

IS2025 Schedule at a glance in person experience

Saturday at IS2025

Start time	End time		Track 1	Track 2	Track 3	Track 4	Track 5	Track 6
Ottawa, Canada			201	213	215	208	205	207
08:00	12:00	Session A	Tutorial#149: A.1 / Open Source System Modeling with Python and Generative AI Raymond Madachy, Ryan Longshore, Ryan Bell (Naval Postgraduate School)	Tutorial#156: A.2 / Introduction to SysML v2 Sanford Friedenthal (SAF Consulting); Frank Salvatore (SAIC)	Tutorial#216: A.3 / Practical Systems Engineering: Principles and Methods for Success David Long (Blue Holon)	Tutorial#12: A.4 / Enterprise SE: A New Discipline for Transforming the Enterprise James Martin (Aerospace Corporation)	Tutorial#326: A.5 / Leading Modelling in Systems Engineering: From Modeller to Leader Duncan Kemp (Ministry of Defence); Meaghan Oneil (System Design and Strategy Ltd)	Tutorial#200: A.6 / Cybersecurity Tutorial: A Model-Base Approach to Risk Analysis and Mitigation Marco Bimbi, Martin Becker, Josh Kahn (The MathWorks)
12:00	13:00	Lunch						
13:00	17:00	Session B	Tutorial#149: A.1 / Open Source System Modeling with Python and Generative AI Raymond Madachy, Ryan Longshore, Ryan Bell (Naval Postgraduate School)	Tutorial#156: A.2 / Introduction to SysML v2 Sanford Friedenthal (SAF Consulting); Frank Salvatore (SAIC)	Tutorial#216: A.3 / Practical Systems Engineering: Principles and Methods for Success David Long (Blue Holon)	Tutorial#170: B.4 / Fundamentals of Model-based Enterprise Systems Engineering Aurelijus Morkevicius (Dassault Systemes and Department of Information Systems Kaunas University of Technology)	Tutorial#346: B.5 / Beyond Traditional Engineering: Transformative Approaches for a Changing World Elena Gallego Palacios (Spain - AEIS)	Tutorial#113: B.6 / From Legacy to Product Lines: A hands-on journey on Product Line Engineering for Multi-Level Systems Marco Forlingieri (INCOSE PLE WG); Rachna Harsh (PTC); Davi Henrique de Sousa Pinto (Airbus); Robert Hellebrand (PTC)

Sunday at IS2025

Start time	End time		Track 1	Track 2	Track 3	Track 4	Track 5	Track 6
Ottawa, Canada			201	213	215	208	205	207
08:00	12:00	Session C	Tutorial#241: C.1 / SysML V2 Finally in Practice: An Interactive Beginner's Tutorial Stephane Lacrampe (Obeo); , Samuel Rochet (Obeo)	Tutorial#64: C.2 / How to Use Opaque Behaviors to Simulate Model Data Sean Densford (3DS); Saulius Pavalkis (Dassault Systemes)	Tutorial#298: C.3 / Introduction to STAMP-based methods, STPA and CAST Meaghan O'Neil (INCOSE)	Tutorial#325: C.4 / Approaches and Concepts to facilitate Digital Transformation in Systems Engineering Alexander Busch (Ansys / NAFEMS INCOSE SMSWG); Alexandre Luc, Subodh Chaudhari (Ansys)	Tutorial#35: C.5 / Decision Making Strategies for Systems Engineers Ricardo Valerdi, Alejandro Salado (University of Arizona)	Tutorial#139: C.6 / Understanding and Applying the INCOSE SE Handbook Fifth Edition David Walden (Sysnovation, LLC)
12:00	13:00	Lunch						
13:00	17:00	Session D	Tutorial#95: D.1 / Developing Custom LLMs for Systems Engineering Ryan Bell, Raymond Madachy, Ryan Longshore (Naval Postgraduate School)	Tutorial#64: C.2 / How to Use Opaque Behaviors to Simulate Model Data Sean Densford (3DS); Saulius Pavalkis (Dassault Systemes)	Tutorial#298: C.3 / Introduction to STAMP-based methods, STPA and CAST Meaghan O'Neil (INCOSE)	Tutorial#325: C.4 / Approaches and Concepts to facilitate Digital Transformation in Systems Engineering Alexander Busch (Ansys / NAFEMS INCOSE SMSWG); Alexandre Luc, Subodh Chaudhari (Ansys)	Tutorial#35: C.5 / Decision Making Strategies for Systems Engineers Ricardo Valerdi, Alejandro Salado (University of Arizona)	Tutorial#139: C.6 / Understanding and Applying the INCOSE SE Handbook Fifth Edition David Walden (Sysnovation, LLC)

