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-08:

Resilient Control of Robots in Complex Networks

Session Abstract:

Increasingly networked components of robotic systems yield a control problem where fully characterizing the system as a whole becomes a daunting task during design and deployment. Consideration of the effects of latencies and disconnects in the initial design becomes a key ingredient to creating a successful resilient architecture. For systems that have grown organically the analysis and retrofit is again difficult. Producing designs that may continue to function when communication is slowed or severed or methods for analyzing the hazards of deteriorating conditions provides the basis for resilient designs or measures of the resilience of a networked robotic system.

Topics:

Included but are not limited to:

- Wired or wireless connected multi-robot systems.
- Multi-agent and hierarchical architectures.
- Computational Intelligence approaches to networked robotics.
- Scalable robot architectures.
- Navigation and situational awareness in networked robots.

Chairs:

- Chair Brian Powell brian@ni.com
- Co-Chair Tim McJunkin timothy.mcjunkin@inl.gov

Authors' Schedule:

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