

IS2023 Schedule at a glance

Saturday at IS2023

Start time	End time	Start time	End time		Track 1	Track 2	Track 3	Track 4	Track 5
US Hawaii		US East Coast			313A	313B	313C	316A	316B
08:00	12:00	14:00	18:00	Session A	Tutorial#26: A.1 / Artificial Intelligence for Systems Engineers: Going Deep With Machine Learning and Deep Neural Networks Ali Raz (George Mason University); Barclay Brown (Raytheon Technologies); Ramakrishnan Raman (Honeywell International)	Tutorial#5: A.2 / Leveraging Decision Patterns to Power Digital Engineering John Fitch (Decision Driven Solution); John Fitch (PPI)	Tutorial#9: A.3 / Practical Systems Engineering: Principles and Methods for Success David Long (Blue Holon)	Tutorial#25: A.4 / Agile, Industrial DevOps, and Organizing for Flow Suzette Johnson (Northrop Grumman); Robin Yeman (Project & Team)	Tutorial#21: A.5 / Basic SysML modeling with Automated Validation Support Michael Vinarcik (INCOSE Michigan Chapter); Chris Swickline (SAIC)
12:00	13:30	18:00	22:00	Lunch					
13:30	17:00	19:30	23:00	Session C	Tutorial#26: A.1 / Artificial Intelligence for Systems Engineers: Going Deep With Machine Learning and Deep Neural Networks Ali Raz (George Mason University); Barclay Brown (Raytheon Technologies); Ramakrishnan Raman (Honeywell International)	Tutorial#5: A.2 / Leveraging Decision Patterns to Power Digital Engineering John Fitch (Decision Driven Solution); John Fitch (PPI)	Tutorial#9: A.3 / Practical Systems Engineering: Principles and Methods for Success David Long (Blue Holon)	Tutorial#34: C.4 / Digital Engineering Basics Frank Salvatore (SAIC); Darryl Howell (Powell Consulting Group)	Tutorial#23: C.5 / Federating System-of-Systems models with Automated Validation Support Michael Vinarcik (INCOSE Michigan Chapter); Christopher Swickline (SAIC)

Sunday at IS2023

Start time	End time	Start time	End time		Track 1	Track 2	Track 3	Track 4	Track 5	Track 6
US Hawaii		US East Coast			313A	313B	313C	316A	316B	
08:00	12:00	14:00	18:00	Session E	Tutorial#13: E.1 / System Safety Engineering Meaghan Oneil (System Design and Strategy Ltd); Duncan Kemp (Ministry of Defence)	Tutorial#14: E.2 / Engineering Assured Trustworthy Secure Systems Mark Winstead, Michael McEvilley, Daryl Hild (The MITRE Corporation)	Tutorial#7: E.3 / Model-Based Cyber-Physical Systems Engineering: The James Webb Space Telescope as a Case in Point Dov Dori (Technion, Israel Institute of Technology)	Tutorial#20: E.4 / Developing Verification Requirements to Assure Project Success Verification Requirements Validation	Tutorial#3: E.5 / Systems Engineering MBSE implementation in your organization Mark Sampson (Siemens)	Tutorial#8: E.6 / Understanding and Applying the INCOSE SE Handbook Fifth Edition David Walden (Sysnovation, LLC)
12:00	13:30	18:00	22:00	Lunch						
13:30	17:00	19:30	23:00	Session G	Tutorial#13: E.1 / System Safety Engineering Meaghan Oneil (System Design and Strategy Ltd); Duncan Kemp (Ministry of Defence)	Tutorial#14: E.2 / Engineering Assured Trustworthy Secure Systems Mark Winstead, Michael McEvilley, Daryl Hild (The MITRE Corporation)	Tutorial#7: E.3 / Model-Based Cyber-Physical Systems Engineering: The James Webb Space Telescope as a Case in Point Dov Dori (Technion, Israel Institute of Technology)	Tutorial#22: G.4 / Quantitative Risk Assessment Mark Powell (Attwater Consulting); Jonette Stecklein (NASA)	Tutorial#27: G.5 / Digital threads with the Open Services for Lifecycle Collaboration (OSLC) Eran Gery, Ian Green (IBM); Jad El-Khoury (KTH Royal Institute of Technology); Erik Herzog (SAAB Aeronautics); Sky Matthews	Tutorial#8: E.6 / Understanding and Applying the INCOSE SE Handbook Fifth Edition David Walden (Sysnovation, LLC)