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Monday at IS2025

Start time	End time		Track 1	Track 2	Track 3	Track 4	Track 5	Track 6	Track 7
Ottawa, Canada			Hall 3	214	213	215	208	205	201
08:00	09:30	Keynote	Plenary featuring Keynote#2: P1 / AI and the Future of Systems Engineering Langdon Morris						
09:30	10:00	Break							
10:00	10:40	Session 1	SysML v2 Case Studies and Applications	Digital Engineering Strategies for Information Exchange and Visualization	Compositional Analysis and Reasoning	Product Line Engineering Adoption	Multidisciplinary Communication and Collaboration	SE Fundamentals	
			Patrick Meharg, Phyllis Marbach	Lori Zipes, William Scheible	Matthew Hause	Tara Sarathi	Guillaume Belloncle	David Long, Nicole Hutchison	
			Presentation#65: 1.1.1 / Case Studies for Querying the Model - SysML V2	Paper#319: 1.2.1 / TurboArch: Towards Automating System Architecture Decisions with a CoPilot	Paper#243: 1.3.1 / Systems Engineering – A Matter of Perspectives	Paper#193: 1.4.1 / Integrating PLE To Enhance MBSE Education In Emerging Engineering Countries: The Singapore SIT Example	Paper#151: 1.5.1 / Enhancing Shared Understanding in Multidisciplinary Teams	INCOSE Content#1015: 1.6.1 / Deciding what to build and why...	Sponsor session#7: 1.7.1 / Supercharge Your Digital Transformation with the Power of Automation!
			Sean Densford, Osvaldas Jankauskas (Dassault Systemes)	Alejandro Salado (The University of Arizona); Marcell Padilla (CRL Technologies, Inc.)	Ian Gibson (AtkinsRéalis)	Marco Forlingieri (PTC); Yew Chai Paw (Singapore Institute of Technology)	Jennifer Giang (Colorado State University); Evelyn Honore-Livermore (European Space Agency); Hanish Mehta (Wabtec Corporation); Sharad Rayguru (Philips Healthcare India); Thomas Manley (Decision Analysis Services (DAS))	Dinesh Verma (Stevens Institute of Technology, Systems Engineering Research Center (SERC))	Nate Nalven
10:45	11:25		Presentation#79: 1.1.2 / Transforming an Acquisition Process with SysML v2	Presentation#153: 1.2.2 / A Knowledge Graph Framework for Failure Analysis and Prevention		Presentation#365: 1.4.2 / Optimizing System Design: Integrating DFT and DfM through Model-Based Engineering Strategies	Paper#154: 1.5.2 / A3 Overviews for Communication in Development Projects – a Study from a Small Norwegian Company	INCOSE Content#1016: 1.6.2 / The Art of Systems Thinking	Sponsor session#1212: 1.7.2 / Geeglee
11:25	12:10		Todd Shayler, Richard Wise, Kurtis Wachs (Georgia Tech Research Institute)	Madison Urquhart, Janet Six (Tom Sawyer Software)		Clara Ramirez, Amy Thompson (University of Connecticut)	Alexander Bergtun, Siv Engen (University of South-eastern Norway)	Dr. Tami Katz (BAE Systems, Inc.)	Moderator:Vincent HOLLEY (CEO);
			Paper#185: 1.1.3 / Exploring the Use of SysMLv2 for Solution Architecture Development with the MagicGrid Framework	Paper#320: 1.2.3 / Towards a Digital Engineering Ontology to Support Information Exchange	Paper#100: 1.3.3 / Creating Better System Models: A Method for Using Compositional Reasoning to Validate Architectures with Assumption/Guarantee Contracts	Paper#263: 1.4.3 / MBPLE Adoption in the European Aviation, Defense and Automotive Industries	Paper#363: 1.5.3 / Integrated Product Development shared management by Systems Engineers' and Project Managers	INCOSE Content#1017: 1.6.3 / The Never Ending Story of Requirements Across the Life Cycle	Sponsor session#1208: 1.7.3 / Exploring the Next Frontier: SysML v2 by Dassault Systemes
11:25	12:10		Aiste Aleksandraviciene, Zilvinas Strolia (Dassault Systèmes)	Joe Gregory (University of Arizona); James Wheaton (Colorado State University)	Isaac Amundson (Collins Aerospace); Josh Kahn, Vidya Srinivasan (MathWorks); Gopal N. Rai, Janet Liu (Collins Aerospace)	Marco Forlingieri (PTC); Davi Henrique de Sousa Pinto (Airbus); Dieter Wagner (MBDA); Jaber Nikpouri (Iveco Group); Tim Welikiens (oose); Claudia Agostinelli (Iveco Group)	Carlos Coelho (INCOSE BR); Jose Renato Araujo Costa (INCOSE)	Jeffery Williams (University of Alabama Huntsville)	Tomas Vileiniskis, Nerijus Jankevicius (Dassault Systemes)
12:10	13:30	Lunch	Lunch / Welcome Lunch for First Time Attendees						
13:30	14:10	Session 2		AI Practices and Enterprise Reliability	Model Visualization and Documentation Tools	Engineering with Curiosity and Attitude and Pushing Boundaries	Systems Modeling Concepts and Exploration	SE Fundamentals	
				Jay Silverman	Wladyslaw Sowul	Adam Williams	Taylan Topcu	David Long, Nicole Hutchison	
			Panel#201: 2.1 / Navigating Organizational Change: Transforming for a Digital Engineering Future	Presentation#34: 2.2.1 / Observations in Establishing AI Practices in Highly Regulated Environments	Paper#143: 2.3.1 / The TRA Tool: Modeling and Projecting Readiness Levels with MBSE	Paper#340: 2.4.1 / Systems Engineering with Attitude	Presentation#16: 2.5.1 / Darth Vader's Personal Library: Models, Models, and More Models	INCOSE Content#1018: 2.6.1 / Unleash the Power of Systems: A 30-Minute Introduction to Systems Engineering Architecture	Sponsor session#1213: 2.7.1 / SysIDE The 'System as Code' paradigm transforming Systems Engineering: build superior systems much faster
