

MODSIM World 2019

Hilton Norfolk the Main
100 East Main Street
Norfolk, VA 23510
April 22-24, 2019

AGENDA

MONDAY, APRIL 22	
0700 – 1200	EXHIBITOR MOVE-IN GRANBY BALLROOM FOYER
1100 – 1730	REGISTRATION OPEN GRANBY BALLROOM FOYER
1300 – 1315	MODSIM WORLD 2019 WELCOME AND OPENING REMARKS GRANBY BALLROOM DE Welcome and Opening Remarks Mr. Marco Estrada Newport News Shipbuilding MODSIM World 2019 Conference Chair Introduction of Congressional Keynote Speaker RADM James A. Robb, USN (Ret) National Training & Simulation Association
1315 – 1330	CONGRESSIONAL KEYNOTE ADDRESS GRANBY BALLROOM DE Congressman Bobby Scott (Invited) VA-03
1330 – 1400	INTRODUCTION OF INDUSTRY KEYNOTE SPEAKER GRANBY BALLROOM DE Mr. Marco Estrada Newport News Shipbuilding, MODSIM World 2019 Conference Chair Industry Keynote Address Brian Fields VP of Business Transformation, Newport News Shipbuilding
1400 – 1430	INTRODUCTION OF DEFENSE KEYNOTE SPEAKER GRANBY BALLROOM DE RADM James A. Robb, USN (Ret) National Training & Simulation Association Defense Keynote Address TBD TBD
1400 – 1900	EXHIBIT HALL AND INNOVATION CORNER HOURS GRANBY BALLROOM FOYER Innovation Corner: Extending Medical Training Beyond Reality The Innovation Corner is dedicated to demonstrating technologies that are pushing the envelope. We're packing VR, Haptics and Genetic Engineering into the Innovation Corner for 2019. Stop by, check out the demos and chat with Innovation Panel speakers at this unique event. Demonstrations: <ul style="list-style-type: none">• TBD• TBD
1430 – 1500	NETWORKING BREAK AND DEDICATED EXHIBIT TIME GRANBY BALLROOM FOYER

<p>1500 – 1630</p>	<p>SPECIAL EVENT: "THE SIMULATION CENTURY" AI AND MACHINE LEARNING: 10X ROI THIS YEAR</p> <p>GRANBY BALLROOM DE</p> <p>This is our seventh annual session to address the growing issue of managing the human/ machine interface as we hurtle towards the Singularity. We will continue our discussion of how to achieve fluency with smarter balance between humans and machines to optimize outcomes. The Simulation Century Panel presentations this year will focus on technologies that can easily be applied to provide 10x returns on investment in less than twelve months!</p> <p>Don't miss this session for ideas you can implement this year with high multiple returns on investment.</p> <p>Richard Boyd CEO, Tanjo, Inc. <i>Moderator</i></p> <p>Pam Henderson, Ph.D. CEO, New Edge</p> <p>Allen Badeau CTO, NCI Inc</p> <p>Speaker TBD Speaker Title TBD</p>
<p>1630 – 1730</p>	<p>SPECIAL EVENT: DATA SCIENCE AND DIGITAL TRANSFORMATION</p> <p>GRANBY BALLROOM DE</p> <p>Moderator TBD Moderator Title TBD <i>Moderator</i></p> <p>Speaker TBD Speaker Title TBD</p> <p>Speaker TBD Speaker Title TBD</p> <p>Speaker TBD Speaker Title TBD</p> <p>Speaker TBD Speaker Title TBD</p> <p>Speaker TBD Speaker Title TBD</p>
<p>1730–1900</p>	<p>OPENING NETWORKING EVENT</p> <p>GRANBY BALLROOM FOYER</p> <p>Sponsored by: VMASC Industry Association</p> <p>Welcome Remarks</p> <p>Mr. Marco Estrada Newport News Shipbuilding MODSIM World 2019 Conference Chair</p> <p>Networking Reception Sponsor VMASC Industry Association</p>

TUESDAY, APRIL 23

0700 – 1730	REGISTRATION OPEN GRANBY BALLROOM FOYER
0745-0845	CONTINENTAL BREAKFAST GRANBY BALLROOM FOYER
0845 – 0900	DAY TWO WELCOME AND OPENING REMARKS GRANBY BALLROOM DE Opening Remarks Mr. Marco Estrada Newport News Shipbuilding MODSIM World 2019 Conference Chair Introduction of Congressional Keynote Speaker Mr. Eric Weisel VMASC
0900 – 1000	GOVERNMENT KEYNOTE SPEAKER GRANBY BALLROOM DE Government Keynote Address Dr. Sae Schatz Director ADL Initiative
0930 – 1730	EXHIBIT HALL AND INNOVATION CORNER HOURS GRANBY BALLROOM FOYER Innovation Corner: Extending Medical Training Beyond Reality The Innovation Corner is dedicated to demonstrating technologies that are pushing the envelope. We're packing VR, Haptics and Genetic Engineering into the Innovation Corner for 2019. Stop by, check out the demos and chat with Innovation Panel speakers at this unique event. Demonstrations: <ul style="list-style-type: none">• TBD• TBD
1000 – 1030	NETWORKING BREAK AND DEDICATED EXHIBIT TIME GRANBY BALLROOM FOYER
1030 – 1200	SPECIAL EVENT: DEFENSE AND HOMELAND SECURITY PANEL GRANBY BALLROOM DE Moderator TBD Moderator Title TBD <i>Moderator</i> Speaker TBD Speaker Title TBD Speaker TBD Speaker Title TBD Speaker TBD Speaker Title TBD Speaker TBD Speaker Title TBD
1200-1300	LUNCH AND DEDICATED EXHIBIT TIME GRANBY BALLROOM ABC AND GRANBY BALLROOM FOYER