IS2023 Schedule at a glance

Monday at IS2023

Start time	End time	Start time	End time		Track 1	Track 2	Track 3	Track 4	Track 5	Track 6	Track 7
US Hawaii	US East Coast										
					Virtual						
02:00	02:40	08:00	08:40		INCOSE Content#410: V1.1.1 / Systems Thinking 101 Stuart Burge (Burge Hughes Walsh Limited)						
02:45	03:25	08:45	09:25		INCOSE Content#424: V1.1.2 / The Pragmatic Requirements for Requirements Hazel Woodcock (Costain)						
03:30	04:10	09:30	10:10		INCOSE Content#425: V1.1.3 / Architecture: Bringing Form to Function Mark Wilson (Strategy Bridge International)						
04:10	05:00	10:10	11:00		Break						
05:00	05:40	11:00	11:40		INCOSE Content#426: V2.1.1 / Get yourself Tested! Paul Davies (thesystemsengineer.uk)						
05:45	06:25	11:45	12:25		INCOSE Content#427: V2.1.2 / Let's talk machine! - The Digital Transformation of Systems Engineering Tim Weilkiens (oose)						
06:30	07:10	12:30	13:10		INCOSE Content#428: V2.1.3 / Avoiding Stupidity is Easier than Seeking Brilliance Ad Sparrius (Ad Sparrius Systems Engineering and Management)						
					Kalakaua Ballroom C	313A	313B	313C	316A	316B	Kalakaua Ballroom C
08:00	09:30	14:00	15:30		Keynote	Cultivating Emergence for Transformative Change Matthew Kamakani Lynch (The University of Hawai'i System)					
09:30	10:00	15:30	16:00		Break						
US Hawaii	US East Coast				Invited Content	Verification/Validation	Infrastructure, Rail	System Security - Defense	Digital Engineering	Technical Leadership	SE fundamentals
						Ken Ptask	Paul Schreinemakers	Theodore Ferrell	Jean Duprez	Richard Beasley	David Long
10:00	10:40	16:00	16:40		Invited Content#400: 1.1 / A Systems Approach to Sustainable Transport and Mobility Solutions Moderator:Erika Palmer (Cornell); Panelists: Dale Brown (Hatch); Carrie Cabak (NSI Engineering, Inc.); Tom Lusco (Iteris, Inc.); Sarah Sheard (self employed); Marcel van de Ven (Heijmans Utiliteit b.v.);	Paper#236: 1.2.1 / CANLay: A Network Virtualized Testbed for Vehicle Systems - Improving System Integration and Verification Efforts Jake Jepson, Subhojeet Mukherjee (Colorado State University); Martin Span (Colorado State University/U.S. Air Force); Jeremy Daily (Colorado State University)	Paper#135: 1.3.1 / Understanding Interface Criticality in Large Infrastructure Projects John Welford (WSP); Steven Wallace, James Donovan (Shoal)	Paper#129: 1.4.1 / Democratizing Systems Security Rick Dove (unaffiliated); Mark Winstead, Holly Dunlap (MITRE); Matthew Hause (Systems Solutions, Inc.); Aleksandra Scalco (U.S. Dept. of Defense); Adam Williams (Sandia National Laboratories); Beth Wilson (Unaffiliated); Keith Willett (U.S. Dept. of Defense)	Presentation#36: 1.5.1 / Enterprise Adoption of DE and MBSE: Lessons from Research Tom McDermott (Stevens Institute of Technology); Kaitlin Henderson (Virginia Tech)	Presentation#99: 1.6.1 / Utilizing the INCOSE Services Integration Model to Optimize Value Delivery Heidi Davidz (ManTech International Corporation)	INCOSE Content#406: 1.7.1 / Tales of Tails, Cobras, Cats and Models Jawahar "JB" Bhalla (JB Engineering Systems)
10:45	11:25	16:45	17:25		Session 1	Paper#50: 1.2.2 / System verification via Model-Checking: A case study of an autonomous multi-differential drive robot Ibukun Phillips, Robert Kenley (Purdue University-Main Campus)	Paper#70: 1.3.2 / Lessons Learned and Recommendations for the Application of Systems Engineering as an Emerging Discipline in Transportation & Infrastructure Projects Oliver Hoehne (WSP USA)	Presentation#68: 1.4.2 / Fundamentals of Cross Domain Solutions: The Department of Defense Perspective Burhan Adam, Singithi De Silva (Office of the Under Secretary of Defense, Research and Engineering (OUSDR&E))	Paper#23: 1.5.2 / Combining System Models and CAD for Change Scenario Management Hannes Hick (Technische Universität Graz); Benjamin Schleich (Technische Universität Darmstadt); Stefan Sanladerer, Karen Ryan, Jessica Trautner, Jean Piguat (Siemens Digital Industries Software); Fabian Wilking, Dennis Horber (Friedrich-Alexander-Universität Erlangen-Nürnberg); Clemens Faustmann, Philipp Kranabittl, Stefan Kollegger, Matthias Bajzek (Technische Universität Graz); Sandro Wartzack (Friedrich-Alexander-Universität Erlangen-Nürnberg)	Presentation#57: 1.6.2 / Putting the Right People on Your Project: A Quality Management Approach Barclay Brown (Collins Aerospace); Larry Kennedy (Quality Management Institute)	INCOSE Content#411: 1.7.2 / What is the Point of Requirements? Tami Katz (INCOSE Requirements Working Group)
11:25	12:10	17:25	18:10			Presentation#87: 1.2.3 / Lessons Learned from Defining an Applied Systems Engineering Ontology at Sandia National Laboratories Jaimie Murdock (Sandia National Laboratories); Ed Carroll (Sandia National Laboratories)	Presentation#115: 1.3.3 / Early System Lifecycle Activities - Projects Doomed to Fail before NTP! Dale Brown (Hatch); Jonathan Sprakes (Stantec)	Paper#225: 1.4.3 / Preserving and Sharing Knowledge - Extending the UAF Security Views with Libraries, Patterns and Profiles Matthew Hause (SSI); Ademola Adejokun (LMCO); Mitchell Brooks (SSI)	Presentation#84: 1.5.3 / How to Write a Digital-Ready Standard Leslie McKay (SAE International)	Presentation#2: 1.6.3 / Understanding the Tension Between Program Management and Systems Engineering Mark Kaufman (MITRE); Dr. Tina Srivastava (INCOSE)	INCOSE Content#412: 1.7.3 / Architecture: More than a Floor Plan Jim Armstrong (INCOSE)

