Electrical Engineering

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The Integrator

UNIVERSITY OF WASHINGTON
COLLEGE of ENGINEERING
A Community of Innovators

In this issue

Honoring Donald Close:

A Distinguished Alumnus and Department Friend

The department is saddened to announce the death of one of our most distinguished alumni and closest friends, Mr. Donald Wyman Close. Don passed away at his home on Mercer Island on April 26, 2006 and is survived by his wife of 68 years, Mrs. Ruth Mary Close, six children, thirteen grandchildren, and seven great grandchildren.

As a UW alumnus, Don received his B.S. in Electrical Engineering in 1937, and in time, founded his own electrical contracting business, the Donald W. Close Company. In one of our many conversations with Don, he shared the impetus for starting the company—no turkeys at Christmas. It seems that the company Don used to work for quit giving employees a turkey at Christmas time. This frustrated Don so much that he resigned and began his own company where he would share the success he achieved with his employees.

Donald Close, 1937 Alumnus.

Don and his company specialized in commercial, industrial, and government construction, with special expertise in unusual or technically complex projects. He had a particular ability and interest in high-voltage transmission work and was involved in everything from submarine transmission lines, to the construction of remote island power plants.

In addition to Don's engineering work, he provided exemplary service to the community. Some of his many awards include the Associated General Contractors President's Award for Outstanding Service, the President's Trophy from the Northwest Construction Council, and election to the Academy of Electrical Contracting.

Don actively supported the Boy Scouts of America, the Episcopal Church, and the University of Washington. Mr. and Mrs. Close's commitment to UW culminated in a pledge of $1.5 million to the Donald W. and Ruth Mary Close Endowed Chair in Electrical Engineering.

Message from the Chair

Last spring was full of good times as alumni, faculty, staff and students gathered at the EE Centennial to celebrate the department's people and achievements from the last 100 years. It was great to see everyone, and I thank all who attended and helped make this event memorable.

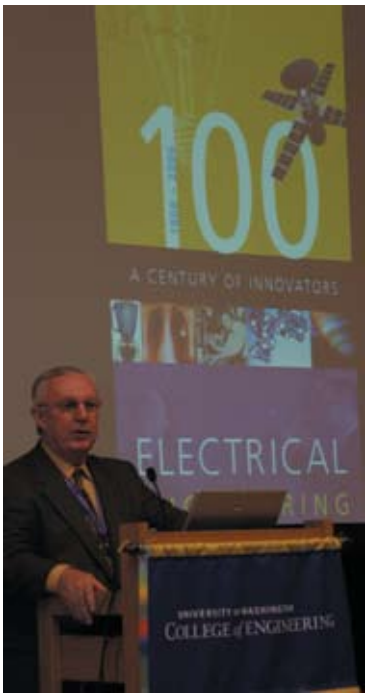
Several tributes to people who have meant so much to our department have recently been realized. In honor of Professor Emerita Irene Peden's accomplishments in the field, many faculty have made significant contributions to establish the Peden Fellowship, which will give future students the opportunity to make a mark of their own (see page 4). The Dean Lytle Electrical Engineering Lecture Fund will pay tribute to Dean, thanks to his family, friends and students, and the leadership of alumnus Louis Scharf (see page 7). And, as you read in the cover story, our dear friend Don Close's passion for electrical engineering will live on for years to come, thanks to Don and Ruth Mary's generosity.

As we begin this academic year, I would like to welcome to the College of Engineering, dean Matt O'Donnell. Matt comes to UW from the University of Michigan's Department of Biomedical Engineering, where he served as chair. We're excited to have him on board, and look forward to working with him to ensure EE achieves its full potential.

And finally, the department will be kicking off its new undergraduate curriculum this year. The new curriculum is responsive to the feedback we received from alumni and industry, and it yields a program with strong EE fundamentals and new flexibility in electives to allow our students to take courses in business, medicine, law, and other pursuits. More details on this topic will be shared in the spring edition of *The Integrator*.

As we reflect on recent months, our alumni's presence and involvement is an increasing—and welcome—phenomenon, and we look forward to seeing all of you again soon.

