ECE Alumni and Friends Honor Dr. Aram Budak

More than 160 alumni, faculty, and friends returned to campus on October 15 for a celebration to recognize the achievements of retired Professor Aram Budak, who taught in the Department of Electrical and Computer Engineering for more than 30 years.

Throughout the event, Dr. Budak and his wife, Helga, enjoyed reminiscing and reconnecting with former students, colleagues, and friends. "It was really amazing that so many former students showed up, many traveling long distances from all over the United States," said Dr. Budak. "I was particularly delighted to see four of my Ph.D. students and their wives."

The reception included a short program with brief remarks from alumni and former colleagues, as well as a video clip featuring highlights from Dr. Budak’s academic tenure and a glimpse into his personal life. To cap off the festivities, ECE Department Head Tony Maciejewski formally announced the creation of the Aram Budak ECE Fellowship, and he presented Dr. Budak with a scrapbook that contained more than 60 letters with personal stories and anecdotes from alumni and friends.

"The response to Dr. Budak’s reception speaks volumes," said Maciejewski. "He has touched countless lives, and his commitment to education is an inspiration to us all." He added, "Before the night was over, Dr. Budak received two standing ovations."

Dr. Budak was a key professor in the State University Resources for Graduate Education (SURGE) program – a continuing education curriculum for industry professionals that flourished for more than two decades.

Born in Istanbul, Turkey, in 1928 to Armenian parents, he received an electrical engineering degree with high honors from Robert College in Istanbul in 1951. Dr. Budak attended Rensselaer Polytechnic Institute on a scholarship and obtained his master’s degree in 1954. While teaching at the University of Washington in Seattle, he was inducted into the U.S. Army. During his tour of duty in Germany, he met his wife, Helga, and they moved to New Hampshire. He taught for a year at the University of New Hampshire before joining Colorado State in 1957.

Dr. Budak earned his doctoral degree from the University of Colorado and eventually retired from Colorado State in 1988. He and Helga have six children, three of whom obtained electrical engineering degrees. The couple now lives near Jackson Hole, Wyoming.

The Aram Budak ECE Fellowship already has secured funds in excess of $36,000. A total of $50,000 will ensure that the fellowship is awarded each year in perpetuity. Please complete the enclosed form today and return it with your gift in the envelope provided.

The impact of your donation to the Aram Budak ECE Fellowship is long-lasting, as this endowment will honor Dr. Budak and encourage the academic pursuits of many ECE students for years to come.

"It was really amazing that so many former students showed up, many traveling long distances from all over the United States."

-Dr. Aram Budak

See more reception photos on page 5.
Colorado State University's National Science Foundation Engineering Research Center for Extreme Ultraviolet Science beams with talented student researchers. Courtney Brewer and Mark Berrill, who recently received national awards for their academic accomplishments, serve as outstanding examples of the high caliber students performing research at the EUV ERC. Courtney was chosen for the National Science Foundation (NSF) Graduate Research Fellowship, while Mark was awarded the SPIE – International Society for Optical Engineering Scholarship. The NSF Graduate Research Fellowship provides three years of support for graduate study leading to research-based master’s or doctoral degrees and is intended for students who are at the early stages of their graduate study. The SPIE Scholarship supports graduate research related to optics, photonics, imaging, or optoelectronics. Both awards are highly competitive and prestigious, annually honoring a limited number of students nationwide.

Courtney and Mark completed their undergraduate education in electrical engineering at Colorado State, and both students are continuing their graduate studies at CSU. Courtney’s interests are in the demonstration of a nanometer-scale resolution microscope that uses the short wavelength lasers developed at CSU. Mark’s research focuses on modeling the complex plasma dynamics that take place in the generation of coherent light beams of extreme ultraviolet light with lasers.

“Our faculty is extremely impressed with both Courtney and Mark,” said Tony Maciejewski, ECE department head. “They are exceptional students, and we are thrilled they have chosen Colorado State University for their graduate education.”

Courtney, who enjoys engineering for its intriguing concepts, discoveries, and inventions, started her graduate work in the fall under the direction of Professor Carmen Menoni. Courtney was the recipient of last year’s SPIE Scholarship and received the 2004 Colorado Space Grant. She is a member of the EUV ERC Leadership Council, Sigma Pi Epsilon, the Institute of Electrical and Electronics Engineers (IEEE), and Eta Kappa Nu.

Working with advisor Professor Jorge Rocca, Mark plans to pursue his Ph.D. at Colorado State. In addition to being named an honorable mention candidate for the 2005 NSF Graduate Research Fellowship, Mark received the Claude W. Wood Scholarship, ECE Merit Scholarship, and Harold and Sylvia Joy Scholarship in support of his undergraduate education. He leads the EUV ERC Leadership Council and is a member of SPIE, IEEE, and Sigma Xi.

