

NDIA SE Division System of Systems Committee

August 2015 SE Division Meeting Update

**26 August 2015
Judith Dahmann, Rick Poel, Jeff Wolske**

SoSCIE Webinars: System of Systems Collaborators Information Exchange (1 of 2)

- ✓ **April 28:** Synthesizing and Specifying Architectures for System of Systems; Dr. C. Robert Kenley, Purdue University
- ✓ **May 5:** SoS Considerations in the Engineering of Systems; Dr. Judith Dahmann, The MITRE Corporation
- ✓ **May 19:** Lifecycle Modeling Language and SoS; Dr. Steven Dam, SPEC Innovations
- ✓ **June 9:** Lifecycle Verification of a System of Systems; Mr. Brian Hatchell, Mr. Fredrick Mauss, and Mr. Kurt Silvers, Pacific Northwest National Laboratory
- ✓ **July 28:** Maintaining Emergence in Systems of Systems Integration: A Contractual Approach using SysML; Dr. Jeremy Bryans, Dr. John Fitzgerald, and Dr. Richard Payne, Newcastle University, UK and Mr. Klaus Kristensen, Bang & Olufsen
- ✓ **Aug 11:** Systems Integration: He Who Hesitates Is Lost; Mr. James R. Armstrong, Stevens Institute of Technology
- ✓ **Aug 25:** A Practitioner's Approach Using Model Based Systems Engineering (MBSE) in Systems of Systems; Mr. Richard Deakins and Mr. Doug Parsons, U.S. Army Aviation and Missile Research, Development and Engineering Center
- **Sept 1:** Approach to Capability-Based System-of-Systems Framework in Support of Naval Ship Design; Dr. Santiago Balestrini-Robinson and Dr. Simon Briceño, Georgia Institute of Technology; Cdr Jacques P. Olivier, Department of National Defence, Canada
- **Sept 08:** Incremental Commitment Spiral Model as Applied to SoS; Dr. Jo Ann Lane, University of Southern California and Dr. Rich Turner, Stevens Institute of Technology

SoSCIE Webinars: System of Systems Collaborators Information Exchange (2 of 2)

- **Sept 15:** Traceable Engineering of Fault-Tolerant System of Systems; Dr. Zoe Andrews, Dr. Claire Ingram, Dr. Richard Payne, and Prof. Alexander Romanovsky, Newcastle University, UK; Prof. Jon Holt and Mr. Simon Perry, Scarecrow Consultants Limited, UK
- **Sept 29:** Set-Based Design in Requirements Development; Dr. Norbert Doerry, Naval Sea Systems Command
- **Oct 6:** The Human Systems Integration Framework (HSIF): Defining a New Role to Enhance Cross-Domain Collaboration; Dr. Matthew R. Risser and Mr. Frank C. Lacson, Pacific Science & Engineering Group
- **Oct 20:** Model-based Product Line Engineering - Variations on a Theme; Mr. Matthew C. Hause, Atego
- **Nov 10:** Towards a New Paradigm for Management of Complex Engineering Projects: A System-of-Systems Framework; Ms. Jin Zhu and Dr. Ali Mostafavi, Florida International University
- **Nov 24:** Preferential System Connectivity and Its Impact on Performance; Dr. David Flanigan and Mr. Jeffery Dixon, The Johns Hopkins University Applied Physics Laboratory
- **Dec 1:** Modelling Patterns for Systems of Systems Architectures; Dr. Claire Ingram and Dr. Richard Payne, Newcastle University, UK
- **Dec 15:** Towards Technical Reference Frameworks to Support Open System Architecture Initiatives; Dr. Douglas C Schmidt, Software Engineering Institute

Other Activities of the System of Systems Committee

System of Systems Committee Meetings

- ✓ **April 10:** Mission Based Analysis and Joint Mission Threads supporting the Digitally Aided Close Air Support (DACAS) SoS Initiative; Marsha Mullins, JS J6 Joint Fires Division
- ✓ **June 4:** The Evolution of SE Standards and Practices: ISO/IEC/IEEE 15288 Based Harmonization; Garry Roedler, Lockheed Martin

Upcoming

- The SoS SE Committee Leads be crafting a survey for our SoS SE Committee members to get their take on pressing issues facing DoD SoS SE and look at future directions for SoS technical efforts. This will help us identify areas of interest of our members, shape future committee efforts, and help identify areas where Committee actions might be of interest to DASD SE and other DoD organizations with an SoS focus.

SoS Papers Selected for October NDIA Sys Eng Conference

- 17887: From Dual VEE to Dual Use – Introducing the SoS-VEE™ Model to Improve the Acquisition, Interoperability and Performance of large System-of-Systems (SoS) Programs
- 17992: Leveraging Control Theory for More Resilient System-of-Systems
- 17994: Intricacies of System of Systems Operational Availability and Logistics Modeling and Analysis
- 18014: Evaluating System Models in a Table Top Exercise
- 18037: SoSE Considerations in SE Standardization
- 18052: The Electronic Health Record and the Systems that Make Them Up
- 18058: Relative Comparison of the Rate of Convergence of Collaborative Systems of Systems: A Quantified Multi-Case Study