David J. Allstot
Professor and Chair, Electrical Engineering
Boeing-Egtvedt Chair in Engineering



Thanks for all the Memories!

EE Centennial Celebration 1906 - 2006

A Legacy in the Making

A bequest gift to Electrical Engineering is a thoughtful way to achieve your charitable goals while creating brighter futures for generations to come. When you make a bequest, your assets remain in your control and you can modify your gift anytime your circumstances change. What your gift benefits is up to you – you can support students through a scholarship or fellowship, faculty through a professorship or chair, or a specific program. Bequest gifts create a legacy of support that can last in perpetuity.

To learn more, contact the EE Development Office at 206.685.9816, or visit www.ee.washington.edu/supportee.

Department News

Paving the Way for Future Engineers: The Irene C. Peden Fellowship

As the first female faculty member in the UW College of Engineering, Irene Peden has served as a pioneer and a national icon for women in engineering. At a time when women in engineering were mostly unheard of, Irene began her career in 1962 and broke through countless barriers to establish a reputation of excellence and esteem in a traditionally male-dominated field.

Irene and Kobe.

So how did Irene become interested in electrical engineering? It all began when her physics professor at Kansas City Junior College encouraged her to enter engineering. Irene was a college student during WWII when some women were in roles that were traditionally held by men. Irene approached the challenge of being one of the few women in the field of engineering with confidence and persistence, strengths she attributes to her mother. Irene's mother was a college math teacher, an unusual role for a woman at the time, and a country school teacher. Her ability to remain positive and enthusiastic despite facing challenges set an example for Irene, who herself has become an inspiration for the many women engineers who have followed in her footsteps.

Irene thrived in her career, with many notable contributions to electrical engineering, including her research with geophysical subsurface remote sensing, radio science, electromagnetic wave scattering and propagation. Among myriad awards and honors, Irene was the fourth woman elected as an IEEE Fellow, and a member of the National Academy of Engineering. She was the 1973 recipient of the Achievement Award of the Society of Women Engineers and a 1993 inductee in the ASEE Hall of Fame, one of only 40 people to have received this honor in 100 years.

To honor Professor Emerita Irene Peden, fellow electrical engineering faculty members created the Irene C. Peden Graduate Fellowship in Electrical Engineering. To date, the Peden Fellowship has received $80,000 in gifts and pledges from faculty, friends and alumni, a testament to the importance of fellowship funding and a high regard for Irene. The goal for the fund is $100,000, an amount that will yield sufficient investement revenue to provide generous fellowship funds each year.

Professor Sinclair Yee Retires

Professor Sinclair Yee faced many economic, cultural and language barriers upon emigrating from China as a teenager in the 1950s in order to become the distinguished scientific researcher and community activist that he's known as today. After a long and successful career, Yee celebrated his retirement and was presented with UW's Outstanding Public Service Award in June 2006.

Yee received his B.S., M.S., and Ph.D. degrees in electrical engineering from the University of California, Berkeley, and joined UW EE in 1966. In 1974, he was promoted to full professor, and in 1979, was named an IEEE Fellow. His research ranged from semiconductor physics, various types of chemical and optical sensors, and to most recently, surface plasmon reso-

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Professor Yee receiving the 2006 Outstanding Public Service Award from UW's President Mark Emmert.

Department News

In Memory of Endrik Noges

On June 6th, 2006, Professor Emeritus Endrik Noges passed away at the age of 79. Endrik made the most of every opportunity life handed to him. As an esteemed professor, he showed colleagues his dedication in the field, and as a World War II labor-camp survivor, he showed everyone the importance of overcoming life's struggles.

At age 17, Endrik escaped Estonia and Soviet rule, but was placed in a German labor camp for six months before World War II ended. After Allied forces freed him, he worked for the U.S. Army as a civilian in Germany. He finished high school in Germany with many other Estonians, and was offered a scholarship to Denison University in Ohio.

In 1958, Endrik became an assistant professor, and joined the late professor Bob Clark as the 2nd faculty member in the controls area.

