



3-6-2015

## CEAS e-news 03.06.2015

College of Engineering and Applied Sciences

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Western Michigan University

# College of Engineering and Applied Sciences

Engagement ~ Leadership ~ Globalization ~ Innovation

WMU Engineers  
Help Shape  
the  
Future

March 6, 2015

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"Everything should be made as simple as possible, but not simpler."  
~ Albert Einstein

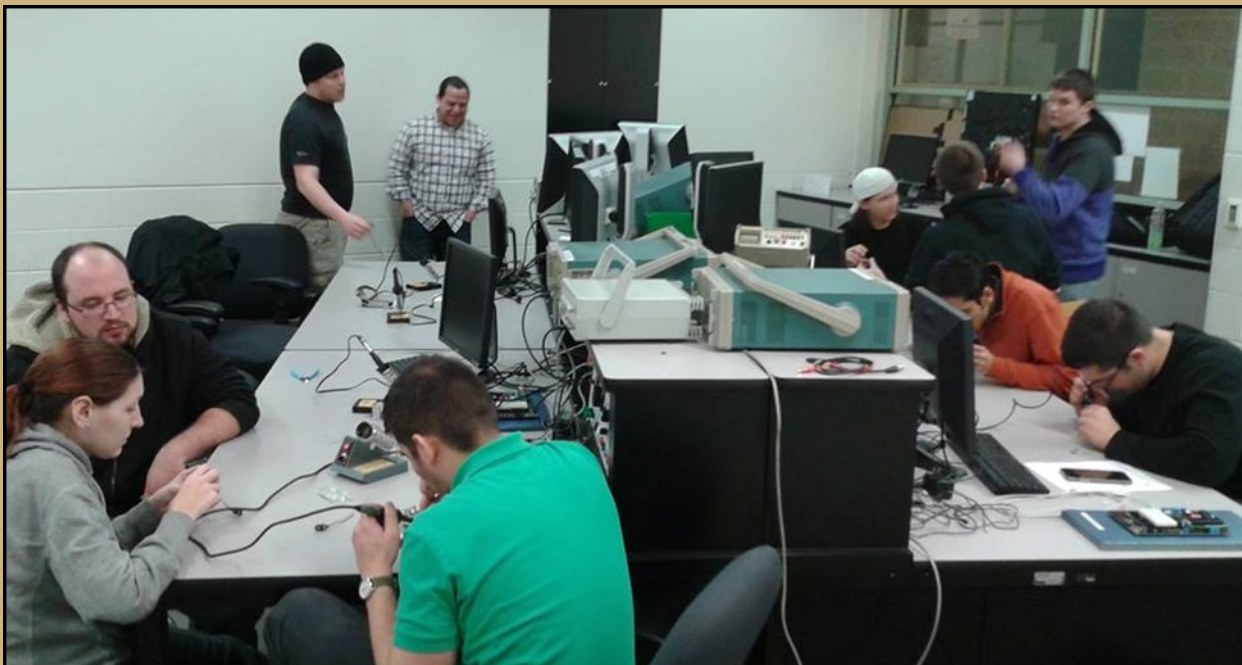
## CEAS News

### The New Raspberry Pi Club is a Joint Initiative

According to **Alan T. Irwin** president of the WMU Raspberry Pi Club, the new student organization is oriented towards providing an open door, microcontroller makerspace for other students. It is based on a relatively new, very inexpensive computing platform called the Raspberry Pi. The club's activities aim to provide students with additional skillsets that will enhance the ones learned in the classrooms. The space itself is equipped in such a way that students may walk in on their own time and learn at their own pace. The club's tools and components will expose student to ideas that they might not have immediate access to, while increasing their chances for meaningful future employment. A secondary goal of the club is to raise awareness about the Computer Engineering and Computer Science Programs with an eye toward undecided majors in the College of Engineering and Applied Sciences. The faculty advisor is currently **Dr. Ralph Tanner** of the Department of Electrical and Computer Engineering.

As a makerspace, the club aims to be available as often as possible in order to be accessible by students when convenient. Students in the space are encouraged to work together to solve problems and share resources to expand their skillset. Tutorials are also provided by the regular members as well as basic instruction on how to advance in personal and class projects. Activities hosted by the club include workshops, presentations, demonstrations and group discussions. Activities can be led by students, faculty, other experts or interested parties. Demonstrations of student projects are also held as an opportunity for students to share their experience and work on communication skills in a relaxed environment.

