



Members of the class of 2014 posed for a group picture. Top row (left to right): Michael Luczko, Nathan Neely, Stephen Mayo, and Michael Fox. Second row: Tyler Jackson, Cody Smith, Joseph Svonavec, and Andrew Rowell. Third row: Jon Bobbera, Zachary Thompson, and Matthew Perrella. Fourth row: Mara Hissom, Julia Reichart, Weston Fortner, and John Barringer. Bottom row: Tyler Cook, Lauren McCann, Andrew Kearney.

# MINING ENGINEERING

## The 2013-14 Academic Year: A Snapshot of the Undergraduate Enrollment and the Graduating Class

BY CHRISTOPHER BISE

This tends to be the time of year when the academic community reflects on the past and plans for the future. This is particularly true for the WVU Department of Mining Engineering as we continue to maintain a steady growth in student enrollment as well as faculty positions. A few short weeks ago, we had 24 students walk across the stage at the WVU Coliseum to receive their bachelor's degrees in mining engineering. That's a significant number considering that eight years ago when I first came here, only two students received their degrees at commencement.

As I mentioned in the last edition of "Black Diamonds," we have added a new faculty position; however, it should also be mentioned that more than 60 percent of our faculty have joined our program during the past eight years. Further, we had 40 declared majors eight years ago; now, we have nearly three times that amount coming to us from a significant number of eastern states.

As we prepare for the fall 2015 ABET accreditation visit, this sustained growth has also made us look to the future to document how we have expanded an already quality program. Part of this self-evaluation includes a senior exit survey of our recent graduates. As I began to compile the thoughts of the class of 2014, I thought that our alumni and friends would also be interested in reviewing a snapshot of our graduates.

At the outset, we are on track to award 30 B.S. degrees in mining engineering to the class of 2014 (spring, summer, and fall). Of these 30 students, four are female, and only 12 came from West Virginia. Of the remaining 18 out-of-

state students, six came from Maryland; six came from Ohio; three come from Pennsylvania; and one each came from New York, New Jersey, and Virginia. These numbers reflect the success of our recruiting efforts, as well as our participation in the Academic Common Market.

The Department has received surveys from the 24 students who graduated in spring 2014. Of them, 15 either have a job accepted or are considering an offer, three are going to graduate school, and the remaining six are still interviewing for a job. It appears that the current state of the economy is affecting our record for placement by graduation day.

Of those individuals with a job offer, the salary range is between \$65,000-\$90,000 per year, with an average of \$76,500. Six will be in a production training program; three will go into engineering; while the remaining graduates will go into consulting, safety, sales, or environmental work.

Finally, with the mounting concerns about professional registration (P.E.) for engineers, I am pleased to report that all four students who took the P.E. exam while at WVU passed it. Eighteen intend to take the exam after graduation, and only two do not intend to pursue their professional engineering licenses. This percentage of graduates who see the value of pursuing their P.E. licenses has significantly grown in the past few years.

We are proud of the accomplishments of the class of 2014, and we look forward to continued successful performances by future graduating classes.

BLACK DIAMONDS

SUMMER 2014

BENJAMIN M. STATLER COLLEGE OF ENGINEERING AND MINERAL RESOURCES  
DEPARTMENT OF MINING ENGINEERING

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## NOBLE CALLED INTO ACTION AS A RESULT OF CHEMICAL SPILL

AARON NOBLE

Just under five months after starting at West Virginia University, I was abruptly introduced to an environmental disaster of local and national significance.



Noble

As many residents of Charleston, W.Va., know, on January 9, 2014, approximately 10,000 gallons of 4-methylcyclohexanemethanol (MCHM) leaked from a steel tank into the Elk River just upstream from a major drinking water treatment center. Approximately 300,000 residents of Charleston and the surrounding communities were ordered to not use the water until the dangers and health effects were better understood. MCHM is a surfactant used in the froth flotation process, which separates fine coal from rock.

I have devoted much of the past four years to researching various aspects of the process and has a growing expertise in ways to measure and predict flotation performance. I was out of the state on the day of the spill and actually heard about it from a national news reporter who needed to talk to a froth flotation expert. Over the next several days, I was contacted by other media outlets and asked to provide explanations of the froth flotation process and the role of MCHM.

While the spill impacted several communities, it also prompted additional questions about the froth flotation process and the potential environmental impacts, even under standard operating conditions. With these questions in mind, I collaborated with Paul Ziemkiewicz and others at the West Virginia Water Research Institute and proposed a short-term study that addresses the distribution of MCHM within preparation plants. I am now leading the team as they take plant samples and conduct various laboratory analyses. The results are still pending, and further investigations may be proposed if warranted by this preliminary study.

