

Winter 2006

## Senior Design Team Invents Award-Winning Product

What started as a collaborative senior design project between the ECE and Theatre departments has now resulted in Keystroke, an award-winning commercially licensed product. In October, Keystroke, formerly known as RAMBox, was honored as Projection Product of the Year at the 2006 International Live Design Conference in Las Vegas, Nevada. Receiving outstanding reviews at the competition, one judge commented, “Keystroke is definitely a little piece of genius.”

Keystroke was created and developed three years ago at Colorado State University by a team of cross-disciplinary undergraduate students led by ECE Professor John Mahan and former Theatre Professor Barry Cleveland. The product, which was licensed by Rosco Laboratories in 2005, is a software and hardware solution designed to run theater stage effects by controlling Windows-based computer programs – PowerPoint presentations, sound cues, etc. – from a DMX lighting control board. Because it is a cost-effective solution, Keystroke will allow modest-budget theater designers and events specialists to significantly upgrade their projection-design capabilities.

“Keystroke is the result of a consummate senior design project,” said Tony Maciejewski, ECE department head. “The project combined all the important components that we like to see in a design experience – it’s cross-disciplinary, entrepreneurial, and innovative.” He added, “It is an exciting achievement for our students to develop a unique product that is licensed and marketed to consumers.”

The original senior design team continues to follow the success of Keystroke. Four team members, along with Professors Mahan and Cleveland, attended the conference in Las Vegas to accept the design award.



The winning design team poses for a group photo at the Live Design conference in Las Vegas, Nevada. From left to right: Kevin Peach, Dr. Barry Cleveland, R.J. Duran, Terrell Davis, Matt Johnson, and Dr. John Mahan.

## Memorial Scholarship Established in Honor of Former Student

This fall, the ECE department announced the Chris Kautz Memorial Scholarship, a new fund established in honor of former student Chris Kautz, who passed away in September. While at Colorado State, Chris excelled academically and was number one in his 2006 graduating class. He gave back to society in many ways – from his leadership in ECE student organizations to his service work as a tutor, Chris inspired others to grow and learn. Through the Chris Kautz Memorial Scholarship, the ECE department seeks to honor talented students who share a similar passion for education, service, and outreach.



“I had the pleasure of working with Chris as a teacher and advisor on his senior design project,” said ECE Professor Carmen Menoni. “Chris was extremely talented and hardworking, but above all he was a team player and a kind-hearted individual. A scholarship bearing his name seems very fitting.”

If you would like to make a contribution to the scholarship, please contact the ECE department at (970) 491-1033 or [ece@enr.colostate.edu](mailto:ece@enr.colostate.edu). You can also make a gift online at <https://advancing.colostate.edu/ENG/GIVE>.

## Woods Named Dean

Dr. Sandra Woods, a respected administrator, educator, and researcher, was named dean of the College of Engineering in July. She had been serving as interim dean since June 2005.



Woods joined Colorado State University in 2001 as professor and head of the civil engineering department after 16 years at Oregon State University.

“The quality of experience, leadership, and vision shown by Sandra Woods is strengthened only by her exceptional commitment and dedication to Colorado State University. Sandy has achieved great success for the College of Engineering throughout her tenure and has done a great deal to advance the University’s mission and goals,” said Anthony Frank, senior vice president and provost at Colorado State University.

Woods’ service to the University includes serving on the Council of Deans, Diversity Coordinating Council, Commission on Women and Gender Equity, and the College of Engineering Executive Committee. She also served as interim vice provost from February 2004 through June 2005, providing leadership for the Office of International Programs, Division of Continuing Education, and the Graduate School.

## Engineering Students’ Good Samaritan Robot a Winner



A team of electrical and mechanical engineering students and their search-and-rescue robot, Good Samaritan, placed fourth at this year’s World RoboCup Championship competition in Bremen, Germany, in June. In addition, the CSU

RoboCup Team won an award for Most Realistic Deployment.

Good Samaritan, which is designed to locate and identify humans who have been trapped in urban disaster areas, also took top honors among U.S. teams at the RoboCup U.S. Open in Atlanta in the spring, beating out such competitors as Carnegie Mellon and Georgia Tech.

Made of carbon fiber composite materials, the robot is sturdy and weighs about 15 pounds. Its center of mass can be adjusted, helping it move up and down stairs and maneuver through difficult terrain. Equipped with a thermal camera and microphone, Good Samaritan can detect body heat and human voices. Sensors also act as range finders to generate a map of the disaster site.