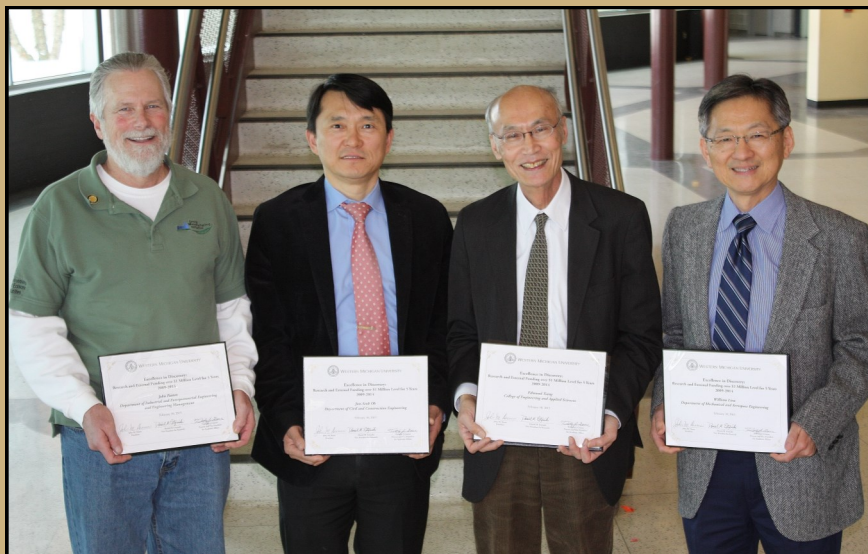
A key element of the club is its equipment which includes a selection of Raspberry Pi microcontrollers, sensors, actuators and other digital components. Students who show up for the open makerspace are encouraged to explore these components and learn their functions. The concept behind stocking these components is that students often learn theory with some application in passing, so having these parts on hand allows exploration at the students pace and without requiring the student to pay further expenses on parts that they aren't certain how to use to begin with. Having equipment on hand also helps raise awareness of what technologies exist and how they function. Students interested in learning more can visit the club's website at : [Raspberry Pi Club](#).



Left, students are participating in lab activities. The key element of the club is its lab equipment which includes Raspberry Pi microcontrollers and a number of other digital components.

[Pi Day](#) is March 14 and it also celebrates Albert Einstein's birthday.

## Excellence in Discovery: Research and External Funding



L-R: John Patten, Jun-Seok Oh, Edmund Tsang, William Liou

Four College of Engineering and Applied Sciences faculty members were recognized recently for research and external funding over \$1 million for 5 years (2009-2014). Receiving recognition by the Office of Vice President for Research and Dr. Dunn, president of Western Michigan University, were Drs. **John Patten**, **Jun-Seok Oh**, **Edmund Tsang** and **William Liou**,

Patten's research focuses on [Precision Engineering](#) with funding from the National Science Foundation (NSF) in the amount of \$1,202,650. Oh's [Transportation Research Center and Livable Communities](#) focuses on traffic management and safety with funding from the U.S. Dept. of Transportation in the amount of \$3,700,000.

Tsang's research focuses on curriculum development and teaching and learning. His most recent awards include two grants from the National Science Foundation [STEM Talent Expansion Program](#) and two grants from the [NSF Louis Stokes Alliance for Minority Participation](#) to support underrepresented minorities, with amounts totaling \$2,609,739.

Liou's research focuses on the development of hybrid electric vehicle systems as part of [Center for Advanced Vehicle Design & Simulation](#). He has also received funding from Borgess Hospital to conduct research on cardiovascular and orthopedic multiphysics simulation, with amounts totaling \$2,321,659.

## Outstanding Supervisor Nominee Enjoys Her Job

**Sara Rodriguez** has been a student employee in the Civil and Construction Engineering dept. since the fall of 2014. She nominated her supervisor **Mary Fosburg**, for the Outstanding Supervisor Award. The 2015 award winners and nominees were announced at a reception recently in the Bernhard Center's East Ballroom. Mary shared that she was honored to be nominated and felt it really reflected more on Sara, a first year freshman engineering student, for taking the initiative to nominate her. Mary stated, "Sara is pretty amazing! I really do love supervising all of our wonderful engineering students. I am a lucky woman to have such a job."



L-R: Sarah Rodriguez and Mary Fosburg

### Upcoming Events

- [Science Olympiad - Saturday March 28th, 2015](#)
- [Senior Engineering Design Conference - April 21, 2015](#)
- [Custer Office Environment Lecture Series](#)



**Society of Women Engineers** partnered with local businesses to sponsor the [Corporate Engineering Challenge](#), an event for girls at the air zoo.

### Stay Connected



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