

Updated 9/18/2024

Thur., 9/19/24 Tutorials

Speaker Ready Room: 135

Start Time	End Time	Duration	Room 104	Room 106	Room 111	Room 113
7:00 AM	8:00 AM	1:00	Breakfast and Registration			
8:00 AM	12:00 PM	4:00	Tutorial 1: (#33) [Ann Hodges] Use a Framework for SE in Early-Stage R&D to Build Your Bridge that Spans the Chasm Between Research and Engineering	Tutorial 3: (#28) [Brian Pepper] Risk, Safety, and Reliability Analysis in Model Based System Engineering	Tutorial 4: (#24) [Saulius Pavalkis] Integrating System Architecture in SysML with Hardware for Rapid Prototyping and Validation and Verification	Tutorial 6: (#16) [Rick Hefner] Mastering Your Systems Engineering Competencies
12:00 PM	1:00 PM	1:00	Lunch			
1:00 PM	5:00 PM	4:00	Tutorial 2: (#12) [Stephane Lacrampe] Navigating the Future: Exploring SysML V2 with SysON - A Hands-On Tutorial	Tutorial 3: (#28) [Brian Pepper] Risk, Safety, and Reliability Analysis in Model Based System Engineering	Tutorial 5: (#5) [Sarah Rudder] Understanding and Applying the Comprehensive System Design Language (CSDL)	Tutorial 7: (#15) [Rick Hefner] Requirements: A Comprehensive Overview
5:00 PM			Depart for Welcome Reception at Gruet			

Fri., 9/20/24 Presentations

Speaker Ready Room: 135

Start Time	End Time	Duration	Room 104	Room 106	Room 111	Room 113
7:00 AM	8:00 AM	1:00	Breakfast and Registration			
8:00 AM	8:15 AM	0:15	Welcome Plenary - Introduction Room 101/103			
8:15 AM	8:45 AM	0:30	Keynote Address			
8:45 AM	9:05 AM	0:20	Break			
9:05 AM	9:55 AM	0:50	Digital Transformation Stream: (#11) [Stephane Lacrampe] Realizing the potential of SysML V2 with SysON: the Fundamental Role of Open-Source for Enabling the Digital Engineering Transformation	Technical Management Stream: (#20) [Ricardo Reyna and Steve Simske] Enhancing Onboarding in QA Teams: Object Detection Approach for Test Case Generation in Exploratory Testing	Cyber Security Stream: (#37) [Susan Ronning] Understanding INCOSE's Systems Engineering against CISA's Secure by Design (SbD) and DOE's Cyber Informed Engineering (CIE)	SE & Agile Stream: (#47) [Rick Dove] Systems Engineering Agility – Guide Book Foundations for Systems Engineers
9:55 AM	10:45 AM	0:50	Digital Transformation Stream: (#18) [Stephen Guine] Digital Transformation Challenges: Real-World Observations and Mitigations	Technical Management Stream: (#21) [Sean Densford and Chris Klotz] Strategies and Best Practices for Managing Complex System Architectures	Systems Reliability & Resiliency Stream: (#4) [Scott Jackson] Designing Affordable Resilient Systems	Cross-Domain Solutions Stream: (#38) [Paul Havis and Steven Simske] Systems engineering and systems thinking to implement a Crisis Intervention Team in a rural town
10:45 AM	10:55 AM	0:10	Break			
10:55 AM	11:45 AM	0:50	Digital Transformation Stream: (#25) [Saulius Pavalkis] MBSE Digital Engineering Ecosystem	Technical Management Stream: (#9) [David Shostak] Leading and Taking Charge of a System Engineering Human Integration Team	Systems Reliability & Resiliency Stream: (#49) [Ryan Aalund and Vincent Paglioni] Towards Reliable Embedded Systems: A Review of Hardware Reliability Challenges	Cross-Domain Solutions Stream: (#57) [Casey Medina] Addressing the Upstream Ecological Impacts of Engineering Decisions
11:45 AM	12:35 PM	0:50	Digital Transformation Stream: (#30) [Caleb Schmidt, Tom Paterson, Michael Schmidt and Steven Simske] Digital Twins Platform Systems Engineering to Optimize Astronaut Physiology During Human Space Exploration	Requirements Stream: (#45) [Antonio Cristiano and Ernesto Barone] Optimization of Requirements Management for complex Systems: An Innovative Approach with Product Classes and Attribute	HSI Stream: (#56a) [Dr. Cheryl Bolstad] Human Systems Integration and Its Role in Systems Engineering	Cross-Domain Solutions Stream: (#36) [Sian Terry] Mission Assurance and the Enterprise Lifecycle: A Systems Thinking Approach
12:35 PM	1:35 PM	1:00	Lunch and Networking			
1:35 PM	2:25 PM	0:50	Digital Transformation Stream: (#41) [Frank Salvatore] Digital Engineering Tool Evaluation Criteria Template (DETECT)) Selection and SysML v2 Transition Guidance	Requirements Stream: (#23) [Ibibia Altraide and Steve Simske] Integration of System Data Requirements in Stuttering-Aware Speech Recognition Systems	Systems Reliability & Resiliency Stream: (#27) [John Brtis] Justifying Resilience	SE/Education Stream: (#8) [Paul White and Nicole Falkenberg] Systems Engineering Innovation Through Higher Education