ECE Students Earn Prestigious Awards to Study EUV Technologies

ECE Students Recognized at Engineering Days

Electrical and computer engineering students were honored at the 2005 Engineering Days (E Days) Awards Ceremony on April 15 for their outstanding academic achievements, leadership, professional involvement, and excellence in research.

All-College Award
Silver Medal Finalist, Certificate of Merit:
Kate McDonnell

ECE Department Awards
IEEE Distinguished Service Award:
Bryan Thompson

HKN Distinguished Service Award:
J.T. Barth

E Days Project Awards
First place:
Extreme Vehicle Warning – Walter Grassens, Gerald Castillo, Eli ImMasche

Second place:
EUV Laser for the Study of Nanoclusters – Annette Rivas, Justin Lo

Third place:
High Repetition Rate Extreme Ultraviolet Laser and Detection Apparatus – David Springer
**Student News**

**ECE Graduate Student Receives Young Scientist Award**

ECE graduate student Sharmila Padmanabhan was selected to receive the Young Scientist Award from the International Union of Radio Science (URSI). Sharmila received the award in October 2005 at the URSI General Assembly in New Delhi, India, for her paper entitled "Polarimetric Observations of Emissivity of Whitecaps Experiment (POEWWEX’02) to Characterize the Azimuthal Variation of the Microwave Emission from Foam Generated by Breaking Waves."

URSI is a nongovernmental, nonprofit organization under the International Council for Science. Its purpose is to promote research, applications, scientific exchange, and communications in radio science – the application of electromagnetic (EM) theory to diverse fields of human endeavor, including electronics, photonics, antennas, radar, EM noise and interference, wave propagation, ionospheric and space plasmas, and radio astronomy, remote sensing of the Earth and other planets, as well as biology and medicine. The URSI Young Scientist Award is bestowed every three years at the URSI General Assembly. Sharmila is among a small number of young scientists from around the globe who was recognized at the 2005 General Assembly. Her advisor, Dr. Steven Reising, ECE associate professor, won the URSI Young Scientist Award in 1999, shortly after receiving his Ph.D. from Stanford.

Sharmila is pursuing her Ph.D. in electrical engineering at Colorado State University. She earned her master’s degree in electrical and computer engineering from the University of Massachusetts, Amherst, in 2004, and a bachelor’s degree in electronics and telecommunication from the University of Mumbai, India, in 2001.

**Department News**

**All-Time High for ECE Research**

2005 marked an unprecedented year for research in the Department of Electrical and Computer Engineering. Experiencing the largest percentage increase in funding of any department that does over $1 million in research, ECE's annual research expenditures totaled a record $7.1 million, up from $2.3 million in 2003.

"This has been an outstanding year for the ECE department," said Tony Maciejewski, ECE department head. "The amount of funding we have received from outside sources really speaks to the quality of our research programs." He added, "We have approached an average of $400,000 per faculty member in research expenditures, placing us among the top ECE departments in the country."

Research contracts and grants from leading governmental agencies like the National Science Foundation and the Department of Defense are among the top sources of funding, but numerous industries and nonprofit organizations such as the Colorado Institute of Technology also invest heavily in the cutting-edge work conducted in the ECE department.

At the university level, CSU’s annual research expenditures also reached an all-time high, totaling $244.3 million in fiscal year 2005, approximately $20 million more than in 2004. This funding puts CSU at the top nationwide for research expenditures at a public university without a medical school.

**ECE Professors Win NSF MRI Award**

ECE Professors Carmen Menoni, Mario Marconi, and Jorge Rocca recently received a National Science Foundation (NSF) Major Research Instrumentation (MRI) award. The grant represents a $900,000 investment effective through September 30, 2007.

The MRI award will be used to support the development of the next generation of compact coherent extreme ultraviolet sources, a research initiative currently underway at Colorado State University’s NSF Engineering Research Center for Extreme Ultraviolet Science and Technology (EUV ERC). The EUV ERC, headquartered at CSU, is a collaborative effort with the University of Colorado at Boulder and the University of California at Berkeley.

"The NSF MRI award is among a growing number of accomplishments by our EUV ERC faculty and researchers," said Tony Maciejewski, ECE department head. "I believe this national recognition clearly demonstrates the high regard that the scientific community holds for the cutting-edge research conducted at the EUV ERC."

