



*Discover* ■ *Innovate* ■ *Lead*

## A Message from the Dean: \_\_\_\_\_

Dear CEAS Alumni:

Welcome to our most recent alumni newsletter designed to update you on faculty, student and alumni success stories, new initiatives, current facts and statistics, and upcoming events.

Whether you are a recent graduate or a long-time alumnus, you will find many positive changes. In the last few months, UWM has begun a campus-wide academic and physical planning process that will determine the growth and development of the university for the next ten to twenty years. Within CEAS a planning committee will examine curriculum, research and teaching needs, including classrooms, laboratories and methods of academic delivery.

The departments continue to improve and update their curricula to make sure that our graduates are trained with the latest equipment, are exposed to the most up to date engineering and computer practice, and are afforded co-op and internship opportunities where they can apply what they have learned and obtain

significant practical experience. The college started a BS in Computer Engineering, an exciting new field that pertains to the design, implementation, testing, and maintenance of hardware and software components of computers and computer-controlled equipment. In addition, the college will continue its strategies to increase faculty research, with major infrastructure improvements to support and enhance research activities. These efforts include aggressive cluster hiring of faculty in areas of strategic needs, major laboratory upgrades, internal research seed funding, and submitting large-scale grant applications to develop major research centers in advanced materials.

A significant level of effort currently is being devoted by the college to improve its national ranking. These efforts include significant collaboration with our industry partners, revision of the curriculum to reflect the needs for training more innovative engineers of the next generation, improving student selectivity, enhancing admission requirements, recruiting a large number of high quality

students on scholarship, and enhancing retention and graduation through providing academic support programs and mentorship from faculty, staff and alumni.



This is an exciting time for the college and I am pleased to share with you the good news as shown in the following pages. I also invite you to visit campus and to become involved in our new initiatives. There are many ways to do so, as a mentor or tutor, member of an advisory board, contributor to scholarship funds, supervisor of co-op and intern students, or active member of the CEAS Alumni Association.

Ronald Perez, Ph.D., P.E.  
Interim Dean

## Dr. David Yu Appointed as Interim Associate Dean \_\_\_\_\_

Dr. David Yu, Professor of Electrical Engineering, has been appointed as Interim Associate Dean of Graduate Studies and Research. In this position Dr. Yu is responsible for expanding our graduate programs, reviewing and approving applications from potential graduate students, approving budgets and signing Transmittal Forms for faculty members preparing grant applications, overseeing research policy and procedures, and facilitating publications related to graduate studies and research.

Dr. Yu has an extensive research record, having received funding from the utility industry for his work on power systems and recently, the integration of wind power. He has published widely on many technical aspects of power systems.



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### Dr. Jin Li Promoted to Associate Professor

Dr. Jin Li of the Civil Engineering and Mechanics Department was promoted to Associate Professor with tenure, effective for the 2007-2008 academic year. She earned her Ph.D. in environmental engineering from the University of Cincinnati in 2001 and began her career at UWM shortly thereafter.

Dr. Li's research focuses on keeping our water safe from pollution and bacteria. While this may not seem like an engineering discipline, Dr. Li says that engineering plays an important role in drinking water and wastewater treatment. "Engineering is necessary for the design, modeling and application of state-of-the-art techniques, such as biotechnology and nanotechnology, to solve environmental problems," she said. "It requires an interdisciplinary approach – there is extensive collaboration with the biology, chemistry, and geoscience fields."

For example, Dr. Li's recent work focuses on preventing animal waste from contaminating ground water supplies with pathogens, and on improving the water quality of the Great Lakes. Specifically, Dr. Li is combining molecular techniques and mathematical models to find mechanisms controlling the fate and transport of pathogens in soil and beach sand.

In addition, Dr. Li is collaborating with local industries and municipalities to address local environmental concerns. She is currently working with the Milwaukee Metropolitan Sewerage District to analyze the stormwater quality data using a geographic information system, and with We Energies to remove

*"Engineering is necessary for the design, modeling and application of state-of-the-art techniques, such as biotechnology and nanotechnology, to solve environmental problems."*

-Dr. Jin Li



mercury from fly ash, a valuable byproduct generated at coal-fired power plants.

