NDIA

25TH ANNUAL
SYSTEMS & MISSION
ENGINEERING CONFERENCE

November 1 – 3, 2022 | Orlando, FL | NDIA.org/SME

MONDAY, OCTOBER 31

1:00 – 5:00 PM

REGISTRATION
PENINSULA FOYER

TUESDAY, NOVEMBER 1

8:00 AM – 5:00 PM

REGISTRATION
PENINSULA FOYER

8:00 – 8:10 AM

OPENING REMARKS
PENINSULA 1-7

Holly Dunlap
Principal System Security Engineer, Cyber Supply Chain Risk Management, The MITRE Corporation
NDIA Systems Engineering Division Chair

The Hon. David L. Norquist
President and CEO, National Defense Industrial Association

8:10 – 8:40 am

KEYNOTE: SYSTEMS & MISSION ENGINEERING CAPABILITES
PENINSULA 1-7

Elmer Roman, SES
Director, Mission Integration, Mission Capabilities Office of the Under Secretary of Defense for Research and Engineering

8:40 – 9:10 am

NETWORKING BREAK
PENINSULA FOYER

9:10 – 9:40 am

LAY OF THE LAND & STRATEGIC INITIATIVE
PENINSULA 1-7

Chris Collins, SES
Executive Director, Developmental Test, Evaluation, and Assessments (ED, DTE&A), OUSD(R&E)

Dr. Sandra Hobson, SES
Deputy Director, Strategic Initiatives, Policy and Emerging Technologies Director, Operational Test and Evaluation Office of the Secretary of Defense

DIGITAL TRANSFORMATION IN SUPPORT OF TEST & EVALUALTION PANEL
PENINSULA 1-7

Dr. Laura Freeman
Deputy Director, Virginia Tech National Security Institute, Assistant Dean for Research, College of Science
Moderator

Chris Collins, SES
Executive Director, Developmental Test, Evaluation, and Assessments (ED, DTE&A), OUSD(R&E)

Dr. Sandra Hobson, SES
Deputy Director, Strategic Initiatives, Policy and Emerging Technologies Director,
Operational Test and Evaluation Office of the Secretary of Defense

Mark Kassan
Technical Director, Engineering and Technical Management Directorate, Air Force Nuclear Weapon Center
Tentative

Policarpio Sorbanis
Engineering Manager, Aeronautics Sector

David Harrison
Associate Fellow, Space, Lockheed Martin

Chris Carhart
Senior Engineer, Boeing Company

AWARD CERMONY
PENINSULA 1-7

Holly Dunlap
NDIA Systems Engineering Division Chair
Award Presenter

BOB RASSA EXCEPTIONAL SERVICE AWARD
Bob Rassa
Awardee

Robert Scheurer
Systems Engineering / Technical Fellow Boeing Defense, Space, & Security - St. Louis
Awardee

LT GEN THOMAS R. FERGUSON AWARD
Rolf Siegers
Engineering Fellow, RTX Corporate Architecture Board
Individual Award Winner

Object Management Group Space Domain Task Force &
INCOSE Space Systems Working Group CubeSat Systems Reference Model Team
Group Award Winner

TESTER OF THE YEAR AWARDS
Jeff Bilco
Senior Manager, Boeing Test & Evaluation, Engineering Strategy, Technology & Initiatives
Chair Test & Evaluation Division, NDIA
Award Presenter

Chris Collins
Executive Director, Developmental Test, Evaluation, and Assessments (ED, DTE&A), (OUSD(R&E))
Award Presenter

THE WALTER W. HOLLIS AWARD
Jeff Bilco
Chair Test & Evaluation Division, NDIA
Award Presenter

Mike Rabens
Chair Industrial Committee on Operational Test & Evaluation, NDIA
Award Presenter

Hon Bob Behler
Awardee

11:25 am - 12:25 pm

LUNCH BREAK
PENINSULA 1-7

12:25 – 1:10 pm

FEATURED SPEAKER
PENINSULA 4

Dr. Tim Grayson
Special Assistant to the Secretary of the Air Force

1:10 – 1:55 pm

CHINA AEROSPACE STUDIES INSTITUTE UPDATES
PENINSULA 4

Dr. Brendan Mulvaney
Director, China Aerospace Studies Institute

1:55 – 2:55 pm

SYSTEMS ENGINEERING TRANSFORMATION IN THE DIGITAL WORLD
PENINSULA 4

Holly Dunlap
Principal System Security Engineer, Cyber Supply Chain Risk Management, The MITRE Corporation
Moderator

