Two engineers tabbed top technology teachers

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The Educational Technologies at Missouri (ET@MO) Excellence in Teaching with Technology Awards shine a light on Mizzou faculty who are on the cutting-edge of using technology to improve their work as educators. That light shone brightly on two Mizzou Engineering faculty this year.

Prasad Calyam (http://engineering.missouri.edu/person/calyamp/) won the Graduate & Professional Teaching Award, and Heather Hunt (http://engineering.missouri.edu/person/hunth/) took home top honors in the Undergraduate Teaching category in this year’s Excellence in Teaching with Technology Awards. Calyam is an assistant professor in the Electrical Engineering and Computer Science Department, and Hunt is an associate professor of Bioengineering.

“I was really pleasantly surprised that we had an award for that, and moreso that I was nominated,” Hunt said. “I was like, ‘Wow, I really didn’t think I was that good. I’m glad you guys think so.’”

Hunt began working with ET@MO about five years ago, turning her introduction to materials engineering into an online course. She filmed video lectures and structured the course materials in a way conducive to online learning with the assistance of instructional designers like Carmen Beck at
ET@MO. It has gone so well over the years that she's incorporated many online aspects into her live version of the course, including the videos, ability to virtually connect with Lafferre Hall computers that contain needed software, virtual office hours and more.

“It’s super easy to keep it current and adaptive,” Hunt explained. “We also use new tools when they come out, and I can adapt to that, and it frees up a lot of your time because you don’t have to physically be teaching three hours each week. You can teach online but still have all this great engagement with students, and it allows students a lot more flexibility in scheduling.”

Hunt said she even plans to use the online portion of her course as part of a study to measure student performance in the in-person portion and online portion. She’s an advocate for an increase in online courses, particularly for technical electives, which students often must choose between because they are sometimes scheduled at the same time.

“Thank goodness we have experts [at ET@MO] in this on campus who can help faculty. It’s probably one of the best support systems we have on campus to help faculty teach well,” she said.

Calyam’s area of expertise naturally lends itself to being on the technological forefront. He was recognized for his work in the graduate courses Cloud Computing I and II. The curriculum he developed uses actual cloud platforms such as Amazon Web Services and NSF GENI/CloudLab. He created a set of laboratory exercises and projects based on real world problems that use these cloud platforms to create a unique method of experiential learning for the students.

“What I teach in class is bringing the foundation of many core computer science concepts, integrating them with the latest technologies and integrating them to help students work on important problem solving exercises. We’re reinforcing the foundation with hands-on skills with actual cloud platforms and team-based projects,” he explained.

Calyam credited his doctoral student Ronny Bazan Antequera for helping with the development of some of the laboratory exercises. He also recognized the hard work and interesting project deliverables of the students in the course over the years, which in turn have been repurposed to keep the course content up to date given the rapid change in cloud technologies.

“The students took advantage of this opportunity to use the technology presented to them in the classroom, and a lot of students have written back to me and said they got jobs because of this course or that what they learned in the course helped improve their job skills at work and their internships,” he explained. “Student projects have been recognized by peers nationally and
internationally in cloud computing testbed research. It’s a showcase of the success of our students. We have a really good student base and, given the opportunity and access to state-of-the-art technology, they are able to really stand out in the community.”