11th Annual INCOSE Great Lakes Regional Conference

GLRC 11

SUPERIOR SYSTEM SOLUTIONS FOR TODAY'S COMPLEX ENVIRONMENTS

11 - 14 October 2017 | Twin Cities, Minnesota

GLRC11 - Wednesday, 11 October 2017

Time Block (Central Time)		AiRE Ballroom Mezzanine	AiRE Ballroom 3-4	The Wright Suite
12:00 PM - 1:00PM		Conference Registration		Tutorial Registration
1:00 PM - 6:00 PM	3:00 PM - 5:30 PM	Conference Registration	Sponsor/Exhibitor Set-Up	**Free Half-Day Tutorial from Platinum Plus Sponsor No Magic** *Executable Models: Foundations and Applications* Instructor - Saulius Pavalkis **Open to Everyone!** Remote participation available. (Must Pre-Register)
6:00 PM - 7:00 PM			**Welcome Reception** with Sponsors/Exhibitors *Presented by ICTT Systems Science*	
7:00 PM			**Informal Networking & Dinner on Your Own**	

GLRC11 - Thursday, 12 October 2017 - AM

Time Block (Central Time)	AiRE Ballroom 1-2
7:00 AM - 7:00 PM	**Registration** in AiRE Ballroom Mezzanine
7:00 AM - 5:00 PM	**Exhibits** in AiRE Ballroom 3-4
7:00 AM - 8:00 AM	**Networking Continental Breakfast** in AiRE Ballroom 3-4 with Sponsors/Exhibitors - *Presented by Sysnovation*
8:00 AM - 10:00 AM	**Day 1 Opening Plenary** in AiRE Ballroom 1-2 8:00-8:05 - Conference Welcome - Troy Peterson, Emcee 8:05-9:05 - GLRC11 Keynote Presentation ***Shaping Systems Engineering and INCOSE for the Future*** Garry Roedler, Lockheed Martin and INCOSE President-Elect 9:05-10:00 - Featured Presentation ***Complex Systems in Building Automation*** Kevin Bollom, Trane Vice President of Building Services
10:00 AM - 10:30 AM	**Morning Networking Break** in AiRE Ballroom 3-4 with Sponsors/Exhibitors - *Presented by Orbital ATK*
10:30 AM - 12:00 PM	**Invited Presentations** in AiRE Ballroom 1-2 10:30-11:15 - Invited Presentation ***Why is this so complex? Key soft skills to improve team dynamics across the generation*** Jill Hauwiller, Leadership Refinery Founder and Principal Consultant 11:15-12:00 - Invited Presentation ***Organizational Evolution to Meet Tomorrow's System Engineering Challenges*** Ken Zemrowski, Engility Technical Fellow Andy Skotnicki, Engility Director of Systems Engineering