Chris Schreiber
Chief Engineer, Information Technology & Digital Enablement, LM Space Systems Company

Dr. Katrina Mansfield
S&T Deputy Director, Acting, Acquisitions and Systems, Army Futures Command

Christopher Garrett
Technical Advisor for Architectures, AFLCMC/EN-EZ

Allan Dianic
Director, Software Engineering, SE&A OUSD (R&E)

Chris DeLuca
Director, Specialty Engineering, SE&A, OUSD (R&E)

2:55 – 3:10 pm

NETWORKING BREAK
PENINSULA FOYER

The NDIA has a policy of strict compliance with federal and state antitrust laws. The antitrust laws prohibit competitors from engaging in actions that could result in an unreasonable restraint of trade. Consequently, NDIA members must avoid discussing certain topics when they are together at formal association membership, board, committee, and other meetings and in informal contacts with other industry members: prices, fees, rates, profit margins, or other terms or conditions of sale (including allowances, credit terms, and warranties); allocation of markets or customers or division of territories; or refusals to deal with or boycotts of suppliers, customers or other third parties, or topics that may lead participants not to deal with a particular supplier, customer or third party.

CONCURRENT BREAKOUT SESSIONS

TRACK NAME	1A1 – Digital Engineering	1A2 – Architecture / MOSA	1A3 – Mission Engineering / System of Systems	1A4 – System Security Engineering	1A5 – Test & Evaluation
ROOM	PENINSULA 1-3	PENINSULA 4	PENINSULA 5-7	BISCAYNE 1-2	CANAVERAL 2-3
MODERATOR	John Daly & Chris Schreiber	Bob Scheurer & Rebecca Hicks	Dr. Judith Dahmann	Cory Ocker	Jeff Bilco & Mike Rabens
3:10 – 3:40 pm	DE-24798 Digital Engineering Strategy for DHS **Yonas Nebiyeloul-Kifle** Senior Advisor Department of Homeland Security **Kerry Wilson** Deputy Director Department of Homeland Security, Under Secretary of Science and Technology, Office of Science & Engineering	Arch/MOSA-24810 Implementing an ARINC 661 CDS with MOSA **John Macauley** Manager, Application Engineering Ansys	ME/SOS-24789 Mission Engineering – Panel **Dr. Judith Dahmann** Technical Fellow, The MITRE Corporation *Moderator* **Elmer Roman** Director, Mission Integration Office of the Under Secretary of Defense for Research and Engineering **Nicole Hutchison** Principal Investigator Systems Engineering Research Center **Tom McDermott** Research Director Stevens Institute of Technology **John Daly** Chief Engineer Booz Allen Hamilton **Dr. Peter Korfiatis** Department Manager, Systems Engineering Innovation Center MITRE Corporation	SSE-24774 System Security Committee & Track Welcome **Cory Ocker** System Security Engineer Raytheon Technologies	Test & Evaluation -ICOTE Invitation Only
3:40 – 4:10 pm	DE-24571 Digital Engineering Trade Study Example: NASA Ranger Program **Mark Payton** Digital Engineer SAIC	Arch/MOSA-24660 A Model-Based Approach to Evaluating Architecture Specifications for MOSA Compliance **Dr. Awele Anyanhun** Senior Research Systems Engineer Georgia Tech Research Institute		SSE–24760 Program Protection and Secure Cyber Resilient Engineering Initiatives **Melinda Reed** Systems Security Director OUSD (R&E)	
4:10 – 4:40 pm	DE – 24612 Lessons Learned on Data, Systems, and Organization modeling in UAF **Charles Stirk** Senior Research Engineer GTRI			SSE-24594 Joint Federated Assurance Center Modernization 2022 **Brian Nowotny** JFAC Director OUSD(R&E) **Dr. Mark Winstead** Systems Security Engineering Department, Chief Engineering MITRE	
4:40 – 5:10 pm	DE-35000 Digital Engineering the Next Chapter **Daniel Hettema** Director, Digital Engineering Modeling & Simulation OUSD (R&E)				