## ECE Graduate Students Receive Prestigious Awards

Garnering recognition and funding from leading companies and scientific agencies, the following ECE graduate students recently received prestigious honors for their academic achievements and research.

**Mark Berrill** was the recipient of the Department of Energy Computational Science Graduate Fellowship, which currently provides support and guidance to 62 of the nation’s best graduate students in science and engineering.

**Vladimir Shestak** was selected to receive a highly competitive IBM Ph.D. Fellowship. Honoring exceptional doctoral students whose technical interests align with those of IBM, only four percent of the 500 nominees were honored with this prestigious award.

**Guangwei Yuan** was awarded a 2006 International Society for Optical Engineering (SPIE) Scholarship. The scholarship program recognizes, assists, and encourages SPIE student members who demonstrate outstanding potential for long-range contribution to the field of optics and photonics.

## 2006 Scholarship Winners

### Advanced Energy-Hollis Caswell Scholarship

- George Castillo

### Allen Porter Mowry Memorial Scholarship

- Christopher Klumph
- Jennifer Sexton

### Claude W. Wood Scholarship

- Matthew Duwe
- Joshua Gabler
- Micah Hardin
- Jeremy Waldorf

### Electrical and Computer Engineering Alumni Undergraduate Scholarship

- Jason Miller

### Engineering College Scholars Scholarship

- Russell Follett
- Andrew Giddings
- Samuel Mast
- Yu-Ping Shao

### George T. Abell Scholarship

- Daniel Reinholz

### John and Amy Lawton Scholarship

- James Tucker

### Lee and Bette Wehrman Scholarship

- Steven Klein
- Eric Lugn
- Justin Torkilson
- Nash Wood

### Micromotion Engineering Scholarship

- Pamela Ackerman
- Gustavo Anaya
- Mehdi Mehrpartou

### Nicholas Angelopoulos Scholarship

- Jared Richard

### Northern Chapter Professional Engineers of Colorado Scholarship

- Yu-Ping Shao

### Northrop Grumman Scholarship

- Lauren Netherton

### Richard E. Walker Scholarship

- Mack Warren

### Thomas A. Brubaker Scholarship

- Jesse Parker

### Walter Scott, Jr. Scholarship

- Kevin Degi
- Ryan Frieese
- Michael Ullmann
- Robert Utrup

### Willis T. Johnson Scholarship

- April Mata

### Perl Family Graduate Fellowship

- Mike Buehner

### Shrake Culler Graduate Scholarship

- Courtney Brewer

## Can You Identify These Alumni?



1953

entertainment, *I Love Lucy's* Little Ricky was born the same day Lucille Ball gave birth to Desi Arnaz Jr., and the first issue of *TV Guide* magazine hit the newsstands. The average American household income was \$4,000, a gallon of gasoline sold for \$.21, and you could buy a postage stamp for \$.03.

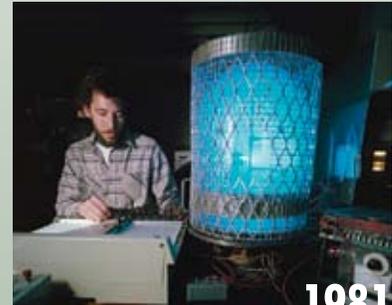
Watch for an update in the next ECE newsletter.

Contact the ECE department if you recognize the gentlemen in the photo at left. Call (970) 491-6600 or send an e-mail to [ece@engr.colostate.edu](mailto:ece@engr.colostate.edu).

*Hint:* It was 1953. The late John E. Dean was named head of the Electrical Engineering department at Colorado State, scientists Crick and Watson identified the DNA molecule, and the first successful open-heart surgery was performed in Philadelphia. In

## Update:

The student in the photograph below has not yet been identified. The year was 1981. Contact the ECE department if you can name this alumnus.



1981

## Blackwell Wins Best Paper Contest



*ECE student Zach Blackwell was the winner of the 2006 Best Paper Contest. He was presented the award by Dusty Fisher, IEEE Pre-College Committee Chair.*

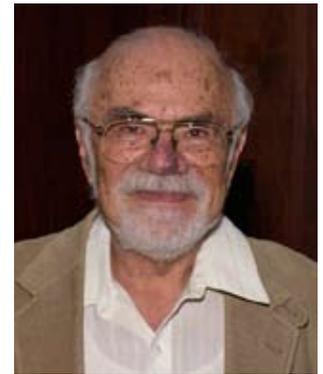
This summer, the ECE department named Zach Blackwell the winner of its first-ever Best Paper Contest. Sponsored by the IEEE Denver Section and the local IEEE Solid-State Circuits Society, the contest provides students an opportunity to showcase their writing skills and compete for a \$500 cash prize. The judges, a panel of volunteers from the ECE Industrial Advisory Board, selected Zach's paper, "Electrical Systems of Robot Servator," for its exceptional technical content, organization, development, clarity, style, and grammar.

