



Hosted in Denver, Colorado • August 19-21, 2014

## 7<sup>th</sup> International Symposium on Resilient Control Systems

The major purpose of this symposium is to extend and endorse particular concepts that will generate novel research and codify resilience in next generation control system designs.

**Statement of Themes:** Engineering systems are increasingly subjected to disturbances which are not generally predictable at design time. These disturbances can be man-made or naturally occurring, and they can be physical or cyber in nature. A multi-disciplinary approach for designing controls for these systems is envisioned that provides the intrinsic state awareness and intelligence that give the overall system an increased level of resilience.

### Submission Schedule

- Paper Submission Due: April 28, 2014 - **Extended**
- Notification of Paper Acceptance: June 9, 2014
- Final Paper Submission: July 7, 2014
- Symposium Website:  
<http://resilienceweek2014.inl.gov/controlsystems>

### Cost

- \$495
- \$445 for registration by July 11, 2014
- \$50 discount for IEEE IES members
- Half price registration for registered students

### Venue/Accommodations

Grand Hyatt Denver  
1750 Welton Street  
Denver, Colorado, USA, 80202  
Tel: +1 303 295 1234  
Fax: +1 303 603 4009

### Schedule

- Day 1: Special Topics Sessions
- Day 2: Paper Sessions
- Day 3: Panel and Breakouts
- Day 4: Optional Tour

### Benefits

- Opportunity to participate in an evolving focus area within critical infrastructure protection and cyber-physical systems
- Reduced registration fee for IEEE IES members
- Optional trip to area attraction for a nominal fee

### Call for Papers

Paper submission will be handled through the symposium website listed under submission schedule. Please refer to this website for the latest information.

### Topical Areas (including, but not limited to)

- Human Machine Interaction: cognitive modeling, machine learning, digital human modeling
- Human Systems Design: environmental configuration, tailored presentation
- Control Theory: intelligent, reconfigurable, optimal
- Control Framework: supervisory, multi-agent, distributed intelligence
- Sensor Architectures: embedded modeling and analysis, intelligence and agents, wireless control and determinism, multi-parameter integration and diversity
- Monitoring/Control Security: decoys, randomization, diversity, training and cognition, decision making, measurement
- Cyber Architecture: health indicators, defense optimization
- Data Fusion: data reduction, security characterization, data diversity, anomaly detection, response prioritization
- Computational Intelligence: machine learning, neural networks, fuzzy logic, evolutionary computation, Bayesian belief networks
- Cyber-physical power and energy systems: real-time communication, protection, control, resilience, reliability, sustainability, efficiency
- Robotic systems: Failure/error tolerance and recovery, adaptable/flexible architectures, multi-level/agent systems, multi-sensor fusion, tele-presence, probabilistic behaviors, performance validation/verification, communications security

### Keynote Speakers

- Prof. Lynne Parker, University of Tennessee

### General Chairs

- Frank Ferrese, Naval Surface Warfare Center
- David Scheidt, Johns Hopkins Applied Physics Laboratory

### Organizing Chair

- Michelle Cozzi, Naval Surface Warfare Center

### Publication Chair

- Li Bai, Temple University

### Technical Program Chairs

- Saroj Biswas, Temple University
- Chika Nwankpa, Drexel University

### Technical Co-Sponsor

- IEEE Industrial Electronics Society