GLRC11 - Thursday, 12 October 2017 - PM

Time Block (Central Time)	Runway 1-2	Runway 3-4	Wright Suite
12:00 PM - 1:00 PM	Networking Lunch in AiRE Ballroom 3-4 with Sponsors/Exhibitors - *Presented by General Dynamics*		
1:00 PM - 2:30 PM	**Session 1 - MBSE** Session Chair - Adam Wilke 1:00-1:40 - *Application of MBSE and SysML in Patient Workflow Modeling* Mohamed Elshal, Hazim El-Mounayri, and Rapeepan Promyoo 1:45-2:25 - *Interface Management with MBSE – from Theory to Modeling* Matthew Hause	**Session 2 - Scaling and Innovation** Session Chair - Bill Farmer 1:00-1:40 - *Improving systems architecture with DSM, modularity, and a dash of network science* Bobby Norton 1:45-2:25 - *Scaling the Creative Enterprise with Systematic Innovation* David Quimby	**Session 3 - Case Study** Session Chair - Brian Larson 1:00-2:25 -*The Columbia Accident - Enduring Lessons From An Insider's Viewpoint* Steve Cantley
2:30 PM - 3:00 PM	Afternoon Networking Break in AiRE Ballroom 3-4 with Sponsors/Exhibitors - *Presented by Abbott*		
3:00 PM - 4:30 PM	**Session 4 - MBSE** Session Chair - Brian Larson 3:00-3:40 - *Convergence of MBSE and the Product Innovation Platform* Pawel Chadzynski 3:45-4:25 - *Validating MBSE-PLM integration through automatic generation of Systems Requirements Document* Rajat Gupta, Hazim El-Mounayri, and Shuning Li	**Panel Discussion 1** *Systems Engineering - The Key Elements of Success* Moderator - Sean McCoy Panelists - David Holst, Michele Zoromski, Bobby Norton, and James Hummel 3:00-3:30 - Position Statements 3:30-4:25 - Audience Discussions	**Session 5 - Case Study** Session Chair - Paul White 3:00-3:40 - *ISO/IEC 29110 Deployment Packages and Case Study for Systems Engineering: The "Not-So-Secret" Ingredients That Power the Standard* Angela Robinson, Gael Blondelle, and Ronald Houde 3:45-4:25 - *20 Million Leagues Under The Sea of Stars: The NeMO Orbiter Modeling Project* Michael Vinarcik
5:00 PM - 7:00 PM	Pre-Banquet Reception & STEM Demonstrations in AiRE Ballroom 3-4 and Mezzanine		
7:00 PM - 9:30 PM	**Conference Banquet** in AiRE Ballroom 1-2 - *Presented by No Magic* Banquet Welcome - Troy Peterson, Emcee Dinner Banquet Featured Entertainment - Comedy Sportz Competition Dessert and Networking		

GLRC11 - Friday, 13 October 2017 - AM

Time Block (Central Time)	PDD Satellite Sites	AiRE Ballroom 1-2	Runway 3-4	Wright Suite
7:00 AM - Noon	N/A	**Registration** in AiRE Ballroom Mezzanine		
7:00 AM - 4:00 PM		**Exhibits** in AiRE Ballroom 3-4		
7:00 AM - 8:00 AM		**Networking Continental Breakfast** in AiRE Ballroom 3-4 with Sponsors/Exhibitors - *Presented by Rolls Royce*		
8:00 AM - 8:30 AM	**Satellite Sites** **Systems Engineering Professional Development Day (SE PDD) Welcome** Broadcast of Opening Plenary	**SE PDD Opening Plenary** in AiRE Ballroom 1-2 8:00-8:15 - Announcements and Recognition of Satellite Sites - Troy Peterson, Emcee 8:15-8:30 - SE-PDD Introduction - Troy Peterson, Emcee		
8:30 AM - 10:00 AM	**Satellite Sites** **SE PDD Presentations** Broadcast of Session 6 **SE Fundamentals**	**Session 6 - SE Fundamentals** Session Chair - Adam Wilke 8:30-9:10 - *Back to Basics: The Alphabet Soup of Systems Engineering Development Models* David Walden 9:15-9:55 - *INCOSE's Transformation Strategic Objective* Troy Peterson	**Session 7 - Forward Thinking** Session Chair - Bill Farmer 8:30-9:10 - *Creating a Systems Literate World* Peter Tuddenham 9:15-9:55 - *Big Data, Small Data, the Digital Thread, and PLE: Leveraging Existing Assets Using S*Metadata* William Schindel	**Session 8 - Safety** Session Chair - Michele Zoromski 8:30-9:10 - *Arguing Software Safety: An Alternative to Safety Cases* David Gelperin 9:15-9:55 - *Proving Correctness of Safety-Critical Software* Brian R Larson
10:00 AM - 10:30 AM	**Morning Networking Break**	**Morning Networking Break** in AiRE Ballroom 3-4 with Sponsors/Exhibitors - *Presented by Oshkosh Defense*		
10:30 AM - 12:00 PM	**Satellite Sites** **SE PDD Presentations** Broadcast of Session 9 **SE Risk Analysis**	**Session 9 - SE Risk Analysis** Session Chair - Brian Larson 10:30-11:10 - *What Every SE and PM Needs to Know About the Update to International Risk Management Standard INCOSE/IEC/IEEE 16085* Jack Stein, Mary Beth Chrisses, and Paul Heininger 11:15-11:55 - *Cyber-Physical Systems Engineering Mission Risk Analysis* David Flanigan	**Panel Discussion 2** *Here Be Dragons:* *The Uncharted Waters of MBSE* Moderator - Michael Vinarcik Panelists - David Long, Dave Walden, Eric Alexander, Matthew Hause, and James Hummell 10:30-11:00 - Position Statements 11:00-11:55 - Audience Discussions	**Session 10 - New Perspectives** Session Chair - Kendra Kreutz 10:30-11:10 - *Transitioning into a Process-based Systems Engineering Organization* Paul White 11:15-11:55 - *System Verification and Validation of Complex Systems* Mike Tank

