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)

IS2025 Schedule at a glance in person experience

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	**P1 / AI and the Future of Systems Engineering** **Langdon Morris**						
09:30	10:00	Break							
		Session 1	**SysML v2 Case Studies and Applications**	**Digital Engineering Strategies for Information Exhange and Visualization**	**Compositional Analysis and Reasoning**	**Product Line Engineering Adoption**	**Multidisciplinary Communication and Collaboration**	**SE Fundamentals**	
			Patrick Meharg, Gregory Pierce	Lori Zipes, William Scheible	Matthew Hause	Tara Sarathi	Paul Wach	David Long, Nicole Hutchison	
10:00	10:40		Presentation#65: 1.1.1 / Case Studies for Querying the Model - SysML V2 Sean Densford, Osvaldas Jankauskas (Dassault Systemes)	Paper#319: 1.2.1 / TurboArch: Towards Automating System Architecture Decisions with a CoPilot Alejandro Salado (The University of Arizona); Marcell Padilla (CRL Technologies, Inc.)	Paper#243: 1.3.1 / Systems Engineering – A Matter of Perspectives Ian Gibson (AtkinsRéalis)	Paper#193: 1.4.1 / Integrating PLE To Enhance MBSE Education In Emerging Engineering Countries: The Singapore SIT Example Marco Forlingieri (PTC); Yew Chai Paw (Singapore Institute of Technology)	Paper#151: 1.5.1 / Enhancing Shared Understanding in Multidisciplinary Teams 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))	INCOSE Content#1015: 1.6.1 / Deciding what to build and why... Dinesh Verma (Stevens Institute of Technology, Systems Engineering Research Center (SERC))	Sponsor session#7: 1.7.1 / Supercharge Your Digital Transformation with the Power of Automation! Nate Nalven
10:45	11:25		Presentation#79: 1.1.2 / Transforming an Acquisition Process with SysML v2 Todd Shayler, Richard Wise, Kurtis Wachs (Georgia Tech Research Institute)	Presentation#153: 1.2.2 / A Knowledge Graph Framework for Failure Analysis and Prevention Madison Urquhart, Janet Six (Tom Sawyer Software)	Paper#274: 1.3.2 / IntelliFactory: Intelligent Software Factory for Embedded System Generation Yilong Yang, Daijin Hu, Hongyue Pan (Beihang University); Nan Wang, Sheng Cheng (Software Engineering and Digitalization Center of China Manned Space Engineering); Yongfeng Yin (Beihang University)	Presentation#365: 1.4.2 / Optimizing System Design: Integrating DfT and DfM through Model-Based Engineering Strategies Clara Ramirez, Amy Thompson (University of Connecticut)	Paper#154: 1.5.2 / A3 Overviews for Communication in Development Projects – a Study from a Small Norwegian Company Alexander Bergtun, Siv Engen (University of South-eastern Norway)	INCOSE Content#1016: 1.6.2 / The Art of Systems Thinking Dr. Tami Katz (BAE Systems, Inc.)	Sponsor session#1212: 1.7.2 / Geeglee Moderator:Vincent HOLLEY (CEO);
11:25	12:10		Paper#185: 1.1.3 / Exploring the Use of SysMLv2 for Solution Architecture Development with the MagicGrid Framework Aiste Aleksandraviciene, Zilvinas Strolia (Dassault Systèmes)	Paper#320: 1.2.3 / Towards a Digital Engineering Ontology to Support Information Exchange Joe Gregory (University of Arizona); James Wheaton (Colorado State University)	Paper#100: 1.3.3 / Creating Better System Models: A Method for Using Compositional Reasoning to Validate Architectures with Assumption/Guarantee Contracts Isaac Amundson (Collins Aerospace); Josh Kahn, Vidya Srinivasan (MathWorks); Gopal N. Rai, Janet Liu (Collins Aerospace)	Paper#263: 1.4.3 / MBPLE Adoption in the European Aviation, Defense and Automotive Industries Marco Forlingieri (PTC); Davi Henrique de Sousa Pinto (Airbus); Dieter Wagner (MBDA); Jaber Nikpouri (Iveco Group); Tim Weilkiens (oose); Claudia Agostinelli (Iveco Group)	Paper#363: 1.5.3 / Integrated Product Development shared management by Systems Engineers and Project Managers Carlos Coelho (INCOSE BR); Jose Renato Araujo Costa (INCOSE)	INCOSE Content#1017: 1.6.3 / The Never Ending Story of Requirements Across the Life Cycle Jeffery Williams (University of Alabama Huntsville)	Sponsor session#1208: 1.7.3 / Exploring the Next Frontier: SysML v2 by Dassault Systemes Tomas Vileiniskis, Nerijus Jankevicius (Dassault Systemes)
