

station in Everitt to a mock-up of the satellite," Kuester said. "This semester we will practice tracking and communicating with other satellites already in orbit."

Working on the project offered a very different experience from studying in the classroom or performing a laboratory experiment, Kuester said. "And it was a great chance to interact with professors in ways you wouldn't ordinarily get to."

The professors similarly have enjoyed both the challenge of building the satellite and the interaction with the students.

"I'm very proud of what our students have accomplished," said Gary Swenson, a professor of electrical and computer engineering who is the other faculty adviser. "In April, we participated in a NASA workshop at the Jet Propulsion Laboratory in Pasadena, California, where Ryan (Kuester) made a nice presentation on our project. Our students have never before built a satellite, but our project was certainly on a par with the others at the workshop."

The original flight schedule, calling for a November 2002 launch, has slipped somewhat, Swenson said. As a secondary payload, the satellite is dependent upon the launch schedule of communications satellites. The students are hoping to see their satellite boosted into orbit in early 2004.

"This was a great undergraduate experience," said Daniel Chen of Scottsdale, Arizona. He is ION's assistant program manager. "We divided the work among various teams, and the teamwork was excellent. We learned many practical things that are pertinent to careers in engineering and industry. These were things you normally wouldn't pick up in undergraduate classes."

The beneficial, real-life experiences were remarked on by many others in the class, including Ann Peedikayil, a senior in aeronautical and astronautical engineering from Chicago.

"This project taught me that it's really important to be flexible and see the big picture, not just your small piece of it," said Peedikayil, who worked on the layout of the solar panels and the rechargeable batteries. "Every little component in the satellite is important and can affect the performance of other components. You have to think about all the other people and their pieces when you make a decision."

"When you think about it, it's really pretty amazing that we are sending a satellite into space," Peedikayil said. "Even if I don't go to work in the aerospace industry and never work on another satellite, something I helped build actually went into space."

—Story by James E. Kloeppel,  
courtesy of University News Bureau

Texas, where he is the lead in short takeoff/vertical landing (STOVL) aerodynamics in the Joint Strike Fighter (JSF) program. He is a member of the AIAA V/STOL Aircraft System Technical Committee.

**Roy Richter**, '86, is a structural designer at Cessna Aircraft Company in Wichita, Kansas. Previously, he worked at McDonnell Douglas and Lear. Of his Illini days, Richter remembers taking several courses from John Prussing and a senior aircraft design course from Ken Sivier.

**Greg Mayer**, '87, is a patent attorney and partner with Marshall, Gerstein & Borun in Chicago. He graduated with a law degree from the University of Chicago. After graduating from AAE, he earned a master's in aero and astro engineering from Stanford and worked two years at McDonnell Douglas in the strength department.

**Joe Santos**, '87, is head of technology for the Chicago Aviation Authority at O'Hare Airport. His job is to improve efficiencies and reduce delays at the airport.

**Mike Grable**, '88, MS '90, worked on the Iridium project for Lockheed Martin (California) and Motorola (Arizona) as the technical lead for orbital analysis software to control the constellation. He is now with Motorola in the Chicago area.

**Daniel Jensen**, '88, is Manager-Mechanical Design at Rolls-Royce in Indianapolis. He writes that he was the deputy technical chair for the 38th AIAA/ASME/SAE/ASEE Joint Propulsion Conference & Exhibit, which Indianapolis hosted in July 2002. Jensen was also nominated by Rolls-Royce to join the Air Breathing Propulsion Technical Committee of the American Institute of Aeronautics and Astronautics.

**Jeffrey Osman**, '88, and Janice Kryger were married on September 2, 2001, in Chicago. Osman is a pilot with American Airlines and a lieutenant commander in the Naval Reserves. The couple resides in Chicago.

**Mike Huff**, '89, is a lieutenant commander in the U.S. Navy. He served on the aircraft carrier *Kitty Hawk* during the Persian Gulf War and has also served on the *Nimitz*.

## 1990s

**Jeff Elbel**, '90, MS '93, works as a senior orbital analyst for PanAmSat Corporation in Long Beach, California. Outside of work, Elbel continues to record and perform music. His group, Ping, toured this summer in support of its *No Outlet* album, a benefit project to support Habitat for Humanity. The band's next single will appear on a various-artists album from Andy's Angels Records, in support of cystic fibrosis research.