2:25 PM	3:15 PM	0:50	AI Opportunities & Risks Stream: (#13) [Rick Hefner] Leveraging AI for Enhanced Systems Engineering	Requirements Stream: (#42) [Afia Rahman] Adaptation Requirements for Department of Defense Contracts: A Systems Engineering Perspective	Cyber Security Stream: (#34) [Kelvin Shorts and Steve Simske] Overcoming Barriers to Smart Home IoT Security: The Impact of Manufacturer Guidance on the application of User-controlled security features	SE/Education Stream: (#39) [Marco Rosa] Effective Integration of Diverse Engineering Competencies In the Development of Complex STEM (Science, Technology, Engineering, or Mathematics) Projects: Optimizing Efforts and Investments in Student-Led Research Projects
3:15 PM	3:35 PM	0:20	Break and Networking			
3:35 PM	4:25 PM	0:50	AI Opportunities & Risks Stream: (#19) [Nathaniel Brown and Steven Simske] Detecting Defects in Sequential Inputs to Digital Twins Using Machine Learning	Requirements Stream: (#55) [Jim Adams] Space Mission Engineering using Innoslate(R) with example mission	Security Stream: (#48) [Rick Dove] Toward an Anti-Security Security Primer for Systems Engineers	Technical Management Stream: (#35) [Thomas Duerr] Rapid Risk Management
4:25 PM	5:15 PM	0:50	AI Opportunities & Risks Stream: (#52) [Jennifer Giang and Steven Simske] Examining The Impact of Prompting GAI: A Comparative Analysis of Testing Strategy	Technical Management Stream: (#71a) [Raymond Wolfgang] Improve your Value Chain with Systems Engineering	Operational Technology Stream: (#17) [Dennis Shen, Hadi Malik and Michael Topolski] Model Based Document Generation	Technical Management Stream: (#10) [Vincil Bishop and Steven Simske] Time-Delta Method for Measuring Software Development Contribution Rates
5:15 PM			Depart for Dinner			

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Sat., 9/21/24 Presentations & SEP Exam **Speaker Ready Room: 135**

Start Time	End Time	Duration	Room 104	Room 106	Room 111	Room 113	
7:00 AM	8:00 AM	1:00	Breakfast				
8:00 AM	8:05 AM	0:05	Final Plenary - Introduction Room 101/103				
8:05 AM	8:45 AM	0:40	Keynote Address				
8:45 AM	9:00 AM	0:15	Break				SEP Exam checkin
9:00 AM	9:50 AM	0:50	Modeling Stream: (#2) [Jamie Smith] Applying Formal Methods to SysML Models to Prove Correctness and Enable Hallucination-Free LLMs	Modeling Stream: (#58) [Teddy Nyambe and Jeremy Daily] Ultimate Track Hacking Platform (UTHP) - Software Bill of Material (SBOM) Life Cycle Modeling	Case Study Stream: (#60) [Pieter Kotze] Systems engineering for scientists and aliens	SEP Exam	
9:50 AM	10:40 AM	0:50	Modeling Stream: (#5) [Sarah Rudder] Understanding and Applying the Comprehensive System Design Language (CSDL)	Modeling Stream: (#29) [Sean Densford] Data Markings and Classification in MBSE	Case Study Stream: (#43) [Randall Satterthwaite] Incremental MBSE: Deliver MBSE Value Faster		
10:40 AM	10:50 AM	0:10	Break				
10:50 AM	11:40 AM	0:50	Modeling Stream: (#6) [Sarah Rudder] Mapping CSDL to ISO 15288 Ontology for Model Validation	Modeling Stream: (#51) [J. Simmons and Tony Davenport] Using SysML v2 to Define an MBSE Methodology	Case Study Stream: (#53) [Artis Riepnieks and Kaustav Chatterjee] Systems Engineering for Developing Tech Standards: Lessons Learned		
11:40 AM	12:30 PM	0:50	Modeling Stream: (#26) [Theodor Behrens and Ingo Stolpe] Enabling MBSE through Function-Based Requirement Synchronization using SysML	SE/Education Stream: (#70a) [Amy Moy] INCOSE Technical Leadership Institute – Background and My Experience	Case Study Stream: (#50) [Sanjeev Appicharla] Resident Pathogens in Systems Engineering: Case Study of Accident Analysis of Boeing 737 Max-8 Crashes		
12:30 PM	2:00 PM	1:30	Lunch				Closed: WSRC Steering Committee Meeting
2:00 PM	2:50 PM	0:50	Concluding Remarks Room 101/103				