Web.pdf).

**1948**

**Charles W. Davies (B.S.)**

Charles served in the Army (WWII), 260th Engr Combat Battalion; European Theatre Battle of the Bulge; awarded Bronze Star for his service. He retired from Stickley Textiles as vice president of sales. He can be reached at 8919

Park Rd., Apt. 5001, Charlotte, NC 28210.

**1950**

**Michael Mauzy (B.S.)**

Other degree(s): M.S. in ChE, University of Tennessee, 1951.

Michael started his career with Monsanto Co. in 1951, and worked there 20 years. From 1972 to 1981 he worked for the Illinois EPA, serv-

See Class Notes, page 10

## ALUMNI NEWS

### Baduini inducted into academy of excellence

In a ceremony held at the Inn at Virginia Tech on April 24, 2014, Paul J. Baduini (B.S. 1972), vice president and director of engineering (retired) with Rohm and Haas Company, was inducted into the College of Engineering's

Academy of Engineering Excellence.

Baduini, a friend and alum of the department, served for five years on the ChE external Advisory Board. Congratulations to Paul on a well-deserved honor.



BADUINI

### Online Alumni Information System

The department welcomes updates from our alumni about your lives and careers. The easiest way to send us updates is to use our online alumni update system, which can be accessed via the department's home page, [www.che.vt.edu](http://www.che.vt.edu), and clicking on "ChE Alumni" link on the right side of the page. On this form, you can specifically state what level of privacy we should use with your information. This information will be published in our Connection newsletter.

As always, if you are more comfortable with paper and pen, feel free to complete the form at the end of the newsletter and mail it back to us. Again, this form allows you to specify exactly how much of the information you want published.

### Giving to Chemical Engineering

One of the primary reasons for the department's continued success is the generous support of our alumni. Your contributions provide funds for the day-to-day operations of the department. The donations also support scholarships and travel for our undergraduate students, fellowships for our graduate students, and even support for activities such as our external seminar program

that brings outstanding researchers from other institutions here to Virginia Tech to interact with our faculty and students. Your continued support is vital to our goal of becoming one of the top chemical engineering programs in the country.

To make it as easy for you as possible to support our department, we have added a link on our home page ([www.che.vt.edu](http://www.che.vt.edu)) that will direct you to a form for making a gift

online. The link is entitled "Giving to ChE" and can be found on the upper right hand side of the page. The page describes the method for designating your gift for the Chemical Engineering Department using the "Enter your own" button.

If you type in Department of Chemical Engineering on the form, you can be assured that your support will come directly to us and that it will be used wisely.

# CLASS NOTES

Continued from page 9

ing as director from 1977 to 1981. From 1981 to 1998, he served as vice president of Roy F. Weston, Inc. in Westchester, Pa., before retiring.

## **Raymond (Rocky) Rhodes (B.S.)**

*Other degree(s):* M.S. in Statistics, Virginia Tech, 1951

Rocky graduated from the U.S. Merchant Marine Academy prior to attending Virginia Tech. He sailed as second mate on a liberty ship for 18 months serving in the Pacific.

Upon receiving his M.S. statistics degree, he was hired by Alexander Giacco (alumni of ChE, Virginia Tech 1942) at Hercules Powder Company, Radford, Va. He progressed to assistant technical director. He transferred to Bacchus, Ut., and became quality assurance manager. Products from this facility included the second-stage Polaris and the third-stage Minuteman missiles.

After 20 years with Hercules, he worked as a quality assurance specialist for the Environmental Protection Agency at Research Triangle Park, N.C. Much of his work there involved the quality aspects of environmental measurements, technical presentations, and publication. He retired from there in 1990.

Rocky was active with the Chemical Division of the American Society for Quality, serving in various positions.

Hobbies include photography, genealogy, and postage stamps. He recently completed a book on "The 1867 and 1881 Diaries of Frederick Anthony Rhodes," his great-grandfather.

## **1958**

## **W. Robert Epperly (B.S. 1956, M.S. 1958)**

Bob is currently a consultant and coach. In 2013 his book, "Growing Up After Fifty: From Exxon Executive to Spiritual Seeker," was published by Human Sun Media. More information can be found at [www.bobeperry.com](http://www.bobeperry.com) or at [LinkedIn](https://www.linkedin.com).

## **1959**

## **Elsie Harper Clark (B.S.)**

*Other degree(s):* Data Process-

ing, Nashville State Technical Institute.

Elsie worked with the Allied Chemical Co. as a patent chemist and worked with Genesco, Inc. in data processing. She retired from Regions Bank, IBM, and Caterpillar Financial as a data processing project manager.

Upon graduation in 1959 she was inducted into Phi Kappa Phi. In 1970 (the year they began admitting women) she was admitted to Tau Beta Pi at a ceremony held at Vanderbilt University.