12:10	13:30	Lunch	**Lunch / Welcome Lunch for First Time Attendees**						
		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	Władysław Sowul	Adam Williams	Taylan Topcu	David Long, Nicole Hutchison	
13:30	14:10		Panel#201: 2.1 / Navigating Organizational Change: Transforming for a Digital Engineering Future Moderator:Frank Salvatore (SAIC); Panelists: John Forsythe (Government & Public Services (GPS)); Sanford Friedenthal (independent consultant); Marco Ferrogalini (Airbus Group); Thomas McDermott (Stevens Institute of Technology);	Presentation#34: 2.2.1 / Observations in Establishing AI Practices in Highly Regulated Environments Jose Morales, Douglas Reynolds, Joseph Yankel, Matthew Walsh, Hasan Yasar (Carnegie Mellon University - SEI)	Paper#143: 2.3.1 / The TRA Tool: Modeling and Projecting Readiness Levels with MBSE William Popovich (Northrop Grumman Corporation)	Paper#340: 2.4.1 / Systems Engineering with Attitude 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);	Presentation#16: 2.5.1 / Darth Vader's Personal Library: Models, Models, and More Models Matthew Gagliardi, Matthew Hause (System Strategy, Inc.)	INCOSE Content#1018: 2.6.1 / Unleash the Power of Systems: A 30-Minute Introduction to Systems Engineering Architecture Chris Hoffman (Cummins)	Sponsor session#1213: 2.7.1 / The 'System as Code' paradigm transforming Systems Engineering: build superior systems much faster Juozas Vaicenavicius (CEO)
14:15	14:55			Paper#98: 2.2.2 / Enterprise Architecting to Advance Reliability and Maintainability Decision-Making Kyle Blond, Nathaniel Thompson (Georgia Tech Research Institute); Steven Conrad, Thomas Bradley (Colorado State University)	Presentation#348: 2.3.2 / Data Visualization of MBSE Models for Systems Engineering Baseline Assessments Kasey Marlowe, Sean McGuinness (Deloitte Consulting)	Presentation#174: 2.4.2 / Taming the beast: Best Practices of Extending SysML V2 Aurelijus Morkevicius, Gintare Krisciuniene (Department of Information Systems Kaunas University of Technology and Dassault Systemes)	Paper#22: 2.5.2 / Into the Unknown! Andrew Nolan (Rolls-Royce plc); Andrew Pickard (APICKARD LLC); Richard Beasley (RBSystems)	INCOSE Content#1019: 2.6.2 / 'Systems of Systems': What they are and why they need 'special treatment' from System Engineers Dr. Dan DeLaurentis (Discovery Park District Institutes)	Sponsor session#1202: 2.7.2 / Ingescape Stéphane Valès
15:00	15:30	Break							
		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	
15:30	16:10		Panel#204: 3.1 / No Organization Builds Just One: The Feature-Based Path to Product Line Success Panelists: Marco Forlingieri (PTC); Prof. Dr.Danilo Beuche (PTC); Dr. Charles Krueger (BigLever Software); Hugo Guillermo Chale (Airbus); Tim Weilkiens (oose);	Paper#23: 3.2.1 / On The Importance of Being Able to Hold a Stake Richard Beasley (RB Systems); Andrew Pickard (APICKARD LLC); Andrew Nolan (Rolls-Royce plc); Sarah Sheard (Carnegie-Mellon University (retired))	Paper#71: 3.3.1 / Large Language Model-based Generation of Use Case Diagrams from Requirements Specifications 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)	Presentation#42: 3.4.1 / Achieving Harmony in System Design: Balancing Optimal Performance Across the Engineering Specialties in a Solution Kerry