

Registration, Breakfast and Welcome				
8:00a–8:45a	<b>Registration and Continental Breakfast</b>			
8:45a–8:50a	<b>Welcome from the SERC Chief Scientist and Chair, SERC Research Council</b> <i>Dr. Barry Boehm, Chief Scientist and Chair, Research Council, SERC</i>			(Academy Hall)
8:50a–9:00a	<b>Kickoff and Welcome</b> <i>Dr. Christophe Pierre, Provost, Stevens Institute of Technology</i>			(Academy Hall)
Sponsor Perspective and Challenges [Academy Hall]				
9:00a–9:10a	<b>Introductory Remarks</b> <i>Ms. Kristen Baldwin, Principal Deputy, Office of the Deputy Assistant Secretary of Defense for Systems Engineering [DASD(SE)]</i>			
State of the SERC [Academy Hall]				
9:10a–9:20a	<b>SERC Progress and Strategic Direction, SERC Doctoral Fellows Program Update, Research Transition Partners, and Best Student Paper Award Presentation</b> <i>Dr. Dinesh Verma, Executive Director, SERC</i>			
9:20a–10:00a	<b>Morning Keynote Address – Ms. Mary Miller, Acting Assistant Secretary of Defense for Research and Engineering [ASD(R&amp;E)]</b>			
10:00a–10:15a	Transition Break			
Research Reviews: Four parallel tracks with 40-minute sessions providing in-depth discussions on SERC research projects				
Track Moderator Location	Track 1: SE and Management Transformation Dr. Barry Boehm, USC [Vista Room]	Track 2: Enterprise and Systems of Systems Dr. Dan DeLaurentis, Purdue [Angle Room]	Track 3: Trusted; Critical & Resilient Systems Dr. Kevin Sullivan, UVA [Balcony Room D]	Track 4: Human Capital Development Dr. Jon Wade, Stevens [Balcony Room E]
10:15a–10:55a	<b>Transforming Systems Engineering through Model-Centric Engineering</b> <i>Mark Blackburn, Stevens</i>	<b>System of Systems Analytic Workbench</b> <i>Karen Marais, Purdue</i>	<b>Program Protection Systems Security &amp; Trust Extending Flexible Contracts for Mission Assurance</b> <i>Azad Madni, USC</i>	<b>SE Research Needs and Workforce Development Assessment (Pathfinder)</b> <i>Dinesh Verma, Stevens</i>
			<b>Trusted Autonomy – Methods for Test and Evaluation</b> <i>Gary Witus, Wayne State</i>	<b>Initial Results from Piloting Helix/Atlas Framework in MITRE's Systems Engineering Technical Center</b> <i>Laura Ricci and Dr. Robert Pitsko, MITRE</i> <b>Virtual Prototyping and Analysis with Model Based Engineering</b> <i>Omar Valverde, MITRE</i>
11:00a–11:40a	<b>Interactive Model-Centric Systems Engineering (IMCSE)</b> <i>Donna Rhodes, MIT</i>	<b>Enterprise Analysis</b> <i>Michael Pennock, Stevens</i>	<b>Systemic Security and the Role of Hierarchical Design in Cyber-Physical Systems</b> <i>Val Sitterle, Georgia Tech</i>	<b>Mission Engineering Competencies</b> <i>Gregg Vesonder, Stevens</i>
			<b>The Feasibility of Enhancing Security of Complex Systems Through Disaggregation of Security Components to Asymmetric Multi-Processors</b> <i>David Coe, UAH</i>	
11:45a–12:30p	<b>Verification and Validation (V&amp;V) of System Behavior Specifications</b> <i>Kristin Giammarco, NPS</i>	<b>Approaches to Achieve Modularity Benefits in the Acquisition Ecosystem</b> <i>Dan DeLaurentis and Navin Davendralingam, Purdue</i>	<b>Data Science Approaches to Prevent Failures in Systems Engineering</b> <i>Karen Marais, Purdue</i>	<b>Human Capital Development -- Resilient Cyber-Physical Systems</b> <i>Tom McDermott, Georgia Tech</i>
	<b>Model-Based Coordination of Multi-UAS ISR</b> <i>David Jacques, AFIT</i>		<b>Game-Theoretic Risk Assessment for Distributed Systems (GRADS)</b> <i>Paul Grogan, Stevens</i>	
12:30p–1:00p	Lunch (Catered) and Opportunity to View SERC Project Posters			
1:00p–1:30p	<b>Lunchtime Keynote Address: Systems Engineering and Related Challenges at the National Reconnaissance Office (NRO)</b> [Academy Hall] <i>Dr. Byron F. Knight, Future Conflict Capabilities, DD/NRO/SED</i>			
1:30p–1:45p	Transition Break			
1:45p–2:25p	<b>Formal Methods in Resilient Systems Design using a Flexible Contract Approach</b> <i>Azad Madni, USC</i>	<b>ESoS Model for Digital Thread Enabled Acquisition</b> <i>Chris Paredis, GA Tech</i>	<b>Security Engineering –FY17 Systems Aware Cybersecurity</b> <i>Barry Horowitz, UVA</i>	<b>Workforce Evolution (Helix)</b> <i>Nicole Hutchison, Stevens</i>
2:30p–3:10p	<b>System Qualities (SQs) Tradespace and Affordability</b> <i>Barry Boehm, USC</i>	<b>SERC NAV Demonstration</b> <i>Roger Blake, Stevens</i>	<b>Heterogeneous Agent-Modeling Approach on System Stability</b> <i>Steve Yang, Stevens</i>	<b>Missile Defense Agency (MDA) Research and Course Development -- Verification, Validation, and Accreditation (VV&amp;A) and Monte Carlo Simulation</b> <i>Mikel Petty, UAH</i>
3:15p–3:55p	<b>Identifying and Measuring Modularity Violations in Cyber-Physical Systems</b> <i>Lu Xiao, Stevens</i>	<b>SERC Workshops Preview</b> <i>McDermott, Collopy</i>	<b>Best Student Paper Presentation</b>	<b>Systems Engineering Experience Accelerator (SEEA)</b> <i>Jon Wade &amp; Alex Zhang, Stevens</i>
	<b>Next Generation Adaptive Cyber-Physical Human Systems</b> <i>Azad Madni, USC</i>			
4:00p–5:00p	Poster and Networking Session		Executive Advisory Board Meeting (invitation only) [Academy Hall]	