Very little prior work has been done on monitoring the distribution of flotation reagents within processing plants. I'm excited about this new research frontier and feel that my own expertise in measuring and predicting solid material flows in flotation circuits will translate well to chemical reagents. I'm aware of the importance of this work, sensitive to the various stakeholders, and I hope that the data will better equip coal companies, chemical companies, regulatory agencies, and the public while promoting improvements in both process performance and environmental stewardship.

## EXPERIMENTAL ROCK MECHANICS

BRIJES MISHRA



Mishra

My primary research expertise is in experimental rock mechanics and, to some extent, numerical modeling. I am currently advising three graduate students—Shrey Arora, Xu Tang, and Yuting Xue—and one industry sponsored graduate student, Dakota Faulkner.

Our projects encompass various aspects of ground control in coal mines, from fundamental studies to applied strata control. For instance, Shrey Arora is currently working on a Center for Disease Control (CDC)-National Institute for Occupational Safety and Health (NIOSH)-sponsored project investigating the failure mechanism of laminated shale using a customized biaxial and pseudo-true triaxial set up. He is further simulating this test in distinct element code for understanding the size effect that is difficult to perform in a laboratory environment.

Xu Tang is working on a state-sponsored project using the displacement discontinuity method and finite difference method to investigate the long-term stability of bleeder entries under various mining conditions. Yuting Xue joined me in fall 2013 to pursue a doctoral degree in rock mechanics. He is on a CDC-NIOSH-funded project working on a wide range of tasks, from performing shear tests on laminated shale to the use of voronoi blocks in three dimensional distinct element models. He is additionally simulating the failure in laminated roof using creep models.

Dakota Faulkner is investigating the use of impact-resistant steel sets for preventing roof falls in coal entries.

# GROUND CONTROL SAFETY

KEITH HEASLEY



My primary research effort at this time is a five-year, \$1.2 million dollar project from National Institute for Occupational Safety and Health that started in 2011 and is titled "Building Capacity and Enhancing Ground Control Safety through Improvement and Extension of the LaModel Program." This project focuses on producing qualified graduates at the master's and doctoral levels with ground control expertise through research work that improves and extends the LaModel program.

I originally developed the LaModel program in 1993. It is used to model the stresses and displacements on thin tabular deposits such as coal seams. It uses the displacement-discontinuity variation of the boundary-element method. Because of this formulation, it is able to analyze large areas of single- or multiple-seam coal mines. Over the last couple of decades, LaModel has been used by many mine engineers and researchers for single seam analysis, multiple-seam analysis, subsidence prediction, bump analysis, overall mine stability analysis, and improving pillar designs and mine safety.

This five-year project has already produced three doctoral graduates and is expected to produce another two Ph.D. graduates and two M.S. graduates in the next couple of years. Ihsan Berk Tulu graduated in August 2012 with a Ph.D. dissertation titled "A New Abutment Angle Concept for Underground Coal Mining," in which he used field measurements of abutment stress to produce an improved model of abutment loading under deeper cover. Morgan M. Sears graduated in December 2013 with a Ph.D. dissertation titled "Calibrating the LaModel Program for Shallow Cover Multiple-Seam Mines," where he combined the pillar safety factors, coal mine roof rating, and multiple-seam stresses to produce a measure of expected mining stability. Peng Zhang graduated in May 2014 with a Ph.D. dissertation titled "Implementing the Laminated Overburden Model into ARMPS (Analysis of Retreat Mining Pillar Stability)," where he developed a version of the ARMPS program which uses the laminated overburden model to simulate the pillar loading.

Present students and research topics include: Mehdi Rajaeabaygi working on implementing an improved solution method that uses an integrated kernel formulation; Kaifang Li implementing a local mine stiffness calculation into LaModel for analyzing bump potential; Chris Newman developing a multi-media, web-based training course and user's manual for LaModel; and Aanand Nandula working on integrating roof bolt design into the stability mapping and LaModel programs.