5:10 pm	**RECEPTION**

WEDNESDAY, NOVEMBER 2

CONCURRENT BREAKOUT SESSIONS

TRACK NAME	2A1 – Digital Engineering	2A2 – Architecture/MOSA	2A3 – Mission Engineering / System of Systems	2A4 – System Security Engineering	2A5 – Test & Evaluation / Program Management
ROOM	PENINSULA 1-3	PENINSULA 4	PENINSULA 5-7	BISCAYNE 1-2	CANAVERAL 2-3
MODERATOR	John Daly & Chris Schreiber	Ed Moshinsky & Mike Franco	Dr. Judith Dahmann	Cory Ocker	Jeff Bilco
8:00 – 8:30 am	Agile-24812 Challenges and Success Patterns to Delivering Capabilities Faster **Dr. Suzette Johnson** NG Fellow, Lean Agile Northrop Grumman **Robin Yeman** Chief Technical Officer Catalyst Campus for Technology & Innovation	Arch/MOSA-24764 Preview of an Enterprise Product Architecture (EPA) to Support a Modular Open Systems Approach (MOSA) **Dr. Thomas DuBois** CTO JHNA	ME/SOS-24791 NDIA Systems Engineering Division Mission Engineering Initiative **Dr. Judith Dahmann** Technical Fellow The MITRE Corporation	SSE-24589 Office of the Under Secretary of Defense for Research and Engineering Software Assurance Roadmap **Steven Grice** Software Assurance Technical Director OUSD (R&E)	T&E-24509 Automation of Test Case Generation and Software System Modelling **Dr. Michael Lingg** Principal Computer Engineer Array Of Engineers
8:30 – 9:00 am	DE-24510 Collaborative Modeling - Agile Model-Based Systems Engineering **Ken Kubo** Director, Engineering Technologists Northrop Grumman Space Systems	Arch/MOSA-24597 An Update to the Comprehensive Architecture Strategy (CAS) and its Supporting Architecture Body of Knowledge **Scott Wigginton** Experimental Developer U.S. Army DEVCOM AvMC	ME/SOS-24795 Mission Engineering and Complexity **Dave Chesebrough** Vice President Government, Defined Business Solutions	SSE–24595 A Comprehensive Look at Software Assurance Through DevSecOps **Bradley Lanford** Systems Security Contract Support OUSD(R&E)	T&E-24512 Advancing M&S in Acquisition Test and Evaluation **Dr. Jason Daly** Department Chief Engineer, Defense Systems Engineering MITRE
9:00 – 9:30 am	DE-24657 Leveraging Model-Based Systems Engineering Tools and Techniques to Build Enterprise Knowledge Models **Patrick Bains** Lead Systems Engineer Booz Allen Hamilton	Arch/MOSA-24609 A MOSA for Directed Energy Weapon Systems **Walter Roscello** Lead Scientist U.S. Navy	ME/SOS-24797 Relationship of Mission Engineering to Systems of Systems Engineering **Dr. Judith Dahmann** Technical Fellow The MITRE Corporation	SSE-24593 Secure Cyber Resilient Engineering (SCRE) Design Code **Melinda Reed** Systems Security Director OUSD (R&E)	SSE-24518 Summary of the Ongoing OUSD DT&E Cyber Analytics Landscape Task **Sarah Standard** Cybersec/Interop Tech Dir D DTE&A OUSD (R&E)