Elsie sings in her church choir and has made several international trips with the choir.

She currently resides in Nashville, Tenn., and her family includes a son Charles (Chip) who graduated in architecture from Virginia Tech, and grandchildren Rachel, Benjamin, and Joshua.

## **1969**

## **William "Buford" Lewis (B.S. 1968, M.S. 1969)**

Buford retired from ExxonMobil in April 2009 after a 37+ year career. He is now engaged with other partners in mentoring and championing start-up ventures including an innovative entrepreneurship initiative with Virginia Tech. The business name is CKL2 Strategic Partners LLC. Buford can be reached at [buford.lewis@verizon.net](mailto:buford.lewis@verizon.net). He resides in Alexandria, Virginia.

## **1972**

## **Robert W. Dellinger (B.S. 1970, M.S. 1972)**

Robert is retired (2011) from the U.S. Environmental Protection Agency. Details of his work included effluent development guidelines for sugar, paper, leather, treated lumber, and several other industries. He worked for the Office of Solid Waste (EPA) to develop safety guidelines for solid waste landfills, coal combustion residuals, and oil and gas extraction residuals.

Robert resides in Vienna, Va., and can be reached at [robertdellinger16@yahoo.com](mailto:robertdellinger16@yahoo.com).

## **Van H. White (BS)**

*Other degree(s):* M.B.A., Virginia Tech

Van's career has included positions as a process engineer, research engineer, financial analyst, environmental manager, and most recently with NOVA Chemicals. The Chesapeake, Va., plant closed and he took early retirement in 2006 and has since started a freelance photography business ([www.VansPhotos.com](http://www.VansPhotos.com)). He enjoys music (singing with the Acclaim Barbershop Quartet), studying stock trading, and dietary nutrition. He is active in his church and has three children and two grandchildren. Van can be reached at [van@vansphotos.com](mailto:van@vansphotos.com).

## **1975**

## **Dennis Dickison (B.S.)**

Dennis is retired and resides in Union Hall, Va. He can be reached at [dmdickison75@gmail.com](mailto:dmdickison75@gmail.com).

## **1977**

## **Douglas Bradley (B.S.)**

Douglas reports his position is principal oracle DBA with ISO New England. He resides in Holyoke, Mass., and can be reached at [douglasbradley@fas.harvard.edu](mailto:douglasbradley@fas.harvard.edu).

## **1982**

## **Karol Akers (BS)**

*Other degree(s):* M.S. Administration, CMU

Karol currently works with the Richmond District/Hazmat Manager for VDOT. Past employment has been with several companies including Corning, Reynolds Metals, Espey Huston Consulting, Virginia Department of Health, and other places. She has a son and a daughter.

## **1983**

## **Mike Kender (BS)**

*Other degree(s):* M.B.A., UVa, 1987

After working for 21 years in finance in New York (mostly with Citigroup and Smith Barney), Mike changed careers and has been teaching Finance courses at Virginia Tech since 2009. He's a faculty advisor for a student investment group that manages \$5 million of Virginia Tech's money. He leads a China study abroad program each summer for Virginia Tech's College

of Business. He is also the chair of the ChE Advisory Board.

## **1985**

## **Mark Klopp (B.S.)**

*Other degree(s):* M.B.A., Roosevelt University, 1989

Mark is the managing director of Coronis Medical Ventures.

## **2001**

## **Rakesh Radhakrishnan (Ph.D.)**

*Other degree(s):* M.B.A., Carnegie Mellon University

Rakesh is a senior planning and program analyst at Power Systems Saudi Aramco. Before Aramco, he worked in corporate R&D at United Technologies (seven years), and spent five years as a technology/business consultant for the energy industry. His current duties include assisting with investment analysis, planning and deployment of several energy projects in the Kingdom of Saudi Arabia. Rakesh can be reached at [rageshan@yahoo.com](mailto:rageshan@yahoo.com).

## **2008**

## **Kate (Lafin) Malachowski (B.S.)**

*Other degree(s):* Ph.D., Johns Hopkins University

Kate successfully defended her Ph.D. thesis, "Stimuli-Responsive Microtools for Biomedical and Defense Applications," December 2013. The research was done in the Department of Chemical and Biomolecular Engineering at Johns Hopkins. She began a job in February 2014 as a MEMS scientist at Northrop Grumman.

## **2010**

## **Erica Neverman (B.S.)**

Erica can be reached at [ericaneverman@gmail.com](mailto:ericaneverman@gmail.com).

## **2012**

## **Anthony (Tony) Himes (B.S.)**

Tony is a process control engineer at International Paper. He can be reached at [virginiatechhokietmh11@gmail.com](mailto:virginiatechhokietmh11@gmail.com).

## **2013**

## **Kevin Walke (B.S.)**

Kevin is an operations group manager with Anheuser-Busch. He can be reached at [krwalke@gmail.com](mailto:krwalke@gmail.com).

