

ITS-Davis e-news is the electronic newsletter of the UC Davis Institute of Transportation Studies. Written for alumni and friends, ITS-Davis e-news reports information from ITS-Davis and affiliated campus departments that host transportation-related programs. For previous issues, see the [e-news archives](#).

Issue 24, July 2005

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Education Highlights

CIRCLING THE GLOBE: ITS-Davis Students Travel Far and Wide for Research

ITS-Davis students are trekking to places near and far this summer and beyond to offer their skills to communities in need and gain career experience in a range of jobs and internships.

Building a Better World through Sustainable Development

Kurt “Lorenzo” Kornbluth has been building a better world while conducting research for his dissertation.

Kornbluth completed his Ph.D. coursework a year and a half ago and went to work for inventor Dean Kamen’s company, DEKA R&D, which developed the Segway personal transporter and the iBot stair-climbing wheelchair. At the same time he was invited to be a guest lecturer, then teach a year-long international develop MIT workshop class that takes students abroad on appropriate technology projects.

Besides being a car nut, Kornbluth’s interest in personal mobility goes back more than a decade; before returning to grad school at ITS-Davis, he worked for Whirlwind Wheelchair International, which designs wheelchairs that can be built in developing countries from locally available materials. One of his proud accomplishments was the development of a simple, low-cost wheelchair design, plus the tools and manual. The chair is now being built in 25 shops across Africa and Latin America.



Kurt Kornbluth with African villagers

While much of his overseas work with MIT has comprised traditional international development projects such as water testing and treatment, and irrigation, Kornbluth also worked on small renewable energy projects. He recently returned from Bangladesh, where he installed prototype Stirling-cycle engines that burn biogas made from anaerobically digested cow dung to create electricity in two tiny remote villages with 50 – 70

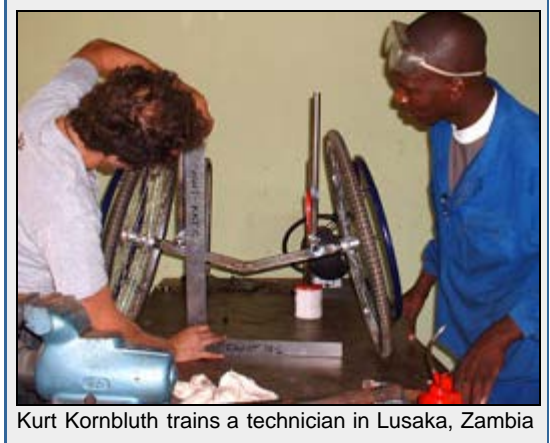
families.

"This is a place that had never seen electricity, and now they have lighting," Kornbluth explains of the communities that are completely off the grid. "I worked with DEKA engineers to design and build all the equipment."

This particular experience is feeding Kornbluth's dissertation, which will focus on utilization of biogas in small engines. Mechanical Engineering Professor Paul Erickson is his advisor.

Not one to let moss grow under his feet, Kornbluth this summer is leading MIT, Harvard, and University of Zambia students on development projects in Zambia, Botswana, and Lesotho. This fall, he'll travel with students to Guatemala to work with an organization called Maya Pedal. Maya Pedal helps communities build low-cost devices such as blenders, washing machines, grain mills, water pumps, roof-tile makers, macadamia nut-hullers, and generators that are people-powered using bicycle parts.

Kornbluth travels with funding from MIT and DEKA, while still pursuing his Ph.D. from UC Davis. "The challenge will be to stand still long enough to synthesize it all."



Kurt Kornbluth trains a technician in Lusaka, Zambia

Launching a Pilot Research Project in China



Jason Ni and Jonathan Weinert, both Transportation Technology and Policy students working on Ph.D.s, leave for China next month to begin work on research projects with Tongji University in Shanghai and Tsinghua University in Beijing. They are involved in an early pilot project of the proposed China Center for Energy and Transportation, a developing initiative that will link ITS-Davis with research universities and centers in China, and eventually, Europe and the U.S.