			Moderator:Frank Salvatore (SAIC); Panelists: John Forsythe (Government & Public Services (GPS)); Sanford Friedenthal (independent consultant); Marco Ferrogallini (Airbus Group); Thomas McDermott (Stevens Institute of Technology);	Jose Morales, Douglas Reynolds, Joseph Yankel, Matthew Walsh, Hasan Yasar (Carnegie Mellon University - SEI)	William Popovich (Northrop Grumman Corporation)	Rick Dove, Beth Wilson (Unaffiliated); Adam Williams (Sandia National Labs); Luke Thomas (Rolls Royce); Daniel Sudmeier (Boeing); Gary Stoneburner (JHU APL); Martin Span (Colorado State University); Adam Scheuer (CT Cubed); Barry Papke (Dassault); Gerry Ourada (unaffiliated); Richard Massey, Greg Leach (Boeing);	Matthew Gagliardi, Matthew Hause (System Strategy, Inc.)	Chris Hoffman (Cummins)	Juozas Vaicenavicius, Simonas Drauskas (SysIDE/ Sensmetry)
14:15	14:55			Paper#98: 2.2.2 / Enterprise Architecting to Advance Reliability and Maintainability Decision-Making	Presentation#348: 2.3.2 / Data Visualization of MBSE Models for Systems Engineering Baseline Assessments	Presentation#174: 2.4.2 / Taming the beast: Best Practices of Extending SysML V2	Paper#22: 2.5.2 / Into the Unknown!	INCOSE Content#1019: 2.6.2 / 'Systems of Systems': What they are and why they need 'special treatment' from System Engineers	Sponsor session#1202: 2.7.2 / Ingescape
15:00	15:30			Kyle Blond, Nathaniel Thompson (Georgia Tech Research Institute); Steven Conrad, Thomas Bradley (Colorado State University)	Kasey Marlowe, Sean McGuinness (Deloitte Consulting)	Aurelijus Morkevicius, Gintare Krisciuniene (Department of Information Systems Kaunas University of Technology and Dassault Systemes)	Andrew Nolan (Rolls-Royce plc); Andrew Pickard (APICKARD LLC); Richard Beasley (RBSystems)	Dr. Dan DeLaurentis (Discovery Park District Institutes)	Stéphane Valès
		Break							
15:30	16:10	Session 3		Systems Engineering Expertise Development	AI in Natural Language Processing and Automatic Speech Recognition	System Design and Process	Systems Engineering Complexity	SE Fundamentals	
				Fabio Silva, Kirsten Helle	Bryan Watson	Duncan Kemp	Elena Gallego Palacios	David Long, Nicole Hutchison	
			Panel#204: 3.1 / No Organization Builds Just One: The Feature-Based Path to Product Line Success	Paper#23: 3.2.1 / On The Importance of Being Able to Hold a Stake	Paper#71: 3.3.1 / Large Language Model-based Generation of Use Case Diagrams from Requirements Specifications	Presentation#42: 3.4.1 / Achieving Harmony in System Design: Balancing Optimal Performance Across the Engineering Specialties in a Solution	Paper#59: 3.5.1 / Application of A Verification Complexity Framework	INCOSE Content#1020: 3.6.1 / Foundations for MBSE and Digital Engineering: Why DE is not a 101	
			Panelists: Marco Forlingieri (PTC); Prof. Dr.Danilo Beuche (PTC); Dr. Charles Krueger (BigLever Software); Hugo Guillermo Chale (Airbus); Tim Welikiens (oose);	Richard Beasley (RB Systems); Andrew Pickard (APICKARD LLC); Andrew Nolan (Rolls-Royce plc); Sarah Sheard (Carnegie-Mellon University (retired))	Simon Schleifer (Engineering Design (KTmfk) - Friedrich-Alexander Universität Erlangen-Nürnberg); Adriana Lungu, Benjamin Kruse, Sebastiaan van Putten (AUDI AG); Stefan Goetz, Sandro Wartzack (Engineering Design (KTmfk) - Friedrich-Alexander Universität Erlangen-Nürnberg)	Kerry Lunney (Thales)	Suk Hwan Jung, Alejandro Salado (The University of Arizona)	Stephanie Chiesi (General Atomics)	
16:15	16:55			Presentation#29: 3.2.2 / Shu Ha Ri for SE (For the Journey to Expertise in SE, Enhance the Path with Shu Ha Ri)	Presentation#369: 3.3.2 / Integration of System Data Requirements in Stuttering-Aware Speech Recognition Systems	Paper#3: 3.4.2 / Integrating concept of operations in prefabrication processes for effective construction projects: a case study on plumbing systems	Paper#192: 3.5.2 / Scar Tissue in a Sophomore Course: SE Experience Acceleration in a Safe Environment	INCOSE Content#1021: 3.6.2 / Building your future: Competency and career pathways in Systems Engineering	Sponsor session#1216: 3.7.1 / Bringing Requirements Engineering into the AI Age: Creating the First AI-Native Systems Engineering Platform
17:00	18:00			Fred Robinson (The MITRE Corporation)	Ibibia Altraide, Steve Simske (Colorado State University)	Karl Martins Obote, Satyanarayana Kokkula, Gerrit Muller (University of South-Eastern Norway); Tobias Fredrik Lynghaug (Bravida A/S)	Alejandro Salado, David Herring (The University of Arizona)	Prof. Emma Sparks (University of New South Wales Canberra)	Janis Vavere (Trace.Space)
			INCOSE Gameshow: Zero Defect Answers “Where perfection means being perfectly unknown.”						
18:00	19:30		Welcome Reception						

