



The 2016 Resilient Critical Infrastructure Student Competition will consist of two parts.

Part 1: Lightning Talk Lightning talks are short presentations (7.5 min) that follow a strict format (see below) and are intended to maximize exposure of ideas.

Part 2: Poster Session Students will also present their research during a poster session—providing the opportunity for more in-depth discussion about their research in a more relaxed atmosphere.

Lightning Talk Rules:

- Each talk will consist of exactly 15 slides that are presented for exactly 30 seconds each. Thus, the total presentation length is 7.5 minutes. Talks will be launched at 10-minute intervals, leaving approximately 2.5 minutes for Q&A and transition between speakers.
- Each presentation will be loaded onto a common laptop. Use of personal laptops for presentation is not allowed.
- Each presentation will be set up so that slides automatically advance at 30-second intervals. Once the presentation begins there is no pausing or backtracking. Presenters will not have control of how their slides advance.
- If you want to use a laser pointer, please bring one.
- Slides can be in powerpoint or pdf format. Use of another format might be possible, but requires explicit approval of the RCI Chair.

Best Practices and Recommendations. Lightning talks represent a unique opportunity to tell a story about your research. Based on past experience, we strongly recommend the following:

- *DO NOT try to compress a longer talk outline into this short format.* If you try simply to talk faster and skip the details, it is unlikely your talk will be understandable to the audience (and the judges).
- *DO spend time thinking about the key messages that you want to deliver,* and then organize the talk about making those points clearly and strongly.
- *You can use animation, but be careful.* If you are using powerpoint and you want to set up your slides so there is animation (e.g., a slide that builds its content automatically) during its 30-second window, that is fine. But be judicious in your use of animation. If something goes wrong in its playback, it could be disastrous. Keep it simple.
- *You can repeat a slide to increase the amount of time spent on a single idea.* Because slides advance automatically at 30-seconds, you can increase time in 30-second increments: 2 slides = 60 seconds, 3 slides = 90 seconds, etc. However, you only have a total of 15 slides, and these slides automatically advance.
- *No matter what happens during the presentation, keep going.* There are no restarts, and the clock keeps running.
- *Practice, Practice.* Be sure to practice at least once in front of a live audience.



Chicago, IL
Aug 16-18, 2016

2016 Resilient Critical Infrastructure Student Competition

Tuesday, August 16, 2016

Part 1: Lightning Talks

Each talk is 7.5 minutes in duration. Talks start at approximate 10-minute intervals.

1:30 Human in the Loop Design and Optimization for Resilient Infrastructure Networks

Aybike Ullusan, Northeastern University

Urban flooding forecast for Phoenix roadways under increasing precipitation

Yeowon Kim, Arizona State University

Automated extraction of dynamic parameters of infrastructure by video motion magnification and unsupervised machine learning

Charles Dorn, University of Wisconsin - Madison

2:00 A Networks Perspective of Air Traffic Delays

Karthik Gopalakrishnan, Massachusetts Institute of Technology

Toward Mission-centric Vulnerability Analysis for Critical Systems: Methodology and Approach

Georgios Bakirtzis, Virginia Commonwealth University

Algorithm for Probabilistic Modeling of Interdependent Critical Infrastructure Systems

Chloe Johansen, Georgia Institute of Technology

2:30 Stress-Strain Capacity Analysis for Robust Infrastructure Service during Post-Disaster Recovery

Juyeong Choi, Purdue University

Vulnerability of Urban Water Systems to Climate Change and Mitigating the Potential for Cascading Failures

Emily Bondank, Arizona State University

Interdiction Analysis of a Coupled Electricity and Gas Network

Bowen Hua, University of Texas at Austin

3:00 Simulating Failure for Student Success

Lauren McBurnett, Arizona State University

Bridging sociotechnical networks for critical infrastructure resilience: South Korean Case Study

Daniel Eisenberg, Arizona State University

Resilience Assessment for Socio-technical System of On-farm Carcass Burial Pits

Woi Sok Oh, Purdue University

Part 2: Poster Session

3:30- Poster Session and Reception

6:00