Greetings from Haifa, Israel where I've spent the last six months as a Fulbright Fellow and Visiting Professor in the Faculty of Civil and Environmental Engineering at the Technion, Israel Institute of Technology. I've had a very interesting and rewarding time here.

Last summer, I spent time learning Hebrew in an intensive language program at Haifa University. It was great being a student again, learning a new language and being with students from all over the world. We had a lot of homework but fortunately I had a wonderful teacher and I was able to get together with my chevri (study partners) every evening in the moadon (community room in the dormitory).

Much of my time in Israel was spent learning about water reuse technologies. Because they live in an area with very scarce water resources, Israeli Civil and Environmental Engineers have a lot of experience with using advanced technologies, such as membranes, for wastewater reuse and seawater desalination. I was hosted by Dr. Carlos Dosoretz and his students at the Technion and conducted research on control of biofouling in membranes for water reuse applications. Biofouling occurs because microorganisms stick to membrane surfaces, plug up membrane pores and cause decreases in permeability and increases in energy requirements. In some of my work I was able to test novel membranes being developed in Dr. Todd Emrick's lab in the Polymer Science and Engineering Department right here at UMass.
Israel is a small country with a lot of problems. There are a lot of environmental problems, especially with air pollution and ground water contamination. Over the last two years there has been a student strike, a faculty strike and a war, so the students have had tremendous difficulty getting their degrees. Women engineers have an even more difficult time in Israel than in the US, dealing with sexism and trying to balance their work and family lives. Yet I was also struck by the resourcefulness of the Israeli researchers (every Technion student thinks they are MacGyver), the cooperation I saw between Israeli, Jordanian and Palestinian scientists and engineers, the economical and efficient public transportation system (I didn’t have a car) and the warm welcome I received wherever I went. Please feel free to stop by my office if you want to hear more about my work in Israel.

L’hitraot (see you),
Professor Ergas

*State Transportation Commissioner to Speak Here on February 11th* (from *News at the College of Engineering website*)

State Transportation Commissioner Luisa Paiewonsky will be speaking at the College of Engineering on February 11th at 12:15 p.m. in 211 Marston Hall. The occasion will be the Massachusetts Highways Information and Recruiting Session for civil engineering students at the college. Commissioner Paiewonsky will be talking about the Massachusetts Highways agency in general, the kinds of engineers it has on staff, what they do, and the kinds of projects they design and construct.

"But the big part of what she will discuss is public service and what it entails," says Cheryl Brooks, the director of Career Planning and Student Development at the college. "She will try to get students to consider the many personal and professional benefits of public service and talk about how engineers can make long-lasting and positive contributions to society by working in government." Also in attendance for the Executive Office of Transportation and Public Works will be Juan Flores, director of Outreach and Recruitment, and Mukiya Baker Comcz, director of Diversity and Equal Opportunity.

For those engineering students wishing to attend the event, Massachusetts Highways is hiring entry-level civil engineering positions. Entry-level civil engineers prepare or review plans, designs, specifications, and cost estimates for engineering projects; prepare and/or review reports, studies, and analytical data; perform calculations relating to engineering problems; perform engineering surveys; inspect construction and/or maintenance work; and perform related work as required. The basic purpose of this work is to perform professional engineering duties in such areas as highways, bridges, buildings, and facilities in accordance with sound engineering principles, applicable laws, regulations, and standards.
CEE Helps Local High Schoolers
(from News at the College of Engineering website)

Professor David Reckhow and two of his graduate students in the Civil and Environmental Engineering Department are helping out a couple of Greenfield High School students by donating a day of their time, expertise, and laboratory facilities. Reckhow and his graduate students, Kirsten Studer and Boning Liu, set aside most of the day on February 6th to help Greenfield students Matthew Beres and Alden Winn study different ways of removing pharmaceuticals from water for their science fair project. "Ultimately, we want to be able to test samples from local water ways," said Beres when requesting help from Professor Reckhow. "The main problems that we are experiencing are that we need to find a way to test estriol levels in the water. We are very willing to come to UMass and work very hard."

Four Rivers Charter School Students Visit ELab II
On January 23, 2008 25 high-school seniors and three teachers from the Four Rivers Charter School in Greenfield visited ELab II for an insider’s tour of environmental engineering laboratory work in areas such as drinking water treatment, wastewater treatment and storm water management. Hosting the visit for the Civil and Environmental Engineering Department was Professor John Tobiason, lab manager Sherrie Webb-Yagodinski, and several graduate students. Assistant Dean Kathy Rubin also addressed the visiting students.