9:30 – 10:00 am	**BREAK**				
TRACK NAME	**2B1 – Digital Engineering**	**2B2 – Architecture/MOSA**	**2B3 – Mission Engineering / System of Systems**	**2B4 – System Security Engineering**	**2B5 – Test & Evaluation / Program Management**
ROOM	Peninsula 1-3	Peninsula 4	Peninsula 5-7	Biscayne 1-2	Canaveral 2-3
MODERATOR	John Daly & Chris Schreiber	Ed Moshinsky & Mike Franco	Dr. Judith Dahmann	Cory Ocker	
10:00 – 10:30 am	DE-24524 Accelerating Digital Transformation of Engineering: Progress by the NDIA / INCOSE DEIX Working Group (DEIXWG) **Sean McGervey** Director, Model-Based Enterprise Dassault Systems	Arch/MOSA-24770 Achieving MOSA Benefits: "A Decision Framework for Choosing MOSA Metrics" **Steve Henry** Professor DAU	ME/SOS-24653 Context is Everything! **Matthew Hause** Principal System Strategy, Inc.	SSE-24471 Accelerating Modernization of Software Systems Engineering with a Special Emphasis on the New Version of IEEE SWEBOK (v.4.0) and the New Software Security Knowledge Area **Dr. Kenneth Nidiffer** Professor George Mason University	T&E-24631 Technical Debt as a Potential Leading Indicator for Test and Evaluation **Zakaria Ouzzif** Chief Engineer Raytheon Technologies
10:30 – 11:00 am	DE-24604 Digital Engineering Standardization - Current Landscape and Future Development **Celia Tseng** Sr Manager A&D Industry Dassault Systems	Arch/MOSA-24517 Digital Engineering Tool Selection Criteria **Frank Salvatore** Senior Systems Engineer OUSD (R&E)	ME/SOS-24538 The Israel Air Force take on System of Systems Engineering for International Platform Integration **Maj Tzvika Kaminsky** Chief System Engineer Israel Air Force	SSE-24540 Using Product Cybersecurity to Implement Software Assurance **Randall Brooks** Principal Engineering Fellow Raytheon Technologies	T&E – 24637 The Evolution of Systems Verification and Validation in Vehicle Simulation Modeling at ERDC **Dr. Jessica Lyons** Research Social Scientist Engineer Research Development Center
11:00 – 11:30 am	DE-24763 How to "Digital Viewpoint Model (DVM) **Ken Zhang** MBSE Chief Engineer for the Space and Airborne Systems Sector L3Harris	Arch/MOSA-24568 Don't Play the Telephone Game: Ensuring Architectural Fidelity **Michael Vinarcik** Director SAIC	ME/SOS – 24535 Applied Digital Engineering – A Case Study in Using Space System Architectures to Understand Program and Mission Risks **Lauren Hale** Sr. Engineering Specialist System of Systems Engineering Office The Aerospace Corporation	SSE-24759 Application of Marking and Distribution Statements on Controlled Technical Information **Melinda Reed** Systems Security Director OUSD (R&E)	PM – 24784 Systems Engineering Planning and Architecture Challenges In an Agile Culture **Gordon Kranz** Chief Engineer Enlightened IPM

11:30 am – 12:00 pm	DE-24483 Adventures in Building a Digital Engineering Ecosystem **Julie DeMeester** Engineering Fellow Raytheon Technologies	Arch/MOSA-24519 Agile/MOSA/Microservice Architectures – Stronger Together **Kurt Mohr** Engineering Fellow Raytheon	ME/SOS-24794 Applying Mission Engineering to the U.S. Department of Defense Rapid Defense Experimentation Reserve **Dr. Judith Dahmann** Technical Fellow The MITRE Corporation	SSE - 24678 Risk and Issue Revisited in Systems Security Engineering **Dr. Mark Winstead** Chief Engineer, System Security The MITRE Corporation	PM – 24674 A Retrospective on Model-based Systems Engineering in Undergraduate Engineering Education **LT Col Jeff Newcamp, USAF** Director United States Air Force Academy's Systems Engineering Program
12:00 – 1:00 pm	**LUNCH BREAK**				

TRACK NAME	2C1 – Digital Engineering	2C2 – Architecture/MOSA	2C3 – Mission Engineering / System of Systems	2C4 – System Security Engineering	2C5 – Program Management
ROOM	PENINSULA 1-3	PENINSULA 4	PENINSULA 5-7	BISCAYNE 1-2	CANAVERAL 2-3
MODERATOR	John Daly & Chris Schreiber	Laura Hart & Tamara Hambrick	Dr. Judith Dahmann	Cory Ocker	
1:00 – 1:30 pm	DE-24792 Improved Data Fusion in Digital Twins: A Requirements Analysts **Laura Hugill** Analyst Department of Defense	Arch/MOSA-24548 DoD MOSA Implementation Guidance **Nadine Geier** Director Systems Engineering OUSD (R&E)	ME/SOS-24435 Model-Based Capability Planning and Enterprise Portfolio Management **Dr. James Martin** Aerospace Corporation, UAF Revision Task Force with OMG	SSE – 24761 Addressing Critical Program Information Challenges **Randy Woods** SSE & Anti-Tamper Director OUSD(R&E)	PM-24515 A Rocket Scientist's Approach to Continuous Innovation and Improvement **Andy Inkeles** Risk and Innovation Lead USSF National Security Space Launch Program
1:30 – 2:00 pm	DE-24677 Application of the Digital Thread Through the Digital Engineering Framework for Integration and Interoperability **Daniel Dunbar** Research Assistant Stevens Institute of Technology	Arch/MOSA-24572 Architecting Deep Learning Models to Enable AI Capability to Complex Adaptive Systems Architectures **Richard Threlkeld** PhD Student University of Missouri, Science and Technology	ME/SOS-24646 An Enterprise Portfolio Management Framework for Mission Planning, Engineering, and Acquisition **Dr. Warren Vaneman** Professor of Practice Naval Postgraduate School	SSE-24591 Secure Cyber Resilient Engineering (SCRE) Practice **Melinda Reed** Systems Security Director OUSD (R&E)	PM-24619 From Lessons Learned to Lessons Applied: A Digital Paradigm Shift **Paul Wach** Senior Engineer Virginia Tech

