NDIA
AT THE HEART OF THE MISSION

2020 VIRTUAL
SYSTEMS & MISSION ENGINEERING CONFERENCE

November 10, 12 – 13, 2020 | NDIA.org/VirtualSME

AGENDA

TUESDAY, NOVEMBER 10

9:00 am – 9:15 am

OPENING REMARKS

Joe Elm
Chair, Systems Engineering Division, National Defense Industrial Association (NDIA)

Bob Rassa
Director, Engineering Programs, Raytheon Intelligence and Space
Conference Chair, Systems Engineering Division, NDIA

9:15 – 10:15 am

KEYNOTE ADDRESS

Dr. Sandra H. Magnus, PhD
Deputy Director for Engineering, Office of the Under Secretary of Defense for Research and Engineering (OUSD(R&E))

10:15 –10:20 am

SPEAKER TRANSITION

10:20 am – 12:05 pm

EXECUTIVE PLENARY PANEL: SERVICE AND AGENCY SYSTEMS ENGINEERING LEADS

Dr. Sandra H. Magnus, PhD
Deputy Director for Engineering, Office of the Under Secretary of Defense for Research and Engineering (OUSD(R&E))
Moderator

Jeannette Evans-Morgis, Army
Chief Systems Engineer, Assistant Secretary of the Army for Acquisition, Logistics, and Technology (ASA(ALT))

John Fiore, Navy
Chief Engineer (Acting), Assistant Secretary of the Navy for Research, Development, and Acquisition (ASN(RDA))

Kristen J. Baldwin, Air Force
Deputy Assistant Secretary of the Air Force (Science, Technology, and Engineering)

Dennis Mays, MDA
Director for Engineering (A), Missile Defense Agency

12:05 – 12:30 pm

AWARDS PRESENTATION

CONCURRENT BREAKOUT SESSIONS

	2C1 – Digital Engineering	2C2 – Engineered Resilient Systems	2C3 – Agile Systems AQEngineering	2C4 – Systems of Systems
1:00 – 1:30 pm	23064 INCOSE Model-Based Enterprise Capabilities Matrix – For Organizational Assessments **Al Hoheb** Senior Systems Engineer, The Aerospace Corporation	23427 DARPA CRANE Program Philosophy **Dr. Alexander "Xander" Walan** DARPA Tactical Technology Office (TTO) Program Manager	23470 Enabling the Future for Agile in Defense Systems: ADAPT Strategic Plan **Dr. Suzette Johnson** Enterprise Lean-Agile Strategic Lead, Northrop Grumman	23255 Leveraging Set-Based Practices to Enable Efficient Concurrency in Large Systems and Systems-of-Systems Engineering **Brian Kennedy** Co-Founder and Chief Technical Officer, Targeted Convergence Corporation
SPEAKER SWITCH/BREAK				
1:35 – 2:05 pm	23206 I want it now! ... Mature Digital Engineering Capabilities Deployable Today **Christopher Finlay** Digital Engineering Director, SAIC	23402 Hypersonics Design Engineering **Dr. Justin Foster** Research Mechanical Engineer, U.S. Army ERDC Information Technology Lab	23062 Adopting DevSecOps in Defense Systems: Systems Engineering Considerations **Dr. Richard Turner** Senior Software Engineer, Carnegie Mellon University/SEI	23058 A Pattern-Based Approach to the Development of Systems of Systems Using the Unified Architecture Framework (UAF) 1.1 **Eran Gery** IBM UK Ltd.
SPEAKER SWITCH/BREAK				
2:10 – 2:40 pm		23401 Data Architecture and Strategy to Support Engineering Design **David Stuart** Associate Technical Director, Engineered Resilient Systems	22989 DevSecOps – Software Development in the Next Generation DoD **Joseph McKairnes** Sr. Federal Solutions Architect, GitLab	23337 Modeling System of Systems through OSLC **Fran McCafferty**
SPEAKER SWITCH/BREAK				
2:45 – 3:15 pm	23319 Digital Engineering Strategy to Enable Enterprise Systems Engineering **Ryan Noguchi** Director, Space Architecture Department	23390 Industry/Government Simulation Collaboration Framework **Dr. George Ball** **Principle DT Fellow**	23097 A Holistic DevSecOps Perspective for Big System Builders **Dr. Harry Koehnemann** **SAFE Fellow and Principle Consultant, Scaled Agile**	
SPEAKER SWITCH/BREAK				
3:15 – 3:35 pm	**CONCURRENT BREAKOUT SESSIONS**			