The ECE department will again host a Best Paper Contest this spring. The contest is open to all senior design students.

## Aram Budak ECE Fellowship Endowed

Thanks to the tremendous support of ECE alumni and friends, the Aram Budak ECE Fellowship has exceeded the endowment level of \$50,000, ensuring that the fund will be awarded each year in perpetuity.

"It is overwhelming to realize that even after 18 years of retirement, alumni and industry partners still remember and care enough to contribute so generously toward the establishment of a fellowship in my name," said Dr. Aram Budak. "What a great honor it is to receive such an enduring recognition." He added, "My sincere thanks to all of you."



Providing financial support to outstanding students, the Aram Budak ECE Fellowship will allow the department to recruit and retain these excellent students and empower them to realize their dreams. The fund was established to honor and celebrate the teaching legacy of Budak, who joined Colorado State University in 1957 and taught in the Department of Electrical and Computer Engineering for more than 30 years. He made a profound impact on engineers around the globe and is lauded as one of the best professors in the history of the department.

"I would like to extend my sincere appreciation to our alumni and friends who contributed to this fund," said Tony Maciejewski, ECE department head. "I am tremendously pleased with the unprecedented success of this campaign. Thank you for your support."

## ECE Remembers Distinguished Alumni

The ECE department is saddened to report the deaths of two distinguished ECE alumni and benefactors. Rex Sjostrom ('52 B.S. Civil Engineering, '56 M.S. Electrical Engineering) of Castle Rock, Colorado, passed away May 31. Harold Fry ('37 B.S. Electrical Engineering) of Tucson, Arizona, died on August 31.

Through the years, Sjostrom and Fry contributed greatly to the ECE department and the College of Engineering, both establishing family scholarships to support engineering students.

### Rex Sjostrom (1930-2006)

Sjostrom's professional career spanned nearly 40 years of outstanding engineering and management accomplishments, culminating in his position as vice president of Special Programs at Martin Marietta. He was honored with the NASA Public Service Award



for contributions to the Viking Mars exploration program, two Martin Marietta Jefferson Cups (the corporation's highest award), and the Army Commendation Medal and Meritorious Service Medal for his contributions to the National Guard and the Army Reserve. Sjostrom was a retired colonel in the Colorado National Guard and the Army Reserve and was recognized in Who's Who in the West.

In 2004, he received the Colorado State University Alumni Association's Honor Alumnus Award for the College of Engineering and was elected to the ECE Hall of Fame. Recognized as an "honorary ambassador" for the University, Sjostrom also received a Distinguished Service Award from Colorado State and served on the Dean's Advisory Council.

Any notes or cards with memories of Rex Sjostrom may be sent to the department. They will be forwarded to his wife, Joan.

### Harold Fry (1915-2006)

In addition to his degree from Colorado State, Fry earned an M.E. from the University of Wyoming and a master's in mechanical engineering from the University of Colorado.

Experiencing career successes in both industry and academia, Fry worked as an engineer and innovator, as well as an educator. He held positions with Westinghouse, the United States Bureau of Reclamation, and the National Advisory Committee for Aeronautics (now NASA) at Langley Field, Virginia, where he helped construct the world's largest wind tunnel. He also served as a faculty member at the University of Wyoming, Kansas State University, and Arizona State University.

Fry was recognized by Who's Who in Engineering, Who's Who in American Education, and American Men of Science. In 1974, he received the Ralph R. Teetor Award from the Society of Automotive Engineers. He was a registered Professional Engineer in Colorado from 1958 to 1989 and a lifetime member of the American Society of Mechanical Engineers. He was also active with the American Society for Engineering Education.

Notes or cards for the family of Harold Fry may be sent to the department. They will be forwarded to his wife, Dorothy.

## ECE Receives Gift from National Semiconductor

The ECE department would like to thank National Semiconductor for its \$120,000 gift to help establish an Endowed Professorship in Analog Circuit Design. The gift supports the department's goal to build an excellent and prestigious program in analog/mixed-signal/RF circuit design.