Ni will travel back and forth between Shanghai and Davis in coming months. His focus will be on Chinese consumers' vehicle purchase behavior.

"I will be looking at people's motivation for purchasing different kinds of vehicles; why and under what circumstances do they choose to buy a car or scooter, versus using bikes, transit, or walking. And how do those decisions vary by different market segments," Ni says. He plans to develop and administer a survey to residents of Shanghai.

Weinert will focus on China's fueling infrastructure during his stay over the next 10 – 12 months.

"China is in a position to potentially leapfrog gasoline to cleaner fuels like hydrogen, much as it and other developing nations have done with cell phone technology," Weinert says. If successful, he notes, both China and the world will benefit from cleaner air, reduced greenhouse gas emissions, and a more secure energy supply.

Weinert and Ni will be working with professors Jianxin Ma and Jun Ma in the College of Automotive Studies at Tongji, and Mingguo Ouyang at Tsinghua.

Closer to Home

While some ITS-students are off conquering the world, most are staying closer to home.

Belinda Chen this summer begins a one-year student researcher position at the California Air Resources Board where she is studying the environmental and economic impact of motor-vehicle trends on low-income households. Chen is evaluating how new vehicle sales trends toward larger luxury cars trickle down to the used car market, typically affecting low-income peoples' mobility, purchase decisions, and factors such as their likelihood to hold on to older, more polluting cars longer.

Chris Congleton has a staff research position at the Traffic Safety Center at UC Berkeley. He is studying pedestrian safety on marked and unmarked crosswalks, and developing a standard measure of pedestrian safety for state use.

Kevin Eslinger, Darius Roberts, and Jonathan Weinert have decided to take the plunge and actually start the business with which they reached the finals of the [UC Davis Big Bang!](#) business plan competition. The three will work with several IT entrepreneurs to develop the software and Web site for their online ridesharing program.

David Grupp, who is putting the finishing touches on his dissertation, has accepted a senior engineer position with Sacramento's Alteryx

Systems, which makes small fuel cell systems. Grupp is designing the fuel cell system architecture and assisting with stack development, activities that he says are very similar to the hybrid systems design work he did at UC Davis. He looks forward to a continuing relationship with ITS-Davis.

Rusty Heffner has a summer internship at General Motors in Detroit, where he is working with the Fuel Cell Activities Group within GM's R&D department. He is studying consumer perceptions of hydrogen fuel-cell vehicles and strategic commercialization opportunities.

OFF TO MAKE THEIR MARK: ITS-Davis Salutes Recent and Upcoming Graduates

December 2004 Graduates

Thomas Barron, M.S., Transportation Technology and Policy

Advisor: Susan Handy

Thesis: "Feasibility of a Clean Bus Tour District in Yellowstone National Park"

Current Position: National Park Service

Matthew Forrest, M.S., Transportation Technology and Policy

Advisor: Marshall Miller

Thesis: "An Evaluation of the Nexa Power Module as the Basis of a Fuel Cell Auxiliary Power Unit"

Current Position: DaimlerChrysler Research and Technology North America, Inc.

Monterey Gardiner, Ph.D. Transportation Technology and Policy

Advisors: Joanna Groza, Andrew Burke

Dissertation: "Investigation of Cryogenic Hydrogen Storage with High Surface Area Carbon: Theory, Experiments, and System Design"

Current Position: Safety Engineer, California Fuel Cell Partnership

March 2005 Graduates

Kiettipong Jierranaitanakit, Ph.D., Civil and Environmental Engineering

Advisor: Deb Niemeier

Dissertation: "An Application of Logit Modeling to the Classification of Network Links for Hourly Traffic Patterns in Emission Inventories"

Current Position: Dept. of Highway, Bureau of Planning (Thailand)

Tod Kershaw, M.S., Transportation Technology and Policy

Advisor: Marshall Miller

Thesis: "Construction Testing and Analysis of a Lead Dioxide Carbon Hybrid Electrochemical Energy Capacitor"