# COMMUNICATION LINKS IN CASE OF AN EMERGENCY

MARK SINDELAR

Drawn to mining after 20 years in the primary metals industry, my education consists of a bachelor of science in electrical engineering from the University of Akron, an MBA from John Carroll University, a master's and a Ph.D. in industrial engineering from the University of Pittsburgh, and a master's in mining engineering from West Virginia University. After spending some time working in a coal mine in Pennsylvania, I joined the faculty at WVU in 2011 as a research assistant professor while investigating, in collaboration with Christopher Bise, a cost-effective design to outfit a network of exploration boreholes with

# HIGHWALL MINING RESEARCH

YI LUO



Sponsored by the West Virginia Coal Energy Research Bureau, I have been conducting a two-year research titled "Highwall Mining: Design Methodology, Safety and Suitability." Highwall mining is a relatively new semi-underground and semi-surface mining method for extracting the remaining coal reserve after the economic threshold imposed by the stripping ratio for surface mining operations is reached. The steep terrain and closely spaced multiple thin coal seams in central Appalachia coal fields make the highwall mining method the preferred, and often the only feasible, method for extracting the remaining coal reserve left by contour mining and other surface mining operations.

Since only the continuous miner and the push-beam/conveyor system go underground while the miners and other mining and haulage equipment are on the surface, miners are not exposed to common safety hazards associated with underground mining operations such as roof and rib falls, mine fires, and explosions. Miners can also avoid being exposed to coal dust that causes coal miner's pneumoconiosis, one of the most serious health problems in the industry. However, the most significant challenge for a highwall mining operation is the stability of mine roof and pillars. Unstable highwalls is a significant safety hazard to the mining crew.

An interim report detailing the findings from the first year of my research has been prepared and is available online at the Department of Mining Engineering website. The report discusses the highwall mining method, its suitability for the coal seams in the state of West Virginia, and the potential improvement to mining safety. Most of the interim report emphasizes the mine-design concept and methods to maintain the stability of mine structures for ensuring the safety of the miners and the operability of underground mining machines when highwall mining is conducted in single coal seam. A computer program for highwall mine design is also available upon the request.

The second year of my research is focused on the improvement and development of design methodology for highwall mining operations conducted in closely spaced multiple coal seams. The objective is to avoid adverse multi-seam mining interactions that could affect the safety and production in the highwall mining operations. An optimization process is also incorporated to maximize the recovery ratio while maintaining the required stability of the mine structures. The final report and computer program will be available soon.



communication links that could be activated to contact underground coal miners during an emergency. A proof-of-concept field study is planned for this project.

Many of my research areas trace their origin to work undertaken at the request of the West Virginia Coal and Energy Research Bureau, including the annual West Virginia Mining Injuries Analysis and Summary and the report, "Review of Methane Monitoring and Automatic Shut-Down Regulations and Standards for Electrically Powered Underground Coal Mine Face Equipment" and related information required by West Virginia House Bill 2437.

# SURFACE MINING RESEARCH

VLAD KECOJEVIC



My areas of research include surface mining, surface mine safety, application of information technology in surface mining, and environmental issues in surface mining. I currently serve as a principal investigator on four research projects.

I lead a multidisciplinary team of West Virginia University researchers from mining engineering, computer science and electrical engineering, and industrial engineering on a research project related to the development and deployment of an integrated safety system to help reduce equipment-related fatal and non-fatal injuries in U.S. surface mining operations. Specific aims are to design a large-scale sensor network system geared toward surface mining safety; establish an infrastructure communication platform and information management system for real-time situational awareness; provide a non-distractive user interface for equipment operators and drivers and an integrated, informative console for mine operation management; and educate and train a new generation of professionals who will be working on surface mining safety research (e.g. capacity building). There are a total of five graduate students involved in this research endeavor, which is sponsored by the Alpha Foundation for the Improvement of Health and Safety.

My graduate student, Manuel Badani, and I are working on a project sponsored by the North American Coal Corporation to develop a coal quality management system for the Liberty Coal Mine in Mississippi. The goal of the project is to model a coal pile inside a dome in order to provide real-time coal quality information to mine and power plant personnel.

The third sponsored project relates to environmental impact (dust and noise) of surface mining equipment. The specific emphasis is on the comparison between current Environmental Protection Agency dust emission model and the data collected in a specific surface coal mine in West Virginia. My graduate student, Ali Lashgari, and I are in the process of developing a new dust dispersion model based on advance plume spread formulation. We are also working with researchers from the University of Kentucky and Ohio State University on the determination of chemical/mineralogical composition of dust samples, and the determination of materials at a mine site that may pose a health risk. This project is sponsored by the Appalachian Research Initiative for Environmental Science.

