IS2023 Schedule at a glance in person experience

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 in person experience

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			Kalakaua Ballroom C	313A	313B	313C	316A	316B	316C
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 Ptack	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 (OUSD(R&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 Piguet (Siemens Digital Industries Software); Fabian Wilking, Dennis Horber (Friedrich-Alexander-Universität Erlangen-Nürnberg); Clemens Faustmann, Philipp Kranabitl, 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)
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**		**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		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 Nebiyeloul-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	Session 2		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 C5ISR 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**	**Entreprise SE**	**SE fundamentals**
					Philipp Kalenda			Terje Fossnes	Mark Sampson	Gregory Parnell	David Long
15:30	16:10	21:30	22:10		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	Session 3	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**						

IS2023 Schedule at a glance in person experience

Tuesday 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
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**		**Session 4**	**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**		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:Jennnifer 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)	
12:10	**13:30**	**18:10**	**19:30**	**Lunch**	**Lunch / Certification Luncheon (ASEP, CSEP and ESEPs only)**					
US Hawaii		**US East Coast**		**Session 5**	**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
13:30	**14:10**	**19:30**	**20:10**		Invited Content#404: 5.1 / The Innovative Edge of Participatory Methods in Systems Engineering Moderator:Jennifer Russel (Garver); Panelists: Dale Brown (Hatch); Randall Iliff (Project Performance International); Dana Polojarvi (Maine Maritime Academy);	Panel#11: 5.2 / The Future of Decision Analysis Panelists: Frank Salvatore (SAIC); Gregory Parnell (University of Arkansas); Devon Clark (Deloitte Consulting); Robert Kenley (Purdue University); Dan Hettema (Department of Defense);	Paper#218: 5.3.1 / Enterprise Digital Transformation using a Sociotechnical System Approach Joana L F P Cardoso, Donna H Rhodes, Eric S Rebentisch (Massachusetts Institute of Technology)	Paper#82: 5.4.1 / Value-driven Systems Engineering Approach addressing Manufacturing, Supply-chain and Aircraft Design in the Decision-Making Process 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)	Presentation#46: 5.5.1 / Beyond Digital: Bridging the Divides David Long (Blue Holon)	Paper#241: 5.6.1 / Modeling System Configurations Over Time Matthew Hause (SSI); Lars-Olof Kihlström (Syntell AB)
14:15	**14:55**	**20:15**	**20:55**				Presentation#29: 5.3.2 / Connecting the Dots: digital threads benefits and best practices Eran Gery (IBM)	Paper#3: 5.4.2 / Coping with Verification in Complex Engineered Product Development Ola Kristoffer Skreddernes, Rune Andre Haugen, Cecilia Haskins (University of South-Eastern Norway)	Presentation#89: 5.5.2 / Digital Engineering Standards Development to achieve SE Vision 2035 Celia Tseng (Dassault Systems); Wanda Eyre (Boeing); Melissa Wallace (Northrop Grumman)	Presentation#66: 5.6.2 / Barriers to implementing DevOps for Complex Safety-Critical Systems Robin Yeman (Robin Yeman); Suzette Johnson (Northrop Grumman)
15:00	**15:30**	**21:00**	**21:30**	**Break**						
US Hawaii		**US East Coast**		**Session 6**	**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
15:30	**16:10**	**21:30**	**22:10**		Presentation#59: 6.1.1 / A Telecommunications Primer Thomas Manley (Decision Analysis Services); Susan Ronning (ADCOMM Engineering LLC); William Scheible (MITRE Corporation); Keith Rothschild (Cox Communications)	Presentation#39: 6.2.1 / Explore the Lighter Side of MBSE Casey V Medina, Allison Lyle (Studio SE, Ltd.)	Paper#89: 6.3.1 / Architecting Digital Engineering Requirements for Risk Management & Systems Architecting Shannon Dubicki, Risa Gorospe (The Johns Hopkins University Applied Physics Laboratory)	Presentation#33: 6.4.1 / Bridging Systems Engineering Models and Multi-Fidelity Analytical Models - MBSE Application to a Medication Auto-Injector Design Steve Cash (Zuken Vitech Inc.); Alexandre Luc (Ansys)	Panel#9: 6.5 / Bringing a Knife to a Gun Fight: Systems Engineering for the Modern World Panelists: David Long (Blue Holon); Jon Wade (University of California, San Diego); Duncan Kemp (Ministry of Defence); Erika Palmer (Cornell University);	Paper#44: 6.6.1 / LEAP – A Process for Identifying Potential Technical Debt in Iterative System Development 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)
16:15	**16:55**	**22:15**	**22:55**		Presentation#27: 6.1.2 / Responding to disruption: A System of Systems approach for digital transformation Samantha Papavasiliou (James Cook University)	Presentation#41: 6.2.2 / MBSE Model Integration in a Mixed-Fidelity Environment Alexander Gaspar, Eric Martens, Bradley Kukurza (Boeing)	Presentation#30: 6.3.2 / On Model Re-Use: Best Practices for the Application and Configuration of Model-Based Patterns Devon Clark (Deloitte Consulting); Devon Clark (INCOSE)	Presentation#40: 6.4.2 / Modeling Data Management for a Next Generation Photon Counting CT Scanner John Londt (GE Healthcare)		Paper#64: 6.6.2 / System Requirements Development under a Dual Prime Contracting Model Paul Pearce (ASC Pty Ltd)

IS2023 Schedule at a glance in person experience

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
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)
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 Fossnes	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	Stueti 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**					

IS2023 Schedule at a glance in person experience

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**			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 Hettema	Christopher Hoffman	David Long	Cecilia Haskins
08:00	**08:40**	**14:00**	**14:40**	**Session 10**	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 Cailin 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 Anyanhun, 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 (TechnipFMC); Kamrul Hasan (Technip FMC)
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); Polinpapilinho 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**						
US Hawaii		**US East Coast**			**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) INCOSE Content#419: 11.1.2 / Next-generation MBSE: Model as the cyber-physical system driver Dov Dori (Technion)	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**	**Session 11**	INCOSE Content#420: 11.1.3 / INCOSE Systems Engineering Laboratory Status Heidi Davidz (ManTech) INCOSE Content#421: 11.1.4 / Building Program Archetypes for Digital Engineering David Long, Nicole Hutchison	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) INCOSE Content#423: 11.1.6 / Proposing an MBSE Minimal Viable Product for Missions of all Risk Levels Regan Bullister (LMCO)	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 Mis-pulls and Misplaced 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, Lilleigh 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**					