	2D1 – Digital Engineering	2D2 – Systems Engineering Effectiveness	2D3 – Agile Systems Engineering	2D4 – System Security Engineering & Assurance
	23367	23258	23091	23458
3:35 – 4:05 pm	Promoting a Distributed Model Based Market/ Exchange **Troy Peterson** Vice President, SSI	Repeatable, Measurable, and Quantifiable Methodology for Reviewing Required System Engineering Technical Reviews **James Miller**	Provisioning Pipelines: A Managed DevSecOps Approach to Software Pipeline Creation **Shane Ficorilli** Software Engineer, Software Engineering Institute	Welcome and System Security Engineering Council Highlights **Cory Ocker** Secure Systems Manager, Raytheon Intelligence & Space
SPEAKER SWITCH/BREAK				
	23119	23369		23203
4:10 – 4:40 pm	Leveraging the Digital Engineering transition to Revolutionize the IP Marketplace **Curtis Sisson** Boeing Defense, Space and Security (BDS) MBSE Manager	Leveraging Model-Based Systems Engineering to Enhance Mission Engineering and Owning the Technical Baseline for the USAF **Derek Boddy** Manager, Systems Engineering and Quality Assurance, BAE Systems		OUSD(R&E) Resilient Systems Overview **Melinda Reed** Director, Resilient Systems, Office of the Under Secretary of Defense for Research and Engineering, OUSD(R&E)
SPEAKER SWITCH/BREAK				
	23218	23272	23222	23171
4:45 – 5:15 pm	Extending a Digital Engineering Framework through Operations **Christopher Ritter** Director, Digital Innovation Center of Excellence	Integrated Product Line Engineering and the Digital Thread **Matthew Hause** Principle, SSI	The Systems Engineer as an Agile Product Owner **Paul Zajac** Software Factory Principle SME, Lockheed Martin	Agile Authorizations for Cyber Resiliency **Daniel Holtzman** AF Cyber Technical Director, USAF
SPEAKER SWITCH/BREAK				
	23354	23282	23333	23186
5:20 – 5:55 pm	Digital Engineering Information Exchange Challenge **Sean McGervey** Systems Engineer, JHU Applied Physics Laboratory	Answering the Challenges of AI with Systems Engineering **Dr. Barclay Brown** Engineering Fellow, Raytheon Technologies	The GAP Model for Agility and Excellence **Noah Carpenter** Agile Systems Engineering	The Missing Link: The Operational Level of Weapon Systems Cybersecurity **Dr. William Bryant** Technical Fellow

THURSDAY, NOVEMBER 12

	3A1 – Digital Engineering	3A2 – Systems Engineering Effectiveness	3A3 – Agile Model-Based Engineering	3A4 – System Security Engineering & Assurance
	23357		23102	23224
9:00 – 9:30 am	Modeling Case Studies for Dynamic Exploration of Acquisition Decisions **Marilee Wheaton** Systems Engineering Fellow, The Aerospace Corporation		Model-Centri Systems Engineering (MCSE) in an Agile Environment **Nataliya Shevchenko** Member of the Technical Staff, Software Engineering Institute at CMU	Protecting the DevSecOps Application through Software Assurance **Bradley Lanford** Software Assurance Lead, Contractor Support

SPEAKER SWITCH/BREAK

9:35 – 10:05 am

23364

INCOSE and the Future of Systems Engineering

Troy Peterson
Vice President, SSI

23177

A Framework for Agile MBSE Development

Dave Wood
Scientist, Systems Engineer, CSEP, OCSMP

23321

Accelerating Modernization of Software Acquisition to Better Serve the Warfighter with a Special Emphasis on Software Assurance and Near-Term Technology Drivers

Dr. Kenneth Nidiffer
President & CEO, Ken's Software Company

10:10 – 10:35 am

23341

Capability Based Acquisition: The Fusion of Systems Engineering, Mission Engineering and Test and Evaluation to Deliver Operational Mission Success