Building this program will require leadership provided by a gifted and energetic faculty member whose accomplishments indicate great potential. The ECE Endowed Professorship in Analog Circuit Design will allow the department to compete with the best universities to recruit a scholar who is passionate about working with industry to enhance teaching and research, while establishing a program of international prominence.

"We are thrilled with National's support," said Tony Maciejewski, ECE department head. "This gift demonstrates the company's strong desire for CSU to be viewed as a leader in analog circuit design," he continued. "I look forward to working with industry to recruit a faculty member who will build on the legacy of former ECE Professor Aram Budak, a pioneer in this field."

While Colorado State University and the ECE department are committed to funding the salary of this new faculty member, the department continues to seek industry support to help reach its goal of \$500,000 to establish the endowment, which will grow and produce income for years to come. Providing a consistent source of discretionary funds, the yearly return on the endowment can be used by the faculty member to invest in lab equipment, graduate student salaries, or other items to enhance CSU's analog circuit design program.

If you would like to learn how your company can help CSU build a prestigious program in this area of vital importance to the local and national economy, please contact the ECE department at [ece@engr.colostate.edu](mailto:ece@engr.colostate.edu) or (970) 491-1033.

## Academic Village – Student Housing of the Future

The Academic Village is a state-of-the-art "living-learning" environment that will integrate classroom and experiential learning into the student living area with programming space, seminar and meeting rooms, multimedia classrooms, living space for faculty members, and more. It will be the first housing unit of its kind on campus, specifically for engineering and honor students.

The Academic Village design team is committed to building a sustainable construction project that will establish Colorado State University as a leader in environmentally responsible education and design initiatives. The \$45 million project, slated to open in Fall 2007, is under construction on the site of the former Ellis Hall, which was demolished in May 2005. A large portion of the project is being funded by private corporations and individuals. If you are interested in learning more about the Academic Village or how you can invest in the project, please contact the College of Engineering Development Office at (970) 491-7028.

## List of Honors Grows for Bartels

**R**andy Bartels, ECE assistant professor, has added two more outstanding achievements to his already impressive track record. Last month, he was named the recipient of the 2007 Young Investigator Award for pioneering contributions to ultrafast molecular photonics and photonic reagent control of quantum systems on an unprecedented time-scale. The award is sponsored jointly by the IEEE Lasers and Electro-Optics Society and the General Photonics Corporation.



heads Colorado State's Laboratory for Ultrafast and Nonlinear Optics, was the only recipient from a Colorado university and one of two scientists nominated by the U.S. Department of Defense, courtesy of the Office of Naval Research.

The recent awards are among a growing list of accomplishments for Bartels, firmly establishing him as a rising star in his field. Already in his young career, Bartels has received the Sloan Research Fellowship in physics, the Beckman Young Investigator Award in chemistry, the Gold Medal Human-Competitive award for advancing evolutionary computation, and the Optical Society of America's Adolph Lomb Medal for his contributions to optics. In addition, Colorado State announced Bartels as one of two recipients of the 2006 Monfort Professor Award, one of the University's top honors.

"Professor Bartels exemplifies the kind of intellectual enterprise occurring at Colorado



*President Bush and a selection of the recipients of the Presidential Early Career Awards for Scientists and Engineers. Dr. Randy Bartels is in the third row, fourth from the right.*

State that is critical to the economic prosperity of Colorado, the nation, and the world," said Larry Edward Penley, president of Colorado State. "His multi-disciplinary approach – into physics, chemistry, optics, and engineering – will help find solutions to the great challenges facing society."

In July, Bartels reached a significant career milestone, receiving a Presidential Early Career (PECASE) Award, the U.S. government's highest honor for outstanding up-and-coming scientists and engineers. Bartels was one of 56 scientists from around the country who received the award in a ceremony at the White House that included President George W. Bush. Bartels, who

## Scharf Named Life Fellow of IEEE

Dr. Louis Scharf, professor of Electrical and Computer Engineering and Statistics, recently was named an IEEE Life Fellow. IEEE reserves this grade for members with long-standing technical and professional contributions to the organization.

ECE Department Head Tony Maciejewski said of the award, "This honor pays tribute to the many achievements and important contributions that Louis has made over the years. It goes without saying, he is highly deserving of this recognition."

Scharf's IEEE honors also include a lifetime achievement Society Award from the IEEE Signal Processing Society, the Society's Technical Achievement Award for his contributions to the theory and practice of statistical signal processing, and an IEEE Millennium Medal for his contributions to the electrical and electronics engineering profession. He also has served as a distinguished lecturer and technical program chair for the Society.

