Civil and Environmental Engineering at RPI

Making a Difference

30 Years of Service - Janet Pertierra, our department’s Business Administrator recently completed her 30th year of service at RPI. As far as Making a Difference is concerned, no one can argue the importance of her contribution. When asked about her time here, Janet said she was not mad having spent all this time in one place—but that she must have been having fun because time has flown! She writes:

“I started in the department on February 25, 1985 as Administrative Assistant and was hired by then department head, George Dvorak. Back then, the Administrative Assistant handled all the administrative and financial aspects of the department, so my job responsibilities were quite broad.

In 1987, I had my first son, Matthew, who 18 years later, became a freshman at RPI, and decided to major in Civil Engineering! After Matt was born, I decided I didn’t want to work full time so I approached my department head about working part time. For any of you who knew/remember Dr. Dvorak, he was pretty rigid and set in his ways so I had no expectation that he would agree to my decision to work part time. To my (pleasant) surprise, he said yes, saying that he was looking to separate the administrative duties from the financial duties, and I was able to assume the financial duties for the department!

I had two more sons, Dan and Mark, and worked part time up until 2003 when I returned to full time status. By then, the research had grown in the department, and we saw the creation of both the CEES and CITE centers which required full time attention.

One of the hardest things for me is to see students who have been here for quite a few years pursuing B.S., M.S. and Ph.D. degrees graduate and leave RPI. During the years they are here as students, they become part of the department family. On the reverse side of that, one of the nicest things is that we always get new students to take the graduates’ places!

I’ve worked for 6 department heads, have seen at least 10 Deans in the School of Engineering, either permanent or acting and 6 Presidents of the Institute.

People might ask why I stayed in the same department for 30 years. The answer is quite simple, I have always liked the people that I worked with. There are three faculty who were here when I arrived and are still here, Ricardo Doby, Tom Zimmie and Mike O’Rourke. I can’t imagine our department without those three guys! I’ve seen quite a few faculty come and go, but for the most part, I’ve always felt our department was fairly stable. We’ve had great faculty, great staff and great students. I guess you could say that I am very loyal to this department and see myself staying here until I retire!!”
David T. Biggs, ’72, P.E., was honored during the RPI Center for Infrastructure, Transportation and the Environment (CITE) reception at Transportation Research Board in Washington. Biggs was presented with the CEE Distinguished Alumni Award for his contribution to the field of Masonry Structures and Consulting Engineering and is a member of the CEE Advisory. He is currently a principal of Biggs Consulting Engineering in Saratoga Springs and serves as the coordinator for the BIM-M Initiative.

Paul Tegnazian, ’13, received the 2014 Junior Professional Award for the New York Office given by URS Corporation. Tegnazian is an assistant rail systems engineer and has worked on projects throughout the U.S. The first project he worked on was reviewing shop drawings for steel clamps on pre-cast girders for Atlanta’s Streetcar.

Paul’s more recent responsibilities revolve around the Overhead Contact System (OCS) and work on the Baltimore Purple Line Project. He is involved in a pilot mentoring program with the ASCE for the NY Metropolitan Section as a committee member.

Robin A Kemper, ’79, P.E., LEED® AP, F. ASCE, was named the 2015 Civil Engineer of the Year by the ASCE New Jersey Section. Ms. Kemper has over thirty years of diverse and extensive structural engineering experience in design, analysis, and forensics, focused mainly on buildings. Robin currently is a Senior Risk Engineering Consultant with The Zurich Services Corporation. She works for both the Professional Liability and Construction Properties Risk Engineering Groups providing technical support to construction claims, developing best practices for engineering design processes, and investigating losses on construction projects.

She has been active at the Society (National) level of ASCE for almost 25 years and is a self-declared candidate running for President-elect of the Society next year. The ASCE has recognized her service with numerous awards throughout her career. She was President of both the Central Jersey Branch and the New Jersey Section of ASCE. Robin describes her life as an equilateral triangle with her family, her career, and ASCE located at each of the corners of the triangle. At any given time one of the points is at the apex of the triangle and has priority in her life. She attributes her success in life to the support of her loving husband Chris, and her two daughters, Adena and Erica.
**Franklin Lombardo, Research Assistant Professor,** was recently awarded the *U.S. Dept. of Commerce Gold Medal for Distinguished Service.* The National Institute of Standards and Technology (NIST) awarded Lombardo along with Erica D. Juligoski, Long T. Phan, and David P. Jorgensen the medal for their involvement with the federal investigation of the May 2011 Joplin tornado that resulted in 16 recommendations to save lives and reduce losses. U.S. Secretary of Commerce Penny Pritzker said at the ceremony “I want to congratulate and thank NIST’s 2014 award winners, whose work shapes the next generation of technology and scientific research…. (they are) ready to devote their skills, their time and their energy to writing the next great chapter in America’s scientific, technological and industrial history”. Dr. Lombardo has also been involved in developing new wind speed maps for the U.S. wind load standard, ASCE 7. He will soon take up an Assistant Professor position at the University of Illinois, Urbana.