CAPT Benjamin Harris
Jeffrey Bobrow
Kenneth Senechal

23381

Agile for All – Integrating Agile Practices Across Functions

Robin Yeman
Senior Fellow, Lockheed Martin (LM) Space System

23085

Agile Robots from Jupiter

Todd Shayler
Associate Branch Head, Applied Decision Systems

23172

Threat and Attack Modeling: System Centric vs Attack Centric

Randall Brooks
Engineering Fellow, Raytheon Technologies

10:40 – 11:00 am

BREAK – VIRTUAL EXHIBIT HALL

	3B1 – Digital Engineering	3B2 – Model-Based Systems Engineering	3B3 – Agile Acquisition	3B4 – System Security Engineering & Assurance
11:00 – 11:30 am	23063 Accelerating the Change – MBE Deployment Mechanisms **Karla Beas** Systems Engineer, Raytheon	23065 Leading Model-Based Systems Engineering Adoption – Top 6 Things Leaders can do to Drive MBSE **Al Hoheb** Senior Systems Engineer, The Aerospace Corporation	23098 DOs and DON'Ts in Capacity-Based Agile Procurements – A Case Study **Dr. Mahdieh Gholampoor** Director of Service Delivery, Abaco Strategy LLC	23308 The Expansive Use of NIST SP 800-53r4 as a Common Requirements Lexicon **David Olmstead** Cyber Systems Security Engineer/Senior Staff, Lockheed Martin

SPEAKER SWITCH/BREAK

11:35 am – 12:05 pm

23268

Digital Engineering: From Toolchain to Platform

Dr. Aleksandra Markina-Khusid
MITRE

23201

Workflows in Multi-Repository Model Management

Veejay Gorospe
Solutions Consultant, Dassault Systems CATIA No Magic

23084

Evaluating, Selecting, and Succeeding with Agile Suppliers

Jeff Dalton
Chief Evangelist and CISO, AgileCxO.org

23271

Continuous, Agile, Cyber Assured?

Ronda Henning
Senior Fellow, L3Harris Technologies

SPEAKER SWITCH/BREAK

12:10 – 12:35 pm

23299	23284	23050	23326
Cloud Infrastructure for Digital Engineering Tools **Nancy Gomez Dominguez** Lead Cloud Infrastructure and Software Engineer, Idaho National Laboratory	The Lifecycle Modeling Framework: Organizing and Simplifying the Application of Model-Based Systems Engineering **Dr. Jerry Sellers** President, Teaching Science and Technology, Inc.	Doing Agile in Hard Places: 10 Things the DoD Does Poorly when Implementing Agile (And 5 It Does Really Well) **Scott Grimes** Agile Coach/Co-Organizer, Agile for Defense	Incorporating Cybersecurity into SAFe® **Flavius Galiber** Digital Engineering Coach, Northrop Grumman

12:40 – 1:10 pm

BREAK – VIRTUAL EXHIBIT HALL

	3C1 – Digital Engineering	3C2 – Model-Based Systems Engineering	3C3 – Agile Program Management	3C4 – System Security Engineering & Assurance
1:10 – 1:45 pm	23191 DE Metrics: Categorizing the Benefits and Value of Digital Engineering **Tom McDermott** Deputy Director and Chief Technology Officer, Stevens Institute of Technology	23340 Digital Tread – Integrating MBSE and Product Lifecycle Management **David Segal** Sr. Director of Business Development, PTC	23096 PSM Continuous Iterative Development (CID) Measurement Framework **Cheryl Jones** System Engineer, US Army CCDC-AC	23204 Design Principles for Weapon Systems Engineering **Michael McEvilley** Principle Scientist, The MITRE Corporation

SPEAKER SWITCH/BREAK

1:45 – 2:15 pm

23199	23229	23086	23202
Digital Engineering Measures Correlated to Digital Engineering Lessons Learn from Systems Engineering Transformation Pilot **Dr. Mark Blackburn** Senior Research Scientist, Stevens Institute of Technology	6 Vs and 3 Ts of Systems Engineering **David Long** Founder and President, Vitech	Managing an Agile Project in an EVM World **Colt Stout** Deputy Project Manager, Sandia National Laboratories	Cyber Resilient Weapon Systems (CRWS) Workforce Competency **Melinda Reed** Director, Resilient Systems, Office of the Under Secretary of Defense for Research and Engineering, OUSD(R&E)