Finally, graduate student Meng Zhang and I are working on an investigation of truck-related fatalities in surface coal mines in West Virginia using fault tree analysis. The project is sponsored by the West Virginia Coal and Energy Research Bureau.

# ASTEROID CAPTURE PROJECT

BRIJES MISHRA AND AARON NOBLE



Over the past year, we have been asked to assist on a multidisciplinary research team on an asteroid capture project, which was recently proposed to NASA. While this work is not our primary research focus, the project has given us an opportunity to provide our expertise on rock and mineral systems in an unorthodox setting. Working with Thomas Evans, research program manager of the West Virginia Robotic Technology Center (WVRTC), as well as faculty in aerospace engineering, we will help develop an automated asteroid-capture system that incorporates traditional rock measurement techniques with state-of-the-art robotic manipulators. If funded, this research will evaluate these novel tools, techniques, and hardware on simulated asteroid material at the WVRTC test facility in Fairmont, W.Va. Ultimately this work will provide NASA with critical operational data needed for technology review and mission development.

This effort is part of a larger NASA initiative, the Asteroid Redirect Mission, which seeks to robotically capture a near-Earth asteroid and subsequently return it to lunar orbit for further scientific investigation. One particular concept currently being evaluated by NASA involves capturing a relatively small boulder from the surface of a much larger parent asteroid using robotic manipulators. This sequence of operations may require several stages of robot-rock interaction as well as detailed mechanical characterization to ensure the reliability of the equipment and the success of the mission.

The WVU team feels that their unique combination of expertise areas, including rock mechanics, machine vision, relative navigation, and robotic infrastructure, will substantially contribute to the development of mature technologies that will meet NASA's objectives.

## ALUMNI UPDATE

PLEASE WRITE TO US!! We want to know where life has taken you since you left West Virginia University. Also, pass this newsletter on, or let us know any alumni who are not receiving *Black Diamonds WV*.

Department of Mining Engineering • West Virginia University • 365 MRB, PO Box 6070 • Morgantown, WV 26506-6070, email updates to [karla.vaughn@mail.wvu.edu](mailto:karla.vaughn@mail.wvu.edu), or department web site at [www.mine.statler.wvu.edu](http://www.mine.statler.wvu.edu)

## DEPARTMENTAL HONORS

The following students and faculty were honored at the Department's annual recognition banquet, which was held in April:

### Patricia McCann

The Charles T. Holland Award

### Mara Hissom

The MRAC Award

### Jon M. Bobbera

The Old Timers Award

### Mark Sindelar

Student Chapter of the Society for Mining, Metallurgy, and Exploration (SME) Award

Given to an outstanding faculty member in mining engineering

### Tyler Jackson

Student Chapter of SME Award

### Christopher Bise

Student Chapter of SME Officers Award

### Stephen Mayo

West Virginia Coal Mining Institute Award

### Zachary Thompson

Careers in Coal Award

### Michael Sustar

Joy Mining Machinery Scholarship and Calvin R. Kidd Scholarship Award

### Daniel Ridenour

Kevin L. Dickey Scholarship Award

### Cory Adams

### Joseph Svonavec

Mining Engineering Faculty Award for Undergraduate Students

### Peng Zhang

### Mingming Li

Mining Engineering Faculty Award for Graduate Students

## THE 2013-14 ACADEMIC YEAR: FROM A WVU SME STUDENT LEADER'S PERSPECTIVE

BY JON BOBBERA



Bobbera

***(Chair's Note: At the Annual Mineral Resources Awards Banquet on April 6, Jon Bobbera, president of the WVU student chapter of the Society for Mining, Metallurgy, and Exploration (SME), was asked to say a few words that would summarize the activities of the chapter for 2013-14. I felt that he did an excellent job, and so I thought that our alumni and friends would enjoy reading the full context of his presentation.)***

Good evening everyone.

A few weeks ago when Mr. (Royce) Watts asked me to give a brief talk about how SME is important to promoting professional development and community outreach within our industry, I was not exactly sure how to approach the topic. After a lot of thought, however, I started thinking back on my path through college and how many opportunities this organization has provided me with, and how I feel it has prepared me to step out into the professional world.