"Clean water is so important and necessary for healthy people and a healthy planet," said Dr. Li. "The main reasons why I chose to work in environmental engineering are to help people and to help create a better environment."

Dr. Li's future plans include developing a new course and a textbook on molecular technology with funding she received from the National Science Foundation that will focus on interdisciplinary and non-traditional tools for engineers. She also will continue her research on water pollution, as she recently received funding from the Wisconsin Groundwater Coordinating Council and the UWM Graduate School Research Committee to study how bacteria transport in soil, sand, and water.

### Dr. Adrian Dumitrescu is Promoted to Associate Professor

Dr. Adrian Dumitrescu has been promoted to Associate Professor of Computer Science, with tenure, effective for the 2007-2008 academic year. A native of Romania, Dr. Dumitrescu received his Diploma of Engineer, specializing in Computer Science, from the Polytechnic Institute of Bucharest. For several years he worked as a software engineer and scientific researcher at the Research Institute for Computer Technique and Informatics in Bucharest before coming to the United States, where he received his Ph.D. from Rutgers University in 1999. He then served as a postdoctoral associate in the Department of Applied Mathematics and Statistics at the State University of New York at Stony Brook before joining UWM in January of 2001 as an Assistant Professor in the Department of Electrical Engineering and Computer Science.

Since coming to UWM, his research has focused on the theory of algorithms, computational and combinatorial geometry, combinatorics, computational morphology, and robotics. With over 40 publications, Dr. Dumitrescu's research has been recognized in the United States and in other countries, with invited presentations in Canada, Germany, and Spain. In 2005 he received the prestigious National Science Foundation CAREER award and in 2006 he received the highly competitive UWM Foundation/Graduate School Research Award.

At CEAS Dr. Dumitrescu teaches undergraduate and graduate courses in computational geometry, data structures and algorithms and data structures, theory of computation, and randomized algorithms and pseudorandom numbers. Interested in geometry

*"The development of modular robotic systems is one of the most promising areas of robotics research today."*

- Dr. Adrian Dumitrescu



since he was a child, he notes that geometry, although theoretical, provides the basis for such practical applications as robotics.

One of his research projects is the development of modular robotic systems, also called self-reconfigurable robots. This research has applications in operations in hazardous areas, space and underwater exploration, and construction of large-scale structures in outer space. The modular robotic systems consist of a number of identical modules that can connect to, disconnect from, and relocate next to adjacent modules. Development of such systems is one of the most promising areas of robotics research today, due to their versatility and high degree of fault tolerance. Shape changing in these composite systems can accomplish such tasks as reconnaissance, exploration, satellite recovery, or operation in constrained environments like nuclear reactors.

## Frances Hardrick Monitors Mercury for a Cleaner Environment

Is there a role for advanced electrical engineering solutions in addressing environmental problems? If you ask Frances Hardrick, the answer is yes. Hardrick, who earned her Master's degree in Electrical Engineering from CEAS in 2002, is leading the implementation of mercury emission monitors at the We Energies coal-fired power plants in southeastern Wisconsin.

Hardrick is a senior engineer at We Energies, a utility subsidiary of Wisconsin Energy Corp. that provides electricity, natural gas, and steam service. She came to We Energies in 2002 from Siemens Fossil Power in Milwaukee, where she designed the construction of power plants and electric distribution for three years. She now heads up the implementation and testing of one of the very first mercury emissions monitoring systems nationwide.

"I am working closely with the manufacturers to install and assess the monitors and to develop technology that is not being used anywhere else yet," Hardrick said. "Milwaukee is one of the first plants in the U.S. to test this type of system."

According to the U.S. Environmental Protection Agency (EPA), mercury is a naturally occurring element that can be found in volcanoes and in coal that when burned becomes airborne and eventually settles into aquatic systems. The mercury then changes into a more toxic form that builds up in fish and shellfish, which then can be absorbed by people who eat them.

To help reduce the harmful effects of mercury pollution, the EPA is cracking down on sources that emit mercury, particularly from burning coal. Thus, the EPA issued the Clean Air Mercury Rule in March 2005 to permanently cap and reduce mercury emissions from coal-fired power plants. Due to Hardrick's extensive electrical engineering expertise, We Energies selected her to manage this large-scale project at its Milwaukee plant.