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Tuesday at IS2025

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Ottawa, Canada			Hall 3	214	213	215	208	205	201
08:00	09:30	Keynote	Plenary featuring Keynote#3: P2 / System Engineering a European New Space Start-Up Jon Reijneveld (The Exploration Company (TEC))						
09:30	10:00	Break							
		Session 4	MBSE Lightning Round	Systems Engineering Roles and Competencies	Model Interoperability Frameworks	Enterprise Architecture and Transformation	Natural Language Processing and GenAI Applications	Decision-Making Frameworks in Systems Engineering	SPONSOR TRACK
			Mark Sampson, Troy Peterson	Suzette Johnson, Richard Beasley	Hartmut Hintze	Kerry Lunney	Michael Shearin	Mark Winstead	
			Paper#238: 4.1.1 / OMG's Approach to Developing its SysMLv2 Certification Program Rick Steiner (University of Arizona); Terrance Milligan (Object Management Group); Matthew Johnson (Arcfield)	Paper#21: 4.2.1 / Why Systems Engineering Skills Are Critical for Successful Leadership of Large Complex Projects Nicole Hutchison (Virginia Tech National Security Institute); Tom McDermott (Systems Engineering Research Center)	Paper#60: 4.3.1 / Standards Gaps for Enabling Model Interoperability for MBSE in a Digital Engineering Context Ryan Noguchi (The Aerospace Corporation)	Paper#2: 4.4.1 / Enabling Enterprise Transformation Using Systems Principles and Concepts James Martin (Aerospace Corporation)	Presentation#97: 4.5.1 / Architecting the Future through Natural Language Processing Kyle Russell, Jaden Flint, Chanler Cantor, Dr. William Marx, Casey Cooper (Intuitive Research and Technology Corporation)	Paper#313: 4.6.1 / An Architecting Book of Knowledge (BoK) to Improve Architectural Decision-Making Gordon Hunt (Skayl, LLC); Alejandro Salado (The University of Arizona); Bryan Mesmer (The University of Alabama in Huntsville); Marcell Padilla (CRL Technologies, Inc.); Edwards Edwards, Bryan Joyner (Intrepid, LLC)	Sponsor session#1210: 4.7.1 / Digital Engineering and MBSE with Virtual Twins: Streamlining Robotic Arm Design and Deployment Saulius Pavalkis (Dassault Systemes)
			Paper#168: 4.1.2 / Explaining Model-Based Systems Engineering – Towards a Semiotic Perspective Eduard Kamburjan (IT University of Copenhagen); Johan Cederbladh (Mälardalen university)	Paper#40: 4.2.2 / Systems Engineering Roles for a New Era Sarah Sheard (Retired); Andrew Pickard (APickard LLC)	Paper#232: 4.3.2 / A Framework for Seamless Interoperability: Linking Mission Models, System Models, and High-Fidelity Simulations for Defense Applications Ricardo Martinez (MathWorks); Tara Sarathi (MIT Lincoln Labs)	Presentation#73: 4.4.2 / Space Domain Enterprise Architecture Reference Model Edith Szarkowski, Kyle Alvarez (Engineer); James Martin (Aerospace Corporation)	Paper#196: 4.5.2 / Extracting Information from System Model as Graph Structure by Large Language Model in MBSE Keisuke Sugawara, Yutaka Komatsu, Atsushi Wada (Japan Aerospace Exploration Agency)	Presentation#395: 4.6.2 / Enhancing the Future of Decision-Making - INCOSE DADM v1.0 Implementation Jared Smith (Deloitte Consulting); Gregory Parnell (University of Arkansas); Robert C. Kenley (Purdue University); Devon Clark (Deloitte Consulting); Frank Salvatore (SAIC); Drake Nwobodo (Deloitte Consulting)	Sponsor session#1201: 4.7.2 / Capability Growth Partners for the Global Engineering Community John Fitch (Project Performance International); Francois Retief (Certification Training International)
			Paper#165: 4.1.3 / An Initial Exploration of MULTI Level Modeling for Model-Based Systems Engineering Arne Lange (Karlsruhe Institute of Technology); Johan Cederbladh (Mälardalen University); Kevin Feichtinger, Thomas Weber (Karlsruhe Institute of Technology)						
10:00	10:40		Paper#214: 4.1.4 / Methodology for Model-Based Certification Jay Silverman, Holly Handley (Old Dominion University)						
10:45	11:25		Paper#177: 4.1.5 / Integrating system dynamics with systems modelling language for resilient system design Ivan Taylor (Policy Dynamics Inc.); Ken Cureton (University of Southern California); Al Thibeault (Amistra)						
11:30	12:10								
12:10	13:30	Lunch	Lunch						
		Session 5		Risk, Security, and Resiliency Modeling and Analysis	Risk Analysis Methodologies	Project Management and Process Improvement	Defense Systems Engineering	Automotive Systems Development	SPONSOR TRACK
				Patrick Meharg, Joe Gregory	Jeremy Doerr	Jeffery Williams		Philip Kalenda	
			Panel#385: 5.1 / Think Like an Ecosystem: Re-envisioning the Future of Systems on Earth Panelists: Casey Medina (CVM Design, Inc.); Matthew Hause (SSI); Rae Lewark (Studio SE Ltd);	Paper#331: 5.2.1 / Digital Engineering Testbed for T&E: Operation Safe Passage Status and Lessons Learned Brandt Sandman, Paul Wach (Virginia Tech); Alejandro Salado, Joe Gregory (University of Arizona); Taylan Topcu, Geoffrey Kerr (Virginia Tech)	Paper#26: 5.3.1 / Systematic Risk Analysis: FMEA and FTA Approaches for Multi-Level System Architectures Brian Pepper (Dassault Systèmes); Habibi Husain Arifin (Assumption University); Saulius Pavalkis (Dassault Systèmes); Kyle Post (Ford Motor Company)	Paper#226: 5.4.1 / Methods for Quantifying Rework Risk to Make Efficient Schedule for a Project Yiyi Wang, Chenwei Gui, Kazuhiro Aoyama (The University of Tokyo, Graduate School of Engineering)	Paper#49: 5.5.1 / Systems Engineering Role Evolution and the Right Stuff Andrew Pickard (APICKARD LLC); Sarah Sheard (Carnegie-Mellon University (Retired)); Richard Beasley (RBSystems); Andy Nolan (Rolls-Royce plc)	Paper#101: 5.6.1 / What would I see in court? A survey analysis of who americans would blame for self-driving vehicle crashes and traffic violations Eric Stewart, Erika Gallegos (Colorado State University)	Sponsor session#1207: 5.7.1 / The All-in-One AI-Powered Solution for MBSE and Project Management Takuma Ohnishi, Hidetaka Ishii, Takahiro Minami, Satoru Naraoka
				Presentation#299: 5.2.2 / Model Based Test and Evaluation Master Plan: Applying Digital Transformation to T&E Strategy for Major Acquisition Programs Johnston Coil, Sylvia Conques, Hannah Myers, Rebecca Santos (DoD)	Paper#270: 5.3.2 / SysML4Sec – Methodology for Security modeling in the context of large-scale product development with multiple design levels Hartmut Hintze (Technische Universität Hamburg Institut für Flugzeug-Kabinensysteme); Daniel Pereira (Airbus); Alice Santin (Dassault Systèmes); Marvin Blecken (Technische Universität Hamburg Institut für Flugzeug-Kabinensysteme); Ralf God	Paper#227: 5.4.2 / Assessing Management Measures in Large-Scale Residential Facilities: An SNS-Driven Evaluative Approach Long Fu, Kazuhiro Aoyama (The University of Tokyo, Graduate School of Engineering)	Paper#254: 5.5.2 / Sustainment of Navy Assets: A Case study of Post-Production Design Change Process and Documentation of Archetypical Sources of Inefficiency Taylan G Topcu, Jannatul Shefa (Virginia Tech)	Presentation#284: 5.6.2 / Software Defined Vehicle: behind the "Smartphone on wheels" claim, a multidimensional system challenge! Alain Dauron (AFIS and INCOSE (retired)); Yutika Patwardhan (Tata Consultancy Services); Orkun Yilmaz (CARIAD SE); David Hetherington (System Strategy, Inc); Stephen Powley (Coventry University)	Sponsor session#1206: 5.7.2 / SysON Spotlight: The Latest in Web-Based SysML v2 Modeling Stephane Lacrampe (Obeo); , Samuel Rochet (Obeo)