Current Position: Self-employed

Ryan McCarthy, M.S., Civil and Environmental Engineering

Advisor: Joan Ogden

Thesis: "A Methodology to Assess the Reliability of Hydrogen-based Transportation Energy Systems"

Current Position: Pursuing a Ph.D. at UC Davis

Sondra Rosenberg, M.S., Transportation Technology and Policy

Advisor: Deb Niemeier

Thesis: "Paved Road Silt Loading Measurements in the San Joaquin Valley"

Current Position: Fehr & Peers, Tahoe branch

Mihriban Sogutlugil, Ph.D., Civil and Environmental Engineering

Advisor: Deb Niemeier

Dissertation: "Examining the Effects of Variability in Average Link Speeds on Estimated Mobile Source Emissions and Air Quality"

Current Position: Conducting post-doctoral research at UC Davis

Jonathan Weinert, M.S., Transportation Technology and Policy

Advisor: Joan Ogden

Thesis: "Near Term Economic Analysis of Hydrogen Fueling Stations"

Current Position: Pursuing a Ph.D. at UC Davis

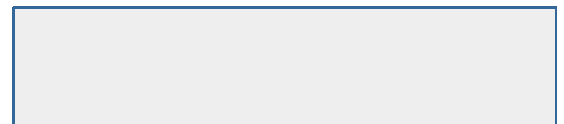
June 2005 Graduates

Joel Bremson, M.S., Statistics

Advisor: Wolfgang Polonik



Monterey Gardiner with son, Grendel



Current Position: Pursuing a M.S. in Transportation Technology and Policy

Matthew Caldwell, M.S., Transportation Technology and Policy

Advisor: Paul Erickson

Current Position: Pursuing a Ph.D. at UC Davis

Timothy Clark, M.S., Civil and Environmental Engineering

Advisor: John Harvey

Thesis: "Safety Assessment for the Intersection of Fair Oaks Boulevard and Howe Avenue, City of Sacramento, CA"

Current Position: Creighton Manning Engineering, Glens Falls, N.Y.

Fred Harmon, Ph.D., Mechanical and Aeronautical Engineering

Advisor: Andy Frank

Dissertation: "Neural Network Control of a Parallel Hybrid-Electric Propulsion System for a Small Unmanned Aerial Vehicle"

Current Position: U.S. Air Force

Kenneth Kwong, M.S., Civil and Environmental Engineering

Advisor: Susan Handy

Thesis: "Why People Take Transit – Analyzing Transit Use in Eight Northern California Neighborhoods"

Current Position: Internship at San Francisco Department of Parking and Traffic



Pat Mokhtarian and Ken Kwong

September 2005 Graduates

Michael Clay, Ph.D., Transportation Technology and Policy

Advisor: Bob Johnston

Dissertation: "Input, Parameter and Spatial Uncertainty in Integrated Land Use and Transportation Modeling"

Current Position: University of Alabama, Auburn, Assistant Professor, Community Planning Graduate Program

ALUMNI PROFILE: Michael Wang, Ph.D., Ecology, 1992



Michael Wang

Most anyone studying the energy and environmental impacts of transportation has heard of the GREET model. GREET has evolved as the industry standard tool for analyzing the energy and emissions impacts of advanced vehicle technologies and new transportation fuels on a full fuel-cycle, or "well-to-wheel" basis.

Just as GREET is somewhat of a household term in the field, its creator, Michael Wang, is also well-known. What many do not know, however, is that Wang was one of the first graduates of the Institute of Transportation Studies at UC Davis.

Wang has worked at Argonne National Laboratory since 1991—first, part time while maintaining a researcher position at UC Davis, and full time since 1993. He manages the Systems Assessment section within the Center of Transportation Research at Argonne. Recent ITS-Davis grad Andrew Burnham has also joined his section.