Four years ago when I first entered the mining department, I was just an intimidated sophomore from southern West Virginia trying to keep up with my math classes and trying to figure out how not to get lost driving around Morgantown. At some point during that year, two of my newly acquired friends that I had met in my mining classes told me that there were these monthly SME meetings with free pizza and drinks, and that if I came to enough of those events, I could possibly go on a trip with them to Denver, Colorado, to attend their annual meeting. That was enough to convince me to start getting involved. Throughout that year, determined to go on that trip, I'm pretty sure I didn't miss a single event. Although I thought I was just attending for the free pizza and a trip, oblivious to me at the time, I was slowly becoming very attached to the mining industry and all that it offers. Since then, this organization has opened many doors for me and given me the opportunity to meet and work with numerous people within the mining industry who I considered good friends and people I anticipate I will be working with throughout my career. Although this is my journey with SME, I have seen similar cases repeated time and time again with my fellow classmates.

Now enough about me.

Here at WVU, our mining professors have done a great job preparing us for the technical aspects of our profession, but that is only half the battle. SME offers the opportunity for our members to go outside the classroom and become connected with the great people

of this tight-knit industry. This year alone, our members have attended 10 professional events, such as monthly meetings with industry leaders, the West Virginia Coal Symposium in Charleston, the Joint SME/PCMIA Meeting in Canonsburg, and topped it off with bringing 14 highly active members to the SME Annual Meeting in Salt Lake City, Utah. We have also been involved in nine on-campus events, such as Girl Scouts Day and Trunk-or-Treat, as well as hosting five social functions, like the freshmen mini-golf outing and the annual Turkey Bowl flag football game between the Miners and the Drillers. Our members have also been very active in volunteering throughout the year. One example of this is during the fall semester, we partnered with Scotts Run, a historic mining community, in an effort to help clean up their town in preparation for their annual street fair.

The area that I am proudest of, however, is our chapter's dedication to community outreach in promoting the mining and mineral industries. In addition to setting up an activity for local children at the Gem, Mineral and Fossil Show here in Morgantown, we have also taken our knowledge into several middle school classrooms, and even this past week, helped a local Cub Scout troop earn their geology pin. In total, I am proud to say that through SME, this year, our members have conservatively recorded more than 250 man hours of volunteering and community outreach.

I am very honored to have had the opportunity to service this organization and thank all the people who have made it what it is. First and foremost, I would like to thank my fellow student chapter officers Jon Fowler, Weston Fortner, Mara Hissom, and Zach Thompson. They have truly stepped up to the plate and selflessly given countless hours of their time to make this organization run as smoothly as it does. I would also like to thank our faculty advisor, Dr. Bise, who is very dedicated to our student chapter. In addition, I would like to thank our professors who are all very supportive, as well as our mining department secretaries, Karla and Karen. Last but not least, I would like to thank all the industry professionals such as Mr. Calvin Kidd and Mr. Charles Howard and many others who are here in the room today who year after year provide continued support to our members. For that I am truly grateful.

With that, I wish the best for the future of our student chapter, knowing that it will continue to provide a solid stepping stone for our members from students to professionals.

Good night and God bless.

# SME ANNUAL MEETING, FIELD TRIPS AND AWARDS



On Friday, April 25, Christopher Bise (right) received Penn State's 2014 Robert Stefanko Distinguished Achievement Award in Mineral Engineering, which recognizes "achievements and leadership that enhance the mineral engineering profession." Presenting him with the award are (from left) Turgay Ertekin, head of the John and Willie Leone Family Department of Energy and Mineral Engineering, and Jamal Rostami, chair of the mining engineering program.



At the 2014 Society for Mining, Metallurgy, and Exploration annual meeting in Salt Lake City, Utah, WVU faculty and students attended the Joy Global hospitality event along with representatives from the various mining engineering programs, worldwide.



On Tuesday, February 25, Keith Heasley received the Society for Mining, Metallurgy, and Exploration Coal and Energy Division's Distinguished Service Award from Vladislav Kecojevic, division chair.



On Tuesday, February 25, Vladislav Kecojevic received the Society for Mining, Metallurgy, and Exploration Coal and Energy Division's past chair's plaque from Nikky LaBranche, incoming division chair for 2014-15.



During spring semester 2014, Charles Howard (second from right) sponsored a field trip to the ARCH-Beckley Mine for members of Keith Heasley's MINE 484 class.



Officers for the WVU student chapter of the Society for Mining, Metallurgy, and Exploration were announced for 2014-15. Selected, from left, were Jennifer Smith, secretary; Mark Schuchardt, GEM/media coordinator; Michael Sustar, president; Brandon Michalski, vice president; and Edon Nicaj, program coordinator.



In January, Calvin Kidd (right of center in red sweater) sponsored a trip to Charleston for a group of faculty and students to visit Alpha's Running Right Academy. The group also attended the annual meeting of the West Virginia Coal Association.