2:00 – 2:30 pm	DE-24776 Digital Twin to Detect Nuclear Proliferation: A Case Study **Christopher Ritter** Director, DICE/Dept Manager, Digital Eng. Idaho National Laboratory	Arch/MOSA-24816 Long Term Trends in Security Threats and an Approach for Integrating Them into System Architecture and Design **Larri Rosser** Engineering Fellow Raytheon Intelligence and Space	ME/SOS-24667 Mission Engineering-based Portfolio Management **Dan DeLaurentis** Professor Purdue, University's School of Aeronautics and Astronautics	SSE-24676 Where to Step – A Guide to Minefield of Modeling Complex Security Systems **Mitchell Brooks** Cyber Systems Engineer System Security, Inc.	PM-24641 Can Systems Engineering Enhance Policy Development? **Dr. Steven Dam** President and COO SPEC Innovations
2:30 – 3:00 pm	**BREAK**				

TRACK NAME	2D1 – Digital Engineering	2D2 – Architecture / MOSA	2D3 – Mission Engineering / System of Systems	2D4 – System Security Engineering	2D5 - Physics Based Model Simulation
ROOM	PENINSULA 1-3	PENINSULA 4	PENINSULA 5-7	BISCAYNE 1-2	CANAVERAL 2-3
MODERATOR		Laura Hart & Tamara Hambrick Scheurer	Dr. Judith Dahmann	Cory Ocker	David Allsop
3:00 – 3:30 pm	DEIXWG Workshop **Sean McGervey** Director, Model-Based Enterprise Dassault Systems **Risa Gorospe** Solutions Consultant, CATIA No Magic, Dassault Systems Technical Lead, INCOSE Digital Engineering Information Exchange Working Group (DEIXWG) **Ken Zhang** MBSE Chief Engineer for the Space and Airborne Systems Sector L3Harris **Celia Tseng** Sr Manager A&D Industry Dassault Systems	Arch/MOSA-24552 SE Modernization Across the Program Lifecycle **Nadine Geier** Director Systems Engineering, OUSD (R&E)	ME/SOS-24778 Mission Engineering Applied to System of Systems Architecture Analysis **Dr. Peter Korfiatis** Department Manager The MITRE Corporation	SSE–24526 Cyber Supply Chain Risk Management (C-SCRM) a System Security Engineering Role in the Future of Systems Engineering **Holly Dunlap** Principal System Security Engineer Cyber Supply Chain Risk Management The MITRE	PBMS-24613 Machine Learning-Based Surrogate Modeling of Human Vehicular Vibrational Injuries **Will Kirkpatrick** Graduate Research Assistant Mississippi State University
3:30 – 4:00 pm		Arch/MOSA-24516 Architecting for the Cloud: A SysML-Based Profile for Cloud Deployments **Jonathan Backhaus** Engineering Fellow ManTech International Corporation	ME/SOS–24606 Digital Threads: Benefits, Challenges, And Practices **Eran Gery** Solutions Architect IBM	SSE-24607 Building Hardware Assurance with Trusted Suppliers: Creating Multi-layered Security **Dave Chesebrough** Vice President Government Defined Business Solutions	PBMS– 24785 Incorporating Technical Measures of Performance into Project Metrics **Nick Pisano** President and CEO SNA Software, LLC
4:00 – 4:30 pm		Arch/MOSA-24504 Eight Components of an Autonomous, Self-Healing System **Matthew Kehret** CTO, Senior Director Technology, Integratison & Accel Raytheon Missiles and Defense, Digital Technology	ME/SOS-24611 Method for Developing SoS Architectures using SysML Model Federation **Chris Swickline** Digital Engineer SAIC	SSE–24490 Criticality of Software Supply Chain Security **Alan Hohn** Director, Software Strategy Lockheed Martin	
4:30 – 5:00 pm		Arch/MOSA-24544 Modeling a Space Launch System Using the Unified Architecture Framework (UAF) **Logan Mitchell** Junior Systems Engineer Quantum Research International	ME/SOS-24582 Operationally Responsive Mission Engineering (ORME) **Ray Etter** President/Chief Engineer TerraConcepts, LLC	SSE – 24815 Capability-Based Security Engineering for Strategy Formulation and Stakeholder Alignment **Rick Dove** Independent Strategist	

