Ira A. Fulton challenges all engineering alumni

Fulton will match alumni gifts if school wins his challenge to raise $500,000 by Dec. 31

More than a year ago, Ira A. Fulton and Mary Lou Fulton invested $50 million to support academic and research efforts of engineering students and faculty at Arizona State University.

While an endowment like this assists with the long-term stability of the Ira A. Fulton School of Engineering and its departments, such as electrical engineering, annual gifts to the school’s departments can have a direct immediate impact on students and faculty.

Fulton understands this very clearly and launched a challenge to all alumni, students, faculty, and staff of electrical engineering and the school.

If you make an annual gift this year to any area of the department or school, Fulton will match your gift up to $5,000. Those who have not given in more than five years will have their gifts matched two to one. This means a $200 tax-deductible gift from a non-donor would turn into $600. Those who work for a matching gift company could move their total gift impact up to $800 with their added match.

“The threshold of $500,000 needs to be met by Dec. 31 to take advantage of this opportunity,” said Mark Brower, senior director of development at the Fulton School.

Currently, alumni have donated $325,000. The school needs to raise $175,000 by the end of this year to win the challenge.

Fulton’s challenge was spurred by a recent dean’s advisory committee meeting of which Fulton is a member, Brower said.

The committee was discussing that 3.8 percent of Ira A. Fulton School of Engineering alumni currently donate compared to the national average of alumni giving back to their engineering schools, which is approximately 26 percent.

“That’s when Mr. Fulton put forth his challenge,” Brower said. “This is unprecedented for donors to a public university where they selected one academic school and put forth an annual giving challenge at this level.”

Alumni can donate either on the phone or online and make donations to any specified department, scholarship or program that directly impacts students and faculty.

Brower’s hope is that the challenge will encourage alumni to become more involved with their school, and in particular, with their departments.

“It’s not necessarily how much you can give,” he said. “It’s just that you can give back.”

For more information, visit www.fulton.asu.edu/fulton/challenge or call (480) 965-9646.

Letter from the chair: Let us know how you are doing

We are pleased to publish our Fall 2004 issue of the EE Connections, ASU’s Department of Electrical Engineering alumni newsletter. This year, the department continues to change and evolve.

Professors Walter Higgins and Edwin Greeneich retired after long and distinguished careers at ASU. Both are well remembered by alumni. The department continued its growth on the other hand with the hiring of six new faculty this year in critical technology areas related to mixed signal design, VLSI design, radhard electronics and power systems.

Again, thank you for sending us your career updates and suggestions. We greatly appreciate hearing from you. Please send us your story and any suggestions you might have to eeinfo@asu.edu. Also, keep in touch with our department at www.fulton.asu.edu/-eee.

Stephen Goodnick
Chair, Electrical Engineering

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All it took was just one EE class

A fiberoptics course inspired one alumnus to change his career path, igniting a future at NIST labs

In the scheme of things, one class doesn’t seem like it matters a whole lot. But for some, it can change their entire career path.

As a freshman, Kent Rochford entered the electrical engineering department thinking he wanted to study analog and digital electronics systems.

One class persuaded him to think otherwise—a fiberoptics and laser course taught by Professor Joseph Palais.

“I got hooked into that and never looked back,” he said.

For Rochford, his education at ASU exposed him to new technologies and helped turn that knowledge into a foundation for a successful career at the National Institute of Standards and Technology (NIST).

“It’s just one example of walking into school, wanting to do one thing,” he explained. “You then find out the world is bigger and you find things even more interesting.”

Rochford finished his B.S.E.E. degree at ASU focusing in fiberoptics in 1982 and was hired after graduation by 3M to work in its corporate research lab doing nonlinear optics. He was one of the only bachelor graduates among several employees who held doctorates.

Working there inspired him to apply to graduate school to earn his master’s and his doctorate in electrical engineering. He graduated with a Ph.D. in optical sciences from University of Arizona in 1990.

From there, he worked at NIST for eight years, and also was involved during that time with two start-up companies that focused on fiber optic sensors, polarization metrology, and fiber communications systems.

Looking back, Rochford believes that his overall experience at ASU helped secure a solid background for his current job. Additional courses like engineering communications also provided vital writing and presentation skills for the workplace.

“Over the course of 20-something years, [engineering communications] would pop up now and again,” he said.

And, of course, the courses in fiberoptics are not only remembered fondly by Rochford, but also relate to a large portion of his daily work schedule.

“The best part about my experience [at ASU] was being exposed to these technologies that I haven’t heard anything about and turning it into a career,” he said.

Rochford resides in Boulder, Colo., with his family. He enjoys hiking, breweries and playing drums.

Now Rochford is the chief of the Optoelectronics Division at NIST in Boulder, Colo. His division manages activities that range from laser power meter calibrations to R&D in nanostructure metrology and single photonics. The NIST laboratories conduct research that advances the nation’s technology infrastructure.

According to the division’s Web site, its mission is to provide the optoelectronics industry with technically advanced measurement capabilities and traceability to national standards.

Since 1967, the division has been providing calibration for characterization of lasers and detectors to different companies nationwide, calibrating approximately 200 lasers each year.

