

The Institute for Innovation & Entrepreneurship at UT Dallas

The Institute for Innovation & Entrepreneurship at UT Dallas is a collaborative initiative of the schools of Arts and Humanities; Behavioral and Brain Sciences; Economic, Political and Policy Sciences; Engineering and Computer Science; Management; and Natural Sciences and Mathematics. The Institute sponsors and promotes cross-disciplinary academic and outreach programs across the university and the North Texas Region—*leveraging the power of ideas and technology to create new ventures and add economic, social and cultural value to our community.*

The Research and New Venture Showcase Series

The Research and New Venture Showcase Series highlights the cutting edge science and advanced technologies developed in the science and engineering laboratories at UT Dallas. Each showcase event is organized around a particular technology theme and includes presentations by faculty researchers, industry representatives and leading experts. The luncheon and closing reception each provide excellent networking opportunities with leaders in the field of energy.

Energy should be of vital concern to everyone, including industry participants, investors and consumers. This showcase should be of particular interest to:

- Energy industry professionals
- Community leaders, service providers, bankers and investors
- Venture finance professionals and other early stage investors
- University faculty, staff and students

The series is open to UT Dallas students, faculty, staff and researchers, and the general public.

[Click here to register](#)



Program Overview

Energy plays a major role in the US and global economies. Seven of the top ten companies in Fortune's Global 500 are directly involved with energy. Energy is critical to each of us in our daily lives, and energy expenditures account for about 8% of GDP worldwide.

Although the energy industry broadly includes petroleum and natural gas exploration and production, this Research and New Venture Showcase will be focused on ground-breaking research and new developments in the generation and storage of electrical energy. A subsequent program, planned for Spring 2012, will focus on electrical energy transmission, utilization and efficiency.

On October 21, 2011, UT Dallas researchers and industry participants will address developments impacting solar power, wind energy, storage integration and the design of advanced electronics used in the management and control of electricity.



Participating Organizations

The Erik Jonsson School of Engineering and Computer Science

The Erik Jonsson School is a global leader in engineering research and education. The school offers undergraduate and graduate degrees in biomedical engineering, computer engineering, computer science, electrical engineering, materials science and engineering, mechanical engineering, software engineering, systems engineering and management, and telecomm engineering. With over 100 faculty, nearly 3,000 students and more than \$30 million in sponsored research, the Jonsson school is a key player in the innovation and technology ecosystem of North Texas.

School of Natural Sciences and Mathematics

The School of Natural Sciences and Mathematics (NSM) offers undergraduate and graduate degrees in actuarial science, biology, biology and criminology, biochemistry, chemistry, geosciences, mathematics, molecular biology and physics. An extensive research program includes the Alan G. MacDiarmid Nanotech Institute, focused on NanoEnergetics, a discipline that seeks to generate game-changing technologies for energy harvesting, storage, transmission, and conversion, leading to new products, companies and job opportunities.

The Texas Institute

The Texas Institute is an independent, nonprofit research institute created to serve as a center of excellence for energy research and development, including smart grid, renewable energy and energy conservation technologies. The institute seeks to help Texas to maintain its position as an energy innovator, growing industries and attracting jobs to Texas by creating world-class research and development in sustainable technologies in partnership with universities, businesses, and communities.

SHOWCASE AGENDA

<u>Time</u>	<u>Presentation/Activity</u>	<u>Presenter</u>	<u>Location</u>
8:00-9:00	Registration/Breakfast		
9:00-9:15	Welcome	Madison Pedigo; Dr. Mario Rotea	SOM 1.118
9:15-9:45	Summary of Energy Related Research at UT Dallas	Dr. Robert Helms	SOM 1.118
9:45-10:15	Materials Developments Related to Energy Generation and Storage	Dr. Yves Chabal	SOM 1.118
10:15-10:45	Low Cost High-K Dielectric Capacitors	Dr. Bruce Gnade	SOM 1.118
10:45-11:00	Break		
11:00-11:30	Supercapacitors Using Tailored Carbon Nanofibers or Nanostructured Carbon Metal Oxide Composite Electrodes	Dr. John Ferraris	SOM 1.118
11:30-12:00	Energy Generation by Nanostructured Solar Cells	Dr. Anvar Zakhidov	SOM 1.118
12:00-1:15	Lunch and Keynote: The Future of Renewables and Storage Integration in Electricity Grids	Mark Armentrout	Executive Dining Room
1:15-1:30	Break		
1:30-2:00	Wind Energy: From Alternative to Mainstream	Vestas Technology R&D Americas	SOM 1.118
2:00- 2:30	Two Control Problems in Wind Energy Systems	Dr. Mario Rotea	SOM 1.118
2:30-2:35	Closing Remarks	Madison Pedigo	SOM 1.118
2:35-4:00	Networking Reception		SOM Atrium