In addition to the laboratory tour, the Greenfield students were presented an introduction to environmental engineering, and especially drinking water treatment, similar to what Professor Tobiason delivers to College of Engineering incoming freshmen.

STUDENT NEWS
CEE Career Fair

The Civil and Environmental Engineering Department will host the Spring Civil Fair on Thursday, February 28, 2008 from 10:00 am to 3:00 pm in the Guinness Student Center. The Civil Fair is a wonderful opportunity for firms and companies to seek qualified interns, co-ops and full-time employees and it is also an opportunity for you to connect with employers! More than 30 companies are scheduled to attend the Civil Fair which include:

- Beals and Thomas, Inc.
- Camp Dresser & McKee, Inc.
- Connecticut Dept. of Transportation
- CONTECH Stormwater Solutions
- ERM-Northeast Inc.
- GeoDesign, Inc.
- Hazen and Sawyer
- MS Transportation Systems, Inc.
- O'Reilly, Talbot & Okun Assoc.
- Rizzo Associates
- Simpson Gumpertz & Heger Inc.
- Stearns and Wheler
- SVF Associates
- Tata & Howard, Inc.
- Vollmer Associates
- WilsonMiller, Inc.
- Wright-Pierce
FUNDAMENTALS OF ENGINEERING EXAM (EIT)

For information about the FE exam, you may access the Professional Credential Services, Inc. website at www.pshq.com. The spring exam is scheduled for April 12, 2008 with an application deadline of March 1st. You may download applicant information and applications on-line, or you may telephone 1-877-ENG-EXAM.

RESEARCH NEWS
Conferences, Presentations and Publications

“Expanding the Engineering Pipeline by Recruiting, Mentoring, and Graduating Transfer Students” (From College of Engineering Points of Pride, Fall 2007)
The College of Engineering, working through CEE Principal Investigator Sarina Ergas, has received a $600,000, five-year NSF grant for a proposal titled “Expanding the Engineering Pipeline by Recruiting, Mentoring, and Graduating Transfer Students.” The grant will greatly improve access and support for students transferring to the college.

2008 IWA North American Membrane Research Conference in Amherst, Massachusetts, August 10-13, 2008
The scarcity of clean water represents a global threat to society, equal to or greater than that of oil resources. A range of factors are responsible for this shortage, including population growth in arid regions, and contamination of surface and groundwater supplies. Membrane technologies can be used to provide both short and long term solutions to these problems by providing clean water from low quality sources.

This conference will showcase advances in membrane technologies for water and wastewater treatment as well as novel membrane materials and processes. The conference will be in the style of the Gordon Research Conference; all sessions will be 30-45 minute plenary sessions with time for questions and discussion. Opportunities will be provided for networking and group recreational activities, such as hiking and sports. For more information please visit: http://www.ecs.umass.edu/membrane/index.html

FACULTY NEWS
“Dr. Knodler Elected to NEITE Board” (From In the Loop, December 7, 2008)

Dr. Michael A. Knodler, Jr., Assistant Professor in Civil and Environmental Engineering was elected to the board of the New England section of the Institute of Transportation Engineers. He will serve as the board’s Vice President in 2008 and President in 2009.

The Institute of Transportation Engineers is an international educational and scientific association of transportation professionals who are responsible for meeting mobility and safety needs. Knodler joined the CEE faculty in 2005 and is currently Director of the Traffic Safety Research Program.
Locate and Name This Bridge!

This bridge is a cantilever bridge which is made of a pair of cantilever arms, or beams "sticking out" from two main towers. The beams are supported by diagonal steel tubes projecting from the top and bottom of the towers. These well-secured spans actually support the central span. This design makes this bridge one of the strongest -- and most expensive -- ever built. First bridge built primarily of steel and took 54,000 tons of steel; 194,000 cubic yards of granite, stone, and concrete; 21,000 tons of cement; and almost seven million rivets to build this bridge.

Email your answer to nofio@ecs.umass.edu by February 22, 2008 for a chance to win a University of Massachusetts travel mug. November's bridge was the Iron Bridge in England. Congratulations to Tim Conklin who was November's winner!