The NSF MRI program fosters the integration of research and education by providing access to leading-edge instrumentation in research-intensive learning environments.
ISTeC Explores the Future of Information and Telecommunication Technology

Colorado State University faculty, students, and industry partners came together on September 9 for Future Vision 2010, a unique conference focused on the next five years of global information and telecommunication technology. Featuring 40 corporate and academic guest speakers, the all-day event was co-sponsored by the Information Science and Technology Center (ISTeC) at CSU, the Hewlett-Packard Company, Agilent Technologies, and Lockheed Martin.

A plenary session led by CSU Provost Tony Frank opened the conference, followed by seven tracks of thought-provoking seminars featuring experts describing their vision of the future in 2010 in key IT and telecommunication fields. The program’s keynote presentation was delivered by DreamWorks Animation’s chief technology officer Ed Leonard, who spoke on the role of Linux as an open-source operating system used to create some of their most successful animated films, including Shrek, Shark Tales, Madagascar, and other films presently in production. More than 500 people attended Future Vision.

ISTeC is planning to host a follow-up event in 2007, Future Vision 2012.

Spotlight on Visiting Researcher: Dr. Giuseppe Ricci

Providing an environment that promotes innovation and global collaborations, the ECE department hosts top researchers from around the world. Hailing from the University of Lecce, Italy, Dr. Giuseppe Ricci, professor of electrical engineering, visited Colorado State over the summer. Ricci, who returned to campus for his third visit, was working with Dr. Louis Scharf to solve complex problems in statistical signal processing as it applies to radars and communication.

"Your faculty and students are extremely focused on their work," said Ricci. "I am impressed with the interdisciplinary collaborations here." He noted, “CSU is a place that is conducive to the open exchange of ideas between people from various areas, and I think that is a good thing."

Outside the lab, Scharf and Ricci enjoyed fly fishing in the nearby Poudre Canyon. While the weather is much milder in the sea side city of Lecce, Ricci said he likes the climate in Fort Collins and, of course, the mountains.

Dr. Sandra Woods Appointed Interim Dean

Dr. Sandra Woods, a respected administrator, educator, and researcher, has been named interim dean of the College of Engineering. Woods joined CSU in 2001 as professor and head of the civil engineering department after 16 years at Oregon State University. Additionally, she has served as Colorado State’s interim vice provost, providing leadership in the Office of International Programs.

"Dr. Woods is an excellent leader who is clearly dedicated to the university and devoted to improving the College of Engineering," said Tony Frank, CSU provost. "I am confident that Sandy’s dedication and experience will serve the college well during this time of transition."

A national search for a permanent dean will be conducted in 2006.

More information on CASA and a transcript of Gates’ speech is available on the ECE web site at www.engr.colostate.edu/ece.
Alumni News

Career Center Resources Available to Alumni

Whether you are looking to hire a Colorado State University graduate or navigate your own career, log on to the Career Center web site (www.career.colostate.edu) and take advantage of CareerRam, a new system of online services for CSU alumni, industry partners, and students.

CareerRam is a robust interface that allows users to search and post job openings and internships, review and upload resumes, and schedule on-campus interviews. CareerRam also features information about CSU’s biannual career fairs, workshops, and other career management resources. To sign up for CareerRam and establish an alumni or employer account, contact the Career Center at info@career.colostate.edu or (970) 491-5707.

“"The Career Center’s primary responsibility is to assist and guide our students in their pursuit for the right career, and CareerRam plays a huge part in facilitating that process,” said John Haines, career counselor for the College of Engineering. “But our services continue to be available to students after they graduate.” He added, “Alumni also have free access to the system.”

Approximately 3,000 companies throughout the country currently utilize the system for posting positions and searching resumes, and many successful CSU alumni turn to CareerRam to seek out and hire well-prepared graduates from their alma mater.

Visit www.career.colostate.edu for more information about CareerRam and other services available through Colorado State University’s Career Center.

Alumni Celebrate the Teaching Legacy of Dr. Aram Budak

Above: Dr. Budak shown here with students and advisees spanning three decades. Right: ECE alumni share their stories and memories of Dr. Budak at his reception on October 15. Top to bottom: Chris Christopher, ’68, ’74; Sylvia Budak, ’85; Desi Rhoden, ’83, ’84; Gil Reeser, ’59; and Eugene Packer, ’66, ’72. Drs. Lionel Baldwin, David Edwards, Louis Scharf, and Carl Wilmsen also spoke at the event.
Every effort has been made to ensure the accuracy of this donor honor roll. Please advise us of any errors by calling (970) 491-6600 or e-mail ece@engr.colostate.edu. We appreciate the opportunity to correct our records. Listing is by graduation year.