Endrik's dedication made him an obvious choice for the assistant dean of engineering in 1965, where he worked on continuing education programs through 1972. He was promoted to full professor in 1969.

Endrik co-authored a book in German on pulse frequency modulated control systems with Professor Paul M. Frank during his sabbatical year in Germany. This visit started an extended collaboration between the University of Washington and Gerhard Mercator University in Duisburg, Germany.

In 1983, Endrik became the first Director of Televised Instruction in Engineering, and pioneered a system of remote course access that has continued, in one form or another, to the present. In 1986, he became associate chair to Robert Porter. After Porter stepped down as chair, Endrik became acting chair and ran a very active faculty recruiting effort in 1988-89, hiring six new faculty.

Professor Mark Damborg said Dr. Noges offered stability and guidance while he was department chairman. "He was one of the solid citizens of the department," he said. "He was the voice of reason — the person people consulted." Endrik retired and became a professor emeritus in 1993, continuing to help the department via, for example, his key role in planning the 2006 Electrical Engineering Centennial Celebration.

Endrik also consulted at Boeing for more than 30 years and volunteered as a member of the National Ski Patrol at Crystal Mountain for 29 years. He is survived by his wife, Evelyn, his three children Paul, Rob and Linda, and seven grandchildren. ∫

Yee Retires

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nance sensing systems. He served as Editor for North and South America's leading sensors journal, *Sensors and Actuators B* from 1998 to 2001.

As an advisor, he guided many master's and Ph.D. students who are now leaders in their field. "Sinclair was a very human advisor," said Tim Chinowsky, who received a Ph.D. under Sinclair in 2000. "His main interest was to see his students succeed, and he worked hard to help everyone meet their potential."

Around the department, Yee is known for his integrity, frankness, honest communication, clean living, and expertise in selection of Chinese restaurants, whether for dim sum, or more exotic specialties such as jellyfish and duck feet.

Yee and his wife, Genevieve have also made significant contributions to the larger Seattle community. In the 1970s, they founded the Chinese Information Service Center to help immigrants transition into life in America through language instruction, employment assistance, and other social services. This non-profit organization now assists over 4,500 people each year through 30 full-time staff members and a budget of $2.4 million. In recognition of this work, Yee was presented the UW's Outstanding Public Service Award for 2006. ∫

Student News

EE Fulbright Fellow Heads to Vietnam

Tho Nguyen had always dreamed of combining his research interests in control systems with his passion for working in Vietnam. As a Fulbright Fellowship recipient for 2006-07, Tho can continue to live out this dream.

At a very young age, Tho knew he wanted to be an engineer, specifically to study robotics. He was born and raised in the Mekong Delta of southern Vietnam, and his family immigrated to the United States when he was 12. He completed his undergraduate degrees in electrical engineering and applied mathematics at UW, and is currently in the department's Ph.D. program advised by professor Linda Bushnell.

The initial opportunity to go to Vietnam came when Tho received an NSF IGERT (Integrated Graduate Education and Research Training) Fellowship to work on the project titled, "Multi National Collaboration on Challenges to the Environment." Since 2004, he has made three trips to Vietnam to set up a project looking into hydrological management in the Mekong Delta.

With further support from the Fulbright Fellowship, Tho will continue to work on his project in Vietnam during this academic year.

The river is important to the Mekong Delta economy. When a gate is closed, it disrupts the transport of goods. Minimizing the closing period is an essential goal of this project.

Photos show a sluice gate being opened.

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Graduating Students to Professor Roles

Congratulations to the following Ph.D. graduates who have taken tenure-track faculty positions at top universities this academic year:

Izhak Shafran, Assistant Professor, OGI School of Science & Engineering Oregon Health & Science University
Advisor: Professor Mari Ostendorf

Melissa Meyer, Assistant Professor, Michigan Technological University
Advisor: Professor John Sahr

Jeyanandh Paramesh, Assistant Professor, Carnegie Mellon University
Advisor: Professor David Allstot

Cameron Charles, Assistant Professor, University of Utah
Advisor: Professor David Allstot

"About 10-20% of graduates from the top EE departments at U.S. universities take academic positions immediately upon conferment of their Ph.D. degrees," says professor Leung Tsang, associate chair for education. "I am pleased to see that we are reaching this percentage landmark." ∫

Alumnus Louis Scharf.

