



Drexel alumnus Michael J. McGuire to speak about his new book



On April 3rd at 2pm the Civil, Architectural, and Environmental Engineering (CAEE) Department will be hosting guest speaker and Drexel alumnus, **Michael J. McGuire**, who will speak about his new book: *The Chlorine Revolution: Water Disinfection and the Fight to Save Lives*. Please join us in the Papadakis Integrated Sciences Building Room 112 (33rd and Chestnut Streets) to learn about one of the most significant advances in public health - the simple idea of disinfecting public water supplies with chlorine. Over the last 100 years this advancement has saved more lives than any other single health development in human history. At the turn of the century, the use of chlorine was considered outrageous, if not illegal, by most practitioners of science. Michael J. McGuire graduated from Drexel with a M.S. ('72) and a Ph.D. ('77) in Environmental Engineering. He is a registered professional engineer in Pennsylvania and California and a widely published author. In 2009, the American Water Works Association presented him with the A.P. Black Research Award, and he was elected to the National Academy of Engineering, for "scientific contributions that have improved the safety and aesthetics of drinking water."

CAE and MEM faculty and students collaborate on structural testing research

Dr. Ivan Bartoli (CAEE), **Dr. Antonios Koutsos** (MEM), and three graduate students, **MD. Fuad Hassan Khan** (CAEE), **Prashanth Abraham Vanniamparambil** (MEM) and **Satish Rajaram** (MEM), recently traveled to San Diego, CA to perform preliminary research preparations at the NSF-funded University of California, San Diego (UCSD) shake table for supplementary research efforts to the previously awarded NSF project: "NEESR: Enhancement of Seismic Performance and Design of Partially Grouted Reinforced Masonry Buildings" (Drexel project leaders **Drs. Ahmad Hamid** (CAEE) and **Frank Moon** (CAEE)). This supplemental research uses Digital Image Correlation (DIC) as a method of collecting full field deformation and damage information and assessing the seismic performance of partially-grouted reinforced masonry walls, which is a widely used and economically competitive building construction approach. DIC will contribute to the development of reliable and efficient analytical models to assess seismic performance of these types of buildings.

This testing will provide 3D imagery combined with full field measurements of displacements and strains under various stages of seismic simulation. This imagery created will assist with understanding the highly complicated structural behavior of the tested building as it reacts to seismic activity, as well as provide exact measurements of the displacements and strains on the tested structure - allowing the researchers to map these exact points with 3D geometry using CAD computer models. This non-invasive testing approach holds enormous potential for the rapid safety assessment of buildings and other civil infrastructure. The group will return to UCSD the week of March 31st to perform the actual test.



Dr. Sabrina Spatari awarded Louis and Bessie Stein Family Fellowship



Dr. Sabrina Spatari (CAEE) was awarded Drexel University's Louis and Bessie Stein Family Fellowship for Exchanges with Israeli Universities, for proposed collaborative work with Dr. Yehuda Kahane of Tel Aviv University. Their project entitled, "Enhancing the life Cycle of a Renewable-Integrated Electricity Sector through Improved Operational Efficiencies" will analyze novel technologies for improving energy efficiency and reducing environmental impacts from electricity transmission. One of the thrusts of this fellowship is to provide financial assistance to deserving faculty members of Drexel to teach, study, and do research in Israel.

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Engineer's Without Borders founder visits Drexel

Drexel's student chapter of Engineer's Without Borders in conjunction with The AJ Drexel Institute for Energy and the Environment recently welcomed the founder of Engineers Without Borders, Bernard Amadei, PhD to campus. Amadei is a professor of civil engineering at the University of Colorado at Boulder. He spoke to Drexel students, faculty, and staff on March 12th about how Engineers Without Borders was formed, the future of the organization and the societal impact of its efforts. Student chapter of Engineers Without Borders, such as the one at Drexel, focus on enabling students to assist with these real-world challenges. The organization aims to solve world problems such as lack of clean water, lack of adequate sanitation, no access to low-cost essential medicines and more.

Ben Cohen and Doug Goetz awarded Koerner Family Awards



Drexel alumnus, 2006 Engineering Leader of the Year and emeritus faculty member of the Civil, Architectural and Environmental Engineering Department, Dr. Robert M. Koerner, '56 '63 and spouse Paula W. Koerner have donated a total of \$50,000 to the College of Engineering to help support Drexel Engineering graduate students from their fund named, "The Koerner Family Awards for Graduate Students in the College of Engineering." Each College of Engineering Department is represented and this year's CAEE recipients are doctoral students **Ben Cohen** and **Doug Goetz**.

Ben Cohen is originally from Havertown, PA and graduated from Drexel in 2010 with a BS/MS in Civil Engineering, concentration in structural. Prior to returning to Drexel to pursue a PhD in Civil Engineering, he worked for Boeing Commercial Airplanes. His research interests are: Asset management of Infrastructure; Complex, Large-scale, Interconnected, Open, Sociotechnical (CLIOS) Systems; and Bridge Performance. His advisors are **Dr. A. Emin Aktan** and **Dr. Sabrina Spatari**.



Doug Goetz is originally from Portersville, PA and graduated from Slippery Rock University with a BS in Environmental Geoscience. Before he came to Drexel to pursue his MS and PhD in Environmental Engineering, he worked for PWI, Inc., a construction company in Pittsburgh, PA. His research interests are air quality and climate forcing impacts of oil and natural gas development, mobile monitoring, atmospheric modeling, atmospheric aerosols, air monitoring instrumentation. His advisor is **Dr. Peter DeCarlo**.

Conor Bourque awarded AWWA Black & Veatch Scholarship

Conor Bourque, a BS student in Environmental Engineering (Water Resources concentration) was recently awarded the American Water Works Association 2014 Black & Veatch Scholarship. This scholarship is funded by Black & Veatch to support the development of professionals interested in service to the water industry. The scholarship will be formally presented at the Association's Annual conference in Boston, MA in June 2014.

Conor is currently a pre-junior at Drexel and is from Beachwood, New Jersey. His academic interests are in Water Treatment/Systems, Stormwater Management, and Green Infrastructure and he has previously worked in the Sustainable Water Resources Engineering Lab under **Dr. Franco Montalto** and former doctoral student **Kimberly DiGiovanni**. At Drexel, Conor also participates in club soccer and the ski and snowboard club.



CAEE Department to host annual Pipes Engineering Alumni Lecture

On April 24th at 4pm in the AJ Drexel Picture Gallery, the CAEE Department will host its annual Engineering Alumni Lecture supported by Dr. Wesley O. Pipes (1932-2013) and his wife Jane Pipes. Dr. Pipes joined Drexel in 1975 as the inaugural LD Betz Professor of Ecology and served as Head of the Department of Civil Engineering from 1983 until 1987. This year the Department will be hosting Drexel alumna **Marleen A. Troy, PhD, PE** who is an Associate Professor of Environmental Engineering and the Director of the Sustainability Management Certificate Program at Wilkes University in Wilkes-Barre, PA. Dr. Troy will discuss her experience as a graduate student at Drexel during the 1980s and will pay tribute to her major advisor, Dr. Wesley O. Pipes. She will also discuss her evolution from student to a practicing engineer involved in the bioremediation of hazardous waste sites to her current position as an environmental engineering professor.