New EPIC Studio Will Equip ENG Students with Design Skills

BY MANY ACCOUNTS, manufacturing is making a comeback in the United States. US manufacturers have added 500,000 new workers since the end of 2009, energy costs have dropped, and labor costs in competing countries such as China and India have been inching upward.

College of Engineering graduates may well be among the first to benefit, thanks to Kenneth Lutchen, ENG dean and a professor of biomedical engineering, and to an $18.8 million in-kind gift of product design and lifecycle management software from PTC® that is currently used by about 27,000 manufacturers worldwide. Under Lutchen's leadership, the college is transforming its curriculum so that all students, regardless of major, will graduate with a thorough understanding of how to develop new products, from concept and design through manufacturing and delivery.

That knowledge will be nurtured in the new Engineering Product Innovation Center (EPIC), a 20,000-square-foot teaching and design studio equipped with the latest industry technology that will be housed in the former Guitar Center space at 750 Commonwealth Ave.

While other schools are making efforts to prepare engineering students for advanced manufacturing, says Lutchen, the ENG program is unique in how it will transform the entire engineering curriculum, enabled by modern technology and software infrastructure and through a partnership with regional industries.

> $18.8 million in-kind gift helps transform engineering curriculum

"It's going to create a new kind of engineer, who knows what's involved in product creation," Lutchen says. "This facility is meant to expose students to how you go from an idea to a manufacturing-ready and deployable product that you can make money with—and all the steps in between."

Funded through the University, ENG alumni, and regional industries, EPIC is scheduled to open in January 2014. It will house a computer-aided design (CAD) studio, demonstration areas, fabrication facilities, materials testing, and project management software. The facility will have a flexible design and offer students supply chain management software,

COURTESY OF WILSON ARCHITECTS

The Engineering Product Innovation Center (EPIC) will be housed in the former Guitar Center at 750 Commonwealth Ave.

CYDNEY SCOTT

Michael Campbell (ENG'94) (left), executive vice president of PTC's CAD segment, and ENG Dean Kenneth Lutchen discuss plans for EPIC. PTC is making an $18.8 million in-kind software gift to the center.

3-D printers, robotics, and laser processing.

"Wherever possible, things are going to be put on wheels," says Gerald Fine, EPIC director and an ENG professor of the practice in the mechanical engineering department. "We'll continually be looking to update and replace old equipment over the course of the life of the center."

And while EPIC will be one of many learning spaces for engineering students, its opening signals a sea change for the college's undergraduates. Starting with a small pilot program next spring, all sophomores will be able to take an engineering design course, and all students will have access to EPIC's labs. Students will be trained in and use PTC Creo®, the company's award-winning CAD software, and PTC Windchill® product lifecycle management software, which will integrate real-world processes, data, and business systems into the classroom.

"When I first heard from Dean Lutchen about the idea of EPIC, I was thrilled," says Michael Campbell (ENG'94), executive vice president of PTC's CAD segment, who will serve on EPIC's advisory board. "I always felt that my engineering education lacked that real-world perspective, that real-world exposure to the challenges, processes, and complexities of collaboration and the sophistication of tools. Now we have a chance to share all of that with students." LF

A Superhero Gesture

A Scottish soldier raises funds for Marathon bombing victims

ON MAY 19, A SCOTTISH reservist deployed in Afghanistan donned a muscled Batman suit and ran 16.2 miles through the 100-degree heat of Helmand Province, all for a very good reason: to raise money for the victims of the April 15 Boston Marathon bomb attacks—including $314 for the scholarship fund established by the University to honor BU graduate student Lu Lingzi (GRS'13), who was killed in the bombings.

Staff Sergeant John Castle (right), a Scottish reservist deployed in Afghanistan, battles temperatures reaching nearly 100 degrees as he runs a race to raise money for victims of the Boston Marathon bombings.

Staff Sergeant John Castle, 45, who ran alongside US Marines at Camp Leatherneck, admits that the full-body costume "got a wee bit hot around the chest area," but he still came in well ahead of the main field, with a time of 2 hours and 16 minutes.

Castle, who is serving a six-month tour, is the squadron quartermaster sergeant for the small contingent of British servicemen attached to the US Marine Corps headquarters, responsible for their accommodation, food, vehicles, and equipment.

The Scottish sergeant from Dundee requested special permission to run in costume—outlandish clothing is usually prohibited—to pique the interest of sponsors. "I thought it would be a great idea to raise funds, and the dafter the better," he says. "The Batman suit was sent out by my wife, who thinks I have lost the plot and did not ask why."

He is one of more than 1,200 donors from 28 countries who have collectively contributed over $900,000 to the Lu Lingzi Scholarship Fund. Lu was one of 3 people who lost their lives in the Marathon blasts, which injured more than 260. Originally from Shenyang, China, she studied international trade at the Beijing Institute of Technology and was pursuing statistics at BU, where she excelled in her classes.

"The outpouring of generosity around this scholarship has been incredible and humbling," says Scott Nichols, BU's senior vice president for development and alumni relations. "Talk about going the extra mile. This gentleman went the extra 16 miles—in the desert, wearing what amounts to long johns, a mask, and a cape—to honor Lingzi's memory by helping us provide aid for future students in her name. We smile at the means of the gift, but we're also touched and grateful."

Castle plans to put his super suit back on to run the 2014 London Marathon next April. He was "chuffed to bits" that he was able to contribute to the recovery of the Marathon bombing victims and their families. "It's easy for me—I just had to keep running," he says. "It won't be that easy for them." ■