Wang began his work on the GREET model in 1995. Having conducted lifecycle analyses for electric vehicles and other alternative fuels with Mark Delucchi at UC Davis, he knew there was a lot of data to track and calculations to make for each analysis. "I thought: 'If I put everything into a series of spreadsheets, the next time I won't have to repeat the same steps,'" he said. The spreadsheets would also help others save time, he added.

One reason GREET has been so successful is that the transportation and fuels industries, as well as government and nonprofit organizations, have all participated in its development and regular updates. At this writing, [the latest version](#) available was published in April 2005.

GREET is only one part of Wang's job. He recently has worked with China's Central Government and other international policy makers to set new fuel economy standards in China and to evaluate potentials of alternative transportation fuels and advanced vehicle technologies in China. He also serves on the board of directors of the Energy Foundation.

Wang attributes much of his success to his experience at UC Davis, working under the tutelage of Dan Sperling. "Dan gave me encouragement and general direction, but he also told me: 'You need to observe. You need to think about what transportation issues you feel

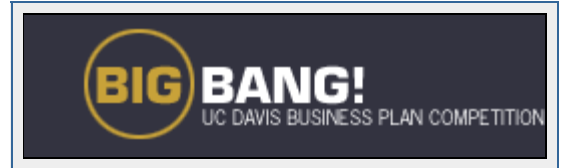
are important.”

It was a huge challenge for Wang. In China, he said, students simply follow the directions of their college professors. Being presented with so many options was overwhelming at first. “It gave me an opportunity—actually, forced me—to think for myself, and set my own course. In retrospect, I realize this is one of the key factors in my success.”

Wang acknowledges that some of the differences between his U.S. and China educational experiences are purely cultural. But he adds that ITS-Davis stands out because it is unique. “A big benefit of ITS-Davis relative to other universities and institutes is its interdisciplinary approach and design.”

BIG BANG! COMPETITION: Two ITS-Davis Teams Make Big Splash

Two groups of ITS-Davis students were among the six teams of finalists in the fifth annual Big Bang! Business Plan Competition, designed by MBA students at the Graduate School of Management to promote entrepreneurship, innovation and hands-on learning.



Boegeskov Energy, led by ITS-Davis students Kenth Pedersen and Matt Caldwell, won the “People’s Choice” award and \$2,000. The company is developing a catalyst-enhancing material that it says will significantly reduce the cost and improve the overall efficiency of fuel cells for vehicles and other potential applications ranging from forklifts to cell phones. Additional team members are Daniel Scott, Derek Larsen, Andy Berk, Frank Parker, Richard Sklar, and Nico Bouwkamp.

RidePal is building a ridesharing program for commuters. The network enables users traveling the same route to easily find each other using cell phones and Internet technology. The RidePal team includes ITS-Davis students Kevin Eslinger, Darius Roberts, and Jonathan Weinert, with Rakesh Gupta and Jordan Rule.

In announcing the results, ITS-Davis Director Dan Sperling could barely contain his enthusiasm. “It is especially impressive that our two teams pursued completely different topics: fuel cells and dynamic ridesharing. Congratulations to Kenth, Matt, Kevin, Darius and Jonathan!”

KEYS IN HAND: Team Fate Advances to Second Phase of Challenge X Competition



UC Davis’s “Team Fate” is one of 17 student teams that successfully completed the first phase of the three-year Challenge X Crossover to Sustainable Mobility competition at the General Motors proving grounds in Michigan in early June.

Continuing its legacy of leadership in student design competitions, Team Fate presented its modeling results and plans to re-engineer an SUV to minimize energy consumption, emissions, and greenhouse gases while maintaining or exceeding the vehicle’s utility and performance. Members returned to Davis with the keys to their very own 2005 Chevrolet Equinox, which they will now begin to rebuild.