**Professor Michael O’Rourke,** along with former M.S. student Jenn Wikoff received the *Structural Engineering Project of the Year Award—Other Structures.* The awards were presented by the Mohawk Hudson Chapter of the ASCE Structural Engineering Institute in recognition of noteworthy projects in the area. The project was “Snow Related Roof Collapse, 2010-2011 Winter: Implications for Building Codes”. Prof. O’Rourke believes that snow loading is a structural design consideration for roofs in most states and the controlling load for at least some structural component in about half of the United States.

In addition to his research on snow loading on roofs, Prof. O’Rourke is also involved in lifeline earthquake engineering.

**Chris Letchford, Professor and Department Head,** recently began a two-year term as President of the American Association for Wind Engineering. The AAWE is North America’s peak body representing and promoting research and professional activities in the broad field of Wind Engineering which covers: climatology, boundary layer meteorology, bluff body aerodynamics, structural dynamics and hazard analysis. The AAWE sponsors workshops, conferences, and provides a clearing house for all types of questions concerning wind and wind effects on structures.

Dr. Letchford previously served as Chair of the Australasian Wind Engineering Society for six years and becomes the first person to lead two international organizations in Wind Engineering. As the new President, he encourages members to be involved in the organization, to make it more relevant to themselves and to enhance the implementation of the organization’s mission “to promote and disseminate technical information in the research community”.

---

**Franklin Lombardo, Research Assistant Professor,** was recently awarded the *U.S. Dept. of Commerce Gold Medal for Distinguished Service.* The National Institute of Standards and Technology (NIST) awarded Lombardo along with Erica D. Juligoski, Long T. Phan, and David P. Jorgensen the medal for their involvement with the federal investigation of the May 2011 Joplin tornado that resulted in 16 recommendations to save lives and reduce losses. U.S. Secretary of Commerce Penny Pritzker said at the ceremony “I want to congratulate and thank NIST’s 2014 award winners, whose work shapes the next generation of technology and scientific research…. (they are) ready to devote their skills, their time and their energy to writing the next great chapter in America’s scientific, technological and industrial history”. Dr. Lombardo has also been involved in developing new wind speed maps for the U.S. wind load standard, ASCE 7. He will soon take up an Assistant Professor position at the University of Illinois, Urbana.

**Professor Michael O’Rourke,** along with former M.S. student Jenn Wikoff received the *Structural Engineering Project of the Year Award—Other Structures.* The awards were presented by the Mohawk Hudson Chapter of the ASCE Structural Engineering Institute in recognition of noteworthy projects in the area. The project was “Snow Related Roof Collapse, 2010-2011 Winter: Implications for Building Codes”. Prof. O’Rourke believes that snow loading is a structural design consideration for roofs in most states and the controlling load for at least some structural component in about half of the United States.

In addition to his research on snow loading on roofs, Prof. O’Rourke is also involved in lifeline earthquake engineering.

**Chris Letchford, Professor and Department Head,** recently began a two-year term as President of the American Association for Wind Engineering. The AAWE is North America’s peak body representing and promoting research and professional activities in the broad field of Wind Engineering which covers: climatology, boundary layer meteorology, bluff body aerodynamics, structural dynamics and hazard analysis. The AAWE sponsors workshops, conferences, and provides a clearing house for all types of questions concerning wind and wind effects on structures.

Dr. Letchford previously served as Chair of the Australasian Wind Engineering Society for six years and becomes the first person to lead two international organizations in Wind Engineering. As the new President, he encourages members to be involved in the organization, to make it more relevant to themselves and to enhance the implementation of the organization’s mission “to promote and disseminate technical information in the research community”.
Continuing Service

CEE Advisory Board—A message from the Chairmen

“The Advisory Council to the Department of Civil and Environmental Engineering conducted its annual spring meeting on April 6. Many thanks to Chris Letchford, the faculty, and students for hosting us at RPI. The council consists of a diverse group of professionals, most of whom are alumni. Some of us you may recognize as adjunct professors and Capstone advisors. We met with an excellent group of undergraduates, many of whom are looking forward to exciting careers in professional practice. We also spoke with post-graduate students from all over the globe who chose RPI over other prestigious institutions as the place to conduct their research and become Doctors in their respective fields. Our day concluded with a fantastic series of presentations at the EMPAC center, put on by the Bedford Studio. It is a privilege to come back to RPI and interact with the department. It is our hope that we can continue to provide meaningful input for the department head and faculty.”

Leo Fioravanti, ’10, P.E., is a project engineer with HNTB (an infrastructure solutions firm) as well as a member of the CEE advisory board. He is also part of the Capstone Mentoring Program that matches practicing engineers with teams of students to build skills in project planning, engineering, judgement, teamwork, communication and presentation. On a recent visit to HNTB in Albany, the students presented a proposed design for a recreational center including project plans, schedules and design criteria to assembled engineers. The students also had the opportunity to meet with HNTB staff and learn first-hand about opportunities in the engineering field.

From left: RPI Students Finn Hadlock, Christopher Gilmore, Joshua Patten, Myles McDonough and Aaron Shavel; and Leo Fioravanti, HNTB project engineer.