SPEAKER SWITCH/BREAK

2:20 – 2:50 pm

23179	23231	23109	23332
A Digital Engineering Demonstration for a Small Unmanned Underwater Vehicle **Dr. Ronald Giachetti** Chair and Professor, Department of Systems Engineering, Naval Postgraduate School	Schema and Metamodels and Ontologies, Oh My! **David Long** Founder and President, Vitech	Performance measurement in an Agile Contract – Do's and Don'ts from a Success Story **Kishore Nakka**	Trusted Traceability in Semiconductor and Electronics Supply Chains **Brett Attaway**

SPEAKER SWITCH/BREAK

2:55 – 3:25 pm

23279	23234	23095	23343
Lessons Learned in the Creation a Digital Thread **Kayla Corey** Systems Engineer, SPEC Innovations	Model-Based Requirements: Writing Requirements without Writing **Dr. Alejandro Salado** Assistant Professor, Virginia Tech	DevOps Successes and Lessons Learned from the Field - The Office of Naval Intelligence **Nickolas Guertin** Senior Software Systems Engineer, Carnegie Mellon University, SEI	On-demand integrity measurement at the circuit-board level **Random Gwinn** Cybersecurity Researcher and Engineer, Johns Hopkins University Applied Physics Laboratory

3:25 -3:40 pm

BREAK – VIRTUAL EXHIBIT HALL

3D1 – Mission Engineering & Assurance	3D2 – Model-Based Systems Engineering	3D3 – Agile Program Management	3D4 – System Security Engineering & Assurance
23230	23263	23092	23205
R&E Mission Engineering State of Practice **Elmer L. Roman** Director, Mission Integration	Transitioning Legacy Systems to Model-Based Systems Engineering **Paul White** ICBM GBSD Digital Engineering Branch Lead, BAE Systems	Mission Based Alternative to WSJF **Keith Korzec** Senior Member of the Technical Staff, Software Engineering Institute	Concepts for an Approach to Weapon Systems Engineering **Michael McEvilley** Principle Scientist, The MITRE Corporation

3:45 – 4:15 pm

SPEAKER SWITCH/BREAK

4:20 – 4:50 pm

23246	23129	23469	23192
Approach to Digital Engineering for Large Systems of Systems Mission **Dr. Judith Dahmann** Technical Fellow, MITRE	Format Independence for SysML Models **Robin Mikola** Product Owner, SodiusWillert	Measuring Product Value **Bill Golaz** Project Engineering Principle and Lockheed Martin Fellow Emeritus, Lockheed Martin Aeronautics	Can We Assure Resilience of Cyber-Physical Systems Using Model-Based Systems Engineering? **Tom McDermott** Deputy Director and Chief Technology Officer, Stevens Institute of Technology

SPEAKER SWITCH/BREAK

4:55 – 5:25 pm

23346	23266	23307	23361
Application of Probabilistic Graph Models to Kill Chain and Multi-Domain Kill Web Analysis Problems **Dr. Valerie Sitterle** Principal Research Engineer and Chief Scientist, Systems Engineering Research Division, Georgia Tech Research Institute	Pathfinder for Transitioning a Dinosaur Program to a Model-Based (MBSE) Approach **Jonathan Moon** Model Based Engineering Implementation Lead, Lockheed Martin	Building Quality by Engineering People and Values: Improve the person, and you improve everything! **Dr. Barclay Brown** Engineering Fellow, Raytheon Technologies	Model-Based Cyber Threat Analysis Approach **Leqi Zhang** Cyber Solution Architect, L3Harris

SPEAKER SWITCH/BREAK

	23247	23371	23104
5:30 – 6:00 pm	Implementing Digital Engineering Environment for Mission Engineering **Dr. Judith Dahmann** Technical Fellow, MITRE	MBSE: From Abstraction to Implementation **Javier Villafane** Principle Systems Engineer, Raytheon Missile & Defense	Integrating DevOps into Navy Combat Systems Development **LT Andrew Miller** Engineering Duty Officer, Naval Postgraduate School

