

ITS-Davis e-news presents information on research, education, and outreach from the UC Davis Institute of Transportation Studies and its campus affiliates. [ITS-Davis e-news archives](#)

Research Update

- [ITS-Davis Leads National LCFS Reports](#)
- [Policy Forum Series Highlights Green Building Strategies](#)
- [Super-Cool: Sierra Club Ranks UC Davis No. 1](#)
- [Recent ITS-Davis Publications](#)

Education Highlights

- [Summer Studies: Graduate Students Keep Busy](#)

ITS-Davis Highlights

- [More and Better: New Website Launched](#)
- [Accelerating Electrification: ITS-Davis at Plug-In 2012](#)
- [Sperling Chairs UTC Spotlight Conference Nov. 8-9](#)
- [In the News](#)

Research Update

ITS-Davis Leads National LCFS Reports



The UC Davis Institute of Transportation Studies, which provided the analytical foundation to help California create the nation's first Low Carbon Fuel Standard (LCFS) in 2009, has joined five other leading research institutions in releasing a series of studies designed to inform policy makers about a national standard.

On July 19–20, 2012, in bipartisan briefings in Washington, D.C., the researchers said that a national LCFS will ensure fuels of the future are cleaner, cheaper and made in America.

"A national low carbon fuel standard is a promising framework to help solve the transportation energy challenges that have eluded us for several decades," said ITS-Davis Director Dan Sperling. "Technologically, such a standard is very doable. And it can help us address the complex choices with conventional oil, shale gas, oil sands, biofuels, and electric vehicles."

Joining the scientists at the briefings were representatives of the automobile, electric utility, and biofuels industries.

A low carbon fuel standard, designed to reduce the amount of carbon in transportation fuels, would require all energy companies to meet a common target for carbon intensity but leave it up to the companies to decide how to reach that goal. So, for example, an oil company might choose to diversify into electric or hydrogen fuels. It might add more low-carbon biofuels to its mix of offerings. Or it might buy credits from companies that specialize in low-carbon fuels, or that can lower the carbon intensity of their fuels more efficiently.

[Visit our website](#) for more information, including the full report and a video interview with Dan Sperling.

Policy Forum Series Highlights Green Building Strategies



On September 5, the UC Davis Policy Institute for Energy, Environment and the Economy concludes its second policy forum series, [Green Building Strategies: Achieving the Potential](#).

The series, in partnership with the UC Davis Energy Efficiency Center and UC Center Sacramento, draws from the latest research to explore opportunities and barriers to meeting state building efficiency policy targets. Sessions are designed to address some of the major challenges to retrofitting existing buildings and ensuring that future construction includes the latest cost-effective efficient technologies for lighting and temperature management.

Energy efficiency is one of the most effective ways for California to meet its energy demand. The state's building and appliance efficiency programs have saved consumers more than \$56 billion in electricity and natural gas costs since 1978, averted the need to build 15 large power plants, and stabilized per capita electricity consumption despite rapid economic growth. [Legislation passed in 2009](#) requires the California Energy Commission to implement a comprehensive energy efficiency program for both residential and nonresidential buildings. More recently, Gov. Jerry Brown in 2012 signed an [Executive Order](#) that sets aggressive zero net energy targets for existing and new or renovated state-owned buildings, as well as significant reductions in energy purchases and water use.

The policy forum series has highlighted recent work from UC Davis research, development and deployment programs including the California Lighting Technology Center, Western Cooling Efficiency Center, Center for Water-Energy Efficiency, and UC Davis West Village. [Next week's final session](#) at the UC Center Sacramento will focus on strategies for zero net energy communities and lessons from UC Davis West Village, the largest planned zero net energy community in the United States. Previous sessions included:

- *Looking Cool and Bright I*—informing the state's policies on energy-efficient lighting
- *Looking Cool and Bright II*—the latest research on cooling and building-envelope technologies and strategies
- *The Next Generation*—opportunities at the water-energy nexus

[View presentations](#) from the Green Building Strategies policy series.

[View presentations](#) from the Zero Emission Vehicles policy series.

[Learn more](#) about the UC Davis Policy Institute.

To be notified of future events, [sign up here for the Policy Institute's distribution list](#)

Super-Cool: Sierra Club Ranks UC Davis No. 1



Sierra Magazine has named UC Davis the nation's "Coolest School" for its sustainability and climate-change efforts. ITS-Davis research is an important part of the campus-wide environmental focus that earned this title. [Click here to find out more](#).

Recent ITS-Davis Publications

[Bremson, Joel \(2012\) **Using Gaming Simulation to Explore Long Range Fuel and Vehicle Transitions**. Institute of Transportation Studies, University of California, Davis, Research Report UCD-ITS-RR-12-09](#)

[Leighty, Wayne, Joan M. Ogden, Christopher Yang \(2012\) **Modeling Transitions in the California Light-Duty Vehicles Sector to Achieve Deep Reductions in Transportation Greenhouse Gas Emissions**. *Energy Policy* 44 \(May 2012\), 52–67](#)

[Allan, Alexander \(2011\) **Renewable Transportation Fuel for California's Electric-Drive Vehicles**. Institute of Transportation Studies, University of California, Davis, Research Report UCD-ITS-RR-11-20](#)

[Gillingham, Kenneth, Matthew Harding, David Rapson \(2012\) **Split Incentives in Residential Energy Consumption**. *The Energy Journal* 33 \(2\), 37–62](#)

