4th 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.

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Special/Invited Session Announcement and Call for Papers

Session S/I-07: Collaborative Approaches to Systems Resilience

Session Abstract:

The security and resilience of our critical infrastructures depend on our ability to effectively monitor, understand and control large cyber physical systems (CPS). Large volumes of data associated with very short time scales have traditionally demanded the extensive use of automation and abstract visualizations for cyber situation awareness and response. In most cases, the roles and responsibilities attributed to humans (analysts) and autonomous systems have been fixed by design, with little flexibility for online changes in operational context and unexpected situations. Collaborative Human-Automation control infrastructures are likely to be more resilient, and may enable the new capabilities that may change the future of CPS security. In this session we will bring together experts from different areas and backgrounds to present and discuss their views in collaborative approaches for large-scale systems resilience.

Topics:

- Situation-Awareness in Human-Machine Complex Systems
- Aware and Affective Computing in Human-Automation Systems
- Multi-Agent Infrastructures for Cyber Physical Systems (CPS)
- Human Machine Interfaces for collaborative systems and Visualization of team activity
- Game theoretical approaches to collaborative systems
- Teamwork and Adaptive Automation Theory
- Adaptive Automation in Cyber Physical Systems
- Security and Resilience of Human-Automation Systems
- Cognitive Frameworks for Distributed Control Systems

Chairs:

- Eugene Santos, Dartmouth College, Eugene.Santos.Jr@dartmouth.edu
- Marco Carvalho, Institute for Human and Machine Cognition, mcarvalho@ihmc.us

Authors' Schedule:

- Paper submission deadline: April 4, 2011
- Notification of acceptance: June 6, 2011

Submission of Papers:

Papers must be submitted electronically through the electronic submission system. For further details please consult the conference web pages for the paper template.