GLRC11 - Friday, 13 October 2017 - PM

Time Block (Central Time)	PDD Satellite Sites	AiRE Ballroom 1-2	Runway 3-4	Wright Suite
12:00 PM - 1:00 PM	Lunch	Networking Lunch in AiRE Ballroom 3-4 with Sponsors/Exhibitors - *Presented by BAE Systems*		
1:00 PM - 2:00 PM	Satellite Site SE PDD Presentations Broadcast of Presentations	Post-Luncheon Presentations in AiRE Ballroom 1-2 1:00-1:15 - Platinum Plus Sponsor Address - No Magic 1:15-1:55 - Sigma Theta Mu Lecture *Reimagining Systems Engineering* David Long, Vitech and INCOSE Past-President		
2:00 PM - 3:30 PM	Satellite Site SE PDD Presentations Broadcast of Session 11 Advanced SE Topics	Session 11 - Advanced SE Topics Session Chair - Dave Walden 2:00-2:40 - *Learning from Nature's Methods of System Architecting and Engineering* John Gill 2:45-3:25 - *Risk Analysis of Medical Device System of Systems* Rand Whillock, John Hatcliff, and Paul Jones	Panel Discussion 3 *Accelerating Innovation Effectiveness: New Collaboration Roles for Engineering Societies and Regulators* Moderator - William Schindel Panelists - Marian Heller Garry Roedler, Logen Johnson, Kristen Gerzina 2:00 - 2:30 - Position Statements 2:30 - 3:25 - Audience Discussions	Session 12 - Complex Systems Session Chair - Paul White 2:00-2:40 - *Complex Technology Trends Affecting Complex Systems* Sean McCoy 2:45-3:25 - *Fundamentals of Complex System Sustainment* Charles Vono
3:30 PM - 4:00 PM		Afternoon Networking Break in AiRE Ballroom 3-4 with Sponsors/Exhibitors - *Presented by Trane*		
4:00 PM - 5:30 PM	Satellite Site SE PDD Presentations Broadcast of Session 13 Advanced SE Topics	Session 13 - Advanced SE Topics Session Chair - Adam Wilke 4:00-4:40 - *Systems Engineering Your MBSE Deployment* David Long 4:45-5:25 - *Feature-based Systems & Software Product Line Engineering: Industry Trends and the INCOSE ISO Standards Initiative* Charles Krueger	Session 14 - Beyond Systems Engineering Session Chair - Bill Farmer 4:00-4:40 - *Integrating Systems Engineering & Project Management: Using Systems Engineering Artifacts for Better Inform Earned Value Management* Gordon Kranz and David Walden 4:45-5:25 - *Industry 4.0, Systems Engineering, and V4I* Randall Russell	Session 15 - Systems Engineering in Practice Session Chair - Michele Zoromski 4:00-4:40 - *Driving Systems Engineering Across a Product Line* Enanga Fale 4:45-5:25 - *Method for the Impact Assessment of Interdisciplinary Requirement or Component Changes Evaluated on a Tractor's Steering System* Dr. Christian von Holst and Arne Hoffman
5:30 PM - 6:00 PM	Satellite Site SE PDD Presentations Broadcast of Closing Plenary	Day 2 & SE-PDD Closing Plenary in the AiRE Ballroom 1-2 5:30-5:40 - Announcements and Recognitions - Troy Peterson, Emcee 5:40-5:50 - GLRC12 Preview - William Schindel, INCOSE Crossroads of America Chapter President 5:50-6:00 - Conference (and SE PDD) Wrap-up - Troy Peterson, Emcee		
4:00 PM - 6:00 PM		Sponsor/Exhibitor Tear-Down in AiRE Ballroom 3-4		
6:30 PM		Depart or Informal Networking & Dinner on Your Own or Optional Brewery Tour (via Light Rail) from Hotel		