The VIRGINIA TECH DEPARTMENT of CHEMICAL ENGINEERING  
**CONNECTION**

# DONORS TO THE DEPARTMENT

The department gratefully acknowledges the following individuals, corporations, foundations and trusts for their support during 2013-14.

## INDIVIDUALS

Ms. Sara A. Al-Saihati  
Ms. Lauren K. Angleton  
Ms. Allison A. Athey  
Mr. Paul J. Baduini and Mrs. Lisa A. Baduini  
Mr. James R. Ballengee and Mrs. Betty May Ballengee  
Dr. Michael D. Barrera and Mrs. Denise Barrera  
Mr. Douglas K. Baugher and Mrs. Lynda M. Baugher  
Mrs. Kelly E. Belz and Dr. Steven M. Belz  
Dr. G.G. Bengel and Mrs. Suzanne S. Bengel  
Mr. Mark A. Bergquist  
Ms. Shannan A. Billings  
Mr. Gary H. Bishop and Mrs. Carolyn B. Bishop  
Mr. Matthew S. Bolen and Mrs. Shana M. Bolen  
Mrs. Nancy C. Booth (C)  
Dr. James R. Bragg and Mrs. Margaret G. Bragg  
Dr. Heidi E. Burch  
Mr. Wayne A. Burke and Ms. Linda C. Burke  
Mr. Paul D. Butler  
Mr. Robert T. Combs  
Mr. Christopher L. Conger  
Mr. Timothy J. Conway  
Mr. Steven R. Cope (and Mrs. Jeanne H. Cope) (L)  
Mr. Nathan H. Cornwell  
Mr. James R. Costello and Ms. Claire D. Costello  
Mr. Quintin W. Costin  
Mrs. Maria R. Cox (U)  
Ms. Deborah B. Crain  
Dr. Robert H. Crewdson  
Dr. Jane K. Cullum  
Mr. Eddie G. Dalton, Jr. and Mrs. DeVonna D. Dalton  
Dr. Richey M. Davis  
Mr. Dennis M. Dickison and Mrs. Nancy C. Dickison (C)(L)  
Dr. Basil C. Doumas and Mrs. Ann S. Doumas  
Mr. David D. Dunlap and Mrs. MaryAnne Dunlap  
Mr. Kenneth H. Dyke and Mrs. Patricia M. Dyke  
Mr. Gene A. Echols  
Mr. Ernest M. Fawcett  
Dr. George N. Foster and Mrs. Joyce A. Foster, RN  
Dr. James H. Gary (C)  
Mr. Gerald W. Gasser  
Estate of Alexander F. Giacco\* (U)(L)  
Ms. Angela M. Goodman and Mr. Scott Goodman  
Mrs. Sara D. Gregory and Mr. Michael W. Gregory, Esq.  
Mr. Whitford D. Grimes and Mrs. Edith B. Grimes  
Mr. Donald A. Grindstaff  
Mrs. Yvette V. Hake  
Ms. Jean E. Hall

Dr. Thomas R. Hanley and Mrs. Norma D. Hanley  
Dr. Douglas E. Hirt and Mrs. Charlotte A. Hirt  
Mr. Evan G. Hollins  
Mr. David A. Huffman and Mrs. Cathy A. Huffman  
Mr. Charles A. Hurst II and Mrs. Christine S. Hurst  
Mr. Douglas M. Ilioff  
Dr. J.B. Jones (U)  
Mr. Daniel A. Kauff  
Dr. George E. Keller II and Mrs. Judith B. Keller  
Mr. Edward P. Kinney Jr.  
Mrs. Heather M. Klesat and Mr. Glen N. Klesat  
Mr. Mark V. Klopp and Mrs. Megan M. Klopp  
Mr. Eric D. Kuchinski and Mrs. Sara J. Kuchinski  
Mr. Roger C. Lane and Ms. Tina S. Lane  
Mr. Fred P. Lingamfelter and Mrs. Elizabeth A. Lingamfelter  
Mr. David R. Lohr and Mrs. Diane L. Lohr (U)(L)  
Dr. Robert C. Luckner and Mrs. Catherine E. Luckner (U)  
Mr. Paul F. Lumbye and Mrs. Sara H. Lumbye  
ADM Thomas S. Maddock and Ms. Caroline S. Maddock (C)(L)  
Mrs. Leslie A. Maloney and Dr. Stephen D. Maloney  
Dr. James E. Maneval and Ms. Dawn A. Maneval  
Mr. Thomas F. Mason III and Mrs. Dorothy C. Mason  
Mr. Robert F. May  
Mr. Douglas M. Maynor and Mrs. Constance Mayno)  
Dr. Christopher C. McDowell and Mrs. Debbie K. McDowell  
Mr. Andrew G. Melick  
Mr. Mason R. Menard  
Mr. James A. Miller, Jr. and Mrs. Shelby J. Miller  
Dr. Gary N. Mock  
Mr. Daniel S. Monhollen  
Ms. Melissa D. Moreno  
Mr. Robert C. Morrison and Mrs. Beverly Morrison  
Mr. Kevin R. Norfleet