Scharf teaches courses in signals, systems, and communications and guides the signal processing research of Ph.D. students, post-doctoral students, and visiting researchers. Since returning to Colorado State in 2001, Scharf has hosted more than two dozen speakers and visiting researchers to the CSU campus.

## Professor Chandrasekar Meets with President of India

**W**hen ECE Professor V. Chandrasekar (Chandra) visited India this fall to sign a Memorandum of Understanding with the prominent Indian Space Research Organization (ISRO), he was not planning to meet with the country's president. But that's what happened when President A.P.J. Abdul Kalam discovered his work and invited him for a meeting at his official residence, Rashtrapati Bhavan, in New Delhi.

"I was surprised and pleased to receive the call," said Chandra. "Months ago we mailed a signed copy of our book at the request of President Kalam, but I never expected an invitation for a personal meeting."

Chandra, who is the deputy director of the National Science Foundation Engineering Research Center for Collaborative Adaptive Sensing of the Atmosphere and a co-principal investigator of the CSU-CHILL radar facility, met with Kalam for 20 minutes in his office. He said Kalam was particularly interested in his book and

research and wanted to learn about the societal implications of his work on radar systems for flood mitigation.

"I presented an overview of our programs and he really wanted to hear about the societal impact of our research," said Chandra. "It is obvious that President Kalam is passionately committed to scientific exploration and discovery." Following the meeting, Chandra said the president expressed an interest in further conversations to learn more about the cutting-edge research at Colorado State University.



## ECE Welcomes New Faculty and Staff

**Dr. Branislav Notaros** is a new associate professor in the Department of Electrical and Computer Engineering. Notaros received his B.S., M.S., and Ph.D. in electrical engineering from the University of Belgrade, Yugoslavia, in 1988, 1992, and 1995, respectively. He most recently served as an associate professor in the Department of Electrical and Computer Engineering at the University of Massachusetts, Dartmouth. He also held appointments as an assistant professor of Electrical Engineering at the University of Belgrade and a visiting scholar at the University of Colorado, Boulder. Professor Notaros' research interests and activities, which have been largely supported by the National Science Foundation, are in applied computational electromagnetics, antennas, and microwaves. He currently is completing a new textbook, *Electromagnetics*, under contract with Prentice Hall. He also is the author or co-author of approximately 70 journal articles, conference papers, and presentations, as well as four textbooks. Notaros has received a number of prestigious awards, including the 2005 IEEE Microwave Prize, the 1999 IEE Marconi Premium, and the 2005 UMass Dartmouth Scholar of the Year Award.



**Dr. J. Rocky Luo** joins the ECE department as an assistant professor of Electrical and Computer Engineering. Dr. Luo received his B.S. and M.S.



degrees in electrical engineering from Fudan University in 1995 and 1998, respectively, and earned his Ph.D. from the University of Connecticut in 2002. From September 2002 to August 2006, he served as a research associate with the Institute for Systems Research at the University of Maryland, College Park. While

Luo's current research focuses on cross-layer design of wireless communication networks, he is also interested in information theory and signal processing.

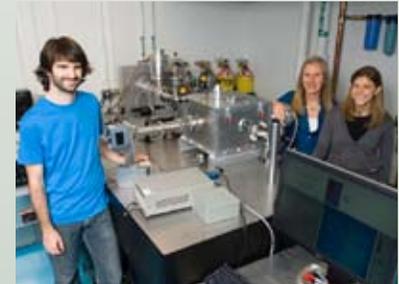
**Olivera Notaros** is a new ECE instructor and head of the senior design program. Notaros earned her B.S. and M.S. in electrical engineering from the University of Belgrade, Yugoslavia, in 1989 and 1993, respectively. She is finalizing her Ph.D. studies in indoor wireless propagation. Notaros' research interests include wireless communications and telecommunications, having served as author or co-author of 20 papers and four technical contracts. In addition to her extensive research background, Notaros comes to Colorado State with 14 years teaching experience at both the university and K-12 levels. Prior to joining ECE, Notaros held teaching positions in electrical and computer engineering at the University of Belgrade and the University of Colorado, Boulder. In her most recent position, she served as a mathematics teacher at Middleboro High School in Middleboro, Massachusetts.

