



July 2016



[Martin Thuo receives three awards](#)

MSE Assistant Professor Martin Thuo will receive three awards to advance his research.

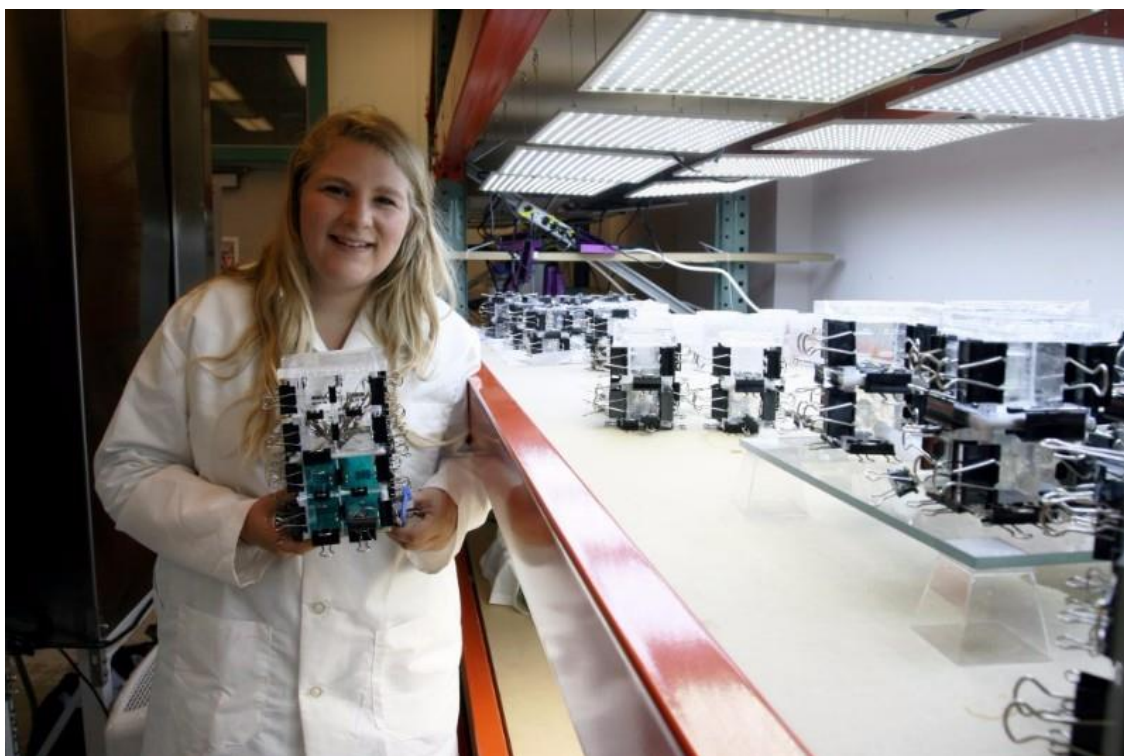
Two of the grants Thuo received are for his work with heat-free solder, a technique used to join and mold metal structures at room temperature. A Small Business Innovation (SBIR) Award from the NSF was awarded to Thuo and his collaborator, Dr. Ian Tevis of SAFI-Tech. This award will help bring this technology into societal and economic sectors by working with start-ups like SAFI-Tech.

A Phase II Regents Innovation Fund (RIF) Grant will also go towards work on

the heat-free solder. The RIF program works with Iowa State researchers to develop innovations with commercial appeal and to help this technology reach the marketplace.

A grant from the U.S.-Korea Nano, Bio, Info Tech (NBIT) Convergence Program will take Thuo's work in a new direction. Thuo proposed a collaborative project that looks to develop technology that will detect hazardous gas molecules at very low concentrations.

To learn more about Thuo's work and his recent awards, please visit the [Elements webpage](#).



Kara Lind: Growing plants in LEGOs

After finishing her B.S. in chemical engineering at Iowa State, graduate student Kara Lind was looking for a change of pace. But she didn't have to travel very far. Staying at Iowa State, Lind is now a graduate student in materials science and engineering.

Lind is now working with different materials to study plant growth. Her work, done with assistant professor of materials science and engineering Ludovico Cademartiri, looks at ways to make affordable tools that help analyze the relationships between plants, bacteria and other organisms.

She says her interest in this work comes from “a desire to benefit society” by addressing global food security.

“We’re not looking directly at the field in an agricultural sense, but we’re looking at understanding how plants respond to stressors,” Lind said. “Knowing plant responses means knowing better ways to grow them, providing efficient ways to meet the growing food demand.”

For more on this story, please visit the [College of Engineering News website](#).



Shaw awarded SPIE Optics and Photonics Education Scholarship

PhD student Santosh Shaw was recently [awarded a 2016 Optics and Photonics Education Scholarship](#) by SPIE, the international society for optics and photonics. Shaw was recognized for his



Liu awarded Brown Graduate Fellowship

Shuaishuai Liu, a PhD student with Nicola Bowler, was recently named a recipient of a 2016-2017 Brown Graduate Fellowship. The Brown Fellowship is a program that encourages and promotes research at Iowa

potential contributions to the field of optics, photonics, or other light-based science. He works with MSE Assistant Professor Ludovico Cademartiri.

State focused on science, agriculture, and space science. Liu is one of 14 students across campus to receive this award.

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Our mailing address is:

Iowa State University
Materials Science and Engineering Department
2240 Hoover Hall
528 Bissell Road
Ames, IA 50011-2300

To unsubscribe, please email mseelements@iastate.edu