"In Phase One we installed the monitors and in Phase Two we tested the technology to get the bugs out and achieve believable

*"It's important to be environmentally responsible and I'm glad that my engineering expertise is contributing to a cleaner and healthier world."*

-Frances Hardrick



readings," said Hardrick. "In Phase Three, we tested the monitors to certify that the emissions levels are meeting EPA's mercury emission standards," she said.

Hardrick says that reducing mercury emissions to protect our air, water, and wildlife is a responsibility she doesn't take lightly. "It's important to be environmentally responsible and I'm glad that my engineering expertise is contributing to a cleaner and healthier world," she said. "I also let my family, friends, and acquaintances know that power companies such as We Energies share in our concern for protecting the environment and are working hard to produce less pollution."

To help future engineers understand how engineering benefits society, Hardrick mentors middle and high school students in a YMCA program. "I became interested in electrical engineering as a child by taking apart calculators and playing with the circuitry," Hardrick said. "I want students to know that they also can take their technical interests and make the world a better place to live in," she said.

In the future, Hardrick intends to earn a Ph.D. in electrical engineering and pursue teaching as a second career. "I plan to continue mentoring students, young and older, to follow their dreams and overcome obstacles," Hardrick said. "I always tell people that failure is not final. You have to keep trying and make it happen."

## Andrew Hable Joins Peace Corps to Help Villages Access Clean Water

According to the U.S. Agency for International Development (USAID), about 1.6 million children under age five died from unsafe water conditions in developing countries in 2006. Victims of water-borne diarrheal diseases, these lives could have been saved if they had access to proper sanitation and clean drinking water.

Andrew Hable, who received his Bachelor of Science in Civil Engineering from the University of Wisconsin-Milwaukee in May 2007, feels that he can contribute to solving some of the world's most serious problems in relation to environmental health. Hable will be serving for the next two years as a U.S. Peace Corps volunteer positioned in a village in Panama. It is likely that the village will have little or no access to clean water. It will be up to Hable to identify a water source - potentially a spring in nearby mountains - and then plan the delivery method to the village, such as a gravity-based pipe system. "I will have to determine what the village people need versus what they want and then figure out how to raise the money to make it happen," says Hable.

*"It is the obligation of an engineer to see past the technical implementation of a project and to understand the social issues involved as well."*

Andrew Hable



Passing up the opportunity to earn a high engineering income through traditional employment, Hable feels that the experience he will gain through his Peace Corps service will be invaluable. He will walk into the village as the only foreigner in a totally indigenous community and will live in a palm-thatched hut with dirt floors, no running water and no electricity. But he will be helping to save lives, decrease illness and reduce the work of women and children (who are often the ones walking long distances to retrieve water). Hable will also leave Panama with

incredible leadership and problem-solving experience in addition to the cultural enrichment he will gain.

To Hable his decision was straightforward. With a major in civil engineering and a minor in political science he knew that his education equipped him to make a difference. There is currently a huge international demand for civil engineers. Organizations such as USAID and the World Bank need the technical expertise of engineers in order to identify and assess the success of projects, he explains. It is the obligation of an engineer to see past the technical implementation of a project and to understand the social issues involved as

well. "It is all inter-related. You can't just design a dam. You have to understand its consequences to the people in the area and to the environment," says Hable.

Fortunately Hable isn't the only one considering the implications of poor sanitation and dirty water. As part of the United Nations Millennium Declaration, goals have been set to halve the number of people without access to safe drinking water by 2015 as well as halve the number of people without access to basic sanitation by 2015. These actions will save millions of people from cholera, typhoid fever and dysentery, the diarrheal diseases that have already claimed so many lives.

John F. Kennedy said, "There are risks and costs to a program of action, but they are far less than the long-range risks and costs of comfortable inaction." After his time in Panama, Hable plans to continue his efforts in environmental health. He hopes to enroll in the University of Cambridge's graduate program in engineering for sustainable development. Ultimately he would like to work for a world development organization, potentially as a technical advisor of civil engineering projects. "I have the opportunity to directly assist the world's poorest people; I can't pass it up."