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					Kalakaua Ballroom C	313A	313B	313C	316A	316B	Kalakaua Ballroom C
12:10	13:30	18:10	19:30	Lunch	Lunch / Welcome Lunch for First Time Attendees						
US Hawaii	US East Coast				Invited Content	Verification/Validation, MBSE	Enterprise SE - Defense	Panel	Digital Engineering - Defense	Digital Engineering	SE fundamentals
						Tony Williams	Theodore Ferrell		Duncan Kemp	Eric Specking	David Long
13:30	14:10	19:30	20:10	Session 2	Invited Content#405: 2.1 / No Lifeboat: Climate lessons from the middle of the Pacific Jeff Mikulina, Erika Palmer	Paper#104: 2.2.1 / An Approach to Integrated Digital Requirements Engineering Jean Duprez, Amine Fraj (Airbus Operations SAS); Laurent Royer, Becky Petteys (The MathWorks); Pascal Paper (Retired from AIRBUS)	Paper#48: 2.3.1 / The AGILE 4.0 Project: MBSE to Support Cyber-Physical Collaborative Aircraft Development Jasper Bussemaker, Luca Boggero, Björn Nagel (German Aerospace Center (DLR))	Panel#5: 2.4 / Roundtable explores how security joins performance and safety as foundational systems design perspectives. Panelists: Rick Dove (Unaffiliated); Dawn Beyer (Lockheed Martin); Tom McDermott (Stevens Institute of Technology); Mark Winstead (Mitre);	Presentation#107: 2.5.1 / Digital Engineering, The Next Chapter Daniel Hettema (OUSD (R&E) Digital Engineering, Modeling and Simulation); Frank Salvatore (SAIC)	Presentation#17: 2.6.1 / Digital Engineering Strategy for DHS Yonas Nebiyelou-Kifle (DHS)	INCOSE Content#407: 2.7.1 / Making Sense of Alphabet Soup: MBSE and DE David Long (Blue Holon)
14:15	14:55	20:15	20:55		Paper#164: 2.2.2 / Model Based Verification and Validation Planning for a Solar Powered High-Altitude Platform Daniel Rothe, Malte Rahm, Christoph Hagen, Andreas Bierig (German Aerospace Center)	Paper#63: 2.3.2 / Shoring Up Atlantis: Knowledge Management for MBSE Sharon Fitzsimmons (The Boeing Company)			Presentation#8: 2.5.2 / Revitalizing Reference Architectures through Modularity and Digital Engineering Leah Davis (Strategic Technology Consulting); Adam Schofield (Army Research Lab, OUSD R&E); Meghan Bentz (Army CSISR Center, OUSD R&E)	Presentation#108: 2.6.2 / Engineering Sustainable Products with Collaborative Multi-Domain Modeling Sky Matthews (IBM); Hans-Juergen Mantsch (Siemens); Eran Gery (IBM); Dave Wallace (Siemens); Gray Bachelor (IBM)	INCOSE Content#409: 2.7.2 / Blurring the Boundary: Integrating Systems of Systems at the Edge of Earth and Space Olivier 'Oli' de Weck (Massachusetts Institute of Technology (MIT))
15:00	15:30	21:00	21:30		Break						
US Hawaii	US East Coast				Aerospace, Defense	Panel	Panel	Architecture Analysis	MBSE - Aerospace	Enterprise SE	SE fundamentals
					Philipp Kalenda			Terje Fossnes	Mark Sampson	Gregory Parnell	David Long
15:30	16:10	21:30	22:10	Session 3	Paper#220: 3.1.1 / Complex System Reliability Analysis using a Model-Based Shared Systems Simulation Jeremy Ross (Ford Motor Company)	Panel#10: 3.2 / Utilizing Model and Data Governance to Enhance Digital Engineering Execution Panelists: Ryan Noguchi (The Aerospace Corporation); Heidi Davidz (ManTech International Corporation); Sarah Scheithauer (Georgia Tech Research Institute (GTRI)); Douglas Orellana (Mantech International Corporation); Jordan Howie (The Aerospace Corporation);	Panel#7: 3.3 / Contrasting and Comparing Agile Systems Engineering and Agile Software Engineering Panelists: Rick Dove (Unaffiliated); Duncan Kemp (Ministry of Defense); Kerry Lunney (Thales Group); Robin Yeman (Unaffiliated); Keith Willett (US DoD);	Paper#151: 3.4.1 / Integrated Systems Architectural Modeling (MBSAP) with Architectural Trade Study of a UAV Surface-less Flight Control System for Wildfire Detection and Communication Golam M. Bokhtier, Setrige W. Crawford Sr., Dr. Kamran Eftekhari Shahroudi (Colorado State University)	Paper#128: 3.5.1 / MBSE Model Management Pain Points - Wait, this looks familiar! Barry Papke (Dassault Systems); Matthew Hause, David Hetherington (System Strategy, Inc.); Sean McGervey (Dassault Systems); Sami Rodriguez (Strategic Technology Consulting)	Presentation#52: 3.6.1 / INCOSE Systems Engineering Handbook Fifth Edition: Updating the Reference for Practitioners David Walden (Sysnovation, LLC); Thomas Shortell (Lockheed Martin); Garry Roedler (INCOSE); Bernardo Delicado (MBDA Missile Systems); Odile Mornas (Thales); Yew Seng Yip (INCOSE Singapore); David Endler (Consulting)	INCOSE Content#429: 3.7.1 / Tea, Pie, and Other Ingredients to Build Competency and Have a Successful Systems Engineering Career Lori Zipes (US Navy, NSWC Crane)
16:15	16:55	22:15	22:55		Presentation#43: 3.1.2 / Visualizing AGILE inside the V, mixing Code-Centric and Evidenced-Based development Robin Mikola (INCOSE Michigan Chapter / System Strategy, Inc.); David Hetherington, Robert Peters (System Strategy, Inc.)			Paper#33: 3.4.2 / Function-Based Architecture Optimization: An Application to Hybrid-Electric Propulsion Systems Jasper Bussemaker, Raúl García Sánchez, Luca Boggero, Björn Nagel (German Aerospace Center (DLR))	Paper#40: 3.5.2 / Orion SysML Model, Digital Twin, and Lessons Learned for Artemis I Gregory Pierce (NASA Johnson Space Center); Joshua Heeren (Jacobs); Terry Hill (NASA Johnson Space Center)	Presentation#75: 3.6.2 / THE SCIENCE AND SYSTEMS ENGINEERING OF LAWS: RATIONALE AND GOALS David Schrunk (Science of Laws Institute)	INCOSE Content#430: 3.7.2 / New Spaces, New Places: How SEs Influence and Impact in Our Changing Times Donna Rhodes (Massachusetts Institute of Technology (MIT))
17:30	19:00	23:30	1:00		Ice Breaker Reception						