THURSDAY, NOVEMBER 3

CONCURRENT BREAKOUT SESSIONS

TRACK NAME	3A1 – System Security Engineering / Digital Engineering	3A2 – Architecture/MOSA	3A3 – Specialty Engineering / Safety & Environmental Engineering	3A4 –Agile	3A5 – Physics Based Model Simulation
ROOM	PENINSULA 1-3	PENINSULA 4	PENINSULA 5-7	BISCAYNE 1-2	CANAVERAL 2-3
MODERATOR	John Daly & Chris Schreiber	Ed Moshinsky & Karl Shephard	Tim Sheehan & Diane Dray	Ken Kubo	David Allsop
8:00 – 8:30 am	SSE-24777 Implementing Software Bill of Materials (SBOM) in DoD Acquisition **Bradley Lanford** Systems Security Contract Support OUSD(R&E)	Arch/MOSA-24817 Standardization of Model Based Acquisition (MBAcq) **Laura Hart** Engineering Research Engineer Lockheed Martin	SE/SEE-24586 DoD Sustainability Program and the DoD Sustainable Technology Evaluation and Demonstration (STED) Program **David Asiello** Director of Sustainability & Acquisition OASD EI&E	Agile–24491 Starting the Transition From DevOps to DevSecOps **Allan Matthews** Senior Principal Software Engineer Raytheon Technologies	PBMS-24698 Progress Towards Improving the Models in Model Based Systems Engineering with High Fidelity Physics **Dr. Scott Morton** Associate Director for CREATE DoD HPCMP
8:30 – 9:00 am	SSE-24771 Missing In Action: Mission Impact Assessment **Teresa Merklin** Cyber Fellow Lockheed Martin Aeronautics	Arch/MOSA-24638 Can Data-Driven Systems Engineering Meet the Goals of SE Modernization? **Dr. Steven Dam** President & COO SPEC Innovations	SE/SEE-24511 Data Centricity: Multi-Directional Flow of Specialty Engineering Data Throughout the Life Cycle **Chris DeLuca** Director for Specialty Engineering OUSD (R&E)		E&T-24610 Competency-Based Online Education Using AFIT's Avolve Application **Richard Sugarman** Department Head Air Force Institute of Technology
9:00 – 9:30 am	DE-24657 Leveraging Model-Based Systems Engineering Tools and Techniques to Build Enterprise Knowledge Models **Patrick Bains** Lead Systems Engineer Booz Allen Hamilton	Arch/MOSA-24679 Standardized Analytic Viewpoint Overlays (AVOs) **Laura Hart** Engineering Research Engineer	SE/SEE-24649 Regulatory and Sustainability Challenges for the Automotive Industry **Drew Rak** Program Manager Toyota Motor North America	Agile-24514 Software Science & Technology Strategic Vision, Goals, and Focus Areas **Allan Dianic** Director, Software Engineering & Prototyping, OUSD (R&E)	E&T – 24545 Systems Engineering Modernization (SE MOD) Key Enablers for System Development on DoD Programs **Dr. Robert Raygan** Prof. of Engineering Mgmt., DAU CNE Defense Acquisition University
9:30– 10:00 am	**BREAK**				