**1900 - 1939**
- Frank and Hazel Gray
- Frank Hess

**1940 – 1949**
- Hayes and Esther Crapo
- Keith Eddy
- William and Barbara Gepford
- Walter and Mary Williams

**1950 – 1959**
- David Akers
- Clifford Allen
- Richard Farmer
- Jack and Sandra Gaskill
- William McCarty
- F. Gordon Noble
- Roy Herbst
- Galen Herstein
- Robert and Barbara Mayberry
- Terry and Patricia Boucher
- John Briggs
- Timothy Cutforth
- Arthur and Charlene Donoho
- Salah and Ibtisam Duwaik
- Larry Gilbert
- Stephen Goodnick
- Robert Hazelton
- Richard Helriegel
- Sang-Hee Hong
- Ted and Karen Kaplon
- Christopher Kulish
- Stephen and Nancy Malyszko
- Kim and Karen Montross
- Randall Moore
- Stephan Morgan
- Edward O’Brien
- Jeffrey and Donalu O’Neil
- Joseph and Judith Perl
- Paul Rinne
- Randy Rowan
- George and Patricia Stoll
- Don Stuehm
- Yaujen and Hsiu Wang
- Thomas Williams and Candace Merrill-Williams

**1960 – 1969**
- Darryl and Jamalee Adams
- Leopoldo Barrios
- Michael and Judith Chandler
- Newel and Glenna Cutler
- Carol Gathright
- Walter and Susan Green
- Robert Grossman
- Roger Hedlund
- Thurston Holley
- William and Jean Hurt
- Douglas Kallesen
- Gary Lovell
- James Michaud
- Stuart Morgan
- Bardwell and Kathleen Moss
- Erwin and Kay Perelstein
- Gary and Vicki Reynolds
- Alan and LeAnn Richards
- Harlan Talley
- Stephen Venzke
- Gene Weeks
- Glen and Janice Young

**1970 – 1979**
- Roger and Mary Ballenger
- John and Betty Becker
- Frederick and Donna Reddel
- Patricia Redding
- Joseph Rizzo
- Jorge Rocca and Carmen Menoni
- David Sadighi
- Dennis Schlaht
- Gerald Schram
- Brian and Cindy Simpson
- Leslie Soltis
- Chris Steinauer
- Michael Walker
- John Walters
- Thomas Wernsman
- Bob and Jo Wessels
- Thomas Williams-Cipriani
- Paul and Faye Worley

**1980 – 1989**
- Tim and Brenda Ash
- Gary Barbi
- Susan Benzel
- Kenneth and Lori Bernhardt
- David Berry
- David Blankenbeckler
- Laura Bohn
- Charles E. Brady
- Mark Curtis
- Kacey Cutler
- Andy and Roberta Denenberg
- Chuck Duey
- Jack Gathright
- Alan and Carol Genis
- Tim Groth
- Fred Hansen
- Walter Hargis
- David Hartshorn
- Gina Holland and Isaac Britton
- David Kellenberger
- George Koval
- Ralph Krause
- Carl Lathan
- James Longino
- David Martz
- Christopher Massarotti
- Kurt Milne and Lisa Chamberlain
- Sasan Bakhtiari
- Michelle Gentry
- Stephen and Kristen Hall
- Brandon Jennewine
- Jian Jin and Jennifer Zhang
- Adrien Joseph
- Hyong Lee
- Radin Mirshahi
- Tava Smika
- Bin Tian and Chunhua Yuan
- Li Zhu

**1990 – 1999**
- Andrew and Laura Crane
- Chetan Deshpande
- Jason Gentry
- Stephen Hulls
- Joel Kirkland
- Donghui Li and Ye Zhang
- Logan and Rhonda Pleasant

**Faculty, Staff, and Friends**
- Mahmood and Sheida Lawrence and Rebecca Brookes
- Cheryl Conant
- Bill and Marcia Eads
- Irwin and Clarann Goldring
- Jeff Johnston
- Matt and Andrea Leland
- Tony and Meg Maciejewski
- Barbara Mayberry
- Tuyet Pham
- Rhonda Pleasant
- Samuel and Mary Riley
- Louis and Carol Scharf
- Michael and Mary Sharp
- H. J. and Janet Siegel
- Carl and Ann Wilmsen

**Organizations**
- Colorado Institute of Technology
- Informations Systems Tech, Inc.
- Vaisala Inc.

### Spring 2006 Events

**February 17**
- University Distinguished Alumni Awards Presentation and Dinner

**March 23**
- College of Engineering Scholarship Recognition Luncheon

**April 1**
- CSU Green and Gold Gala

**April 14**
- ECE Industrial Advisory Board (IAB) Meeting Engineering Days

**April 22**
- College of Engineering Alumni Awards Dinner

**May 12**
- College of Engineering Spring Commencement