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Start time	End time	Start time	End time		Track 1	Track 2	Track 3	Track 4	Track 5	Track 6
		US Hawaii	US East Coast							
					Virtual					
02:00	02:40	08:00	08:40		INCOSE Content#413: V3.1 / the Kickoff of the INCOSE IS2023 Hackaton					
02:45	03:25	08:45	09:25							
03:30	04:10	09:30	10:10							
04:10	05:00	10:10	11:00	Break						
05:00	06:00	11:00	12:00		INCOSE Content#415: V4.1.1 / Smart Cities – US-based systems thinking in Smart Cities Sarah Fustine, Herb Sih (Pioneer Partners); Franck Sheehan (Hyper Sphere)					
06:00	07:00	12:00	13:00		INCOSE Content#416: V4.1.2 / Smart Cities – Middle East-Asia (MEA)-based systems thinking in Smart Cities Frank Sheehan (Hyper Sphere)					
					Kalakaua Ballroom C	313A	313B	313C	316A	316B
08:00	09:30	14:00	15:30	Keynote	Inspiring Systems Engineers: the Wonder Woman & Superman methodology ...different actions first Sir Julian Young					
09:30	10:00	15:30	16:00	Break						
		US Hawaii	US East Coast		Invited Content	Artificial Intelligence, Machine Learning	Diversity	Automotive	Industry 4.0 & Society 5.0 - MBSE	Panel
						Barclay Brown	Cecilia Haskins	Christopher Hoffman	Gregory S. Parnell	
10:00	10:40	16:00	16:40	Session 4	Invited Content#401: 4.1 / Space Workforce 2030: Advancing Diversity, Equity and Inclusion (DEI) Moderator: Marilee Wheaton (The Aerospace Corporation); Panelists: Michael Hollis, Jr. (Stellar Solutions); Lt. Gen. Larry D. James (USAF (Ret.)); Prof. Lydia Kaiser (Technische Universität Berlin); Rosalind Lewis (The Aerospace Corporation);	Paper#18: 4.2.1 / Model-Based FMEA & FTA with Case-Based Reasoning Habibi Husain Arifin, Ken Kawamura, Ho Kit Robert Ong, Brian Pepper, Saulius Pavalkis, Nasis Chimplee (Dassault Systèmes)	Presentation#31: 4.3.1 / A Discussion of Engineering Archetypes and What They Mean to You Devon Clark (INCOSE); Devon Clark (Deloitte Consulting)	Paper#98: 4.4.1 / Improving Systems Engineering Competency and Capability in an Organization Lori Zipes (US Navy NAVSEA)	Presentation#32: 4.5.1 / MoSSEC – The common meta language supporting digital transformation Kyle Hall (Airbus); Juan Carlos Mendo (Boeing)	Panel#4: 4.6 / How can you help your area become a Smart City? Connect with the INCOSE Smart Cities Initiative Moderator: Jennifer Russell (Garver); Panelists: Marcel van de Ven (Heijmans N.V.); Tom Lusco (ITERIS, INC.); Matthew Hause (SSI);
10:45	11:25	16:45	17:25		Paper#166: 4.2.2 / Safety Assurance of Autonomous Systems using Machine Learning: An Industrial Case Study and Lessons Learnt Marc Zeller (Siemens AG)	Paper#201: 4.3.2 / Proposing a DEI Strategy for INCOSE Based on the Diversity and Inclusion Progression Framework 2.0 Alice Squires (International Council on Systems Engineering); Alan Harding (BAE Systems)	Paper#179: 4.4.2 / Modeling & Simulation SPICE: Assessing the Capability of Credible Simulation Processes Frank Eichenseer (SETLabs Research GmbH); Hans-Martin Heinkel (Robert Bosch GmbH); Martin Benedikt (Virtual Vehicle Research GmbH); Maurizio Ahmann (SETLabs Research GmbH); Michael Holzner (ICONDU GmbH); Christoph Stadler (AUDI AG)	Paper#197: 4.5.2 / MBFHA: A Framework for Model-Based Functional Hazard Assessment for Aircraft Systems Kimberly Lai (University of Toronto); Thomas Robert, David Shindman (Safran Landing Systems); Alison Olechowski (University of Toronto)		
11:30	12:10	17:30	18:10		Paper#60: 4.2.3 / Towards an approach to co-execute system models at the enterprise level Zilvinas Strolia, Jovita Bankauskaite, Aurelijus Morkevicius (Dassault Systemes)	Paper#43: 4.3.3 / A Social Enterprise Approach for Parenting in the Japanese Society Raquel Hoffmann (Keio University); Ana Maria Bori (Soka University)	Paper#229: 4.4.3 / ASPICE compliance development of Cyber-Physical Systems by using Model-Based Systems Engineering Gauthier Fanmuy, Bassem Hassan (Dassault Systemes); Guillaume Terpant	Presentation#38: 4.5.3 / Systems Engineering Technology: Closing the MBSE Modeling Gap through Community Colleges Chris Crumbly, Holly Ralston (Institute for Digital Enterprise Advancement)		