				Paper#396: 5.2.3 / Hidden Beliefs in Verification Decisions: An Experimental Study with Practitioners Joanna Joseph, Alejandro Salado (University of Arizona)	Paper#147: 5.3.3 / A System-of-Systems Modeling, Simulation and Data Analytics Framework for Resilient Sustainment and Support Readiness Strategies Guillaume Belloncle, Gauthier Fanmuy, Gan Wang, Bruno Joffret, Berenger Winckler (Dassault Systemes)	Paper#269: 5.4.3 / Streamlining Engineering in Growing SMEs: A Framework of Guidelines and Checksheets for Knowledge and Project Improvement Sigurd Skotnes (University of South-Eastern Norway); Dag Bergsjø (Chalmers University of Technology)	Paper#381: 5.5.3 / Model-Based System Verification Applied to Spanish Navy's S80 Class Submarine Sustainment Case Study Jose Torres Garcia (Navantia); David Fernandez Gonzalez (Accenture); Shashank Alai, Benedetta Iezzi (Siemens); Miguel Eduardo Orozco Castano (Accenture); Isabel Ainhoa Nieto Sevilla (Navantia)	Paper#303: 5.6.3 / Accelerated Automotive Battery Development to meet Market Opportunities Matthias Bajzek (Graz University of Technology); Daniel Krems (AVL); Michael Tatschl (Graz University of Technology); Thomas Traussnigg (AVL); Stefan Kollegger (Technische Universität Graz); Sebastian Dörr (Conwever); Jasmin Kniwallner, Hannes Hick (Graz University of	Sponsor session#9: 5.7.3 / Measuring System Engineering Performance through Traceability Francis Trudeau (Jama Software)
13:30	13:55								
14:00	14:25								
14:30	14:55								
15:00	15:30	Break							
		Session 6	Digital Twin Applications and Verification	AI Systems for Safety-Critical Applications	Implementation Guidance: MBSE and MOSA	Systems Dynamics and Complexity Navigation	Digital Engineering Adoption Cases in Industry and on the	Configuration Management and Lifecycle Analysis	SPONSOR TRACK
			Rick Steiner, Chris Hoffman	Enanga Fale, Duncan Kemp	Ken Ptack	0	Angela Robinson	Carlos Coelho	
			Paper#94: 6.1.1 / Bridging Realities: Bringing MBSE Models to Life with Digital Twins Harleigh Bass, Chanler Cantor, Jaden Flint, Dr. William Marx, Casey Cooper, Jason Rogers (Intuitive Research and Technology Corporation)	Presentation#111: 6.2.1 / Engineering Trusted AI Systems for Mission-Critical Operations Samuel Cornejo, Zeinab Alizadeh, Amal Youssef, Carter Buss, Afroz Jalilzadeh, Pratik Satam, Alejandro Salado (The University of Arizona)	Presentation#72: 6.3.1 / Should I Use MBSE On This Project? Paul Bryer, Anthony Jones (INCOSE Member)	Paper#213: 6.4.1 / Intelligent Exploration Kathleen Ticer (Florida State University)	Paper#163: 6.5.1 / Redesigning Systems Architecture for AWS Platform Migration: A Case Study of an Energy Monitoring System Catalina Klarissa Mae Tagavilla Gaza (University of South-Eastern Norway); Yangyang Zhao (University of Oslo); Henri Giudici (University of South-Eastern Norway)	Presentation#268: 6.6.1 / Transforming Engineering: Implementation of Cross Domain Configuration Management (CDCM) at Bosch Christoph Bergner (GFSE); Thomas Schwarzkopff (Robert Bosch GmbH)	Sponsor session#1215: 6.7.1 / Enabling Digital Engineering with the Systems Model Exchange Framework , Jeff Pilato
			Presentation#329: 6.1.2 / Agile Systems Engineering of an Astronaut Digital Twin to Optimize Human Space Exploration Caleb Schmidt (Colorado State University; Sovaris Aerospace); Tom Paterson (EmbodyBio); Michael Schmidt (Sovaris Aerospace); Steven Simske, Stephanie Anderson (Colorado State University)	Paper#87: 6.2.2 / A Digital Engineering Methodology for Design, Exploration and Validation of Safety-Critical Software for Integrating AI-based Algorithms Gabriel Pedroza, Matthieu Paquet, Bernard Dion (Ansys)	Presentation#78: 6.3.2 / A Systems Engineering Approach to Standards Development Leslie McKay (SAE International)	Paper#260: 6.4.2 / Stakeholders Harmonization Initiative: An UAF Approach to System Dynamics in Enterprise Architecture and Product Service Systems Takuro Koizumi (Mitsubishi Heavy Industries, Ltd. / Osaka Metropolitan University; Hiroyuki Morino (Mitsubishi Heavy Industries, Ltd.); Tatsunori Hara, Kazuhiro Aoyama (School of Engineering, The University of Tokyo)	Presentation#383: 6.5.2 / Digital Engineering Adoption at Small Manufacturers: Learning from Digital Thread and Model-Based Definition Adoption at SMMs from a Prototype Project and Study Amy Thompson (Connecticut Center for Advanced Technology)	Paper#160: 6.6.2 / Systems-of-Systems Engineering Challenges: Experiences from the Road Construction Domain David Rylander (RISE Research Institutes of Sweden AB (RISE)); Jakob Axelsson (Mälardalens University (MDU))	Sponsor session#1203: 6.7.2 / Interoperability as an Enabler for System Lifecycle Digitalization Jose Fuentes, Ilyes Yousfi (The REUSE Company)
			Paper#336: 6.1.3 / A Double-Helix Model for the V&V of Physical and Digital Twins Samuel Cornejo, Sukhwan Jung, Alejandro Salado (The University of Arizona)	Paper#41: 6.2.3 / AI Overview and Caveats for the Systems Engineer Sarah Sheard (Retired)	Presentation#262: 6.3.3 / How Much MOSA Does Your System Need? Hitting the Sweet Spot Between MOSA Ambition and Lifecycle Costs Clarissa Fleming, David Hetherington, Robert Peters (System Strategy, Inc)	Paper#337: 6.4.3 / A Systems Engineering Framework for Navigating Complexity Dean Beale (Independent Researcher); Ricardo Valerdi (University of Arizona); Dorothy McKinney (Lockheed Martin (retired)); Andrew Pickard (APICKARD LLC)	Paper#128: 6.5.3 / Model-Based Systems Engineering for Industrial Systems Gauthier Fanmuy, Saulius Pavalkis, Adel Taghiyar, Tarik Kebdani (Dassault Systemes)	Paper#278: 6.6.3 / Model-Based Maintenance Planning and Analytics for Oil & Gas Offshore Systems Glenda Jensen, Emefon Dan, Edmary Alatmiranda (AkerBp); Lars-Olof Kihlström (CAG Syntell AB); Matthew Hause (SSI)	Sponsor session#1222: 6.7.3 / Improve Systems Engineering Results with Integrated Visualization and Analysis Janet Six (Tom Sawyer Software)
15:30	15:55								
16:00	16:25								
16:30	16:55								