**Mary Kroeger** recently joined ECE as the new faculty relations coordinator. Kroeger brings to the position 15 years of knowledge and broad-based experience from the University of Colorado, Boulder, where she most recently served as a program assistant for the Management and Marketing Division of the Leeds School of Business. Kroeger is responsible for advising and assisting ECE Department Head Tony Maciejewski with strategic initiatives and programs to advance the department. She oversees the department's student support staff and also serves as the primary contact for all faculty-related projects, including the faculty activity and productivity reporting process, promotion and tenure, annual reviews, and new faculty recruiting.

**Karen (Bross) Ungerer**, a former staff member, returned to the ECE department in November as a research and recruiting coordinator. Ungerer's new position is split 50/50 between the ECE department and the NSF-sponsored Collaborative Adaptive Sensing of the Atmosphere Engineering Research Center, or CASA ERC. In her new role, Ungerer will provide high-level

administrative and project management support for CASA research initiatives and departmental recruitment programs. Ungerer, who left the ECE department in 2004 to pursue personal interests, previously served for seven years as an executive assistant to the ECE department head and also worked closely with Professor Chandrasekar to manage and execute the CHILL Research Experience for Undergraduates program. Ungerer holds a bachelor's degree in education from The College of New Jersey.

### ECE Scientists Create World's Smallest Tabletop Microscope



ECE researchers in the National Science Foundation's Extreme Ultraviolet (EUV) Engineering Research Center (ERC) have created the world's highest spatial resolution EUV tabletop microscope that can see objects more than 1,000 times smaller than the diameter of a human hair. Semiconductor manufacturers someday could buy the microscope to test for flaws in the masks used to print microchips, which continue to get smaller as technology improves. The breakthrough has received much local and national publicity, including a feature story in the September issue of *IEEE Spectrum*.

The EUV ERC combines the complementary expertise of researchers at Colorado State, the University of California-Berkeley, and the University of Colorado-Boulder. ECE Professors Jorge Rocca and Carmen Menoni serve as principal investigators for the center.

## Special Recognition July 1, 2005 - June 30, 2006 Donors to the Department of Electrical and Computer Engineering

Thanks in large part to the overwhelming success of the Aram Budak ECE Fellowship campaign, the ECE Donor Honor Roll has grown considerably over the last year. The ECE faculty, staff, and students would like to extend our sincere appreciation for your ongoing support of our departmental initiatives and programs. Your support truly makes a difference.

Every effort has been made to ensure the accuracy of this donor honor roll. Please advise us of any errors by calling (970) 491-1033 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  
Ralph and Mary Green  
H. Norris and Mary Lou Lynch

### 1950-1959

David and Evelyn Akers  
Wilbert and Patricia Aldrich  
Richard Farmer  
Robert and Virginia  
Glendinning  
Galen Herstein  
William McCarty  
E. Gordon Noble  
Raul Pettai  
Robert Phelps  
William M. and Marilee Quinn  
Bruce and Hazel Reeder  
Gilbert and Lynne Reeser  
Lloyd and Julia Spafford  
Parker and Sally Stafford  
J. K. Williams  
Donald and Donna Willis

### 1960-1969

Peter and Rose Aronhime  
Leopoldo and Linda Barrios  
James and Joanne Brownrigg  
Ralph and Barbara Burbey  
Frank and Dorothy Cada  
Myron and Nancy Calhoun  
Chris and Georgia Christopher  
Gerald and Doris Connor  
Bates Cook  
Leon Duggar  
Calvin and Carol Eddleman  
Dean Garth  
Robert and Carleen Grossman  
Gerald and Carla Hager  
Jerry and Juanita Harmon  
Edwin and Rebecca Harper  
Roger Hedlund  
Thurston and Lemerce Holley  
William and Jean Hurt  
Robert and Susan Johnson  
John Kautter  
Dennis and Karen Kuhlmann  
Larry Lessman and Becky Cannon  
John and Carol Mari  
Gerald and Georgia Martin  
Stuart and Linda Morgan  
Robert and Ann Neal

John and Vivienne Nigro  
Eugene and Ann Packer  
William and Becky Parzybok  
Bhubendra Patel  
Erwin and Kay Perelstein  
Warner and Kathy Reeser  
Richard and Sandra Remick  
Gary and Vicki Reynolds  
Alan and LeAnn Richards  
John and Rosemary Riggen  
Marshall and Janice Scott  
Rocky and Nancy Scott  
Hemendra and Divya Shah  
Robert and Marlene Struthers  
Harlan and Carol Talley  
Wayne Torrey  
James and Josephine Touchton  
Y. G. Tsuei  
Stephen and Marcia Venzke  
Gene and Karen Weeks  
Glen and Janice Young  
Robert and Judith Zamborelli