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Tuesday at IS2023

Start time	End time	Start time	End time		Track 1	Track 2	Track 3	Track 4	Track 5	Track 6
					Kalakaua Ballroom C	313A	313B	313C	316A	316B
12:10	13:30	18:10	19:30		Lunch / Certification Luncheon (ASEP, CSEP and ESEPs only)					
					Invited Content	Panel	Digital Twins	Supply Chain - Product Development	Industry 4.0 & Society 5.0 - MBSE	Product Line Engineering - Aerospace
							Christopher Johnson	Ken Ptack	Mark Sampson	Jim Adams
					Invited Content#404: 5.1 / The Innovative Edge of Participatory Methods in Systems Engineering	Panel#11: 5.2 / The Future of Decision Analysis	Paper#218: 5.3.1 / Enterprise Digital Transformation using a Sociotechnical System Approach	Paper#82: 5.4.1 / Value-driven Systems Engineering Approach addressing Manufacturing, Supply-chain and Aircraft Design in the Decision-Making Process	Presentation#46: 5.5.1 / Beyond Digital: Bridging the Divides	Paper#241: 5.6.1 / Modeling System Configurations Over Time
					Moderator:Jennifer Russel (Garver); Panelists: Dale Brown (Hatch); Randall Iliff (Project Performance International); Dana Polojarvi (Maine Maritime Academy);	Panelists: Frank Salvatore (SAIC); Gregory Parnell (University of Arkansas); Devon Clark (Deloitte Consulting); Robert Kenley (Purdue University); Dan Hettema (Department of Defense);	Joana L F P Cardoso, Donna H Rhodes, Eric S Rebentisch (Massachusetts Institute of Technology)	Giuseppa Donelli (DLR, Institute of System Architectures in Aeronautics, Hamburg, Germany); João M.G.D. Mello, Felipe I.K. Odaguil (Embraer S.A, São José dos Campos, Brazil); Ton van der Laan (GKN Aerospace, Papendrecht, Netherlands); Thierry Lefebvre (ONERA, DTIS, Université de Toulouse, Toulouse, France); Luca Boggero, Nagel Björn (DLR, Institute of System Architectures in Aeronautics, Hamburg, Germany)	David Long (Blue Holon)	Matthew Hause (SSI); Lars-Olof Kihlström (Syntell AB)
13:30	14:10	19:30	20:10							
							Presentation#29: 5.3.2 / Connecting the Dots: digital threads benefits and best practices	Paper#3: 5.4.2 / Coping with Verification in Complex Engineered Product Development	Presentation#89: 5.5.2 / Digital Engineering Standards Development to achieve SE Vision 2035	Presentation#66: 5.6.2 / Barriers to implementing DevOps for Complex Safety-Critical Systems
							Eran Gery (IBM)	Ola Kristoffer Skreddernes, Rune Andre Haugen, Cecilia Haskins (University of South-Eastern Norway)	Celia Tseng (Dassault Systems); Wanda Eyre (Boeing); Melissa Wallace (Northrop Grumman)	Robin Yeman (Robin Yeman); Suzette Johnson (Northrop Grumman)
14:15	14:55	20:15	20:55							
15:00	15:30	21:00	21:30		Break					
					Systems Thinking - Information Technology/ Telecommunication	Digital Engineering	System Architecture/Design Definition - MBSE	Modeling/Simulation/Analysis	Panel	Needs and Requirements Definition - Enterprise SE
					Federica Robinson-Bryant	Philipp Kalenda	Jim Armstrong	Frank Salvatore		Dale Brown
					Presentation#59: 6.1.1 / A Telecommunications Primer	Presentation#39: 6.2.1 / Explore the Lighter Side of MBSE	Paper#89: 6.3.1 / Architecting Digital Engineering Requirements for Risk Management & Systems Architecting	Presentation#33: 6.4.1 / Bridging Systems Engineering Models and Multi-Fidelity Analytical Models - MBSE Application to a Medication Auto-Injector Design	Panel#9: 6.5 / Bringing a Knife to a Gun Fight: Systems Engineering for the Modern World	Paper#44: 6.6.1 / LEAP – A Process for Identifying Potential Technical Debt in Iterative System Development
					Thomas Manley (Decision Analysis Services); Susan Ronning (ADCOMM Engineering LLC); William Scheible (MITRE Corporation); Keith Rothschild (Cox Communications)	Casey V Medina, Allison Lyle (Studio SE, Ltd.)	Shannon Dubicki, Risa Gorospe (The Johns Hopkins University Applied Physics Laboratory)	Steve Cash (Zuken Vitech Inc.); Alexandre Luc (Ansys)	Panelists: David Long (Blue Holon); Jon Wade (University of California, San Diego); Duncan Kemp (Ministry of Defence); Erika Palmer (Cornell University);	Howard Kleinwaks (Colorado State University / Modern Technology Solutions, Inc. / Space Development Agency); Matthew Rich (Go Lion / Space Development Agency); Ann Batchelor, Thomas Bradley (Colorado State University); John F Turner (Space Development Agency)
15:30	16:10	21:30	22:10							
					Presentation#27: 6.1.2 / Responding to disruption: A System of Systems approach for digital transformation	Presentation#41: 6.2.2 / MBSE Model Integration in a Mixed-Fidelity Environment	Presentation#30: 6.3.2 / On Model Re-Use: Best Practices for the Application and Configuration of Model-Based Patterns	Presentation#40: 6.4.2 / Modeling Data Management for a Next Generation Photon Counting CT Scanner		Paper#64: 6.6.2 / System Requirements Development under a Dual Prime Contracting Model
					Samantha Papavasiliou (James Cook University)	Alexander Gaspar, Eric Martens, Bradley Kukurza (Boeing)	Devon Clark (Deloitte Consulting); Devon Clark (INCOSE)	John Londt (GE Healthcare)		Paul Pearce (ASC Pty Ltd)
16:15	16:55	22:15	22:55							