Lunney (Thales)	Paper#59: 3.5.1 / Application of A Verification Complexity Framework Suk Hwan Jung, Alejandro Salado (The University of Arizona)	INCOSE Content#1020: 3.6.1 / Foundations for MBSE and Digital Engineering: Why DE is not a 101 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) Fred Robinson (The MITRE Corporation)	Presentation#369: 3.3.2 / Integration of System Data Requirements in Stuttering-Aware Speech Recognition Systems Ibibia Altraide, Steve Simske (Colorado State University)	Paper#3: 3.4.2 / Integrating concept of operations in prefabrication processes for effective construction projects: a case study on plumbing systems Karl Martins Obote, Satyanarayana Kokkula, Gerrit Muller (University of South-Eastern Norway); Tobias Fredrik Lynghaug (Bravida A/S)	Paper#192: 3.5.2 / Scar Tissue in a Sophomore Course: SE Experience Acceleration in a Safe Environment Alejandro Salado, David Herring (The University of Arizona)	INCOSE Content#1021: 3.6.2 / Building your future: Competency and career pathways in Systems Engineering Prof. Emma Sparks (University of New South Wales Canberra)	Sponsor session#1216: 3.7.1 / Bringing Requirements Engineering into the AI Age: Creating the First AI-Native Systems Engineering Platform Janis Vavere (Trace.Space)
17:00	18:00		**INCOSE Gameshow: Zero Defect Answers** "Where perfection means being perfectly unknown."						
18:00	19:30		**Welcome Reception**						

IS2025 Schedule at a glance in person experience

Tuesday 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	**P2 / SE in practice** **Jon Reijneveld (The Exploration Company (TEC))**						
09:30	10:00	Break							
			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 Johnsoon, Richard Beasley	Hartmut Hintze	Kerry Lunney	Michael Shearin	Mark Winstead	
10:00	10:40	Session 4	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#168: 4.1.2 / Explaining Model-Based Systems Engineering – Towards a Semiotic Perspective Eduard Kamburjan (IT University of Copenhagen); Johan Cederbladh (Mälardalen university) 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) Paper#214: 4.1.4 / Methodology for Model-Based Certification Jay Silverman, Holly Handley (Old Dominion University) 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)	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)
10:45	11:25			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 / Project Performance International John Fitch (Project Performance International); Francois Retief (Certification Training International)
11:30	12:10			Presentation#392: 4.2.3 / Qualifications, certifications, what's the point? How and why to formalize competency in your organization Lori Zipes (US DoD Navy)	Paper#401: 4.3.3 / Ontological definition of seamless digital engineering based on ISO/IEC 25000-series SQuaRE product quality model James Wheaton, Daniel Herber (Colorado State University)	Presentation#74: 4.4.3 / Enterprise Model of the Dynamic Targeting Process Using the Unified Architecture Framework (UAF) James Martin (Aerospace Corporation)	Paper#294: 4.5.3 / GenAi and RAG for Automated Traceability Jason Baker, Abe Hudson, Jason Baker (StrataSE)	Presentation#399: 4.6.3 / Transforming Decision-Making with AI and the DADM Framework Jared Smith (Deloitte Consulting); John DeHart (Avian INC)	Sponsor session#8: 4.7.3 / Purdue University
12:10	13:30	Lunch				Lunch			
				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	
13:30	13:55	Session 5	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 / DENTSU SOKEN INC. Takuma Ohnishi, Hidetaka Ishii, Takahiro MInami, Satoru Naraoka
14:00	14:25			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 Yılmaz (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)