## For the Record

### 2006 Outstanding Alumni Award Recipients

#### *Civil Engineering & Mechanics*

##### **Dr. Adeb Rahman**

Associate Professor, College of Engineering & Applied Science  
B.S., Civil Engineering, 1982

#### *Computer Science*

##### **Mr. Jitendra A. Kavathekar**

Engineering, Executive  
B.S. & M.S., Computer Science,  
1990 & 1992

#### *Electrical Engineering*

##### **Mr. Charles J. Luebke**

Chief Engineer, Embedded Systems and Communications  
Eaton R&D Innovation Center  
B.S., Electrical Engineering, 1982

#### *Industrial Engineering*

##### **Dr. Tarun Gupta**

Professor, College of Engineering & Applied Science  
Western Michigan University  
Ph.D., Industrial Engineering, 1988

#### *Materials Engineering*

##### **Mr. David Lesniak**

Quality/Technical Manager,  
Charter Steel, Inc.  
B.S. & M.S., Materials Engineering,  
1988 & 1989

#### *Mechanical Engineering*

##### **Dr. John D. Bernadin**

Lead Design Engineer and Instrument Manager  
Space Science and Application Group,  
Los Alamos National Laboratory  
B.S., Mechanical Engineering, 1991

#### DILIP KOHLI MEMORIAL AWARD

##### **Dr. Henry P. Bensler**

CAE Methods Manager, VW Research –  
Vehicle Concepts  
B.S. & M.S., Engineering, 1982 & 1984

#### DEAN'S AWARD RECIPIENT

##### **Mr. Avi Shaked**

Chief Executive Officer, Onward Technologies Limited  
B.S., Engineering, 1980

#### DISTINGUISHED SERVICE AWARD

##### **Mr. John Bobrowich**

Chief Executive Officer, ReGENco

## Stay Connected

### A Message from the Alumni Association

As I enter my final year as president of the CEAS CAA, I'd like to acknowledge the success of our college this past year and some new changes that lay ahead.

First, the strong interim leadership shown by Al Ghorbanpoor and Ron Perez has helped to increase enrollment through new marketing and recruitment efforts, as well as better evaluation and course placement for freshman. Success in these areas is critical in retaining and graduating more students from our college.

To keep you connected with CEAS, we're considering some new social events that appeal to a broader range of alumni. Sporting events are still on the roster, and we're looking at informal socials and even some events in conjunction with the wonderful entertainment offered by the Peck School of the Arts. If you have other suggestions for events, we'd love to hear from you—please contact me or any other CAA board members.

Best Regards,  
Richard Schreiner, President, CEAS  
Constituent Alumni Association  
Staff Engineer  
Johnson Controls, Inc.  
E-mail: richard.s.schreiner@jci.com

## New Director of Diversity and Gender Initiatives Accepts Challenge

In its Strategic Plan, CEAS has set a goal of targeted increases in the enrollment of women, students of color, plus under-represented faculty and staff, by 2010. Dr. Beverley Pickering-Reyna has been appointed as the new Director of Diversity and Gender Initiatives to carry out this charge and other initiatives for the college. Establishing benchmarks for student enrollment, faculty and staff hiring, and implementing best practices that ensure diversity are among her many responsibilities.

Because CEAS draws most of its students from Milwaukee and southeast Wisconsin, Dr. Pickering-Reyna will work closely with the Milwaukee Public Schools and other local districts to help under-represented students prepare successfully for college engineering courses. She will increase recruitment efforts in neighboring states to strengthen UWM's reciprocal relationships in the Midwest. Taking the lead in developing and coordinating local and regional events and programs, she expects to attract more underrepresented student

applicants from a larger pool.

Her recruitment efforts involve developing new marketing materials to enhance and promote current and new initiatives. A Student Orientation Forum for under-represented new students and their parents is one new fall initiative. This initiative will provide an overview of the experiences that new students might encounter during their academic life and expose them to the many resources available to them at UWM and in the community.

Dr. Pickering-Reyna has over five years of experience with student diversity initiatives, most recently in UWM's School of Information Studies. There she designed, implemented, organized, and administered successful outreach programs for under-represented secondary students. One program involved 21 high schools and grew to serve over 200 students per semester. More than 800 participants successfully completed that program.