The SUV will be a tri-fuel (electricity, 85% ethanol/gasoline, gaseous hydrogen) parallel plug-in hybrid capable of 40 miles of zero-emission vehicle range. The design combines components made by multiple automakers. The front powertrain consists of a 1.5-litre 2004 Toyota Prius engine and 75-kW Unique Mobility brushless DC motor through a modified 2.0L-Nissan CVT. The rear powertrain features a 75-kW Unique Mobility brushless DC motor. The car will use a 40-Ahr lithium-ion battery from Valence and a 10-kW PEM fuel cell from Hydrogenics for accessory loads.

Under the direction of Mechanical Engineering Professor Andrew Frank, over the last decade UC Davis Team Fate has won awards in the FutureCar and FutureTruck competitions, the predecessors to Challenge X. Professor Paul Erickson has joined Frank in advising the current team for Challenge X.

Research Results

H2 PATHWAYS WORKSHOP ON CASE STUDIES: Guiding Hydrogen Planning

The Institute’s Hydrogen Pathways research program held another in its continuing series of workshops for program participants in late June. The workshop brought together leading hydrogen experts from around the world, as well as [H2 Pathways sponsors](#).

As its name implies, the Hydrogen Case Studies Workshop used case studies from around the world to explore various approaches to designing and implementing hydrogen-based transportation systems. Case studies included those developed within the Hydrogen Pathways

infrastructure analysis group, as well as projects such as the California Hydrogen Highway Network, the European HyNet project, and Iceland's attempt to become the world's first hydrogen economy.

Attendees discussed the policy, economic, and societal drivers that initiate and shape the development of hydrogen projects, examined alternative approaches and timelines for implementing and designing infrastructure to meet early and growing hydrogen demand, and identified lessons learned.

TRANSPORTATION PUBLICATIONS FROM UC DAVIS: Hot off the Presses

Following are new 2005 reports published since the last issue of *ITS-Davis e-news*.

Research Reports

[A Near-Term Economic Analysis of Hydrogen Fueling Stations](#). Weinert, Jonathan. *ITS-Davis*. April 2005. UCD-ITS-RR-05-06.

[A Taxonomy of Leisure Activities: The Role of ICT](#). Mokhtarian, Pat; Salomon, Ilan; Handy, Susan. *ITS-Davis*. April 2004 UCD-ITS-RR-04-44.

[An Exploratory Report Using and AIDS Model For Tradeoffs Between Time Allocations to Maintenance Activities/Travel and Discretionary Activities/Travel](#). Chen, Cynthia; Mokhtarian, Pat. *ITS-Davis*. February 2005. UCD-ITS-RR-05-28

[Don't Work, Work at Home, or Commute? Discrete Choice Models of the Decision for San Francisco Bay Area Residents](#). Mokhtarian, Pat; Ory, David. *ITS-Davis*. March 2005. UCD-ITS-RR-05-11.

[Effects of Vehicle Image in Gasoline-Hybrid Electric Vehicles](#). Heffner, Rusty; Kurani, Ken; Turrentine, Tom. *ITS-Davis*. April 2005. UCD-ITS-RR-05-27.

[Effect of Emissions Regulation on Vehicle Attributes, Cost, and Price](#). Sperling, Dan; Chen, Belinda; and Abeles, Ethan. *ITS-Davis*. October 2004. UCD-ITS-RR-04-38.

[Technical and Economic Assessment of Transition Strategies Toward Widespread Use of Hydrogen as an Energy Carrier](#). Ogden, Joan; Yang, Christopher; Johnson, Nils; Ni, Jason; Lin, Zhenhong. *ITS-Davis*. January 2005. UCD-ITS-RR-05-13.

[The Intended and Actual Adoption of Online Purchasing: A Brief Review of Recent Literature](#). Cao, Xinyu; Mokhtarian, Pat. *ITS-Davis*. May 2005. UCD-ITS-RR-05-26

Reprints

[How Do Individuals Adapt Their Personal Travel? A Conceptual Exploration of the Consideration of the Travel-Related Strategies](#). Cao, X.; Mokhtarian, Pat. *Transport Policy*, Volume 12, Issue 3, pp199-206. May 2005. UCD-ITS-RP-05-25. Available at www.sciencedirect.com

[Rural Vehicles in China: Appropriate Policy for Appropriate Technology](#). Sperling, Dan; Lin, Zhenhong; Hamilton, Peter. *Transport Policy*, Volume 12, pp 105-119. March 2005. UCD-ITS-RP-05-24.