14:30	14:55			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 Bergsjö (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 Kniewallner, Hannes Hick (Graz University of	Sponsor session#9: 5.7.3 / Measuring System Engineering Performance through Traceability Francis Trudeau (Jama Software)
15:00	15:30	Break							
			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	
15:30	15:55	Session 6	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 Yousseef, Carter Buss, Afrooz 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
16:00	16:25		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 (Connnecticut 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)
16:30	16:55		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 Starter Kit 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)

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	**P3 / Preparation for Spaceflight** **Dr. Robert Thirsk (Canadian Space Agency)**						
09:30	10:00	Break							
			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 Bellonc1e, Adam Williams	Greg Parnell	Paul Wach	Tami Katz, Jimmie McEver	
10:00	10:40	Session 7	Presentation#57: 7.1.1 / Value of Using Large Language Models in Building Software for Systems Mark Sherman (CMU SEI)	Paper#361: 7.2.1 / A Transformative Process for Model-Based Design Reviews Saulius Pavalkis, Peter Drozdzewicz (Dassault Systemes)	Paper#324: 7.3.1 / Analyzing Systems Engineering Vision 2035 Through a Cultural Lens 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)	Presentation#358: 7.4.1 / Secure Cyber Resilient Engineering: Methods and Tools Peter Beling (Virginia Tech); Tom McDermott (Stevens Institute of Technology)	Paper#6: 7.5.1 / A proposal for making an information model for an acquisition organization Simen Lunke (Norwegian Defence Materiel Agency); Satyanarayana Kokkula (University of South-Eastern Norway)	INCOSE Content#1047: 7.6.1 / How INCOSE is Advancing the Practice of Systems Engineering Tami Katz	Sponsor session#1214: 7.7.1 / SysMLv2 change management with version control and LemonTree 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 Raymond Madachy, Ryan Bell, Ryan Longshore (Naval Postgraduate School)	Paper#378: 7.2.2 / Systems Engineering Automation Through Artificial Intelligence (AI) and Natural Language Processing (NLP)-Based Software Xuan Chau, Brian Parrish (MITRE Corporation); Michael Cannizzaro (US Army Futures Command STE CFT)	Paper#233: 7.3.2 / CONFIGURATION MANAGEMENT AS A DRIVER FOR SUSTAINABILITY Sandrine Gonthier (INCOSE); Adriana D'Souza, Haydn Jones (AIRBUS)	Paper#146: 7.4.2 / Towards a greater understanding of Systems Design and Interoperability between Airbus Commercial and its Suppliers Maxime Varoqui (AIRBUS)	Paper#80: 7.5.2 / Boosting COSYSMO to derive a comprehensive Acquisition benchmarking tool Christer Froling (The REUSE Company)	INCOSE Content#1038: 7.6.2 / How are We Doing? FuSE Report Card on Realizing the Systems Engineering Vision 2035 Bill Miller	Sponsor session#1217: 7.7.2 / Ansys
11:30	12:10		Paper#389: 7.1.3 / Artist Intellectual Property Rights Protection & GenAI: A Systems Approach Jon Wade (University of California, San Diego); Dana Polojärvi (Maine Maritime Academy); Hortense Gerardo (University of California, San Diego)	Paper#373: 7.2.3 / A TMBR-based, Semiformal Method for Early Requirements Definition of Training Simulators Władysław Sowul (Military Aviation Works no. 2)	Presentation#374: 7.3.3 / SE, S and T: A Sociotechnical Systems Analysis of United States Scientific and Technical Policymaking Shelley Littin (University of Arizona)	Paper#273: 7.4.3 / Model-Driven Engineering for Modeling and Simulating Satellite Power Systems: A Case Study