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IS2023 Schedule at a glance

Wednesday at IS2023

Start time	End time	Start time	End time		Track 1	Track 2	Track 3	Track 4	Track 5	Track 6
US Hawaii	US East Coast				Virtual					
02:00	02:40	08:00	08:40		Paper#15: V5.1.1 / Children's after school club on Systems Thinking and Sustainability Adriana D'Souza (Airbus)					
02:45	03:25	08:45	09:25		Paper#65: V5.1.2 / Common Language for Systems by the ISO/IEC 81346 Reference Model Henrik Balslev (Systems Engineering A/S); Thomas Barré (Airbus S.A.S)					
03:30	04:10	09:30	10:10		Presentation#92: V5.1.3 / Digital and physical experiences in a concept car Alexis Foesneau, Laurent Remondini (Accenture)					
04:10	05:00	10:10	11:00	Break						
05:00	05:40	11:00	11:40		Presentation#47: V6.1.1 / Technological Advances and Human Performance: A Systems Engineering Approach to Reducing Human Error Jonathan Corrado (Cryptic Vector, LLC)					
05:45	06:25	11:45	12:25		Paper#165: V6.1.2 / Involving Non-Technical Stakeholders in System Architecture Design; a Case-Study on the Cleaning Industry Roy van Zijl, Thomas Raub, Maarten Bonnema, Thomas van Rompay, Kostas Nizamis (University of Twente)					
06:30	07:10	12:30	13:10		Paper#192: V6.1.3 / Oversimplification of Systems Engineering Goals, Processes, and Criteria in NASA Space Life Support Harry Jones (NASA Ames Research Center)					
					Kalakaua Ballroom C	313A	313B	313C	316A	316B
08:00	09:30	14:00	15:30	Keynote	Visualizing Complex Systems: The Power of Data and AI Rahul Basole (Accenture)					
09:30	10:00	15:30	16:00	Break						
US Hawaii	US East Coast				Invited Content	MBSE - Academia	Aerospace, MBSE, Product Line	Cybersecurity	Modeling/simulation/analysis	Academia - Systems Thinking
						Nicole Hutchison	Duncan Kemp	Barclay Brown	Angela Robinson	Christopher Johnson
10:00	10:40	16:00	16:40	Session 7	Invited Content#402: 7.1 / Towards a Systems Engineering Foundation Moderator:Ricardo Valerdi (University of Arizona); Panelists: Olivier de Weck (MIT); Gary Smith (Airbus); Prof. Lydia Kaiser (Technische Universität Berlin);	Presentation#54: 7.2.1 / Forged in Fire: Teaching the Craft of Model-Based Systems Engineering Michael Vinarcik (SAIC)	Paper#114: 7.3.1 / Applying MBSE in Space Based Systems Development Chris Swickline (SAIC); Chris Madariaga, Ahmad Bashir (Raytheon)	Presentation#35: 7.4.1 / Transforming Perimeter Cybersecurity to Zero Trust Strategy Using Model Based System Engineering Patrick Meharg (Noblis)	Paper#106: 7.5.1 / Model-based Framework for Data and Knowledge-Driven Systems Architecting Demonstrated on a Hydrogen-Powered Concept Aircraft Nils Kuelper, Thimo Bielsky, Jasmin Broehan, Frank Thielecke (Hamburg University of Technology)	Paper#46: 7.6.1 / The INCOSE Systems Engineering Heuristics: What Are They Telling Us About the Discipline? Caroline G. Thomas, Carly Fridlin, C. Robert Kenley (Purdue University)
10:45	11:25	16:45	17:25		Presentation#3: 7.2.2 / Where are you on your MBSE journey Mark Sampson (Siemens)	Paper#161: 7.3.2 / Variability on System Architecture using Airbus MBPLE for MOFLT Framework Raphael Henrique Madeira, Davi Henrique de Sousa Pinto (Airbus); Marco Forlingieri (IBM)	Paper#234: 7.4.2 / Balancing Digital Forensic Investigation with Cybersecurity for Heavy Vehicle Traffic Crashes Mars Rayno, Jeremy Daily (Colorado State University)	Paper#131: 7.5.2 / Physics-Informed Gas Lifting Oil Well Modelling using Neural Ordinary Differential Equations Zhe Ban, Carlos Pfeiffer (University of South-Eastern Norway)	Paper#95: 7.6.2 / On Evaluating System Resilience by the Degree of Order Disruption Negin Moghadasi, James H. Lambert (University of Virginia)	
11:30	12:10	17:30	18:10		Paper#233: 7.2.3 / SYSTEM MODEL VALIDATION: A FRAMEWORK AND SYSML PROFILE FOR MODEL-BASED SYSTEMS ENGINEERING James Winton, John Colombi, David Jacques (U.S. Air Force Institute of Technology)	Paper#22: 7.3.3 / Developing Effective Space Systems With Earlier Integration, Verification, and Validation Tami Katz (Ball Aerospace); Lou Wheatcraft (Wheatland Consulting)	Paper#240: 7.4.3 / Cyber Security at the Enterprise Level Mitchell Brooks, Matthew Hause (SSI)	Paper#92: 7.5.3 / Integration of Cameo Systems Modeler with Simulink for Co-Orbital Engagement Mission Engineering Diego Rangel (Naval Postgraduate School); Saulius Pavalkis (No Magic Inc.); Oleg Yakimenko (Naval Postgraduate School)	Paper#239: 7.6.3 / Toward Systems Engineering Meta-Methodology Yaniv Mordecai (Tel Aviv University)	

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IS2023 Schedule at a glance

Wednesday at IS2023

Start time	End time	Start time	End time		Track 1	Track 2	Track 3	Track 4	Track 5	Track 6
US Hawaii	US East Coast				Kalakaua Ballroom C	313A	313B	313C	316A	316B
12:10	13:30	18:10	19:30		Lunch					
US Hawaii	US East Coast				Invited Content	Sustainability - Social/Sociotechnical and Economic Systems	MBSE	Agile Systems Engineering	Unique Technology Application	Academia - Project Planning
						Terje Fosnes	Daniel Hettema	Thomas Manley	Jennifer Russell	Federica Robinson-Bryant