**Eugene Wagner**, '90, is a graduate of the U.S. Air Force Test Pilot School at Edwards Air Force Base in Rosamond, California. He has served in the military

for 11 years. Wagner earned a master's degree in 2001 from the Air Force Institute of Technology in Dayton, Ohio.

**Justin Berman**, '91, MS '93, PhD '01, is chief of the Applied and Military Engineering Branch with the U.S. Army Engineer Research and Development Center. He works out of the center's Cold Regions Research and Engineering Laboratory in Hanover, New Hampshire. Berman will oversee a research program that involves military engineering on topics such as winter mobility. Previously, he worked as a project leader with the Advanced Durable Material Systems program at CERL (Construction Engineering Research Lab) in Champaign.

**Michael Swartwout**, '91, MS '92, is an assistant professor of mechanical engineering at Washington University in St. Louis. His research interests include microsatellite missions and solar sail applications.

**Paul Werstler**, '92, is an engineer with Kastalon, Inc. of Alsip, Illinois. He returned to campus in May 2002 on a recruiting trip. Kastalon makes polyurethane products for industrial applications.

**David Ziegler**, '93, currently works as the engineer for Gurnee Village, a Chicago suburb. Ziegler was Gurnee's assistant engineer when he was appointed by the mayor to replace the village's chief engineer. He became a civil engineer in Effingham before moving to Gurnee in 2000.

**Mike Misiora**, '94, based at NASA's Johnson Space Center, is attached to the Cargo Integration and Operations Group, where he is training to be a flight controller in the main control room for the International Space Station. He previously worked as a flight controller for one of the computer networks on the Space Station. Off duty, Misiora and his Australian shepherd dog Summer have been training to become a certified search team specializing in disaster searches. He and his dog also compete in canine Frisbee.

**Josh Hopkins**, '96, and his wife, Amy Hamilton Hopkins, are new parents. Alexander Dean was born March 8, 2001, in Littleton, Colorado. He weighed 9 lb 2 oz. Hopkins works for Lockheed Martin in a development program to find a replacement for the Space Shuttle. He previously worked in the company's Athena space launch system.

**Blair Bromley**, MS '98, is a postdoctoral research associate in the Energy Sciences and Technology Department at Brookhaven National Laboratory in Upton, New York. He received his doctorate in nuclear engineering from the University of Illinois in 2001. He is married to fellow UI alumna Jennifer Lai.

**Pong Lee**, '99, completed his master's degree in aeronautics and astronautics at the Massachusetts Institute of Technology in June 2001.

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## FACULTY NEWS

**Lawrence Bergman, Bruce Conway, and John Prussing** were nominated by their students to the Incomplete List of Teachers Ranked as Excellent for fall 2001. Recipients from AAE on the list for spring 2002 included John Buckmaster, Conway, Philippe Geubelle, John Lambros, Eric Loth, and Prussing.

**John Buckmaster** has received the AIAA Propellants and Combustion Award for 2002. The award was presented to him in Indianapolis on July 10 at the 38th AIAA/ASME/SAE/ASEE Joint Propulsion Conference. Buckmaster was honored for "outstanding theoretical contributions to the physical understanding of fluid mechanics in combustion processes ranging from detonation physics to propellants." Said AAE Department Head Mike Bragg, "This national award is particularly impressive as it is voted on by John's peers in the field."

**Bruce Conway** received the 2002 Teacher of the Year award from the student chapter of AIAA at the department's annual awards ceremony, held on April 25 at the Illini Union.

**Victoria Coverstone** ('85, MS '86, PhD '92) was one of 84 engineers chosen to participate in the National Academy of Engineering's 8th annual Frontiers of Engineering symposium. Fellow engineers or organizations nominated the participants, who were selected from industry, academia, and government. The symposium brought together young engineers age 30 to 45 who are performing leading-edge engineering research and technical work. The event was held September 19-21 at the National Academies' Arnold and Mabel Beckman Center in Irvine, California.

Coverstone was also recognized this August, when she became an Associate Fellow of the American Institute of Astronautics and Astronautics (AIAA). Associate fellows are selected and approved by committee, through peer review.

**Emilio Frazzoli** has received a Faculty Early Career Development (CAREER) Award from the National Science Foundation. He will receive \$300,000 over five years to work on his project, high-confidence software for embedded aerospace systems. The CAREER program is a Foundation-wide activity that offers the NSF's most prestigious awards for new faculty. The program recognizes and supports the early career development activities of those faculty members who are most likely to become the academic leaders of the 21st century.