Scharf Leads Efforts to Honor Professor Dean Lytle

For those privileged to work with or learn from Professor Dean W. Lytle during his 38 years at UW, he is remembered as a man of quiet civility and towering intellect. As professor of electrical engineering and consultant extraordinaire for Honeywell Marine Systems Center, Dean enriched the personal and professional lives of Huskies and Honeywellers alike.

To honor Dean's memory, alumnus Louis Scharf is leading an effort to personally contact several of Dean's students and colleagues to endow, in perpetuity, the Dean Lytle Electrical Engineering Lecture Fund. The lecture fund strives to convey the excitement and promise of current developments in electrotechnology to the academic and industrial communities, while remembering and paying tribute to Dean.

Louis remembers Dean with great admiration. "In my case, he was simply the most influential person in my life." Louis received his B.S., M.S. and Ph.D. degrees from UW EE in 1964, 1966 and 1969, respectively. Dr. Scharf is currently a Professor of Electrical and Computer Engineering at Colorado State University and is chief scientist for Tensorcomm, a privately held wireless technology company.

Marilyn Lytle is very pleased to see her late husband honored in such an appropriate way. During his days at the UW, Dean seldom missed a guest lecture, which she says he always enjoyed. When looking at Dean's old calendar books, Marilyn found that they are filled with such appointments.

Professor Emeritus David Johnson (left) and the late Dean Lytle (right).

Thanks to the support of Dean's friends, colleagues, and family, the endowment currently stands at $50,000 with a goal of reaching $100,000, an amount that will yield sufficient investment revenue to hold an outstanding lecture each year.

To Louis Scharf and many other alumni, the Lytle Lecture Fund is an appropriate way to honor Dean's memory and perpetuate his influence on future engineers. ∫

EE's First Ph.D. Mentors One of His Best

John Thomas Receives Ph.D at Age 70

As a member of the graduating class of 2006, John Thomas at the age of 70, took a different path than most UW graduate students. John graduated from Roosevelt High School in 1953, and from there went on to get his B.S. in physics from California Institute of Technology. After graduating, John spent 37 years at Boeing, working on projects such as the Lunar Orbiter I, the Mariner Venus/Mercury and the B2 bomber.

In 1997, after being retired for two years, John decided it was time to pursue a graduate degree. Enrolling at UW, the institution his parents

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John Thomas (right) and his advisor Professor Emeritus Akira Ishimaru at the 2006 graduation.

John Thomas

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and his brother chose, John began the process of earning his M.S. in elctrical engineering. In 1998, he completed his master's degree, and from there went on to earn his Ph.D. in 2006, also in electrical engineering.

John describes his advisor, Professor Akira Ishimaru, as an integral part of why he went back to school. "His advice regarding which topics were worth investigating was invaluable, and he always had helpful ideas when I had reached a difficult point in my research."

Akira describes John as motivated and dedicated, with exceptional intelligence and perseverance. "I am not sure if he may be the oldest person who has received a Ph.D. in our department, but I am sure he is one of the best."

The outstanding relationship between Akira and John highlights what so many students have found in Akira: an exemplary engineer and professor who always makes the mentorship and encouragement of his students the top priority. ∫

Fulbright

(Continued from page 6)

The fertile Mekong Delta is an integral part of Vietnam's economy, and home to many rare species of birds, fish, mammals and unique ecosystems such as mangroves and wetlands. It has been exploited, particularly by intensive aquaculture, with relatively little consideration for its complex ecology and environmental consequences.

Tho's project addresses the environmental priorities assessed by Can-Tho University (CTU) scientists by strongly coupling education with technology-based solutions to monitor the Delta's water resources. Specially adapted robust sensor modules and new control engineering methods for managing the sluice gate operations are currently being developed. As part of a collaborative effort with the Mechatronics Department at CTU, university-level curricula, workshops and student exchanges are also being developed. ∫

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