[Kendall, Alissa \(2012\) **Time-adjusted Global Warming Potentials for LCA and Carbon Footprints**. *The International Journal of Life Cycle Assessment* 2012 \(in press\)](#)

Education Highlights

Summer Studies: Graduate Students Keep Busy

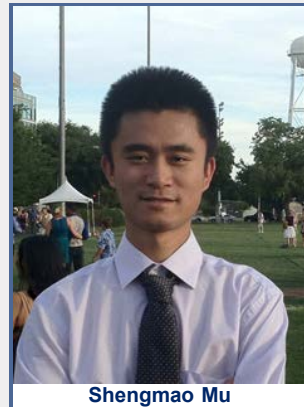
ITS-Davis graduate students participate year-round in research and internships that connect them with a range of companies, government agencies and universities. Summer is a great time for students to take advantage of opportunities far from campus, building relationships at other institutions and returning with new insights into their work.



Yuche Chen



Kalai Ramea



Shengmao Mu



Jeff Kessler

Yuche Chen, a Civil and Environmental Engineering Ph.D. student, is participating in the Young Scientists Summer Program at the International Institute for Applied Systems Analysis (IIASA) in Laxenburg, Austria. His [research project](#) focuses on high-emitting vehicles and policy strategies to address their contribution to pollution. ITS-Davis alumni **David McCollum** and **Nils Johnson** are research scholars at IIASA; McCollum also participated in the Young Scientists Summer Program while a UC Davis Transportation Technology and Policy (TTP) Ph.D. student.

Kalai Ramea traveled to England in June for the UK Energy Research Center Summer School 2012 at the University of Warwick. The one-week energy research program brings together students from around the world to work with high-profile researchers to address the technical, physical, social, economic, environmental and business aspects of energy systems. Ramea, a TTP Ph.D. student, presented a poster titled “Development of Spatial Interface for the TIMES Model” at the program’s poster session.

Shengmao Mu spent the summer teleworking from Davis and Zigong, China, as an intern with consulting firm Jack Faucett Associates. Mu, a TTP master’s student, worked on revising and translating training materials on fuels and public transit for the Chinese Academy of Sciences Institute of Policy Management and for the Global Environmental Institute China’s Subnational Low Carbon Development Planning and Analysis Project. His internship also led to the publication of “The Low Carbon Fuel

Standard: Greenhouse Gas Reduction Potential and Associated Costs in the State of Oregon,” which he will present in November at the Regional Science Association International meeting in Ottawa, Canada.

Jeff Kessler, a TTP Ph.D. student, held a summer internship through the National Renewable Energy Laboratory (NREL) Research Participant Program at NREL in Golden, Colo. Kessler worked on projects primarily concerned with technology innovation and diffusion, and the role of policies in influencing alternative-fuel and alternative-fuel-vehicle adoption and deployment.

ITS-Davis Highlights

More and Better: New Website Launched

The [new ITS-Davis website](#) is now online! In addition to a fresh look, the rebooted site offers simpler navigation, with more direct access to [research results](#) and information on our research and education [programs](#) and [people](#).

We are particularly proud of our new profiles, and galleries of alumni and current students. (Alumni: If you haven't sent us your photo and status information, please do.) We hope you'll take a look and [e-mail us](#) your comments.



Accelerating Electrification: ITS-Davis at Plug-In 2012

The Plug-in Hybrid & Electric Vehicle (PH&EV) Research Center was a key participant in the [Plug-In 2012 Conference and Exposition](#) in San Antonio, Texas. In addition to sponsoring the 5th annual conference in July and hosting the post-conference website for participants, PH&EV Center researchers spoke on several panels and plenary sessions:

- International Best Practices for PEV Readiness (Tom Turrentine)
- Update on Consumer Viewpoints – Expectations Toward PEVs and Charging Options (Gil Tal)
- How Much is Enough? Examining Electric Vehicle Range (Jamie Davies)
- Closing Plenary: The Road Ahead – Strategic Approaches for a Sustainable Electric Vehicle Market (Dahlia Garas)

ITS-Davis alumni were active everywhere in their roles as employees of automakers, charging infrastructure suppliers, utilities, research organizations and government agencies.

Visit the [PH&EV Research Center website](#) to see the ITS-Davis presentations from Plug-In 2012.



PH&EV Research Center Program Manager Dahlia Garas (left) with UC Davis alumni Mark Duvall, Tom Bradley, Marcus Alexander, Rob Schurhoff, Brian Johnston and Richard (Barney) Carlson

Sperling Chairs UTC Spotlight Conference Nov. 8-9



ITS-Davis Director Dan Sperling is planning committee chair for the 2012 UTC Spotlight Conference in Washington, D.C. Its theme: [*Sustainable Energy and Transportation: Strategies, Research and Data*](#).

The conference will bring together university researchers and representatives of federal, state and local agencies to explore ways to reduce dependence of surface transportation on petroleum, taking into account economic, social and environmental impacts. Attendees will discuss how best to identify the research and data needed to promote informed and practical solutions and strategies.

Program topics include:

- Challenges to reducing oil use and greenhouse gas emissions in surface transportation
- Energy pricing and financing strategies
- Emerging vehicle and fuel technologies
- Freight transportation issues and opportunities
- Metropolitan transportation issues and opportunities

[Registration for the conference is open](#); early registration rates expire September 12.

In the News

[Visit our new website](#) for all the latest on ITS-Davis in the news!