IS2025 Schedule at a glance in person experience

Wednesday at IS2025

Start time	End time		Track 1	Track 2	Track 3	Track 4	Track 5	Track 6	Track 7
		Ottawa, Canada	Hall 3	214	213	215	208	205	201
08:00	09:30	Keynote	Plenary featuring Keynote#4: P3 / Preparation for Spaceflight Dr. Robert Thirsk (Canadian Space Agency)						
09:30	10:00	Break							
		Session 7	Generative AI Impact and Value Assessment	Requirements Engineering Methodologies	Sociotechnical, Environmental, and Cultural Systems Analysis	Resilient Aerospace and Defense Systems	Acquisition Models and Frameworks	Tech Ops Track	SPONSOR TRACK
			Suzette Johnsoon	Greg Pierce	Guillaume Belloncle, Adam Williams	Greg Parnell	Paul Wach	Tami Katz, Jimmie McEver	
10:00	10:40		Presentation#57: 7.1.1 / Value of Using Large Language Models in Building Software for Systems	Paper#361: 7.2.1 / A Transformative Process for Model-Based Design Reviews	Paper#324: 7.3.1 / Analyzing Systems Engineering Vision 2035 Through a Cultural Lens	Presentation#358: 7.4.1 / Secure Cyber Resilient Engineering: Methods and Tools	Paper#6: 7.5.1 / A proposal for making an information model for an acquisition organization	INCOSE Content#1047: 7.6.1 / How INCOSE is Advancing the Practice of Systems Engineering	Sponsor session#1214: 7.7.1 / SysMLv2 change management with version control and LemonTree
			Mark Sherman (CMU SEI); David Schulker	Saulius Pavalkis, Peter Drozdewicz (Dassault Systemes)	Ahmad Alsudairi (University Putra Malaysia); Azmin Shakrine Mohd Rafie (Universiti Putra Malaysia); Serhan Alshammari (Industrial Engineering Department, College of Engineering, Ha'il University); Amini Amir Abdullah, Syaril Azrad, Ezanee Gires (Universiti Putra Malaysia); Abdullah Algarni (GADD)	Peter Beling (Virginia Tech); Tom McDermott (Stevens Institute of Technology)	Simen Lunke (Norwegian Defence Materiel Agency); Satyanarayana Kukkula (University of South-Eastern Norway)	Tami Katz	Philipp Kalenda (LieberLieber Software); Chris Armstrong (Armstrong Process Group (APG))
10:45	11:25		Presentation#148: 7.1.2 / A Maturity and Cost Model for Systems Engineering with Generative AI	Paper#378: 7.2.2 / Systems Engineering Automation Through Artificial Intelligence (AI) and Natural Language Processing (NLP)-Based Software	Paper#233: 7.3.2 / CONFIGURATION MANAGEMENT AS A DRIVER FOR SUSTAINABILITY	Paper#146: 7.4.2 / Towards a greater understanding of Systems Design and Interoperability between Airbus Commercial and its Suppliers	Paper#80: 7.5.2 / Boosting COSYSMO to derive a comprehensive Acquisition benchmarking tool	INCOSE Content#1038: 7.6.2 / How are We Doing? FuSE Report Card on Realizing the Systems Engineering Vision 2035	Sponsor session#1217: 7.7.2 / Ansys
			Raymond Madachy, Ryan Bell, Ryan Longshore (Naval Postgraduate School)	Xuan Chau, Brian Parrish (MITRE Corporation); Michael Cannizzaro (US Army Futures Command STE CFT)	Sandrine Gonthier (INCOSE); Adriana D'Souza, Haydn Jones (AIRBUS)	Maxime Varoqui (AIRBUS)	Christer Froling (The REUSE Company)	Bill Miller	
11:30	12:10		Paper#389: 7.1.3 / Artist Intellectual Property Rights Protection & GenAI: A Systems Approach	Paper#373: 7.2.3 / A TMBR-based, Semiformal Method for Early Requirements Definition of Training Simulators	Presentation#374: 7.3.3 / SE, S and T: A Sociotechnical Systems Analysis of United States Scientific and Technical Policymaking		Presentation#81: 7.5.3 / A Model-Based Framework for Assessing MOSA Value Delivery in DoD Acquisitions	INCOSE Content#1041: 7.6.3 / AI for SE and SE for AI	Sponsor session#1219: 7.7.3 / Agent-Assisted Systems Engineering: Using AI Agents To Build Complex Architectures
			Jon Wade (University of California, San Diego); Dana Polojärvi (Maine Maritime Academy); Hortense Gerardo (University of California, San Diego)	Wladyslaw Sowul (Military Aviation Works no. 2)	Shelley Littin (University of Arizona)		Richard Wise, Christopher Zeoli, Alton Schultheis (Georgia Tech Research Institute)	Ali Raz, Tom McDermott	Jenn Dixon (Ketryx)
12:10	13:30	Lunch							
		Session 8		Digital Twins and Semantic Engineering	AI Ethics and Human-AI Interfaces	Model-Based Approaches in High-Consequence Environments	Agile and Innovative Engineering Approaches	Tech Ops Track	SPONSOR TRACK
					Hannes Hick, Matthew Hause	Satya Kukkula	Hartmut Hintze	Tami Katz, Jimmie McEver	
13:30	13:55		Panel#224: 8.1 / Bridging the Divide: Linking Architectural Specification and Verification by System Simulation	Paper#283: 8.2.1 / Authoritative Broker of Truth (ABoT): Synchronizing Model-Based System Engineering with Cross-Disciplinary Simulation to Create Digital Twins	Presentation#90: 8.3.1 / Ensuring Safety in AI/LLM Systems for Open-Source Intelligence: An STPA-Guided Approach	Paper#31: 8.4.1 / Digital Safety Analysis for Small Modular Nuclear Reactors (SMRs)	Paper#63: 8.5.1 / Innovation Engineering at Tesla - Agility as a Cultural Practice	INCOSE Content#1039: 8.6.1 / Shaping the Future with Complex and Adaptive Systems	Sponsor session#1223: 8.7.1 / TopTeam Corp
			Moderator:Phyllis Marbach (INCOSE SMSWG); Panelists: Alexander Busch (NAFEMS INCOSE SMSWG / Ansys); Mike Nicolai (Siemens Digital Industry Software); Saulius Pavalkis (Dassault Systemes); Becky Petteys (MathWorks);	Patrick Meharg, Scott James, Andrew Dudash (Noblis Inc.)	Timothy Davison, Matthew Walsh, Shing-Hon Lau (Carnegie Mellon University - Software Engineering Institute)	Ron Claghorn, Peter Suyderhoud, Matt Lund, Kevin O'Rear (Idaho National Laboratory)	Rick Dove (Unaffiliated); Kerry Lunney (Thales Australia); Michael Orosz (University of Southern California); Mike Yokell (Unaffiliated); Jennifer Whitby (McLaren Automotive); Jim Larkin (Northrop Grumman); Jeff Loren (SAIC); Brian Smith (Peerless Technologies)	Mike Watson, Andy Pickard, Haifeng Zhu, Rob Vingerhoeds	