TRACK NAME	3B1 – Digital Engineering	3B2 – Architecture/MOSA	3B3 – Specialty Engineering / Safety & Environmental Engineering	3B4 – Agile	3B5 – Education & Training
ROOM	PENINSULA 1-3	PENINSULA 4	PENINSULA 5-7	BISCAYNE 1-2	CANAVERAL 2-3
MODERATOR	John Daly & Chris Schreiber	Ed Moshinsky & Karl Shephard	Tim Sheehan & Diane Dray	Ken Kubo	Dr. Robert Raygan
10:00 – 10:30 am	DE-24658 Transforming Systems Engineering Reviews **Toni Nolder** Space Architecture Department Aerospace Corporation	Arch/MOSA-24672 Dynamic Capability Investment for Emerging Missions **Mike Franco** Chief Architect, Processes & Tools Chief Architect Boeing Defense, Space & Security	SE/SEE-24622 Implementation Guide: Model-Based Systems Engineering (MBSE) for System Safety **Trung Hoang** Safety Engineer Naval Ordnance Safety & Security Activity (NOSSA)	Agile-24525 Defining a Measurement Framework for Digital Engineering **Tom McDermott** Research Director Stevens Institute of Technology	E&T-24636 Implementing SysML 2.0 – Part 2 **Michael Campbell** Senior Systems Engineer, Manager of Innovation SPEC Innovation
10:30 – 11:00 am	DE-24551 Analyzing Digital Engineering Data: Transforming the Way We Think About Model Reviews **Heidi Jugovic** Digital Engineer Chief SAIC	Arch/MOSA-24808 Model For a Purpose: Scoping an Architecture Model Using the ASDP Digital Transformation Contract Language **Brad Kukurza** Systems Engineering Manager The Boeing Company	SE/SEE-24675 Sustainability Analysis in the Adaptive Acquisition Framework **Michael Bruckner** Principal Engineer Manager Noblis	Agile-24559 Agile and DevSecOps in the DoD Space Acquisition Environment **Dr. Michael Orosz** Research Associate Professor and Research Director USC Information Sciences Institute	E&T-24584 When Worlds Collide: Leveraging MBSE/SysML for DoDAF Architectures in Programs and Formal Requirements **Maj Brandon Froberg, USAF** Chief Integration & Interoperability Branch Air Force Special Operations Command

11:00 – 11:30 am	DE-24663 Solution Debt in the Age of Digital Engineering **Dr. Heidi Davidz** Intelligent Systems Engineering SME **ManTech International Corporation**	Arch/MOSA-24651 Modeling System Configurations Over Time **Matthew Hause** Principal System Strategy, Inc.	SE/SEE-24521 Strategic Alternate Sourcing Program Office (SASPO): Alternate Sourcing and Diminishing Manufacturing Sources and Material Shortages **Jerry Zamora** Chief, Strategic Alternate Program Office 448th Supply Chain Management Wing	Agile-24684 Digital Transformation in NSSL Quality Engineering: Establishing the Digital Data Chain Framework through the Provenance Chain Transparency Platform **Maj Juan Mayssonet** NSSL Quality Engineering Branch Launch Enterprise	SEMOD Panel **Dr. Robert Raygan** Prof. of Engineering Mgmt., DAU CNE Defense Acquisition University
11:30 am – 12:00 pm	DE-24750 Modeling Information to Support Systems Engineering Technical Reviews Based on DOD Data Item Descriptions (DIDs) **Robert Wojcik** Senior Member of the Technical Staff CMU/SEI	Arch/MOSA-24639 What is Systems Engineering? **Dr. Steven Dam** President & COO SPEC Innovations	SE/SEE 24696 Using Model Based System Engineering to Identify Safety Critical Functions in Airworthiness Certifications **Capt Jeff King, USAF** Instructor of Systems Engineering Air Force Institute of Technology	Agile-24693 Integrating Elements of Digital Engineering into Agile Software Acquisition Training **Curtis Jefferson** Software Tech Expert HA AFMC DoE Systems Engineering Division	
12:00– 1:00 PM	**LUNCH ON OWN**				