Her educational background includes a B.S. with Honors in Journalism and

Mass Communication and two M.S. degrees (Library and Information Science; Urban Studies). She recently received a Ph.D. in Urban Education with a specialization in Educational and Media Technology. Dr. Pickering-Reyna earned all of these degrees at UWM and has a long-standing relationship with the university.

As a minority female with a strong campus history, she understands the concerns of CEAS under-represented students, faculty and staff. Her experiences provide a unique platform from which to serve constituents as a very visible and effective role model. As she states, "Though the goals are lofty, the stakes are high, and the road ahead is challenging, the anticipation of real results exceeds satisfaction."



*Dr. Pickering-Reyna*

## New Faculty Member in Civil Engineering: Dr. Konstantin Sobolev

Dr. Konstantin Sobolev has joined the Civil Engineering department as an Associate Professor. After receiving his B.S./M.S. degree from the Moscow State Civil Engineering University, he earned a Ph.D. in 1993 from the Research Institute of Concrete and Reinforced Concrete. Since then Dr. Sobolev has been developing innovative and effective technologies for manufacturing high-performance cement and concrete. Before coming to UWM, he worked as a research engineer and professor in Russia, Turkey, Cyprus, and Mexico. He is an active member of the American Concrete Institute. The holder of three patents, Dr. Sobolev also has published over 80 articles in research journals in Russian, Turkish, Spanish, and English and he has presented scientific papers in the Americas, Europe, and Asia.

Dr. Sobolev's recent research interests are modeling of dense packings of particulate materials; development of new products based on thermally activated kaolin; an investigation of the effect of different reactive silica admixtures on properties of high-performance cement; utilization of waste materials (i.e.,

glass, gypsum, fly ash) in eco-cement; application of nano-admixtures in cement and concrete; and construction materials with photocatalytic properties.

This fall he is teaching a class on construction materials. Other planned courses include "Technology of Cements and Binders" at the undergraduate level and "Properties of Concrete" at the graduate level. Dr. Sobolev is particularly interested in providing hands-on laboratory experiences for his students, covering the design and conduct of experiments, and the presentation, analysis and interpretation of data. He strongly believes in bringing the latest technology and research achievements into the classroom, both to enrich the learning experience but also to provide the understanding and skills necessary for successful professional practice and self-development.



*Dr. Sobolev*



## Dr. Matthew Petering Joins CEAS Industrial & Manufacturing Department

Dr. Matthew Petering joined the CEAS faculty in August 2007 as an Assistant Professor in the Industrial & Manufacturing Engineering department. Dr. Petering is a native of Milwaukee and he received his Ph.D. in Industrial & Operations Engineering from the University of Michigan. His research interests include the design, analysis, and real-time control of seaport container transshipment terminals.

Nearly all consumer goods shipped overseas, such as furniture, toys, clothing, auto parts, bananas, and computers, are transported in standardized 20-, 40-, or 45-foot steel containers aboard maritime container vessels. These vessels are loaded and unloaded in container terminals at international seaports where containerized cargo is temporarily stored before it is transferred to another mode of transport. Dr. Petering's research focuses on developing computerized container terminal control systems that automatically select cargo storage locations and dispatch

container handling equipment as operations are evolving in real time. By optimizing real-time decision making, these systems reduce the amount of time vessels stay in the port, thereby increasing the efficiency of both the container terminal and the vessels they serve.

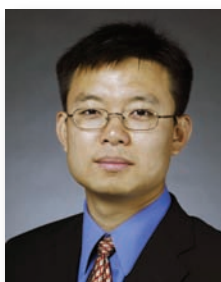
Dr. Petering has worked on-site at the Port of Singapore, the world's busiest seaport, and has studied at Beijing University in China. He is fluent in Mandarin Chinese and hopes to establish alliances with universities in Asia. Dr. Petering returned to Milwaukee to pursue his desire to teach. "I didn't want to focus my career entirely on research," he said. "I also wanted to teach and live in my hometown, and to share my knowledge with the engineers of tomorrow."



