



Transforming the Resilience of Critical Infrastructure Systems and Communities

Resilience Week Objective: A Symposium dedicated to advancing the interdisciplinary dialog on policy and technologies that accelerate critical infrastructure and community resilience to unexpected and malicious threats.

SESSION 02: CAN WE MAKE SYSTEMS MORE RESILIENT USING AN OPERATOR'S PERSPECTIVE?

Session Chairs

Kimberly Lewis, Department of Defense, co-chair

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Session Abstract

For a system to be considered resilient we're asking a system to rebound from an upset or an abnormal condition. Perhaps we're asking the system to be robust in the face of complexity, interdependence, or unanticipated environmental influences. We might also be asking a system to overcome brittleness and imbue itself with characteristics and attributes that allow it to act in environments outside the design requirement. Further extending that concept, how will the system perform in roles or serve functions well outside the requirement scope?

Humans are a crucial element in these resilient systems. How are we expecting the human to rebound? Are we asking the human to be the component that can make the system rebound? How robust are the human operators? Are there conditions in which they cannot complete their charge? Are there actions or services they cannot complete, even in the best of circumstances? How do the operators or users cause brittleness in a system by pushing performance beyond it's intended design? Is the system extensible? Can the operator exploit the resilience of the system to extend a system's mission?

The panel session will feature speakers from infrastructure and human factors research providing different insights on improving system resilience from the operator's perspective.

Topics

Human Factors, Human Reliability, Interdependent Systems

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