

**THE
PARTNERSHIP
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EXCELLENCE**

PACE



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This PACE Newsletter highlights activities and noteworthy events in the PACE program.

For more information or to submit prospective articles, contact the PACE Team at:

PennState.PACE@gmail.com

AE Welcomes Visiting PACE Fellow Robert Amor

Robert Amor has been a professor of Computer Science at the University of Auckland in New Zealand since 2012. He is a graduate of the University of Wellington where he received his BS in Computer Science in 1990, and the University of Auckland where he obtained his Ph.D. in 1997.

Amor undertakes research in the field of Construction Informatics, with a passion for the application of beneficial computer science techniques to the Architectural, Engineering, and Construction industries. His core research interest is achieving interoperability and to do so he investigates integrated environments, mostly building information modeling (BIM). "I think it's really interesting to see how information modeling has changed the representation of buildings over the last twenty years," says Robert. "We used to use simple geometry to denote doors and windows and whatnot, but now we can use real intelligent objects and programming to constrain how parts of these buildings connect with each other."

Currently, Amor is working with the government of New Zealand to achieve more awareness of BIM and maintain the adoption of its beneficial features. He has also coordinated the working group W78 (IT for Construction) for the International Council for Research and Innovation in Building and Construction (CIB) since 2003. He is also a founding member of CIB's priority theme on Integrated Design and Delivery Solutions, as well as the editor-in-chief for the Journal of Information Technologies in Construction (ITcon).

Amor has been Primary Investigator on a number of major national and international research projects, and successfully bid for approximately \$6 million in research funding both internationally and in New Zealand.

Outside of computer science, Amor enjoys hiking and kayaking through the beautiful wilderness of New Zealand. He also enjoys a variety of jazz music and spending time with his family.

For more information on this, or simply to welcome Dr. Said to the department, please contact him ataus59@psu.edu.



AE Graduate Student Presents at Industry Workshop: Immersive Visualization for Construction, Engineering and Design

In early October, graduate student Jennifer Lather was invited to attend and present at a workshop in Immersive Visualization for Construction, Engineering, and Design at Odeh Engineers' Rhode Island office. She presented a survey of interactive workspaces, or technology-enabled spaces, in a session devoted to understanding the breadth of these technological options to support AEC industry specific tasks. In addition, she held a focus group that concentrated on the classification of these spaces and their respective use cases. Session participants furthered their understanding of the value of interactive workspaces and their respective uses in AEC project settings. Participants also brainstormed additional present and future uses in terms of reasonability and desirability for trends in the AEC Industry. A summary of the results will be developed and incorporated into Lather's Master's thesis, expected to be available in December 2015. The workshop was sponsored by Scalable Display Technologies, a software company specializing in large format display image blending.

For more information on this or related project delivery research, please contact Dr. Robert Leicht at rmleicht@engr.psu.edu.

*The secret of change
is to focus all of your
energy, not on
fighting the old, but
on building the new.*

- *Socrates*



Interactive workspace at Odeh Engineers, Providence RI

Penn State National Electrical Contractors Association (NECA) Student Chapter

The Penn State NECA Student Chapter is a club consisting primarily of Architectural Engineers and Energy Engineers. The clubs' focus is working on an energy retrofit competition, called The Green Energy Challenge (GEC) as well as service work including installation of a photovoltaic solar array in Roatán, Honduras. The club has been extremely successful in these competitions. On October 3rd, 2015 the leaders of the club, pictured below, presented as finalists at the Green Energy Challenge proposal at the NECA National Convention in front of hundreds of electrical construction professionals. The project focused on a lighting retrofit and design of a microgrid on the Henning Building here at University Park. These designs were then estimated and scheduled, accompanied by a financial analysis for the feasibility of the project. The team placed in 3rd this year and will strive to come in 1st in the upcoming competition.

The Student Chapter has been even more successful participating in the Student Passport Program. The team has won the competition the past two years. Last March the team installed a 3kW solar array to provide a water pumping station in Honduras for a community of over 250 families. This upcoming March the team is going back to Honduras to install a 4kW solar array to power a water pumping station to over 500 families. Information about the competitions can be found at this website:

<http://electri.org/content/talent-initiative>



Pictured from left to right: Haley Bendis, Kevin Clement, Nick Kolesar, Gabrielle Reese and Jiye Choi.

If you would like to learn more about the projects or have any questions please contact Kevin Clement at kic5220@psu.edu.

AE CONSTRUCTION FACULTY



Chimay Anumba, PhD - anumba@engr.psu.edu
Professor and Head of Architectural Engineering

Somayeh Asadi, PhD—asadi@engr.psu.edu
www.engr.psu.edu/ae/faculty/asadi/

Robert Leicht, PhD - rmleicht@engr.psu.edu
Director of PACE | www.engr.psu.edu/PACE

John Messner, PhD - jmessner@engr.psu.edu
Director of CIC Research Initiative |
www.engr.psu.edu/ae/cic/

David Riley, PhD - driley@engr.psu.edu
Director of Sustainable Energy and
Construction Initiative; www.cfs.psu.edu

Upcoming Activities

AEI Student Design Competition
March 31-April 1, 2016
Worcester Polytechnic Institute
Worcester, MA

Senior Thesis Presentations
April 11-13, 2016
Engineering Units
University Park, PA

Senior Thesis Competition
April 20, 2016
Nittany Lion Inn
University Park, PA

Upcoming PACE Events

PACE Research Seminar
April 19-20, 2016

Held each spring, the research seminar combines presentations of research results and timely industry speakers for a diverse audience of building industry professional and university students.

PACE Advisory Board Meeting
June 9, 2016

Representatives from PACE Member companies meet to discuss key issues facing the building industry, and establish a research agenda for the next year. This year's meeting will be hosted by Barton Malow Construction at their headquarters in Baltimore, MD.

WE WOULD LIKE TO THANK THE FOLLOWING COMPANIES FOR THEIR SUPPORT OF PACE

Thank you for your support of PACE's 2015-2016 activities!

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