

TECHHORIZONS UCR 2008

Engineering A Sustainable Future: New Energy, New Materials, New Transportation

TechHorizons 2008 introduces you to fascinating work now under way in the labs at the Bourns College of Engineering. Sustainability is a major focus of the College's research mission, with important work taking place in bioenergy, solar energy, advanced materials, and environmental engineering.

TechHorizons is designed to provide businesses, agencies, investors, and educators an exciting forum to:

- Discover technologies with near-term potential for commercialization;
- See examples of successfully commercialized new technologies;
- Network with leaders in business, investing, technology, and engineering;
- Be inspired by new ideas, new possibilities, new opportunities.

Who Should Attend:

Business leaders, agency representatives, investors and educators interested in new technologies in bio-energy, solar energy, advanced materials, and environmental engineering — and their potential commercial applications.

Why You Should Attend:

Through technical sessions and networking activities, this interactive conference will provide an exceptional opportunity to meet with your industry peers, faculty and students, scientists, government and industry technology leaders, investors and economic development managers. During each session representatives of industry and government will provide valuable perspectives on the new advances in the pipeline. You can expect stimulating discussion on technology transfer and commercialization, new technology innovations, and the outlook for future advances in engineering, as well as opportunities to get involved in emerging products and technologies.



A Multifaceted Perspective

The University of California Riverside-Bourns College of Engineering is proud to host invited speakers from top academic, industry, government organizations including:

Applied Materials, Inc.	DARPA
Energy Innovations, Inc.	Mascoma, Inc.
Riverside Public Utilities	Tohoku University
Tohoku University- WPI-AMIR	UCR-Bourns
UCR-CE-CERT	U.S. Office of Naval Research
U.S. Department of Energy	Viresco Energy LLC
South Coast Air Quality Management District	

Invited keynote speakers include:

Jim Eberhardt, Ph.D., is Chief Scientist, Office of FreedomCAR and Vehicle Technologies, U.S. Department of Energy. He is former Director of the U.S. Department of Transportation's Office of Heavy Vehicle Technologies.

Leo Christodoulou, Ph.D., is the Deputy Director of the Defense Sciences Office (DSO) of the Defense Advanced Research Projects Agency (DARPA). In addition to his duties as Deputy Director, Dr. Christodoulou serves/has served as program manager of several DSO Materials programs.

Julie Christodoulou, Ph.D., Office of Naval Research, where as Acting Head, Engineering, Materials & Physical Sciences, and as a program manager, she was involved in the writing of two major federal reports: "Materials Research to Meet 21st Century Defense Needs" and "Materials in the New Millennium: Responding to Society's Needs."



About the Bourns College of Engineering

Established in 1989, the Bourns College of Engineering has already gained international acclaim for innovative research in the environment, nanotechnology, and alternative fuels for vehicles. The College is one of the fastest-rising engineering schools in the nation, with a rapidly growing faculty and student body working together in modern facilities.

UNIVERSITY OF CALIFORNIA
UC RIVERSIDE | Bourns College
of Engineering

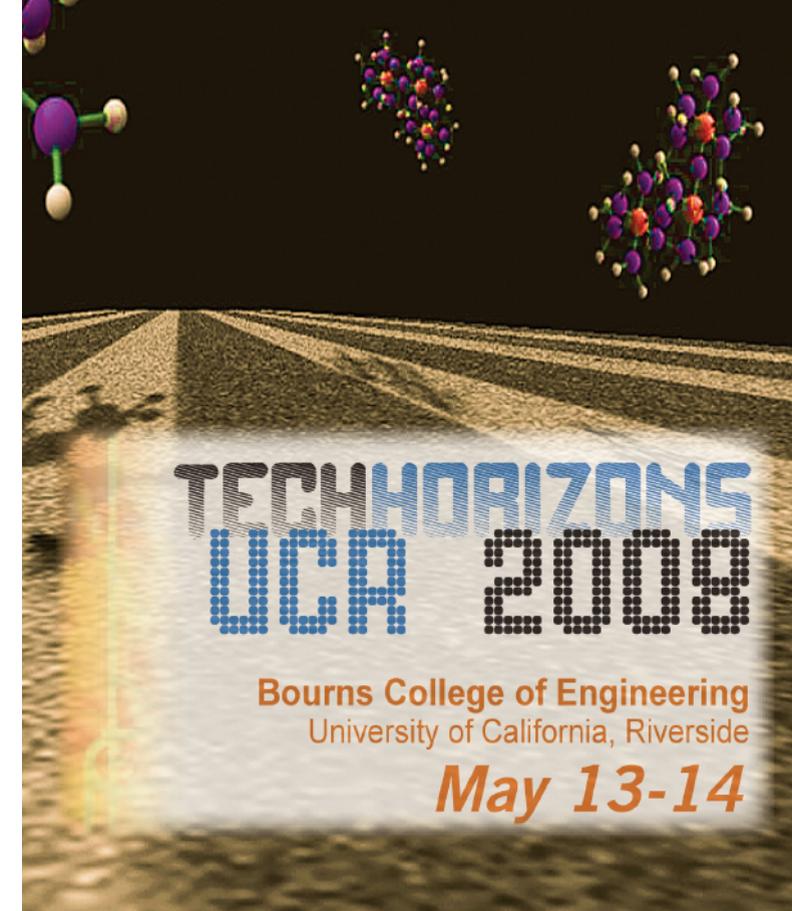
900 University Ave.
Riverside, CA 92521

Non-Profit Org.
U.S. Postage
PAID
Permit No. 131
Riverside, CA



TechHorizons
UCR 2008

Presented in cooperation with Riverside California's
Inland Empire Tech Week, May 12-15.