FRIDAY, NOVEMBER 13

	4A1 – Mission Engineering & Assurance	4A2 – Modeling & Simulation	4A3 – Agile Systems Engineering	4A4 – Environment Safety & Occupational Health
	23254	23213	23394	23197
9:00 – 9:30 am	Leveraging Set-Based Practices for Ongoing Optimization of Your Mission Engineering Designs, Even as the Mission Unfolds **Brian Kennedy** Co-Founder Chief Technical Officer, Targeted Convergence Corporation	Relationship between Traditional Modeling & Simulation and Digital Engineering **Brian Miller** CIV U.S. ARMY Futures Command (USA), OUSD (R&E)	Industrial DevOps: from Value Streams to Agile Teams **Dr. Suzette Johnson** Enterprise Lean-Agile Strategic Lead, Northrop Grumman	Environment, Safety, and Occupational Health (ESOH) in the Adaptive Acquisition Framework **David Asiello** Program Manager, ODASD(ENV)
	23348	23257	23082	23351
9:35 – 10:05 am	Advancements towards a Digital Approach for Mission Engineering **Todd Shayler** Associate Branch Head, Applied Decision Systems	Every Mission-Level or System-Level Trade Study Should Have an Associated Trade Space Map to Facilitate Multi-Discipline Review **Brian Kennedy** Co-Founder and Chief Technical Officer, Targeted Convergence Corporation	CyberAgility Deliver Security Faster: Agile Case Studies in Cybersecurity **Tim LaPorta** Director of Agile Coaching and Staffing, Lithespeed LLC	F-35 Joint Program Office and Support Team – Environmental Excellence in Weapons System Acquisition **John Casana** Senior Lead Engineer, Booz Allen Hamilton
		23296	23093	23184
10:10 – 10:40 am		Improved Delivered Capability: Isolating and Predicting New Technologies, Technology Uses and Emerging Threat Sources **Dr. Carlo Lipizzi** Associate Professor at the Stevens Institute of Technology and Principle Investigator at the System Engineering Research Center	Agile: Beyond IT and System Development **Dr. Martha Hennen** Personnel Psychologist, Office of Equal Employment Opportunity (OEEO), US Securities and Exchange Commission	ESOH Track – Integrating ESOH Engineering And Product Support Activities **Erin Beck** Environmental Engineer, Naval Air Warfare Center Aircraft Division, Naval Air Systems Command

10:40 – 11:00 am **BREAK – VIRTUAL EXHIBIT HALL**

	4B1 – CMMI; Software	4B2 – Model-Based Systems Engineering	4B3 – Architecture & MOSA	4B4 – Environment Safety & Occupational Health
11:00 – 11:30 am	23352 Building Safety into Autonomous Robot Software **David Hetherington** Principle Systems Engineer, System Strategy Inc.	23355 The Effect of Fatigue and Stress on the Tipping Point of the Emergency Service Systems: A New York City Case Study **Maximilian Vierlboeck** Stevens Institute of Technology	23377 Purpose of Architecture **Michael Stokes** Sr. Principle Systems Engineer/Raytheon Certified Architect, SSI	23194 Unmanned System (UxS) Safety IPT and Engineering Precepts for Safe Autonomy **Michael Demmick** Navy WSESRB Secretariat, Executive Secretary, Joint Weapons Safety Working Group & OSD UxS Safety IPT Chair, Naval Ordnance Safety & Security Activity (NOSSA)
11:35 am – 12:05 pm	23358 A Pattern for Integrating Software Cost Estimation into a SysML System Model **Dr. Thomas Ford** Principle Systems Engineer, Centauri, LLC		23363 The WWWWW&H of Architecture with the UAF **Matthew Hause** Principle, SSI	23391 Weapon System-Related Impulse Noise Assessment **LTC John "Andy" Merkley** Army Hearing Program Manager, Army Public Health Center
12:10 – 12:40 pm		23251 Using Effective MBSE to Move Up the Data-Information-Knowledge-Understanding-Wisdom Chain and Providing Long Term Strategic Value to the Enterprise **Brian Selvy** Principle Systems Engineer, Vitech Corporation	23327 System Operational Architectures with Agent Modeling for Ground Vehicle Autonomous and Smart Systems **David Hetherington** Principle Systems Engineer, System Strategy, Inc.	23399 Strategizing Solutions for Protecting Warfighter Brain Health **Olivia Webster** Biomedical Engineer, Health Hazard Assessment Division, U.S. Army Public Health Center