# IN MEMORIAM

**Barry Dangerfield**, 64, passed away on April 10, at the University of Virginia Hospital. Dangerfield, who earned his bachelor's and master's degree in mining engineering from West Virginia University in 1973 and 1981, respectively, spent 30 years with CONSOL Energy and later with PinnOak Resources and Cliffs Natural Resources. He is survived by his wife, Linda; his three daughters; and a grandson.



## LEAVE A LEGACY® *Make a Difference in the Lives That Follow*

Our supply of mineral resources has enabled our nation to build an economy that is the envy of many. But resource development takes manpower and brainpower.

As many know, the Department of Mining Engineering has been a respected educator of mining engineers for a long time.

Ongoing challenges for the program include funding for endowed scholarships and support for faculty through named professorships. Your help is definitely needed.

One future support option is to include a gift provision in your will and another is to name the WVU Foundation as the after-death beneficiary of a retirement account.

To make a gift through your will, the wording of "to the WVU Foundation for the benefit of the Statler College of Engineering and Mineral Resources' Department of Mining Engineering" works very well. Specifying the gift's purpose, such as those choices mentioned above, is appropriate also.

Naming the Foundation as the beneficiary of a retirement account involves a change of beneficiary form from the plan administrator. Also, a special agreement with the Foundation about the future use of the funds to benefit the Department is needed.

Both gifts make the donor eligible for membership in the Irvin Stewart Society. Each counts in *A State of Minds: The Campaign for West Virginia's University* as long as the donor will be age 70 by the end of the campaign.

Please let **Bob Bragg**, director of development (**304-293-4036** or **robert.bragg@mail.wvu.edu**), know if you've included such a gift in your future plans and can help the College stand out in this important campaign.

# MINING ENGINEERING DONORS

We would like to thank our alumni and friends who have supported the Department of Mining Engineering for 2013-14 through the WVU Foundation.

## \$10,000 and Above

CONSOL Energy, Inc.  
Massey Foundation  
Peabody Investments Corp.

## \$5,000-\$9,999

Joy Mining Machinery  
Martin Marietta Materials  
North Carolina Coal Institute, Inc.  
Penn Virginia Operating Co. LLC  
Peter's Creek Coal Association  
PVR Partners, LP

## \$2,500-\$4,999

Alpha Natural Resources, Inc.  
Interco Charitable Trust  
WVU Mineral Resources Alumni Association

## \$1,000-\$2,499

Christopher J. Bise  
Raymond A. Bradbury  
Ralph Dado  
William M. Hart  
Kristopher C. Lilly  
National Coal Transportation Association, Inc.  
Southern Company Services  
West Virginia Coal Association, Inc.  
Robert M. Whiting

## \$500-\$999

Calvin Kidd  
William N. Poundstone

## \$250-\$499

Jacob S. King  
Prudential Foundation  
Bryan N. Schwalm

## \$100-\$299

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Michael T. Shook  
Mark F. Sindelar  
David L. Swearingen  
Nathan G. Sypolt  
Cyril H. Williams  
Kurt Zachar  
Joseph R. Zirkle

## Up to \$99

Mary E. Barringer  
Margaret A. Bays  
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Chris P. Peluchette  
Fred R. Toothman

## CHAIR'S MESSAGE

Dear Alumni and Friends:

At this time of year, we are both catching our collective breaths from the past academic year and are gearing up for the new academic year, which starts in August. This coming year will be particularly important because we will be preparing our documentation for the upcoming ABET accreditation visit, scheduled for fall 2015.

In addition to the articles about achievements of our students, faculty, and alumni, I wanted this issue of Black Diamonds to focus on the research interests of our faculty. In their columns, you will become aware of the projects they are working on currently. If some of their interests are in areas which you might share, I urge you to contact them and, possibly, establish a research relationship.

Finally, I ask that you circle your calendars. On Thursday, September 18, Calvin Kidd, the director for business development of the mining division of Quaker Chemical Corporation, will deliver

the 2014-15 Poundstone Lecture. Calvin has been a long-time supporter of mining engineering higher education, in general, and our Department, in particular. The topic of his lecture is "Career and Life-Changing Decisions." I know that he will provide a thought-provoking lecture so I hope you can join us.



I wish you and your family all of the best, and I want you to know that we appreciate your time, support, and consideration.  
Thank you!

Christopher J. Bise, *Chair*  
Department of Mining Engineering