Dr. Petering

## New Faculty Member in Electrical Engineering: Dr. Hao Zhang

After completing a post-doctoral appointment at Washington University in St. Louis in the department of Biomedical Engineering, Dr. Hao Zhang joined the CEAS faculty in August 2007. Dr. Zhang is an Assistant Professor in the Electrical Engineering department, where he will teach and conduct research in the expanding program in biomedical engineering. His early education was obtained at Shanghai Jiao Tong University in China, where he received his undergraduate and master's degrees (in Electrical Engineering and Biomedical Engineering). Dr. Zhang completed his doctoral studies at Texas A&M University, with a Ph.D. in Biomedical Engineering.



Dr. Zhang

His research objectives are to tackle biomedical problems that are currently beyond the scope of optical imaging by developing and applying new imaging technologies. In addition to his published papers and conference presentations, Dr. Zhang serves as a reviewer for the *Journal of Biomedical Optics*, *Applied Optics*, *Optical Letters*, and *Inverse Problems*. His teaching interests lie in the areas of medical imaging and biomedical optics. At UWM he is teaching a course in "Fundamental Neuroimaging Techniques" and is developing undergraduate and graduate courses in "Introduction to Biomedical Optics" and "Bio-optical Imaging."

## Drs. Garg and Rohatgi Appointed as New Distinguished Professors

Dr. Arun Garg, Chair and Professor of Industrial Engineering, has been named as Wisconsin Distinguished Professor and also as UWM Distinguished Professor. Nationally recognized for his pioneering research on the prevention of workplace hazards to employees in industry and health care facilities, Dr. Garg is the principal investigator of a \$1.4 million grant from the National Institute of Occupational Health and Safety (NIOSH) and the Centers for Disease Control and Prevention. His research collaborators include Dr. Phyllis King, Professor of Occupational Therapy at UWM, and colleagues from the University of Utah and the Medical College of Wisconsin. Dr. Garg also co-directs the UWM Center for Ergonomics with Dr. King.

Dr. Pradeep Rohatgi, Professor of Materials, already a Wisconsin Distinguished Professor, has added the title of UWM Distinguished Professor. His research on the synthesis and fabrication of metallic alloys has been supported by the National Science Foundation, the U.S. Department of Energy, the Office of Naval Research, and such major industries as Ford, General Motors, Sunstrand, Alcan, and A.O. Smith. His current project, "Advanced Rapid Manufacture of Lightweight Materials and Components for Military Applications," is funded by the U.S. Army Tank and Automotive Command. Dr. Rohatgi collaborates with scientists from China, Egypt, India, Korea, and Poland and with several U.S. universities and national laboratories.

## CEAS Staff Changes

### Retirement

Mr. Gary Metz, Student Records Specialist, retired after 35 years of employment at UWM.

### New Hires

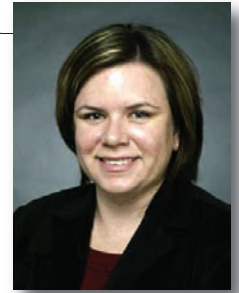
Ms. Tina Current has joined CEAS as an Academic Advisor. Dr. Beverley Pickering-Reyna has been appointed as the Director of Gender and Diversity Initiatives.

## CEAS Welcomes New Academic Advisor

Ms. Tina Current has been appointed as a new academic advisor in CEAS. In this role she will provide academic advising to prospective and current undergraduate students. With over seven years of experience developing innovative and high-quality student services programs, Ms. Current is excited about working with engineering students.

Her education includes a bachelor's degree in psychology and speech communication from the University of Washington in Seattle, and a master's degree in counseling with a focus on higher education from the University of Wisconsin at Madison.

Previous student service positions included the University of Wisconsin-Waukesha, where she advised students who were transferring to UWM, Mount Mary College, and the School of Education at UWM. When asked what she most enjoys about her work, Ms. Current replied, "Understanding the issues students are facing and how I can help them become successful is what motivates me as an advisor."



Ms. Current

## CEAS Industrial Assessment Center Celebrates 20 Years

For twenty years, Dr. Umesh Saxena, Professor of Industrial and Manufacturing Engineering, has received funding from the U.S. Department of Energy to support the UWM Industrial Assessment Center (IAC), which enables engineering students to conduct energy efficiency assessments for small and medium-sized industrial plants. The UWM IAC is one of only 26 university-based centers in the U.S. that helps industries reduce their overall energy costs while giving engineering students hands-on assessment experience.