12:40 – 1:10 pm **BREAK – VIRTUAL EXHIBIT HALL**

	4C1 – Program Management: Risk Management	4C2 – Model-Based Systems Engineering	4C3 – Architecture & MOSA	4C4 – Environment Safety & Occupational Health
1:10 – 1:40 pm	23209 Risk Management within Nuclear Weapons Programs: Where We Were, and Where We're Heading **R. Glenn Bell** Chief System Engineer for Defense Programs, National Nuclear Security Administration	23285 A System Dynamics Model to Measure and Quantitatively Improve Digital Transformation and MBSE Adoption within a Large-Scale Organization or Enterprise. **Robert Iannuzzi** Mission and Systems Engineer, U.S. Navy	23374 MOSA Strategy **Steve Thelin** Engineering Fellow and MOSA Pillar Lead, Raytheon Missiles and Defense, Raytheon Technologies	23468 Greatly Improved Safety at Lower Cost **Dr. Nancy Leveson** Professor of Aeronautics and Astronautics, Massachusetts Institute of Technology

	23233	23356	23457	23226
1:45 – 2:15 pm	Formal Inconsistencies in Risk Assessment Processes **Dr. Alejandro Salado** Assistant Professor, Virginia Tech	Model-Centric Systems Engineering (MCSE) in an Agile Environment **Nataliya Shevchenko** Member of the Technical Staff, Carnegie Mellon University	Integrating MOSA **Nadine Geier** Director, Systems Engineering, OUSD (R&E)	Answering the Ask through Imagination: NEPA Process Streamlining Innovations **Brian Boose** Vice President, Technical Practice Director – Impact Assessment and Permitting, AECOM
	23328	23360	23252	23372
2:20 – 2:50 pm	Risk & Opportunity Management Transfer – Systems Engineering & The PMO **Liz Garypie** Director, Enterprise Configuration Control, Sikorsky, a Lockheed Martin Company	MBSE Research Testbed for Rapid and Flexible Modeling and Experimentation **Dr. Azad Madni** Professor, Astronautical Engineering, Executive Director, Systems Architecting and Engineering Program, & Chief Executive Officer, Intelligent Systems Technology, Inc. University of Southern California	Identifying Security Patterns for Modular Open Systems **Giselle Bonilla-Ortiz** Senior Systems Engineer, Raytheon Technologies	Ground Based Strategic Deterrent (GBSD) Program Office National Environmental Policy Act (NEPA) Compliance Perspective – High Risk Management **Sharon Dore** Chief, Product Support Division, U.S. Air Force
	23232	23365	23373	23200
2:55 – 3:25 pm	Evaluating Traditional Systems Engineering Models for Applicability to Model-Based Systems Engineering Technical Reviews **Dr. Warren Vaneman** Naval Postgraduate School	Graph Exploration of System Models **Troy Peterson** Vice President, SSI	Measuring MOSA **Steve Thelin** Engineering Fellow, MOSA Pillar Lead for Raytheon Missiles and Defense, Raytheon Technologies	Department of the Navy Initiatives to Expedite NEPA Reviews **Barbie Pine** Senior Environmental Planner, Chief of Naval Operations, Environment Safety and Occupational Health
3:25 – 3:40 pm	**BREAK – VIRTUAL EXHIBIT HALL**			
	4D1 – Program Management	**4D2 – Model-Based Systems Engineering**	**4D3 – Architecture & MOSA**	**4D4 – Environment Safety & Occupational Health**
	23190	23059	23449	23212
3:45 – 4:15 pm	Early Science and Technology Protections Translate to Uncompromised Transition of Advanced Capabilities into Acquisition **Kristopher Gardner** Director, Science and Technology Protection, OUSD (R&E)	Application of Model Based Systems Engineering to Enable Holistic Understanding of Complex Systems **Satya Moorthy** Senior Research Scientist, Georgia Tech Research Institute (GTRI)	Assessing MOSA – Refining the Practice **Nadine Geier** Director of Systems Engineering, OUSD (R&E)	Lockheed Martin's Chemical Stewardship Program: Reducing Risk through the Sustainable Management of Chemical Substances and Materials **Margaret Proul** Enterprise Risk and Sustainability Program Manager, Lockheed Martin