13:30	14:10	19:30	20:10	Session 8	Invited Content#403: 8.1 / Multi-Disciplinary Approaches to Addressing the Wicked Problems of Cyber-Physical-Social Systems Panelists: Jon Wade (University of California, San Diego); Michael Bruno (University of Hawaii, Manoa); Olivier de Weck (MIT); Javier Calvo-Amodio (Oregon State University); Erika Palmer (Cornell); Hortense Gerardo (University of California, San Diego);	Paper#235: 8.2.1 / Think Like an Ecosystem: Transitioning Waste Streams to Value Streams Rae Lewark, Allison Lyle, Kristina Carroll, Casey Medina (Studio SE, Ltd.)	Paper#134: 8.3.1 / Case Studies in Disaster: Modern Digital Engineering Methods and Error Detection Heidi Jugovic, Christopher Swickline (SAIC)	Paper#69: 8.4.1 / Agile Systems Engineering – Eight Core Aspects Rick Dove (unaffiliated); Kerry Lunney (Thales Group); Michael Orosz (University of Southern California); Michael Yokell (Raytheon)	Presentation#53: 8.5.1 / Using Systems Engineering Tools to Support Creation of the INCOSE Systems Engineering Handbook David Walden (Sysnovation, LLC); Thomas Shortell (Lockheed Martin); Bernardo Delicado (MBDA Missile Systems); Yew Seng Yip (INCOSE Singapore)	Paper#183: 8.6.1 / Systems Thinking Applied to Higher Education Curricula Development Reza Rahdar (Embry-Riddle Aeronautical University); Mark London, Hong Jiang (Embry-Riddle Aeronautical University, Worldwide); Yuetong Lin (Embry-Riddle Aeronautical University)
14:15	14:55	20:15	20:55			Paper#79: 8.2.2 / Organizational System Resilience to Disinformation: A Viable Systems Model Exploration Sue Caskey, Thushara Gunda (Sandia National Laboratories)	Paper#94: 8.3.2 / Exertional Heat Strain Detection: Application of the Human Performance Model Based Systems Engineering System Architecture (MBSE-SA) Tara Sarathi, Heather Morris (MIT Lincoln Laboratory)	Paper#130: 8.4.2 / Agile Processes Applied to Los Alamos National Laboratory SE approach: The Agile Processes and Technology (APT) Team Owen Dominguez, Gregory Chavez (Los Alamos National Laboratory)	Paper#53: 8.5.2 / I-SHARE – INCOSE Systems Heuristics Application Repository: Sharing Systems Engineering Knowhow and Experience Dov Dori (Technion, Israel Institute of Technology); Dorothy McKinney (INCOSE); Gan Wang (Dassault Systems); Scott Jackson (Burnham Systems)	Paper#133: 8.6.2 / An Evaluation of the Boeing Diamond Process Model's Effectiveness for T-7A Red Hawk Development Grace Wilson, Jeff Newcamp (United States Air Force Academy)
15:00	15:30	21:00	21:30		Break					
US Hawaii	US East Coast				Autonomous Systems	Measurement and Metrics	Aerospace, MBSE	Panel	Quality Management Process	Panel
					Jim Adams	Stuetti Gupta	Jean Duprez		Dale Brown	
15:30	16:10	21:30	22:10	Session 9	Paper#154: 9.1.1 / Defining Collaborative Control Interactions using Systems Theory Andrew Kopeikin, Nancy Leveson (MIT); Natasha Neogi (NASA)	Presentation#61: 9.2.1 / Sources of trouble: How emergent problems blow up system complexity Torben Beernaert (DIFFER); Pascal Etman (Eindhoven University of Technology); Maarten De Bock (ITER Organization); Ivo Classen, Marco De Baar (DIFFER)	Paper#61: 9.3.1 / The MBSE competence at the German Aerospace Center Luca Boggero, Jasper Bussemaker, Julian Bartels, Dominik Quantius (German Aerospace Center (DLR))	Panel#12: 9.4 / As yet undecided: Does 'engineer' in the title limit acceptance of systems engineers? Moderator: Cecilia Haskins (NTNU - MTP and USN); Panelists: David Long (Blue Holon); Tom McDermott (Stevens Institute of Technology); Christopher Hoffman (Cummins Inc.); Chris Browne (ANU); Jawahar Bhalla (Engineering Systems); Nicole Hutchinson (Stevens Institute of Technology);	Paper#56: 9.5.1 / Using HOQ Methodology to Prioritise Organisational Resilience Decisions in Training Establishments Victoria Jnitova (University of New South Wales); Mahmoud Efatmaneshnik (University of South Australia); Keith Joiner, Elizabeth Chang (University of New South Wales); Timothy Ferris (Cranfield University)	Panel#19: 9.6 / Scars from the battlefield – Lessons from Technical Leadership Panelists: Natalie Davila-Rendon (Lockheed Martin); Amy Thompson (University of Connecticut); Leema Kerkinni (Eli Lilly); Chris Schreiber (Lockheed Martin); Carla Sayan (Raytheon Intelligence and Space);
16:15	16:55	22:15	22:55		Presentation#97: 9.1.2 / Lean Model-Based Systems Engineering on the NASA High-Density Vertiplex Subproject Demetrios Katsaduros, Andrew Ging (NASA)	Presentation#65: 9.2.2 / Integration of Technical Management and System Architectures Brad Kukurza, Alex Neiman (The Boeing Company)	Paper#49: 9.3.2 / LEAPing Ahead – The Space Development Agency's Method for Planning for the Future Howard Kleinwaks (Colorado State University / Modern Technology Solutions, Inc. / Space Development Agency); Matthew Rich (Go Lion / Space Development Agency); Michael Butterfield, John F Turner (Space Development Agency)		Presentation#45: 9.5.2 / ORCUS - Cameo Plug-In for Meta-Model Compliance Patrick Morrison (The Johns Hopkins University Applied Physics Laboratory)	
19:00	21:30	1:00	3:30		Royal Hawaiian Luau					

