

# Sandia Research & Technology Showcase

SAND2012-7311P

For more information, visit [www.sstp.org/showcase](http://www.sstp.org/showcase)

cyber  
research

energy

nano &  
microsystems

water

Learn about some  
of the cutting-edge  
research and technology  
development taking  
place at Sandia  
National Laboratories.

The event will also  
provide information  
on doing business  
with Sandia National  
Laboratories through  
licensing, partnerships,  
procurement, and  
economic development  
programs.

To learn more about partnership opportunities with Sandia,  
visit [www.sandia.gov/partnerships](http://www.sandia.gov/partnerships), email [partnerships@sandia.gov](mailto:partnerships@sandia.gov),  
or call 505-284-2001.



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SAND 2012-xxxxP

## Sponsors



Wednesday, September 12, 2012  
9:00 am - 4:00 pm

Embassy Suites  
1000 Woodward Place NE, Albuquerque, New Mexico 87102

## AGENDA

8:30-9:00 Registration and Check-In

9:00-9:20 Welcome

*Paul Hommert*, President and Laboratories Director, Sandia National Laboratories

9:20-9:50 Research and Development at Sandia National Laboratories

*Dennis Croessman*, Chief of Staff to the Chief Technology Officer, Sandia National Laboratories

9:50-10:20 Partnerships and Available IP at Sandia National Laboratories

*Pete Atherton*, Senior Manager for Industry Partnerships, Sandia National Laboratories

10:30-11:00 Morning Poster, Networking & Refreshment Break

11:00-12:00 Industry Partnership Case Study Illustrations

*Moderator: John Freisinger*, President and CEO, Technology Ventures Corporation

Panelists:

*Alan Greenberg*, Strategic Marketing Manager, UOP, a Honeywell Company

*Mark Rigali*, Geochemistry Manager, Sandia National Laboratories

*Lawrence Chavez*, CEO, Lotus Leaf Coatings, Inc.

*Andrew Bartlett*, Partner, Drilling Telemetry Systems

*Mark Allen*, Licensing Manager, Sandia National Laboratories

12:00-12:20 Mid-day Poster and Networking Break

12:20-1:00 Lunch and Conversation

*Richard J. Berry*, Mayor of Albuquerque  
*Maggie Hart Stebbins*, Bernalillo County Commissioner

1:00-2:00 Utilizing Economic Development Programs at Sandia National Laboratories

*Moderator: Jackie Kerby Moore*, Technology and Economic Development Manager, Sandia National Laboratories

Panelists:

*Hong Hou*, President and CEO, EMCORE Corporation

*Danny Ruiz*, Federal Development Director, Mazda Computing

*Thomas Anderson*, Founder, Customizabooks

*Bruce McCormick*, President and Research Director, SAVSU Technologies

2:00-2:10 Looking Forward: Research & Industry Partnerships at Sandia National Laboratories

*Steve Rottler*, Vice President of Research and Chief Technology Officer, Sandia National Laboratories

2:10-4:00 Afternoon Poster Session, Networking & Refreshments

*Julie Phillips*, Deputy Chief Technology Officer, Sandia National Laboratories

## POSTER SESSION & DEMONSTRATIONS

### Cyber Research

- Autonomous Distributed Electrical Power System Defense
- Secure Malware Scanning with CodeSeal
- Identifying Patterns in Network Traffic to Predict and Mitigate Cyber Attacks
- Peering through the Haze: Privacy and Monitoring in the Cloud Computing Paradigm
- Cyber Engineering Research Institute
- Research and Engineering Cyber Operations Intelligence Lab (RECOIL)
- Machine Oriented Biometrics and Cocooning for Dynamic Network Defense
- FIREAXE
- Desert Cloud

### Energy Security

- Solar Energy Programs
- Microsystems Enabled Photovoltaics
- Wind Energy Opportunities
- Water Power Technologies and Opportunities
- Sunshine to Petrol
- Genetic Engineering of Cyanobacteria as Biodiesel Feedstock
- Energy Surety Microgrid
- Combustion Research Facility
- Supercritical Carbon Dioxide Brayton Cycle Loop
- SNL Sustainable Site Development & Operations

### Nano and Microsystems

- MEMS Inertial and Pressure Sensors
- Biosensors for Environmental Sensing and Medical Diagnostics
- Portable Chemical Sensors for Environmental and State of Health Monitoring

• The Sandia Cooler: A Fundamentally New Approach to Air Cooled Heat Exchangers

• Microsphere Template Gallium Nitride Growth and Liftoff

• Wide-Bandgap Power Electronics

• Solid-State Lighting Science

• Microsystems & Engineering Sciences Applications (MESA)

• CINT: A DOE National User Facility Resource for Research Collaboration

• CINT Highlight: Industrial User Projects to Stimulate Innovation

### Water Security

• CANARY: Event Detection Software

• Water Security Toolkit

• Biomimetic Membranes for Water Purification

• Biofouling Resistant Materials for Marine Hydrokinetic Technology and Water Treatment Membranes

• The Human Resilience Index and Modeling Project

• Collaborative Stakeholder-Driven Resource Planning for Water, Energy, Food and Security

• Science Informing Policy Through Collaborative Modeling

• URGSiM Analysis of Climate Risk in the Upper Rio Grande Basin

• Building a National Carbon Dioxide Storage Supply Curve: A Systems Approach Incorporating Geologic Uncertainty

### Robotics Demonstrations

• Gemini Scout

• Urban Hopper