14:00	14:25			Paper#318: 8.2.2 / Semantically-Enabled Dashboards to Support Systems Engineers	Paper#307: 8.3.2 / Ethical Human-AI Agent Interface Considerations	Paper#248: 8.4.2 / Helping Future Nuclear Power Facilities Navigate Predatory & Hostile Environments: Insights from Systems Security Engineering	Presentation#68: 8.5.2 / Integration of Agile and Systems Engineering to Deliver Safety-Critical Cyber-Physical Systems		Sponsor session#1221: 8.7.2 / Zuken Vitech: Reimagining MBSE Collaboration
				Joe Gregory (University of Arizona); Visalakshi Iyer, Alejandro Salado (The University of Arizona)	Clayton Couch, Michael Miller (Air Force Institute of Technology)	Adam Williams (Sandia National Laboratories)	Robin Yeman (Carnegie Mellon SEI); Suzette Johnson (Northrop Grumman)		Brian Selvy (Zuken Vitech)
14:30	14:55			Presentation#349: 8.2.3 / Methodology for Evaluating a Digital Architecture in Terms of Systems Engineering Lifecycle Using Variables in the Context of Digital Twin	Paper#314: 8.3.3 / AI outperforms 60 se graduates in creating causal loop diagram of janis grouthink phenomenon	Paper#343: 8.4.3 / Integrating Digital Engineering Needs into Physics-based Modeling and Simulation for Aircraft Power and Thermal Systems	Presentation#341: 8.5.3 / Beyond Traditional Engineering: Transformative Approaches for a Changing World	INCOSE Content#1043: 8.6.2 / Conserving Energy as a Strategy for Dealing with Uncertainty and Dynamics in SE	Sponsor session#1218: 8.7.3 / Military Aviation Works no. 2 -- Polish Armaments Group
				Claribel Wendling (Colorado State University)	Kirk Reinholtz, Kamran Eftekhari Shahroudi (Colorado State University)	Daniel Herber (Colorado State University); Dominic Dierker, Brian Raczkowski (PC Krause & Associates); Nathaniel Butt, Soumya Patnaik (Air Force Research Laboratory, Wright-Patterson AFB)	Elena Gallego Palacios (Spain - AEIS)	Rick Dove	Wladyslaw Sowul (WZL2)
15:00	15:30	Break							
		Session 9			Architecture, Verification, and Asset Management	System-of-Systems and Multi-Agent Resilience	MBSE Adoption Challenges and Configuration	Tech Ops Track	SPONSOR TRACK
					Alejandro Salado, Kirsten Helle	Taylan Topcu	Ken Ptack	Tami Katz, Jimmie McEver	
15:30	15:55		Panel#247: 9.1 / Cost Impacts of Generative AI in Systems Engineering Processes		Presentation#384: 9.3.1 / Solving the Selfish Octopus Problem with the Reusable Asset Specification (RAS) 3.0	Paper#354: 9.4.1 / MilliSwarm: Leveraging Emergence for Energy Efficient Robotic Swarm Movement	Paper#304: 9.5.1 / A Survey on MBSE Adoption Challenges in the INCOSE Asia and Oceania Sector	INCOSE Content#1042: 9.6.1 / Addressing Sustainability through a new INCOSE Working Group	
			Moderator:Raymond Madachy (Naval Postgraduate School); Panelists: Barclay Brown (Collins Aerospace); Ricardo Valerdi (University of Arizona); Gan Wang (Dassault Systèmes); Marilee Wheaton (The Aerospace Corporation);		Matthew Hause (SSI); Sriram Krishnan (Istari Digital)	James Hand, Bryan Watson (Embry-Riddle Aeronautical University)	Mohammad Chami (SysDICE GmbH); Marco Forlingieri (PTC); Habibi Husain Arifin (Assumption University); Quoc Do (KBR, Inc.)	Alain Dauron	
16:00	16:25			Paper#187: 9.2.2 / Customer Needs Elicitation Method for Business Architecture Design In Space Industry	Paper#353: 9.3.2 / Modular Design Method Considering System Architecture in Maritime Radar System for Autonomous Ship	Paper#120: 9.4.2 / Enhancing Healthcare Delivery through Systems of Systems Governance: A Multi-Layered Governance Framework	Paper#30: 9.5.2 / Navigating Innovation: MBSE Adoption at Turkish Aerospace Industries	INCOSE Content#1045: 9.6.2 / Rally the Troops! The Secret Energy Driving All Innovation Ecosystems	
				Hiroki Umeda, Yasushi Ueda (Japan Aerospace Exploration Agency)	Kazuhiro Aoyama, Bayanbat Shinekhuu (The University of Tokyo, Graduate School of Engineering)	Mohamed Mogahed, Mo Mansouri (Stevens Institute of Technology)	Aiste Aleksandraviciene (Dassault Systemes); Zilvinas Strolia (Dassault Systems); Özlem Erdener Sönmez, Gökhan Pehlivanoglu (TAI)	Bill Schindel	
16:30	16:55			Presentation#362: 9.2.3 / Robust Testing and Simulation Frameworks for Artificial Intelligence Systems in Spacecraft Operations	Presentation#218: 9.3.3 / Driving the Future of MBSE: SysMLv2 and Simulation-Driven Verification for the example of an Electric Vehicle ePowertrain Battery System	Paper#391: 9.4.3 / Faulted Agent Resilience in Multi-Agent Systems: An Exploration of Two Ant Inspired Strategies	Presentation#311: 9.5.3 / Configuration Management Challenges in Multi-Team Collaboration Using Linked Models	INCOSE Content#1044: 9.6.3 / Smarter Delivery of Infrastructure	
				Stephanie Anderson, Steven Simske (Colorado State University)	Alexander Busch (Ansys / NAFEMS INCOSE SMSWG); Christoph Edeler, Bernhard Kaiser, Rajagopalan Badrinarayanan, Hemesh Patil, Tushar Sambharam (Ansys)	James Hand, Bryan Watson (Embry-Riddle Aeronautical University)	David Hetherington, Mark Petrotta (System Strategy, Inc); Tomas Vileiniškis (Dassault Systèmes)	Dale Brown	
19:00	21:30		Connect and Dine Banquet						