In a typical assessment, a professor affiliated with the IAC, such as Drs. Saxena, John Reisel, and Vjekoslav Pavelic, take students to an industrial plant located in Wisconsin to inspect its operations. The team investigates the amount of energy used by compressors, boilers, and heating and air conditioning systems, and other large consumers of energy. They also explore possible improvements in waste and productivity. Then they analyze the data collected at the site and submit a report to the plant manager within 60 days that outlines their recommendations for reducing energy and saving costs. According to Dr. Saxena, the students' recommendations have helped clients save an average of \$25,000 per year in energy costs.

Companies that have participated in the free assessment include foundries and metal casting, plastics and moldings, printing, and food processing. These industries also tend to be leading consumers of energy and can benefit greatly from energy assessments. UWM students have assessed more than 500 companies since the program's inception.

When asked how plant efficiency improvement trends have changed in 20 years, Dr. Saxena quickly points out the use of energy-efficient lighting. "Twenty years ago few plants used energy-efficient lamps," he said. "Today, nearly every plant uses these lamps. Industries are finally recognizing how simply they can save energy costs while protecting our environment."

## Gary Metz Retires After 35 Years of Service

Gary Metz, Student Records Specialist, retired from CEAS on July 6, 2007, after 35 years of service to UWM. Metz was responsible for managing student grade and course data.

Metz began his career with UWM in 1972 as a stock clerk at the UWM Bookstore before joining CEAS a few years later as a student records clerk. He recalls managing student information in the days before the Internet as laborious and time-consuming.

"I remember when the class schedules were typed up on an electric typewriter," Metz said wistfully. "And grades were done by hand by key-punching each one into a computer system. The only way you could view them was on paper – there wasn't an Internet back then to view grades online," he said.

If you graduated before 1990, you also might remember registering for classes with a paper form. "The form would be key-punched by hand and it took nearly a month for students to find out which classes they actually got," Metz laughed. "Many times your schedule would change over and over again."

Metz's position evolved throughout the years into more sophisticated records management, especially with rapid advancements in computer programming and software. He continually took computer classes at UWM to find new and

better ways to manage student records.

Metz says while he is looking forward to retirement, he will miss the challenges of working with data and technology. "It was great seeing online registration evolve and become much more effective," he said. "I saw how important it was to students, and as a parent, it was important for me as my children were entering college."

As for his retirement plans, Metz hopes to take an Alaskan cruise with his wife, visit national parks, and enjoy fishing on Wisconsin lakes. He also plans to volunteer. "My wife and I hope to share what we have learned in life with others," he said. Metz is interested in working with Habitat for Humanity, the Hunger Task Force, and possibly becoming a Big Brother to a child whose parent is serving in Iraq.

While all the faculty, staff, and students of CEAS will greatly miss Gary, we bid him farewell with our wishes for a wonderful and exciting retirement.



Mr. Metz



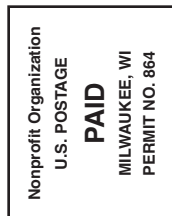


## A Note from Career Services\_\_\_\_\_

Thank you to our CEAS alumni and their employers for hosting CEAS co-op and intern students during the 2006-2007 academic year. The opportunities you provide them with greatly enhance their classroom experience and professional development. As a recent first term co-op student said, "I am leaving this term inspired to relate my co-op experience with my upcoming classes in the spring. Since working at (company name), I have affirmed that engineering is a career I am proud to pursue."

The CEAS Career Services Office is dedicated to helping all CEAS students secure engineering or computer science-related work experience prior to graduation through co-op and internship opportunities.

For more information about posting co-op, internship or full-time job opportunities, please contact Juli Pickering at [jlpicker@uwm.edu](mailto:jlpicker@uwm.edu) or (414) 229-3208.



## *CEAS Events Calendar*

December 15, 2007

***Order of the Engineer/Student Awards & Reception***

3:00 – 5:00pm

UWM Union Ballroom

February 20, 2008

***Spring Industry Expo***

9:00am – 2:00pm, Wisconsin Room, UWM Union

April 19, 2008

***Alumni Banquet***

UWM Union Ballroom

May 17, 2008

***Order of the Engineer/Student Awards & Reception***

3:00 – 5:00pm

UWM Union Ballroom

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