Mr. Thomas H. Nutbrown and Ms. Rebecca H. Nutbrown  
Ms. Kirsten M. O'Brien  
Mr. Logan M. Pensinger  
Mr. Thomas D. Pereira  
Mrs. Katherine D. Pettrey and Mr. Jason M. Pettrey  
Mr. Christopher M. Progen  
Mr. David W. Pultz  
Dr. Thomas E. Quantrille and Ms. Sharon Quantrille  
Mr. Cecil D. Quillen, Jr. and Mrs. Vacey C. Quillen (C)  
Mr. Charles H. Remsen and Mrs. Dace R. Remsen  
Ms. Bailee J. Roach  
Mr. Christopher A. Rock  
Mrs. Stephanie T. Romeo  
Mr. Bradford S. Ryffel and Ms. Neva L. Ryffel  
Mrs. Diane W. Seamans and Mr. Brian M. Seamans  
Mr. Thomas H. Shelton  
Dr. Starling E. Shumate II and Mrs. Peggy L. Shumate  
Mr. Thomas M. Snow and Mrs. Evelyn Snow  
Mr. Edward J. Sockell  
Mr. William L. Subjack, Sr. and Mrs. Joyce Subjack  
Mr. Allen R. Taylor and Dr. Ann S. Taylor  
Mr. Patrick H. Terry and Mrs. Mary S. Terry (U)  
Mr. Charles R. Thompson and Mrs. Rosemary Thompson  
Dr. Peter M. Train and Mrs. Leigh A. Train  
Mr. Russell H. Van Allen  
Mr. Kyle J. Vaughn and Ms. Mary D. Vaughn  
Dr. Lori L. Wagner and Mr. Steven S. Wagner (C)(L)  
Ms. Michelle L. Weaver  
Dr. Gary K. Whiting and Mrs. Kelly K. Whiting  
Mr. Mark C. Williams and Mrs. Diana F. Williams (C)  
Mr. Timothy A. Wolk and Mrs. Mary Jo P. Wolk

## CORPORATIONS, FOUNDATIONS, AND TRUSTS

- Aspen Technology
- Exxon Mobil Corporation
- Dow Chemical Foundation
- Ford Motor Company
- Eastman Chemical Company
- Marathon Petroleum Company
- Eastman Chemical Company Foundation

(U) denotes membership in Virginia Tech's Ut Prosim Society recognizing donors with a cumulative giving of \$100,000 or more;

(C) denotes membership in Virginia Tech's Caldwell Society recognizing donors with a cumulative giving of \$50,000 or more;

(L) denotes membership in Virginia Tech's Legacy Society recognizing donors with a deferred gift to the university.

Department of Chemical Engineering  
245 Goodwin Hall (MC 0211)  
635 Prices Fork Road  
Blacksburg, Virginia 24061  
www.che.vt.edu



Goodwin Hall, home of Chemical Engineering

NON-PROFIT ORG.  
U.S. POSTAGE  
**PAID**  
BLACKSBURG VA  
24060  
PERMIT #28

## WE'D LIKE TO HEAR FROM YOU!

The Chemical Engineering Department is always interested in hearing from its alumni. Please take a few minutes to complete the following:

Full Name: \_\_\_\_\_ Name while at Virginia Tech (if different) \_\_\_\_\_

Degree received at Virginia Tech / year: \_\_\_\_\_

Other degrees / Institutions: \_\_\_\_\_

Home Address: \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_ E-mail: \_\_\_\_\_

Business Name: \_\_\_\_\_

Current Position / Title: \_\_\_\_\_

Please feel free to provide any additional information (on separate piece of paper if needed) about yourself or your career: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

The Department of Chemical Engineering would like to keep our alumni updated about the careers and lives of other alumni, either via the web or the department newsletter. However, we also respect each person's right to privacy. Thus, please indicate below the level of confidentiality that you wish us to maintain with regard to your information:

- Feel free to make all information provide on this form public.
- Feel free to publish my name, year of graduation, and contact information only (the additional information about yourself or career will be kept confidential).
- Feel free to publish my name, year of graduation, and the additional information about myself (your contact information will be kept confidential).
- Do not publish any information about me.
- Other, please explain on a separate sheet of paper.

Please mail the completed form to:  
**Chemical Engineering Department**  
c/o Ms. Jane Price  
245 Goodwin Hall (MC 0211)  
635 Prices Fork Road  
Blacksburg, Virginia 24061  
or, by e-mail at: [jsprice@vt.edu](mailto:jsprice@vt.edu)