Most publications are available online. Publications also may be ordered by fax, e-mail or mail.

<http://www.its.ucdavis.edu/publications>

E-mail: itspublications@ucdavis.edu

Fax: 530-752-6572

Mail: Publications, Institute of Transportation Studies, UC Davis,
One Shields Avenue, Davis, CA 95616-8762

Development Update

ON THE RISE: Giving Increases in 2004 – 2005

The number of philanthropic gifts in support of ITS-Davis programs doubled in 2004 – 2005 over the previous academic year. Through June 30 the Institute received 127 gifts from individuals, corporations and foundations, with philanthropic contributions totaling just under \$1.3 million.

“2004 – 2005 was a spectacular year, bolstered by the success of the *Friends of ITS-Davis* annual giving program and continued support by our corporate partners,” said Director of Development and External Relations Joe Krovoza. “Philanthropic support enables the Institute to fulfill its mission of educating graduate students and conducting cutting-edge transportation research.”

e-Bay Auction Benefits ITS-Davis

UC Davis alumnus Gary Starr (B.S., Agriculture and Environmental Science, 1977), co-founder of ZAP Inc., was so excited about a recent campus visit by company executives that he spearheaded a unique and successful fundraising campaign benefiting the Institute.

ITS-Davis is receiving more than \$16,000 from ZAP from the company’s sale on e-Bay of the first U.S.-compliant Smart Car available to the general public. ITS-Davis and the American Lung Association – Redwood Empire Chapter are splitting the proceeds of the auction.

“This is a truly creative way for an alumnus to support the Institute,” said Director Dan Sperling. “We are honored and delighted to be the beneficiaries of such a generous gift.”

After 71 bids and more than 29,000 viewers, the 10-day online auction closed June 25 with a winning bid of \$35,350 placed by a businessman and microcar enthusiast who lives in Phoenix, Arizona.

Starr and Institute representatives agreed on the auction details after ZAP CEO Steve Schneider and Advisory Board Chair C.C. Chan presented a guest lecture to Transportation Technology and Policy students in Davis. Chan chairs the Dept. of Engineering at the University of Hong Kong and was an ITS-Davis visiting scholar in 2002.



ZAP Smart Car

Corporate Affiliate Program Sponsors 2005

The Institute acknowledges Corporate Affiliate Program members for their 2005 support.

- **Patron Level (\$40,000):** ExxonMobil, Nissan Technical Center North America, and Toyota Motor Sales U.S.A.
- **Other Corporate Affiliates (\$15,000):** Aramco Service Company, Chevron Products Company, Fuji Heavy Industries/Subaru Technical Research Center, Nippon Oil Corporation and Pacific Gas & Electric

Asilomar Conference Sponsors

The Institute acknowledges its Corporate Affiliates, whose contributions support the biennial Asilomar Conference. In addition, the following organizations have contributed directly to the conference.

- **\$20,000+:** University of California Transportation Center, U.S. Environmental Protection Agency Office of Transportation and Air Quality/Office of Research and Development, and William and Flora Hewlett Foundation
- **\$15,000:** California Air Resources Board/California Environmental Protection Agency, and U.S. Department of Transportation Center for Climate Change and Environmental Forecasting
- **\$5,000 – \$10,000:** California Department of Transportation, Energy Foundation, Honda, National Oceanic and Atmospheric Agency, Natural Resources Canada, Surdna Foundation, and WestStart-CALSTART

Newest Hydrogen Pathways Members

ITS-Davis is pleased to announce the addition of Indian Oil Company and Sempra Energy to the Hydrogen Pathways research program. With their addition, the contributing industry and government partners totals 21 and includes: Air Products, BP, California Department of Transportation, Chevron, ConocoPhillips, ExxonMobil, General Motors, Honda, Natural Resources Canada, Nissan, Pacific Gas & Electric, Petrobras (Brazil), Shell Hydrogen, Subaru/Fuji Heavy Industries, TOTAL (France), Toyota, U.S. Department of Energy, U.S. Department of Transportation, and U.S. Environmental Protection Agency. For more information on the program, see <http://hydrogen.its.ucdavis.edu/>.