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IS2023 Schedule at a glance

Thursday at IS2023

Start time	End time	Start time	End time		Track 1	Track 2	Track 3	Track 4	Track 5	Track 6
US Hawaii	US East Coast	US Hawaii	US East Coast		Virtual					
02:00	02:40	08:00	08:40		Panel#15: V7.1 / Methods of Resilience Engineering					
02:45	03:25	08:45	09:25		Moderator:Ken Cureton (University of Southern California); Panelists: Scott Jackson ; William Scheible ; Ivan Taylor ; Mark Winstead ;					
03:30	04:10	09:30	10:10							
04:10	05:00	10:10	11:00		Break					
					Eric Belle					
05:00	05:40	11:00	11:40		Paper#2: V8.1.1 / Evaluating 50,000 Drone Concepts Against Volatile Requirements Robert Bordley (University of Michigan)					
05:45	06:25	11:45	12:25		Paper#101: V8.1.2 / Proposing a novel combination of Earned Value Management and Requirements Management Kristian Frederik Wedel Jarlsberg, Jonas Andersson (University of South-Eastern Norway)					
06:30	07:10	12:30	13:10		Presentation#76: V8.1.3 / Cyber Resilient Design Patterns Brooke Guare (JHU/APL)					
					Kalakaua Ballroom C	313A	313B	313C	316A	316B
					Project Planning, Project Assessment, and/or Project Control - Aerospace	MBSE	Digital Transformation	Sustainment	Business or Mission Analysis - System Architecture/Design Definition	Unique Technology Application
					Gregory Parnell	Paul Schreinemakers, Richard Beasley	Daniel Hetteema	Christopher Hoffman	David Long	Cecilia Haskins
08:00	08:40	14:00	14:40		Paper#34: 10.1.1 / Systems Engineering Approach for the SPHEREx Telescope Mission Farah Alibay, Heather Bottom, Leina Hutchinson, Jennifer Rocca (Jet Propulsion Laboratory, California Institute of Technology)	Paper#121: 10.2.1 / Scalable, Flexible Implementation of MBSE and DevOps in VSEs: Design Considerations and a Case Study Caillin Simpson, Steven Simske (Colorado State University)	Paper#156: 10.3.1 / A Systematic and Traceable MOSA Evaluation Process for Systems Architectures: A Digital Engineering Tool Awele Anyanahun, Clarissa Fleming, Whit Matteson (Georgia Tech Research Institute)	Presentation#48: 10.4.1 / Modeling Schedule Logic: Data Visualization to address Program and Systems Engineering Problems in Large Projects Davinia Rizzo (Aerospace Corporation); Janet Six (Tom Sawyer Software); Joshua Salinas (Aerospace Corporation)	Paper#1: 10.5.1 / Linking UAF and SysML Models: Achieving Alignment Between Enterprise and System Architectures James Martin (Aerospace Corporation); Daniel Brookshier (Dassault Systèmes)	Paper#29: 10.6.1 / Managing Knowledge Transfer in Innovative Complex Systems Development: Case Study of Renewable Energy Project in the Oil and Gas Industry Yayun Chen (University of South-Eastern Norway); Yangyang Zhao (University of Oslo); Svein Kjenner (TechnoEMC); Kamrul Haseen (Techno EMC)
08:45	09:25	14:45	15:25		Presentation#88: 10.1.2 / Systems Engineering Planning in a Changing World Ken Kubo (Northrop Grumman)	Paper#27: 10.2.2 / Architecting Descriptive Models for MBSE Ryan Noguchi (Aerospace Corporation)	Paper#203: 10.3.2 / Verification and Validation Test Framework Using a Model-Based Systems Engineering Approach Clara Ramirez, Amy Thompson (University of Connecticut)	Paper#85: 10.4.2 / Sustainability: A Complex System Governance Perspective Charles Keating (Old Dominion University); Polinapapilinho Katina (University of South Carolina Upstate); Joseph Bradley (Leading Change, LLC); Richard Hodge (DrRichardHodge.com)	Paper#11: 10.5.2 / Using the Unified Architecture Framework in Support of Mission Engineering Activities James Martin (Aerospace Corporation); Kyle Alvarez (The Aerospace Corporation)	Presentation#15: 10.6.2 / REST API for Digital Thread Implementation Jimmy La, Sean McGuinness, Jonathan Obenland (Deloitte Consulting LLP)
09:30	10:00	15:30	16:10		Break					
					MBSE lightning round	MBSE	Systems of Systems	Urban Transport Systems	Processes	Unique Technology Application
						Jim Armstrong, Eric Belle	Thomas Manley	Angela Robinson	Stueti Gupta	Frank Salvatore
10:00	10:40	16:00	16:40		INCOSE Content#418: 11.1.1 / Put an end to my MBSE frustration. Please Kyle Hall (Airbus)	Paper#174: 11.2.1 / Phased Demonstrations of MBSE in Small Demonstration Satellite Series: Development of System Model and Environment for Full MBSE application Atsushi Wada, Yutaka Kaneko, Kengo Nakamura, Yuya Kakehashi, Keiichiro Fujimoto, Haruhi Katsumata, Yoji Shirasawa, Daiki Tate, Takanori Iwata, Yutaka Komatsu, Shinichi Suzuki (Japan Aerospace Exploration Agency)	Paper#19: 11.3.1 / Constructing a Digital Thread to Support Mission Analysis & System of Systems Engineering Chris Swickline, Taban Yazdani, Mark Payton (SAIC)	Paper#113: 11.4.1 / Using the Unified Architecture Framework to perform hazard analysis for system of systems Lars-Olof Kihlström (Syntell AB); Matthew Hause (SSI); Joakim Froberg (Safety Integrity AB)	Paper#169: 11.5.1 / Seamless Transitions from Logical to Physical Avionics Architecture Models for Preliminary Aircraft System Design Jasmin Broehan, Nils Kuelper, Frank Thielecke (Hamburg University of Technology)	Presentation#10: 11.6.1 / Importing Legacy Visio Diagrams into MBSE Models Andrew L'Italien (Rensselaer Polytechnic Institute); Tara Sarathi (MIT Lincoln Laboratory)
10:45	11:25	16:45	17:25		INCOSE Content#420: 11.1.3 / INCOSE Systems Engineering Laboratory Status Heidi Davidz (ManTech)	Paper#222: 11.2.2 / Model-Based Acquisition (MBAcq): Uniting Government and Industry around a Common Standard Laura Hart (Lockheed Martin); Matthew Hause (SSI)	Paper#109: 11.3.2 / Applying a System-of-Systems Perspective to Hyundai-Kia's Virtual Tire Development Sunkil Yun (Hyundai Motor Company); Shashank Alai (Siemens Digital Industry Software); Yongdae Kim, Jaehun Jo (Hyundai Motor Company); Tae Kook Kim, Lokesh Gorantla, Dahyeon Lee, Michael Baloh (Siemens Digital Industry Software)	Paper#159: 11.4.2 / A Geo-Spatial Method for Calculating BEV Charging Inconvenience using Publicly Available Data Aaron Rabinowitz, Timothy Coburn (Colorado State University); John Smart (Idaho National Laboratory); Thomas Bradley (Colorado State University)	Paper#221: 11.5.2 / A Conceptual Framework for the SE of AI-Intensive Systems (SE4AI) – Considering Data Through the Life-Cycle Jawahar Bhalla (JB Engineering Systems / Shoal Group Pty Ltd); Stephen Cook, David Harvey (University of Adelaide)	Presentation#20: 11.6.2 / Automated Creation of the INCOSE Systems Engineering Handbook Thomas Shortell (Lockheed Martin)
11:30	12:10	17:30	18:10		INCOSE Content#422: 11.1.5 / Strategies to Accelerate MBSE Adoption in SE Practices: Results of the Systems Engineering - Modernization Study Tom McDermott (Stevens University); Kelly Alexander (OUSD(R&E) SE&A)	Presentation#34: 11.2.3 / Model-Based Test and Evaluation Framework Kasey Hill (Deloitte)	Presentation#9: 11.3.3 / A Methodology for Model Federation Applied Across Defense Systems Development Programs Chris Swickline (SAIC)	Paper#228: 11.4.3 / A Systems Approach to Reducing Miss-pulls and Mismatched Trailers for Trucking Fleets Sean Bumgarner (Colorado State University); Martin Span (Colorado State University/U.S. Air Force); Jeremy Daily (Colorado State University)	Paper#83: 11.5.3 / Value-driven Optimization Campaign Addressing Manufacturing, Supply Chain and Overall Aircraft Design Domains in the Early Development Stage Umberto Merola (University Vanvitelli); Giuseppa Donelli (DLR); Luca Boggero (German Aerospace Center (DLR))	Presentation#74: 11.6.3 / Digital Development and Analysis of SOPs Steven Dam (SPEC Innovations); Lance Sherry, Jomana Bashatah (George Mason University); Michael Jordan, Lileigh Stevie (SPEC Innovations)
12:30	13:30	18:30	19:30		Plenary	Plenary featuring Keynote#4: P4 / Closing plenary				
13:30	14:30	19:30	20:30		Lunch	Networking Lunch				
					Broadcasted on the event platform & available on replay the next day.					