Daijin Hu, Yilong Yang, Peiye Yang (Beihang University); Jingwei Shang (Software Quality Engineering Research Center); Sheng Cheng (Software Engineering and Digitalization Center, China Manned Space Engineering)	Presentation#81: 7.5.3 / A Model-Based Framework for Assessing MOSA Value Delivery in DoD Acquisitions Richard Wise, Christopher Zeoli, Alton Schultheis (Georgia Tech Research Institute)	INCOSE Content#1041: 7.6.3 / AI for SE and SE for AI Ali Raz	Sponsor session#1219: 7.7.3 / Agent-Assisted Systems Engineering: How AI Agents Can Accelerate and Strengthen the V-Model Erez Kaminski (Ketryx)
12:10	13:30	Lunch							
				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 Kokkula	Hartmut Hintze	Tami Katz, Jimmie McEver	
13:30	13:55	Session 8	Panel#224: 8.1 / Bridging the Divide: Linking Architectural Specification and Verification by System Simulation 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);	Paper#283: 8.2.1 / Authoritative Broker of Truth (ABoT): Synchronizing Model-Based System Engineering with Cross-Disciplinary Simulation to Create Digital Twins Patrick Meharg, Scott James, Andrew Dudash (Noblis Inc.)	Presentation#90: 8.3.1 / Ensuring Safety in AI/LLM Systems for Open-Source Intelligence: An STPA-Guided Approach Timothy Davison, Matthew Walsh, Shing-Hon Lau (Carnegie Mellon University - Software Engineering Institute)	Paper#31: 8.4.1 / Digital Safety Analysis for Small Modular Nuclear Reactors (SMRs) Ron Claghorn, Peter Suyderhoud, Matt Lund, Kevin O'Rear (Idaho National Laboratory)	Paper#63: 8.5.1 / Innovation Engineering at Tesla – Agility as a Cultural Practice 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)	INCOSE Content#1039: 8.6.1 / Shaping the Future with Complex and Adaptive Systems Mike Watson, Andy Pickard (Co-Chair of the Complex Systems Working Group); Rob Vingerhoeds, Bill Brooks	Sponsor session#1223: 8.7.1 / TopTeam Corp
14:00	14:25			Paper#318: 8.2.2 / Semantically-Enabled Dashboards to Support Systems Engineers Joe Gregory (University of Arizona); Visalakshi Iyer, Alejandro Salado (The University of Arizona)	Paper#307: 8.3.2 / Ethical Human-AI Agent Interface Considerations Clayton Couch, Michael Miller (Air Force Institute of Technology)	Paper#248: 8.4.2 / Helping Future Nuclear Power Facilities Navigate Predatory & Hostile Environments: Insights from Systems Security Engineering Adam Williams (Sandia National Laboratories)	Presentation#68: 8.5.2 / Integration of Agile and Systems Engineering to Deliver Safety-Critical Cyber-Physical Systems Robin Yeman (Carnegie Mellon SEI); Suzette Johnson (Northrop Grumman)	INCOSE Content#1043: 8.6.2 / Conserving Energy as a Strategy for Dealing with Uncertainty and Dynamics in SE Rick Dove	Sponsor session#1221: 8.7.2 / Zuken Vitech: Reimagining MBSE Collaboration 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 Claribel Wendling (Colorado State University)	Paper#314: 8.3.3 / AI outperforms 60 se graduates in creating causal loop diagram of janis groupthink phenomenon Kirk Reinholtz, Kamran Eftekhari Shahroudi (Colorado State University)	Paper#343: 8.4.3 / Integrating Digital Engineering Needs into Physics-based Modeling and Simulation for Aircraft Power and Thermal Systems Daniel Herber (Colorado State University); Dominic Dierker, Brian Raczkowski (PC Krause & Associates); Nathaniel Butt, Soumya Patnaik (Air Force Research Laboratory, Wright-Patterson AFB)	Presentation#341: 8.5.3 / Beyond Traditional Engineering: Transformative Approaches for a Changing World Elena Gallego Palacios (Spain - AEIS)		Sponsor session#1218: 8.7.3 / Military Aviation Works no. 2 -- Polish Armaments Group Władysław Sowul (WZL2)
15:00	15:30	Break							