IS2025 Schedule at a glance in person experience

Thursday at IS2025

Start time	End time		Track 1	Track 2	Track 3	Track 4	Track 5	Track 6
Ottawa, Canada			Hall 3	214	213	215	208	205
			Large Language Models for Systems Engineering	SysML v2 Methodologies and Extensions	Cybersecurity Approaches for Critical Systems	Theoretical Systems Engineering and Metamodels	Energy Systems and Sustainability	Systems Engineering Education and Competency Development
			Clara Ramirez	Jeremy Doerr, Jeffery Williams	Bill Scheible	Ryan Wilson	Richard Beasley	Paul Schreinemakers, Chris Hoffman
09:00	09:40		Paper#150: 10.1.1 / The Cost of Expertise: Performance Trade-Offs in LLMs for Systems Engineering Paul Wach (Virginia Tech); Ryan Bell (Naval Postgraduate School); Brady Jugan (Virginiat Tech); Ryan Longshore, Raymond Madachy (Naval Postgraduate School)	Presentation#36: 10.2.1 / Using SysML v2 to Define a Digital Engineering Methodology Bernard Dion (ANSYS, Inc.); J Simmons (Digital Engineering Consultant)	Presentation#24: 10.3.1 / A Proposed Capability Package for Preventing Hardware-Specific Cyber Attacks in Critical Infrastructure Irem Gultekin (George Washington University, PhD Candidate); Reginald Bailey (George Washington University, PhD Advisor)	Presentation#289: 10.4.1 / From Systems Engineering to Engineering Systems: The Power of Framing David Long (Blue Holon)	Presentation#405: 10.5.1 / A State of the System Analysis of the world's energy transformation towards net zero Thomas Manley (Decision Analysis Services (DAS) Australia)	Paper#110: 10.6.1 / Developing Competence in Competency Assessment and Development – Experiences from applying the INCOSE Systems Engineering Competency Framework from two Large Organizations Erik Herzog (SAAB AB); John Palmer (The Boeing Company); Jonas Hallqvist (Saab); Johanna Axehill (Saab AB); Robert Malone, Kelly Lavalard (The Boeing Company)
09:45	10:25	Session 10	Paper#52: 10.1.2 / PBSE Data Initialization Framework and Practive by Using LLM Degang Liang, Baoyu Dong (COMAC Shanghai Aircraft Design and Research Institute)	Presentation#56: 10.2.2 / SysML v1 to SysML v2 Model Conversion Approach Frank Salvatore (SAIC); Sandy Friedenthal (SAFConsulting)	Paper#62: 10.3.2 / Toward Quantitative Assessments of Cybersecurity Countermeasure Efficacy Ben Breisch, Kristin Voss, William Barnum (MITRE)	Paper#217: 10.4.2 / The Three Fundamental Questions: A Minimal Complete Framework of Systems Engineering Christian Sprague (INCOSE); Graeme Troxell (Colorado State University)	Paper#186: 10.5.2 / Digital requirement management and exchange - a Case Study from the Energy Domain Kirsten Helle (TechnipFMC); Siv Engen (University of South East Norway); Helge Smedsrud, Børre Svenskerud, Robert Pagan (TechnipFMC)	Paper#118: 10.6.2 / Applying Systems Engineering to Systems Engineering Graduate Course Development Elizabeth Wilson, Don Gelosh, Shamsnaz Bhada, Christopher Piccirillo (Worcester Polytechnic Institute)
10:30	11:10		Paper#197: 10.1.3 / Accelerating Model-Based Systems Engineering with Large Language Models Khushnood Adil Rafique, Sanan Shah (University of Kaiserslautern (RPTU)); Šandor Dalecke (University of Kaiserslautern-Landau (RPTU)); Christoph Grimm (University of Kaiserslautern (RPTU))	Paper#164: 10.2.3 / Enterprise Transformation Planning with UAF Aurelijus Morkevicius (Department of Information Systems Kaunas University of Technology and Dassault Systemes); Aiste Aleksandraviciene, Edita Mileviciene (Dassault Systemes)	Presentation#135: 10.3.3 / When Assurance Cases are needed for Security Mark Winstead (MITRE)	Paper#315: 10.4.3 / A Metamodel for ilities Gordon Hunt (Skayl, LLC); Alejandro Salado (The University of Arizona); Stu Frerking (Skayl, LLC); Bryan Mesmer (The University of Alabama in Huntsville); Marcell Padilla (CRL Technologies, Inc.); Anthony Edwards (Intrepid, LLC)	Paper#251: 10.5.3 / Holistic Approach to Sustainability: A Comparative Life Cycle Assessment of Battery-Electric versus Biodiesel Transit Buses in Hawaii Fabio Silva, Nicole Chou, Nadia Fernandez Yarte, Huiqian Yang (University of Southern California)	Paper#166: 10.6.3 / Teaching Systems Engineering for Students – Experiences from the Swedish Education System Johan Cederbladh (Mälardalen university); Håkan Forsberg (Mälardalen University)
11:15	11:55		Paper#137: 10.1.4 / Automated Legacy Documentation to SysML Conversion Trent Johnson, Andrew Williams (Georgia Tech Research Institute)	Paper#212: 10.2.4 / Next Generation MBPLE with SysML v2: Feature Modeling, Variability Modeling and API Potentials Tim Weikiens (oose eG); Marco Forlingieri (PTC); Vince Molnar (Budapest University of Technology and Economics)	Paper#207: 10.3.4 / Behavior-based Confidence Scoring to Support Access Management in Zero Trust Systems David Schulker, Edward Wang, Jeffrey Mellon, Robert Garrett (Carnegie Mellon University Software Engineering Institute)	Presentation#194: 10.4.4 / Generalizing the Systems Engineering Vee: Introducing Time as a Third Dimension and Refining the Role of Analysis Tools Alexander Busch (INCOSE SMSWG, Ansys)	Paper#180: 10.5.4 / Early-Stage Digital Engineering for Complex Energy Decarbonization Projects Mark Unewisse, Stephen Cook, Matthew Wylie (Shoal Group Pty Ltd)	Paper#344: 10.6.4 / Engineering Hope via a Rapid Systems Engineering Approach to International Disaster Relief Calen Sims, Kathleen Ticer, David Gross (Florida State University)
12:00	13:00	Break						
				Digital Transformation in Engineering Processes	Practical Applications of Systems Engineering	MBSE Frameworks for Complex Systems	Resilience Analysis and System Simulation	Verification and Validation in Model-Based Environments
				Phyllis Marbach, Gregory Parnell	Rick Steiner	Joe Gregory	Satya Kokkula	Hannes Hick, Mark Winstead
13:00	13:25		Panel#295: 11.1 / AI in systems engineering, education and skills development Moderator:Shamsnaz Bhada (Worcester Polytechnic Institute); Panelists: Ali Raz (George Mason University); Ananda Swarup (Alcon); Jyotirmay Gadewadikar (MITRE); Martin Serrano (University of Galway);	Presentation#77: 11.2.1 / From Standards to Systems: Insights on Digital Transformation and MBSE Integration Leslie McKay (SAE International)	Presentation#106: 11.3.1 / 'Reclaiming the Engineering in Model-Based Systems Engineering: Refocusing MBSE on Practical System Engineering Outcomes Kiffin Bryan, Eric Alexander, Megan Turner, Alan Bouchard (STC-Arcfield)	Paper#265: 11.4.1 / Navigating Complex Systems: A review of Systems Practice Frameworks Dean Beale (Independent Researcher); Rudolph Oosthuizen (University of Pretoria); Ken Cureton (University of Southern California (Retired)); Eileen Arnold (Self); Andy Pickard (APICKARD LLC)	Paper#390: 11.5.1 / Bifurcation Analysis for System Resilience: A Case Study on Power Infrastructure Rogelio Gracia Otalvaro, Bryan Watson (Embry-Riddle Aeronautical University)	Paper#210: 11.6.1 / Successfully Integrating Early Validation and Verification in Industrial MBSE Johan Cederbladh (Mälardalen university); Daniel Krems (AVL)
13:30	13:55	Session 11		Presentation#292: 11.2.2 / Taking CI-CD DevOps to Digital Engineering -- Unit Testing, Model Assessments and Build Automation Robert Peters, Catherine Haggerty, Mark Petrotta (System Strategy, Inc)	Presentation#132: 11.3.2 / Applying Systems Engineering to Develop a Management Operating System at a National Laboratory Francisco Alvarez (Sandia National Laboratories)	Paper#179: 11.4.2 / A Framework for Structuring Research Campaigns Leveraging Model Based Systems Engineering Photi Karagiannis (Shoal Group Pty Ltd); Tommie Liddy (Turen); Matthew Wylie (Shoal Group Pty Ltd)	Paper#364: 11.5.2 / Relationship between Adaptability and Resilience Haifeng Zhu (Boeing); Ken Cureton (University of Southern California); John Brtis (INCOSE); Eileen Arnold (ConsideredThoughtfully, Inc.); Scott Jackson (Burnham Systems)	Paper#178: 11.6.2 / Integrating configurator and model-based verification and validation to streamline the design process of large-scale ETO systems Le Anh Hoang, Takahiro Omori, Mariko Sugimoto (Toshiba Corporation); Nobuyuki Suzuki (Toshiba); Kazuaki Yuuki (Toshiba Infrastructure Systems & Solutions Corporation)
14:00	14:25			Paper#351: 11.2.3 / NASA's Hopes and Fears of Digital Engineering Gregory Pierce (NASA's Johnson Space Center); Trevor Grondin (NASA's Langley Research Center); Nancy Noyes (NASA's Marshall Space Flight Center); Jason Kinney (NASA's Langley Research Center)	Presentation#293: 11.3.3 / Insights from the Field: Applying the Capability & Maturity Assessment Framework Jeremy Doerr, Michael Shearin, Zachary Connor, Michael King (Georgia Tech Research Institute)	Paper#167: 11.4.3 / Appropriate Simulation Model Identification during Model-Based Systems Engineering Johan Cederbladh (Mälardalen university); Thomas Zimmermann (Fraunhofer Institute for Production Systems and Design Technology)	Paper#108: 11.5.3 / Integration of MBSE and Agile Development by Seamlessly Creating Test Plans from Model Simulations in SDV Development Ken Kawamura (Dassault Systemes); Daisuke Hashimoto, Yutaro Ito (Woven By Toyota); Ho Kit Robert Ong (Dassault Systemes)	Paper#129: 11.6.3 / Performing verification and validation activities in a model-based environment Rebecca Mulholland, Cameron Bentley, Jeffrey Williams (University of Alabama in Huntsville)
14:30	15:30	Plenary	Plenary featuring Keynote#5: P4 / Let's Talk about SYSTEMS engineering...and get others to Listen Dr. William Donaldson (Christopher Newport University)					