GLRC11 - Saturday, 14 October 2017

Time Block (Central Time)	Apollo Terrace	Earhart	Orville	Wilbur
7:00 AM - 1:00 PM	**Registration** in AiRE Ballroom Mezzanine			
7:00 AM - 8:30 AM	**Breakfast on Your Own**	**Breakfast on Your Own**	**Breakfast on Your Own**	**Breakfast on Your Own**
8:30 AM - 10:00 AM	**Full Day Workshop** **Creating a Systems Literate World** Facilitator - Peter Tuddenham **Open to Everyone!** (Must Pre-Register)	**Full Day Tutorial** *Emerging Issues in Application of Model-Based Systems Engineering (MBSE)* Instructor - Bill Schindel **Open to Everyone!** (Must Pre-Register)	**Half Day Tutorial** *Uniting the Methods of Agile Development and Systems Engineering* Instructor - Kelly Weyrauch **Open to Everyone!** (Must Pre-Register)	**INCOSE CSEP/ASEP Exam** Facilitators - Mike Vinarcik and Angela Robinson **Open to Everyone! Free for GLRC11 attendees! Nominal fee for others.** (Must Pre-Register)
10:00 AM - 10:30 AM	**Morning Networking Break** in Runway 1-4 - *Presented by MTS*			
10:30 AM - 12:00 PM	**Full Day Workshop** **Creating a Systems Literate World** (cont.)	**Full Day Tutorial** *Emerging Issues in Application of Model-Based Systems Engineering (MBSE)* (cont.)	**Half Day Tutorial** *Uniting the Methods of Agile Development and Systems Engineering* (cont.)	
12:00 PM - 1:00 PM	**Networking Lunch** in Runway 1-4 - *Presented by Engility*			
1:00 PM - 2:30 PM	**Full Day Workshop** **Creating a Systems Literate World** (cont.)	**Full Day Tutorial** *Emerging Issues in Application of Model-Based Systems Engineering (MBSE)* (cont.)	**Half Day Tutorial** *Beginners SysML Overview* Instructor - James Hummell **Open to Everyone!** (Must Pre-Register)	**Half Day Tutorial** *Effective Communication and Analysis in the Age of MBSE* Instructor - David Long **Open to Everyone!** (Must Pre-Register)
2:30 PM - 3:00 PM	**Afternoon Networking Break** in Runway 1-4 - *Presented by bb7*			
3:00 PM - 4:30 PM	**Full Day Workshop** **Creating a Systems Literate World** (cont.)	**Full Day Tutorial** *Emerging Issues in Application of Model-Based Systems Engineering (MBSE)* (cont.)	**Half Day Tutorial** *Beginners SysML Overview* (cont.)	**Half Day Tutorial** *Effective Communication and Analysis in the Age of MBSE* (cont.)
4:30 PM	**Depart or Informal Networking & Dinner on Your Own**			