### 1970-1979

George and Corwyn Arthurs  
Roger and Mary Ballenger  
John and Betty Becker  
Terry and Patricia Boucher  
H. Burton Brackett  
John and Karen Bridges  
John and Annette Briggs  
Frank and Deborah Cornett  
Harold and Judy Dietrich  
Gordon and Mitzi Doshier  
Salah and Ibtisam Duwaik  
Richard and Sharon Edwards  
David Farden  
Kent and Colleen Geib  
Stephen and Sara Goodnick  
Edwin and Rebecca Harper  
Robert and June Hazelton  
Randy Holmberg and Long Nguyen  
Huakuo and Rebekah Hwang  
Richard Kochis  
Stuart and Edith Kramer  
Frederick and Sheilah Mann  
James Mehring  
Kim and Karen Montross  
Dennis Moore  
Randall and Maurine Moore  
Kevin and Kristi Nay  
Edward O'Brien  
Jeffrey and Donalu O'Neil  
Dennis Peery  
Charles and Debra Pitman  
Robert and Theresa Reich

Paul and Rebecca Rinne  
Rodney and Judith Sato  
Thomas and Susan Shay  
George and Patricia Stoll  
Don Stuehm  
Christopher Tillman  
Derek and Kathy Toeppen  
John and Julie Wager  
Gerald Walker and Elizabeth Schaffhauser  
Yaujen and Hsiu Chen Wang  
Lisa White and Walter Perdue  
Thomas Williams and Candace Merrill-Williams  
R. Kent and Diane Zaitz

### 1980-1989

Gregory Ash and Susan Johnson-Ash  
Tim and Brenda Ash  
Randall and Susan Benzel  
Kenneth and Lori Bernhardt  
David and Lori Berry  
Bobby Binckes and Amy Lockwood  
David Blankenbeckler  
Robert Blea  
Lowell and Laura Bohn  
Brian and Karen Branson  
Lydia Budak and Bruce Kincy  
Sylvia J. Budak  
J. Dan Byers  
Kacey Cutler  
Abraham and Zahra Dadkhah  
Andrew and Roberta Denenberg  
Richard and Michelle Detry  
Chuck Duey  
Harry and Erica Eaton  
Larry and Debbie Ellis  
David and Margaret Farrell  
Robert Gann  
Jack and Carol Gathright  
Stephen and Sara Goodnick  
Tim Groth  
Walter and Patricia Hargis  
Dana Hartshorn  
David and Debbie Hartshorn  
John Hoffmaster  
Gina Holland and Isaac Britton  
Samuel and Katherine Hopper  
Ping-Fan Hu and Shin-Shin Shieh  
Craig and Harriette Jasper  
Stephen Knudtsen  
George and Alisha Kovall  
Ralph and Elizabeth Krause

Carl Lathan  
Mitchel Lohr and Sharon Wall  
Van and Joy Martin  
David and Susan Martz  
Christopher Massarotti  
John and Kathy McLaren  
Kurt Milne and Lisa Chamberlain  
David and Janet Newman  
Douglas and Nora Nickell  
Milton and Mary Patzkowski  
Mary Peery  
James Prater and Vicki Volbrecht  
Paul and Elizabeth Rabe  
Gregory and Cheryl Ranson  
Frederick and Donna Reddell  
Bloor and Patricia Redding  
David Reed and Elizabeth Palmer-Reed  
Robert and Theresa Reich  
Desi and Lisa Rhoden  
Joseph Rizzo  
Anthony and Denise Roberts  
Steven Rowe  
David and Diana Sadighi  
Kenneth and Patricia Saller  
Dennis and Christine Schlaht  
John Schmerge  
Gerald and Deborah Schram  
Kevin Schroder  
Brian and Cindy Simpson  
Scot and Kathy Sommer  
Chris and Nancy Steinauer  
Robert and Barbara Thelen  
Jean Tully  
Timothy and Susan vonReyn  
John and Julie Wager  
Michael Walker  
Thomas and Dorothy Wernsman  
Gwendolyn Williams  
Robert and Joyce Witte  
Paul. and Faye Worley

### 1990-1999

David and Lori Berry  
Richard and Michelle Detry  
Michelle Gentry  
Stephen and Kristen Hall  
Charles Katz  
Von-Kyoung and Hee-Sun Kim  
Dirk and Shaudin Kunselman  
Robert and Wanda Marker  
Peter and Cheryl Reeburgh  
John Schmerge  
Duane Schmitt