TRACK NAME	3C1 – Digital Engineering	3C2 – Architecture / MOSA / Program Management	3C3 – Specialty Engineering / Safety & Environmental Engineering	3C4 – Agile	3C5 - Education & Training
ROOM	PENINSULA 1-3	PENINSULA 4	PENINSULA 5-7	BISCAYNE 1-2	CANAVERAL 2-3
MODERATOR	John Daly & Chris Schreiber	Bob Scheurer & Rebecca Hicks	Tim Sheehan & Diane Dray	Ken Kubo	Dr. Robert Raygan
1:00 – 1:30 pm	DE-24577 Architecting the Digital Thread Enabling the Digital Transformation (DTx) of Raytheon Missiles and Defense **Tara Trumbull** Senior Principal Systems Architect **Deborah Thomas** Senior Principal Systems Engineer Raytheon Missiles and Defense	Arch/MOSA-24799 An Acquisition System Meta Model **Chris Garrett** Senior Leader U.S. Air Force	SE/SEE-24755 Poly-fluorinated Alkyl Substances Primer and Update **Col Tim Sheehan, BRANCH (Ret)** Engineering Fellow Raytheon Technologies	Agile-24605 Exploring the Enablers of Post-Production Change for Flexible System Design **Aditya Singh** NSF Research Traineeship Fellow The George Washington University	E&T-24775 2022 SSE Workforce Development Sampling and Feedback Analysis **Matthew Lee** System Security Engineer Raytheon Technologies
1:30 – 2:00 pm	DE-24685 Ready One: Delivering Digital Engineering and the Digital Thread **David Ewing, Jr.** Director Digital Engineering Digital Thread & Tool Federation Leader Engineering Innovation Factory SAIC	Arch/MOSA-24804 The Intellectual Property (IP) Thread in Digital Engineering and Acquisition implementation in the Department of Defense (DoD) **John Daly** Chief Engineer Booz Allen Hamilton	SE/SEE-24682 Regulation Impacts and Management Steps of Hydrofluorocarbons (HFCs) Drawdown for the U.S. Department of Defense (DoD) and Defense Industrial Base (DIB) **Dr. Kari Meier** Greenhouse Gases & Sustainable Chemistry (ODASD (E&ER))	Agile-24520 Codemmandos: Empowering Agile/ DevSecOps Citizen Developers with No-code & Scripting **Maj Brandon Froberg, USAF** Chief Integration & Interoperability Branch Air Force Special Operations Command	
2:00 – 2:30 pm	DE-24506 Creating a Digital Foundation Through the Development of a Digital Thread **Cathrin McCaghren** Systems Engineer Raytheon Missile Defense		SE/SEE-24627 Impacts to the U.S. Department of Defense and Defense Industrial Base from the Toxic Substances Control Act **Dr. Patricia Underwood** Director, Chemical & Material Risk Management ODASD (EI&E)	Agile-24522 System Test Verification: The Digital Thread Lynchpin Between Systems Engineering Requirements Development and Software Deployment **Yvonne Green** Senior Manager Software Engineering Raytheon Technologies	E&T-24596 Cross Domain Solutions Tutorial **Burhan Adam** Policy Guidance & Standards Director OUSD (R&E)
2:30 – 3:00 PM	**BREAK**				

TRACK NAME	3D1 – Digital Engineering	3D2 – Project Management / Mission Engineering / System of Systems	3D3 – Specialty Engineering / Safety & Environmental Engineering	3D4 – Agile	3D5 – Education & Training
ROOM	PENINSULA 1-3	PENINSULA 4	PENINSULA 5-7	BISCAYNE 1-2	CANAVERAL 2-3
MODERATOR	John Daly & Chris Schreiber		Tim Sheehan & Diane Dray	Ken Kubo	Dr. Robert Raygan
3:00 – 3:30 pm	DE-24528 Converging MBSE Methodology **Ryan Noguchi** Senior Engineer Specialist, Space Architecture Department The Aerospace Corporation		SE/SEE-24680 Joint System Safety Standards Working Group MIL-STD-882E Initiative **Lori Hales** Senior Acquisition ESOH Analyst Booz Allen Hamilton		E&T-24541 A Digital Twin Simulation Equivalence Principle **Richard Boyd** CEO Ultisim, Inc.
3:30 – 4:00 pm	DE-24556 Utilizing Automation and Ontologies to Design, Deploy, and Sustain an Effective Model Governance Program **Dr. Heidi Davidz** Intelligent Systems Engineering SME ManTech International Corporation		SE/SEE-24474 How to Use Physics-based Digital Human Models Early In Systems Design and During Test and Evaluation **Travis Klofenstein** Executive Director for Programs University of Iowa Technology Institute		E&T-24617 Simulation Training Environment for Digital Engineering **Paul Wach** Senior Engineer Virginia Tech
4:00 – 4:30 pm	DE-24575 MBSE Model Management Pain Points – Wait, this looks familiar! **Barry Papke** Industry Process Success Team, Senior Manager Dassault Systems – CATIA/No Magic		SE/SEE-24647 Hybrid Digital Twin Technology for Predictive Maintenance **Reni Raju** Director, Business Development – FA&D Ansys		
4:30 – 5:00 pm	DE-24642 A Common Ontology: The Rosetta Stone for Exchanging Data between Different Digital Engineering Tools, Languages, and Frameworks **Dr. Warren Vaneman** Professor of Practice Naval Postgraduate School				