Harry Hilton's paper, "Failure probability and survival time analysis for dynamic creep buckling of viscoelastic columns," was selected for best-paper award in structures/solid mechanics. He presented the paper at the 27th Dayton-Cincinnati AIAA Aerospace Science Symposium in March 2002.

Congratulations are in order for **Eric Loth** and **Scott White**, who have been promoted to full professor.

**Natasha Neogi** joined the AAE Department in August 2002. The assistant professor received her doctorate from MIT in 2001. (See related story in this issue.)

**John Prussing** was awarded the 2002 AIAA Mechanics and Control of Flight Award, recognizing him for his contributions to the theory and computation of optimal spacecraft trajectories. He was presented with the award at the AIAA Guidance, Navigation, and Control Conference in Monterey, California, on August 6. Graduate students **Jennifer Hargens** ('97, MS '01) and **Aaron Trask** ('98, MS '00) also attended the conference, as did faculty member Victoria Coverstone, who organized and chaired an eight-paper session, Optimized Trajectory Design, in which Prussing, Hargens, and Trask presented papers.

AAE alumni in attendance were **Daryl Boden** (PhD '86) of the U.S. Naval Academy, **Bob Cesarone** (MS '77) of the Jet Propulsion Laboratory, **Chris D'Souza** ('83, MS '84) of the C.S. Draper Laboratory, **Bob Farquhar** ('59) of the Johns Hopkins Applied Physics Laboratory, **Alan Hope** ('89, MS '91) of the Naval Research Laboratory, **Jinho Kim** (PhD '91) of Swales Aerospace, **Ron Lisowski** (PhD '84) of the U.S. Air Force Academy, **Der-Ren Taur** (PhD '89) of the Chung Shan Institute of Science and Technology, **Steve Tragesser** ('92) of the Air Force Institute of Technology, and **Geno Wagner** ('90) of Edwards Air Force Base.

**Michael Selig** ('84) was honored with the 2002 Wind Energy Academic Award for his work in advancing wind energy technology. The award was presented to him at a June 4 banquet during the American Wind Energy Association's (AWEA) conference and exhibition in Portland, Oregon. Selig's research in wind energy has focused on developing methods and software for aerodynamic design and analysis of wind turbine rotors and airfoils. Formed in 1974, the AWEA is a national trade association of the U.S. wind energy industry. Its membership includes turbine manufacturers, wind project developers, utilities, academicians, and interested individuals.

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UD01

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We gratefully acknowledge the continued support from our alumni and alumnae, other individuals, and corporations toward the work of the Department of Aeronautical and Astronautical Engineering. If we have made an error in reporting, please let us know, and we will correct the oversight in our next newsletter.

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AAE alumni/alumnae, we'd like to feature you in Class Notes! Share news and announcements about your job or life. Send slides, color or black-and-white pictures, or digital pictures. (Send electronic files on a floppy or 100 Mb zip disk in TIFF format with a

resolution of 300 pixels or more.) Mail, fax, or email your news to: Alison Weingartner, Editor, AAE Alumni Newsletter; 306 Talbot Lab; 104 South Wright Street; Urbana, IL 61801, USA; fax: 217-244-0720; email: wengrtnr@uiuc.edu.

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Please attach personal news, awards, achievements, and other information that may be of interest.

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# GREETINGS FROM THE PRESIDENT OF THE AAE ADVISORY BOARD

I would like to thank all the alumni for their generous contributions to the department for 2002. Alumni contributions allow the department to improve its equipment, facilities, and programs. These improvements help the department grow and increase its academic stature.

The AAE Advisory Board received several student appeals at the fall 2002 board meeting for financial and material aid for the national student competitions in which they are participating. The students work on these projects outside their required coursework, integrating their classroom knowledge with hands-on design experience. The AAE Department and the College of Engineering provide some funding, materials, and laboratory space for these projects; however, the students must use innovative and expensive new technologies to be competitive. If you are interested in helping provide materials or financial support for one or more of the student projects, please contact Diane Jeffers for more information.

The advisory board supports the department's initiative in hiring new faculty, whose expertise will provide an added dimension in new areas of aerospace engineering (*see related story on Natasha Neogi*). We encourage alumni to check out the many exciting projects occurring in AAE; perhaps you'll find a connection to be explored.



—David R. Riley '77



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