Additional Gifts

The Institute thanks the following organizations and individuals for their generous contributions:

- **Sacramento Municipal Utility District** – \$10,000 in support of the Hydrogen Technology Learning Center
- **The William and Flora Hewlett Foundation** – \$80,000 in support of the Environmental Vehicle Center and project support
- **Craig Childers** – gift-in-kind, CITYCOM City-EL electric vehicle

ITS-DAVIS PEOPLE: Awards and Accomplishments

Joan Ogden won the third annual ASUCD Excellence in Education Award in the College of Agriculture and Environmental Sciences. Professor Ogden was honored at a ceremony in May. In her acceptance speech, Ogden stressed her gratitude toward UC Davis students, saying, “[Students] are an exceptional group of people. They’re just wonderful human beings and it’s been a pleasure to work with them all.” **Susan Handy** was one of the three finalists for the award. Organizers reported receiving more than 200 nominations.



Kevin Eslinger shows off UC Davis's Toyota FCHV at World Environment Day in San Francisco

Ogden also won an R&D Excellence award from the U.S. Department of Energy Hydrogen, Fuel Cells and Infrastructure Technologies (HFCIT) Program for her role in helping develop the hydrogen production model known as H2A.

Deb Niemeier has been named a 2005 Leopold Leadership Fellow. Based at the Stanford Institute for the Environment, the Aldo Leopold Leadership Program provides 20 scientists annually with intensive communication and leadership training to enhance their ability to communicate complex scientific information to non-scientific audiences, especially policy-makers, the media, business leaders and the public.

Ernie Hoftzyer, the Institute's management services officer, won a 2005 Citation for Excellence Award from the UC Davis Staff Assembly.

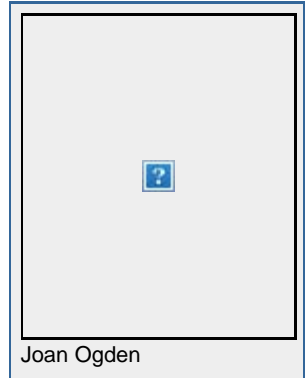
The award recognizes staff for their outstanding contributions to the campus. He was nominated by several of his co-workers for his exceptional skills as a supervisor.

During the high-profile World Environment Day ceremonies in San Francisco in early June, **Dan Sperling** spoke on a panel, “Cars and Fuels of the Future: Are we there yet? The path to sustainable mobility,” sponsored by the Swiss government, MIT, Swiss university ETH, Chevron, and UC Davis. He discussed the market for fuel-efficient vehicles, future consumer buying trends, and the transition to sustainable fuels, including expense, safety and environmental impact.

In mid-June, Sperling gave an in-depth tutorial on energy to about 25 journalists at an event hosted by the Foundation for American Communications. Joining Sperling were Jim Sweeney and Mark Hayes of Stanford, and Severin Borenstein and Jim Bushnell of UC Berkeley and the UC Energy Institute.

Oliver Gao (Ph.D., Civil and Environmental Engineering, 2004) has recently been appointed to a tenure track position in Civil Engineering at Cornell, where he continues his research in transportation and air quality. One of Professor Deb Niemeier's students actively involved in the UC Davis – Caltrans Air Quality Project, Gao won a University of California Transportation Center (UCTC) dissertation award in April 2004.

Shyam Menon, a Transportation Technology and Policy Ph.D. student, has been named the 2004 – 2005 Chevron Fellow. The fellowship award presented by Chevron provides \$9,250 annually to a transportation graduate student who specializes in energy studies.