“We are proud to have an ASU graduate in such an important and prestigious position as Kent’s,” Palais said.

Student humanitarian engineering group seeks professional mentors

Students at the Fulton School have formed a new group, Engineering Without Borders, and are seeking alumni who would like to become a mentor.

EWB is an international student humanitarian organization that focuses on projects for communities in developing areas that need assistance in technical areas. Projects include water resource development and purification, electrification of education or medical facilities, drip irrigation, bridges or dams. Each project team has five to 10 students and a professional mentor.

If interested in becoming a mentor, contact EWB president Joby Carlson at joby.carlson@asu.edu. For more information about the program, visit www.ewb-usa.org.

Thesis defense schedules posted on EE site

More than 40 masters’ and doctorate students are graduating this fall. Find out more about their defenses in the new thesis defense schedule posted at www.fulton.asu.edu/~eee/Grad/ThesisDefense/ThesisSchedules.html
Where are they now? Find out about EE classmates

Alumnus: William R. (Bill) Buckellew
B.S.E.E. 1973; M.S.E.E. 1974
Principal Engineer
Jacobs Sverdrup, Eglin AFB, Florida

One of many veterans going back to school in the early 1970s, I went to ASU under the Air Force Institute of Technology (AFIT) program. I spent the remainder of my USAF career in flying and intelligence, retiring after 27 years in 1992.

Then I joined Sverdrup Technology, Inc. as a test engineer for advanced weapons systems at Eglin Air Force Base in Florida, continuing through now and expecting to do so until it is no longer any fun.

One of my best mentors at ASU was a fellow student, Albert H. Winkler, Jr. who had returned to school after retirement. He continued to tutor until his passing last year at age 90.

Thanks to Drs. Palais, Tice, Kelly, and particularly Murray Sirkis, who in addition to being a great instructor, also became a close friend during a time of personal difficulty. They taught this liberal arts graduate the engineering thought processes so valuable today.

Alumna: Shahpar Shahpar
B.S.E.E. 1994; J.D. 1998
Attorney
Snell & Wilmer
L.L.P.

After graduating in electrical engineering from ASU, I interned with the Arizona Governor’s Office in order to breach the gap between engineering and law school. I also began working for Motorola as an electrical engineer. Motorola had a work-study program, which I took advantage of during law school at ASU.

While at Motorola, I worked in both electrical engineering and intellectual property, which gave me both technical and legal experience. As an attorney with Snell & Wilmer, I practice in an area of law called “intellectual property,” which usually requires a technical background.

I basically deal with the areas of patents, trademarks, copyrights, trade secrets and general intellectual property counseling. Intellectual property has a nice mix of technology and law. I love technology and I love being an attorney, so I get the best of both worlds in this niche profession.

Alumnus: Clarence McCallister
B.S.E.E. 1991; M.S. 1997
President
Fortis Networks
Phoenix

After graduating with a B.S.E.E. in 1991, I returned to my native Panama, where I worked for the Panama Canal for four years. In 1995, I returned to ASU to start the M.S. program.

After graduating with a M.S. in 1997, I was an RF Engineer with Verizon Wireless, and later with Lucent Technologies. I also worked for several years in the Fiber Optic Division of Lucent Technologies.

In 2000, I founded Fortis Networks. The company is a systems integrator in specialized wireless and fiber optic networks.

The company has completed several high profile projects for the City of Phoenix, City of Glendale and Sprint PCS.

Fortis Networks is well positioned to take advantage of the rebound in the telecommunications industry.

Editor’s note: Clarence recently helped the Palais’ fiber optic class by allowing use of some of his fiber splicing equipment.

Networking with engineering faculty and alumni

The Ira A. Fulton School of Engineering alumni chapter hosted its first Alumni Networking Happy Hour on Oct. 8 at the Grilled Expedition in Tempe. Pictured here are (left to right) alumnus Clarence McCallister, department chair Dr. Stephen Goodnick and alumna Shahpar Shahpar.

For more information about other Fulton School alumni events, visit www.fulton.asu.edu/fulton/alumni/index.php.

Alumnus: Edmund L. Mangan III
B.S.E.E. 1973
Energy Design & Consulting

I graduated in December 1973 with a B.S.E.E. in electrical engineering. I was on active duty with the U.S. Air Force at the time.

After graduation from ASU, I went to the Air Force Officer Training School. In 1981, I finished my 20 years with the Air Force. In 1977-78, I was an aircraft maintenance officer at Williams AFB.

Shortly after leaving the Air Force, I started to work in the energy management field. I have been in that field for 22 years.

For over 15 years, I have been an energy efficiency consultant for schools and businesses. I currently own my own company, Energy Design & Consulting.

Please e-mail us your career updates to eeinfo@asu.edu
We would like to have you keep in touch and update us as you progress in your career. Please send us the following information for our alumni records:

- Name
- Semester/Year Graduated
- Degree
- Company
- Position Title
- Address/E-mail/Phone
- Personal Statement

Please e-mail the above information to eeinfo@asu.edu. An alumni contact form is also available on our Web site at www.fulton.asu.edu/~eee/Forms/index.html. We look forward to hearing from you!