TECHHORIZONS
UCR 2008

Bourns College of Engineering
University of California, Riverside

May 13-14

Engineering A
Sustainable Future
PROGRAM PREVIEW

UNIVERSITY OF CALIFORNIA
UC RIVERSIDE

Bourns College
of Engineering

For the latest information
and to register online:
www.TechHorizons.engr.ucr.edu

TECH HORIZONS UCR 2008

Tuesday-Wednesday, May 13-14, 2008
Bourns College of Engineering
University of California, Riverside

PROGRAM

Tuesday, May 13

10:30 am Registration
12:30 pm Lunch and Welcome



Session 1 ALTERNATIVE ENERGY

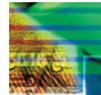
Petroleum prices have doubled in the past three years amid rocketing global demand and supply chain disruptions from political unrest and natural disasters. At the same time, concern about the impact of fossil fuel use on global climate and environmental quality has spurred a search for alternatives. In this session, scientists and engineers discuss the progress being made in unlocking energy from alternative resources, and the steps needed to move these innovations from the lab to the pump.

Charles Wyman, Professor of Chemical and Environmental Engineering, UC Riverside

Tomoyuki Yamaya, Professor of Agriculture and Engineering, Tohoku University

Jim Flatt, Senior VP, Research & Development, Mascoma Corp.

Jim Guthrie, President, Viresco Energy LLC (invited)



Session 2 ADVANCED MATERIALS

A new generation of engineering tools is giving us materials with unprecedented properties, produced by new processes that save energy. How long will it take for new materials based on nanotechnology and living systems to have an impact on the products we use every day, from calculators to cars?

Javier Garay, Professor of Mechanical Engineering, UC Riverside

David Kisailus, Professor of Chemical and Environmental Engineering, UC Riverside

David Kyser, Senior Director, Strategic External Research, Applied Materials, Inc.

Yoshinori Yamamoto, Professor and Director, WPI-Advanced Institute for Materials Research, Tohoku University

6 pm Reception, Dinner, Keynote Address

A UCR-Tohoku University-Riverside-Sendai City Collaboration

Wednesday, May 14

7 am Industry Networking Breakfast



Session 3 SOLAR ENERGY

Sunshine is free, but electricity from the sun is still our most expensive option. UCR is pushing the frontiers of solar energy on several fronts: ultra-efficient photovoltaic panels for applications such as satellites, inexpensive organic cells that could make household solar energy competitive, and methods to store and transport solar energy as heat. The sun is rising on solar power in America. This session will update you on the latest developments and the outlook for the future.

Alexander Balandin, Professor of Electrical Engineering, UC Riverside

Mihri Ozkan, Professor of Electrical Engineering, UC Riverside

Michael Bacich, Manager, Solar Power Systems, Riverside Public Utilities

Kazuo Nakajima, Professor of Materials Research, Tohoku University

William Bottenberg, VP, Quality Assurance, Energy Innovations, Inc



Session 4 ADVANCED ENVIRONMENTAL TECHNOLOGIES

Transportation accounts for more than half of America's petroleum consumption. Improving the transportation system's efficiency – from the vehicle's powertrain to the entire system of streets and highways – will have dramatic impacts on the economy, mobility, and environmental quality. In this session, you will learn how smarter cars, smarter roads, and smarter energy choices will change the way America drives.

Yushan Yan, Professor and University Scholar, Chemical and Environmental Engineering, UC Riverside

Matthew Barth, Director of the Center for Environmental Research and Technology and Professor of Electrical Engineering, UC Riverside

Hitoshi Takamura, Professor of Materials Science, Tohoku University

Matt Miyasato, Manager, Vehicle Technologies, South Coast Air Quality Management District

noon Lunch (Sponsored by WIRED)
Special panel on innovation and technology transfer

1:30 pm Wrap-Up

1:45 pm Networking Sessions
Laboratory Tours
Tours will be available at nearby CE-CERT (the College's Center for Environmental Research and Technology).

NETWORKING Areas will be open throughout the conference for individual and small group gatherings for the purpose of stimulating discussion of collaborative research opportunities, investments, educational/professional development, and regional business partnerships.

POSTER SESSION Work by Bourns College of Engineering students will be on display during the conference. Winners in four categories will represent the best student research on sustainability issues.

BOOTHS AND EXHIBITS Space is available for company exhibits on new technologies and ventures expanding upon the conference theme.



Collaborating during TechHorizons 2008 will be researchers from Tohoku University, a leading Japanese research institution. The Bourns College of Engineering has developed a number of cooperative and exchange agreements with Tohoku, which is based in Sendai, Riverside's Sister City in Japan.



Bourns graduate students and faculty are key participants in an effort to study competitiveness and innovation in California. The research is looking for the most effective models to stimulate innovation and move new ideas rapidly to the market.



REGISTRATION FEE \$150

REGISTRATION DEADLINE: May 12, 2008

Discounted Registration before April 30
\$125 General
\$100 Academic/Government
\$ 50 Students

Register online: www.TechHorizons.engr.ucr.edu
Register by mail: Mail form below with a check made payable to "UC Regents" to:

TechHorizons

University of California, Riverside
Bourns College of Engineering
900 University Ave.
Riverside, CA 92521
ATTN: Dr. Christine Pence

Name: _____

Name for Badge: _____

Position/Title: _____

Organization: _____

Address: _____

City: _____ State: _____ Zip: _____

Email: _____

Phone number: (_____) _____

Registration, conference updates, maps:
www.TechHorizons.engr.ucr.edu
Dr. Christine Pence
(951) 827-6379
cpence@engr.ucr.edu

Sponsorships and exhibit opportunities:
Richard Chute
(951) 827-3390
richard.chute@ucr.edu

Conference registration fee includes:

Breakfast, 2 lunches, dinner, refreshments
and parking