	23344	23195		23331
4:20 – 4:50 pm	Achieving Airborne System Airworthiness In a Landscape of Disruptive Technologies and Diverse Regulatory Objectives **Todd Stempel** Avionics Chief Technologist/Certification Manager, ENSCO	A Model-Based Systems Engineering Approach to Assessing Modularity in System Architectures **Benjamin Stirgwolt** PhD Student, The George Washington University		Model Based Systems Engineering Library – The National Aerospace Standard 411-1 Hazardous Materials Target List **Jack Gallagher** Staff Engineer, Booz Allen Hamilton
	23219	23228	23339	23178
4:55 – 5:25 pm	Deep Digital Thread from Project Controls through Engineering Design **Jeren Browning** Full Stack Developer, Idaho National Laboratory	Applying an MBSE Approach for Evaluating Shipyard Operations **David Jurkiewicz** Specialist Master Consultant, Deloitte Consulting LLP	Developing Meta Systems Architectures for Leading Innovation with Complex Societal and Technical Challenges **Dr. Cihan Dagli** Professor of Systems Engineering and Engineering Management/ Professor Computer and Electrical Engineering, Missouri University of Science & Technology	Evaluating Potential Impacts to the DoD Mission and the Defense Industrial Base from Emerging National and International Chemical Regulations **Emma Williams** Junior Environmental Engineer, Noblis
	23294	23382	23375	23313
5:30 – 6:00 pm	Addressing Capability Gaps in the A&D Industry: Strategic Frameworks & Best Practices **David Gross** Founder and Managing Director, Strategic Value Partners	Using SysML State Machines to Automatically Conduct Failure Modes and Effects Analysis **Michael, Vinarcik** Chief Systems Engineer, SAIC	Architecture in the Design Process **Michael Stokes** Senior Principle Systems Engineer/Raytheon Certified Architect, SSI	Addressing Environment, Safety, and Occupational Health in the Adaptive Acquisition Framework **Sherman Forbes** SAF/AQRE Engineering Policy and Standards and Specialty Engineering Team Lead, SAF/AQRE

ON-DEMAND SESSIONS

Education & Training

23267

Growing an Organic Systems Engineering/Systems Thinking Culture within a Legacy Program

Patrick McMillan
Systems Integration Manager, Lockheed Martin

23370

A Scalable Agile Mechanism for Developing Model Based Engineering Practitioners and Expertise

Dr. Carla Sayan
Raytheon

23314

The Future of Defense Training Starts with an Immersive Toolset

Jenna Tuck
Executive Vice President, Global Business Development, Modest Tree

23349

Resiliency Across Spectrums

Claudia Rose
MAIT, cEA, President BBII Enterprises

23217

With a Little Help From Our Friends: The Family of Systems Disciplines and What We Can Learn from One Another

Zane Scott
Vice President, Professional Services, Vitech

Engineered Resilient Systems (Ers)

23407

Design Engineering Advancements through Lockheed Martin's EXPEDITE Program

Juan Montoro
Manager, Conceptual Design; ADP Program Manager, Lockheed Martin Aeronautics

23403

Python Technologies for Rapid, Agile Development of Novel Simulation & Analysis Workflows

Dr. James A. Bednar
Senior Manager, Technical Services, Anaconda, Inc.

23415

HPCMP CREATE: A Vision for Physics-Informed Digital Engineering

Dr. Robert Meakin
Associate Director for CREATE, U.S. DoD HPC Modernization Program, HPCMP CREATE Program

Human Systems Integration

23423

Joint Human Systems Integration Capabilities-Based Assessment Initiative Updates

Dr. Larry Shattuck
Director, Human Systems Integration Program; Chair, Institutional Review Board

23304

Maturation of a Human Readiness Levels Scale

Dr. Judi See
Sandia National Laboratories

Life Cycle Support

23329

NanoFlowX Electronic Waterproofing Solutions

Rick Fung
Founder and Chief Executive Officer, NanoFlowX

Systems Engineering Effectiveness

23253

Using Graph Analysis to Support the Digital Thread for Mission Engineering

Dr. Dirk Zwemer
President, Intercax LLC

23324

Model Based Automated Design Exploration for Wargaming

Jonathan Kidner
Marine Corps Warfighting Laboratory Liaison, Naval Surface Warfare Center (NSWC) Crane

Model-Based Systems Engineering

23100

Model of Models Methodology

Aleczander Jackson
Chief Engineer, Digital Engineering

23318

Think Globally, Act Locally: Adapting MBSE for the Enterprise Context

Ryan Noguchi
Director, Space Architecture Department

23117

The Future of Performance Design with MBSE: Electric Powertrain Example

Dr. Sulius Pavalkis
Industry Business Senior Consultant and MBSE Transformation Leader, Dassault Systems, Catia | No Magic

23180

Inconceivable: Those Requirements Don't Mean What You Think They Mean

Michael Vinarick
Chief Systems Engineer, SAIC