Gunjeet and Anuja Singh  
Tava Smika  
W. and Constance Weter  
Bradley and Carrie Williams  
Ryan and Charlotte Wilson  
Rongrui Xiao and Jimin Wang  
Yuan Zhang and Ji Ran

### 2000-2006

Jeffrey and Jane Benusa  
Darrell and Joy Christensen  
Garrett Durland  
Jason Gentry  
Joshua Havekost  
Cairong Hu  
Dennis Johnston  
Joel and Tami Kirkland  
Christopher Thomas  
Michael Young

### Faculty, Staff, and Friends

Tom Aurand  
Mahmood and Sheida Azimi  
Lionel and Kathleen Baldwin  
Viswanathan and Sreedevi Bringi  
Aram and Helga Budak  
George and Sayuri Collins  
David and Barbara Edwards  
Irwin and Clarann Goldring  
George Hnatiuk  
Anura and Geetha Jayasumana  
Matt and Andrea Leland  
Larry and Teresa Longseth  
Tony and Meg Maciejewski  
Vince Murphy  
Steven Reising and Kathleen Zaleski  
Gary Robinson  
Jorge Rocca and Carmen Menoni  
Louis and Carol Scharf  
H.J. and Janet Siegel  
Joan Sjostrom  
Bryan Van Buskirk  
Mark and Elisabeth Wadman  
Carl and Ann Wilmsen  
Glenn and Diane Wilson  
Carl Wright

**Organizations**  
Advanced Energy Industries, Inc.  
Anheuser-Busch, Inc.  
The Estate of Rex Sjostrom  
Information Systems Tech, Inc.  
Vaisala, Inc.  
Xilinx, Inc

## Why Electrical and Computer Engineering?

What is it like to study electrical and computer engineering? Why do undergraduate and graduate students choose ECE at Colorado State? Why is Fort Collins a great place to live, work, and play?

Go online to our video archive ([www.engr.colostate.edu/ece/prosp\\_students/videos.shtml](http://www.engr.colostate.edu/ece/prosp_students/videos.shtml)) to hear answers to these questions as our students explain why they enjoy studying in the Department of Electrical and Computer Engineering at CSU. Spread the word about ECE and pass on the link to high school students, teachers, and counselors!

## Upcoming Events

### College of Engineering to Host Career and Internship Fair on February 20

The College of Engineering will hold its second annual Career and Internship Fair on February 20 in the CSU Lory Student Center. Unlike the University Career Fair, this event is geared specifically toward students interested in engineering, science, technology, math, and related fields. The fair provides a venue for students to connect with employers and learn about professional opportunities in the public, private, and nonprofit sectors.

For questions about the fair or to register your company, contact John Haines, engineering career center liaison, at (970) 491-6220 or [john.haines@colostate.edu](mailto:john.haines@colostate.edu).



*Students connect with employers at the 2006 Engineering Career and Internship Fair.*

### Annual Alumni and Friends Awards Dinner Scheduled for March 31

Mark your calendar for the College of Engineering Annual Alumni and Friends Awards Dinner on Saturday, March 31, at the Fort Collins Hilton. Additional details will be announced soon. For questions or to RSVP, contact the College of Engineering at (970) 491-7028 or [supportengineering@colostate.edu](mailto:supportengineering@colostate.edu).

## Class Notes

Please send your professional and family updates to [ece@engr.colostate.edu](mailto:ece@engr.colostate.edu). Your news will be published in the next ECE newsletter.

**Warren W. Cook, '61**, is living in Annapolis, Maryland. He retired in 2003 after seven years as a yacht broker. Prior to that, Cook was a partner in an engineering company from 1982-1996. Cook also served in the United States Air Force, retiring in 1982.

**Larry Ellis, '81**, has worked for Lockheed Martin for 20 years and is currently the software manager for the 2007 Mars Phoenix Lander, which is slated to launch in August 2007 and land on Mars in May 2008. He has two daughters attending Colorado State majoring in biology and computer science. Larry and his wife, Debbie, just celebrated their 25th wedding anniversary.

**Jeremy Slade, '98**, works for Intel in Fort Collins creating VLSI design tools for the Itanium line of microprocessors. Jeremy and his wife, Kim, welcomed their fourth child in November, Mark Aaron.

**Mohammed Simsim, '02**, currently resides in Bankstown, New South Wales (NSW), Australia. He attends the University of NSW, where he is a Ph.D. candidate at the School of Electrical Engineering and Telecommunications.

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Colorado  
State  
University

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