Joan Ogden



Shyam Menon, second from right, receives check from Chevron's Harry Sigworth and Jeffrey Jacobs, left, and Steve Welstand, right

ITS-DAVIS PEOPLE: Hellos and Goodbyes



Joshua Cunningham

ITS-Davis welcomes back **Joshua Cunningham** (M.S., TTP, 2001), who has been working at UTCFuelCells in South Windsor, Ct., since graduating. Cunningham is back as ITS-Davis staff, managing the technical planning for the proposed Environmental Vehicles Center.

ITS-Davis bids farewell and best wishes to **Peter Vagadori**, who for six years administered the heavy-duty bus program and the Fuel Cell Vehicle Modeling Program under the direction of Bob Moore. Vagadori is joining Professor Moore, who is now on the faculty at University of Hawaii.

SUMMERTIME FUN: ITS-Davis Year-End Picnic



Staff, students, faculty, friends and family gather together at the ITS-Davis year-end picnic

EXTRA! READ ALL ABOUT IT! ITS-Davis and UC Davis Researchers in the News

Dan Sperling, in *The Orange County Register*, July 8, in an article on the governor's Hydrogen Highway budget request.

Dan Sperling, in *San Francisco Chronicle*, July 5, in an analysis of rising oil prices' impact on the economy.

Pat Mokhtarian, in *The Sacramento Bee*, June 27, in a business page feature story about telecommuting.

Andrew Frank, in *The Seattle Times*, June 27, in an article on increasing venture capital interest in plug-in hybrid vehicles.

Emily Winston, on *California Connected*, on PBS stations in California, in a feature on fuel cell vehicles.

Recent ITS-Davis graduate Tod Kershaw, in *The Sacramento Bee*, June 21, on establishing an organic farm in urban Sacramento.

Robert Johnson, in *The Sacramento Bee*, June 20, in an article on carpool lane extensions in the Sacramento region.

Ken Kurani, in *USA Today*, June 15, in a story on a motorbike powered by a hydrogen fuel cell.

Mark Delucchi, in *San Francisco Chronicle*, June 3, in an op-ed on the high cost of free parking, by UCLA urban planning professor Donald Shoup.

Joan Ogden, in *The Cleveland Plain Dealer*, on hydrogen fuel and coal as a possible source of hydrogen.

Dan Sperling, in *San Francisco Chronicle*, June 2; *KGO TV*, June 1; in coverage of Gov. Arnold Schwarzenegger's announcement at World Environment Day of goals to reduce California's greenhouse gas emissions to 80 percent of 1990 levels by 2050.

Dan Sperling, on *Pacifica Radio*, June 1, on the state of the world's oil supply.

Dan Sperling, on *EcoTalk*, a syndicated public radio program, June 1, in coverage of Gov. Arnold Schwarzenegger's announcement at World Environment Day of goals to reduce California's greenhouse gas emissions to 80 percent of 1990 levels by 2050.

Dan Sperling, in the *San Francisco Chronicle*, May 29, from an AP wire story discussing global oil supply.

Andy Frank, on *KTTV* in Los Angeles, May 10, in a feature on plug-in hybrids and a new Los Angeles-area company formed to convert Toyota Prius hybrids into plug-in hybrids.

Dan Sperling, in *Forbes*, May 9, in a story about hydrogen fuel cell vehicle research and development

Dan Sperling, NPR's *Living on Earth*, May 7, in a story on ethanol.

Brett Williams, Ph.D. candidate, in *Environmental Health Perspectives* , April 2005, in an article on the potential for fuel cell vehicles to provide auxiliary power to the electricity grid.

Andy Frank, in the *San Francisco Chronicle*, April 24, in a story on plug-in hybrids.

Andrew Burke, in *The Sacramento Bee*, April 14, on a company that is marketing small fuel cells to replace batteries in portable electronic devices.