				Space Systems and Mission Engineering	**Architecture, Verification, and Asset Management**	**System-of-Systems and Multi-Agent Resilience**	**MBSE Adoption Challenges and Configuration**	**Tech Ops Track**	**SPONSOR TRACK**
				Nicole Hutchison	Alejandro Salado, Kirsten Helle	0	Ken Ptack	Tami Katz, Jimmie McEver	
15:30	15:55	Session 9	Panel#247: 9.1 / Cost Impacts of Generative AI in Systems Engineering Processes 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);	Paper#182: 9.2.1 / MissionDE: A Distributed Process Engine for Automated Mission Execution Hongyue Pan, Runkun Zhang, Aolang Wu, Tianyi Zhang, Yilong Yang (Beihang University)	Presentation#384: 9.3.1 / Solving the Selfish Octopus Problem with the Reusable Asset Specification (RAS) 3.0 Matthew Hause (SSI)	Paper#354: 9.4.1 / MilliSwarm: Leveraging Emergence for Energy Efficient Robotic Swarm Movement James Hand, Bryan Watson (Embry-Riddle Aeronautical University)	Paper#304: 9.5.1 / A Survey on MBSE Adoption Challenges in the INCOSE Asia and Oceania Sector Mohammad Chami (SysDICE GmbH); Marco Forlingieri (PTC); Habibi Husain Arifin (Assumption University); Quoc Do (KBR, Inc.)	INCOSE Content#1042: 9.6.1 / Addressing Sustainability through a new INCOSE Working Group Alain Dauron	
16:00	16:25			Paper#187: 9.2.2 / Customer Needs Elicitation Method for Business Architecture Design In Space Industry Hiroki Umeda, Yasushi Ueda (Japan Aerospace Exploration Ajency)	Paper#353: 9.3.2 / Modular Design Method Considering System Architecture in Maritime Radar System for Autonomous Ship Kazuhiro Aoyama, Bayanbat Shinekhuu (The University of Tokyo, Graduate School of Engineering)	Paper#120: 9.4.2 / Enhancing Healthcare Delivery through Systems of Systems Governance: A Multi-Layered Governance Framework Mohamed Mogahed, Mo Mansouri (Stevens Institute of Technology)	Paper#30: 9.5.2 / Navigating Innovation: MBSE Adoption at Turkish Aerospace Industries Aiste Aleksandraviciene (Dassault Systemes); Zilvinas Strolia (Dassault Systems); Özlem Erdener Sönmez, Gökan Pehlivanoğlu (TAI)	INCOSE Content#1045: 9.6.2 / Rally the Troops! The Secret Energy Driving All Innovation Ecosystems Bill Schindel	
16:30	16:55			Presentation#362: 9.2.3 / Robust Testing and Simulation Frameworks for Artificial Intelligence Systems in Spacecraft Operations Stephanie Anderson, Steven Simske (Colorado State University)	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 Alexander Busch (Ansys / NAFEMS INCOSE SMSWG); Christoph Edeler, Bernhard Kaiser, Rajagopalan Badrinarayanan, Hemesh Patil, Tushar Sambharam (Ansys)	Paper#391: 9.4.3 / Faulted Agent Resilience in Multi-Agent Systems: An Exploration of Two Ant Inspired Strategies James Hand, Bryan Watson (Embry-Riddle Aeronautical University)	Presentation#311: 9.5.3 / Configuration Management Challenges in Multi-Team Collaboration Using Linked Models David Hetherington, Mark Petrotta (System Strategy, Inc); Tomas Vileiniškis (Dassault Systèmes)	INCOSE Content#1044: 9.6.3 / Smarter Delivery of Infrastructure 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
		Session 10	**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 Layland (The Boeing Company)
09:45	10:25		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)); Šándor 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 Frecking (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 Weilkiens (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	Session 11	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);	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			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	**P4 / Let's Talk about SYSTEMS engineering...and get others to Listen** **Dr. William Donaldson (Christopher Newport University)**					