1300 – 1430

PAPER SESSION I

Analytics and Decision-Making Track

FUSION

- 1300 – 1330 Quantum Computing: Evaluating Potential Quantification of Projective Psychological Test Scoring
Speaker TBD, Organization TBD
- 1330 – 1400 Leveraging IIoT for Machine Self-Healing While the Pool of Experienced Maintenance Mechanics Slowly Evaporates
Chris Lang, DSM Technical Solutions
- 1400 – 1430 A Tabu Search Heuristic for a Mixed Strength Sensor Location Problem
Speaker TBD, Organization TBD
- 1430 – 1500 Avoiding Big Data Overload in an Adaptive Training Use Case
Speaker TBD, Organization TBD

Cross Reality Track

IMAGINATION

- 1300 – 1330 Title TBD
Speaker TBD, Organization TBD
- 1330 – 1400 Title TBD
Speaker TBD, Organization TBD
- 1400 – 1430 Title TBD
Speaker TBD, Organization TBD
- 1430 – 1500 Title TBD
Speaker TBD, Organization TBD

Science and Engineering Track

ENERGY 2

- 1300 – 1330 Test and Evaluation of Autonomous Vehicles using Simulated Environments
Thomas Laverghetta, Old Dominion University
- 1330 – 1400 Objective Metrics for Evaluating Flight Training Simulators
Ahmad Momani, Organization TBD
- 1400 – 1430 Monte Carlo Simulation of Hedonic Games
Andrew Collins, Old Dominion University
- 1430 – 1500 Human Subjects Experiment Data Collection for Validating an Agent-based Model
Andrew Collins, Old Dominion University

Training and Education Track

ENERGY 1

- 1300 – 1330 Considerations for Training with Emerging Technologies
Julian Abich, Quantum Improvements Consulting
- 1330 – 1400 New Paradigms Call for New Evaluation Methods: Moving Beyond Kirkpatrick
Lara Bove, SAIC
- 1400 – 1430 Simulation Based Training's Incorporation of Machine Learning
Ivar Oswald, Alion Science and Technology Corporation
- 1430 – 1500 Democratization of Immersive Virtual Reality (VR) Content Creation Through a VR Authoring Tool: The Evolution of Training
Teresa Riech, OSF Healthcare, Jump Simulation and Education

1500 – 1530

NETWORKING BREAK AND DEDICATED EXHIBIT TIME

GRANBY BALLROOM FOYER

1530 – 1700

PAPER SESSION II

Analytics and Decision-Making Track

FUSION

- 1530 – 1600 Word Has It: Text Analytics for Topic Modeling of MODSIM Track Papers
Speaker TBD, Organization TBD
- 1600 – 1630 Understanding the Prevalence of Bidirectional Architecture in Language Models
Ryan Baxley, Franciscan University of Steubenville
- 1630 – 1700 Using AI and Natural Language Generation to Automate Pharmaceutical Clinical Study Reports
Jeffery McCrindle, Yseop
- 1700 – 1730 Building a Machine Learning Classification Pipeline for Predicting Navy Reserve Mobilization Cancellations
Speaker TBD, Organization TBD

Cross Reality Track

IMAGINATION

- 1530 – 1600 Title TBD
Speaker TBD, Organization TBD
- 1600 – 1630 Title TBD
Speaker TBD, Organization TBD
- 1630 – 1700 Title TBD
Speaker TBD, Organization TBD
- 1700 – 1730 Title TBD
Speaker TBD, Organization TBD

Science and Engineering Track

ENERGY 2

- 1530 – 1600 A Reusable Simulation Environment for Digital Engineering
George Gilman, NSWPCD
- 1600 – 1630 Explorative Visualization of Volume Flow Data via Slice Textures
Ahmet Saglam, Organization TBD
- 1630 – 1700 Concurrent Engineering in support of High-Water Speed Capabilities
Luis Velazquez, Organization TBD
- 1700 – 1730 Title TBD
Speaker TBD, Organization TBD

Training and Education Track

ENERGY 1

- 1530 – 1600 Enhancements for Homeschooling and ADL: Virtual Humans, Technologies and Insights
Nancy Young, Organization TBD
- 1600 – 1630 Pedagogical Tools to Enhance Communication Skills: Interactive Virtual Tutorial Environments
Dan Davis, University of Southern California
- 1630 – 1700 Monitoring Engagement and Motivation Across Learning Environments
Dr. Benjamin Bell, Eduworks Corporation
- 1700 – 1730 Enactive Learning Enables Proper Implementation of Modeling, Simulation and Training Technologies
Nicholas Armendariz, University of Central Florida

1730 – 1930

OFFSITE NETWORKING EVENT

BLUE MOON RESTAURANT, WATERSIDE DISTRICT

*Pre-registration and pre-payment are required for this event

Sponsored by: EPIC Games

WEDNESDAY, APRIL 24

0700 – 1730

REGISTRATION OPEN

GRANBY BALLROOM FOYER

0730-0830

CONTINENTAL BREAKFAST

GRANBY BALLROOM FOYER

0830 – 0845

DAY THREE OPENING REMARKS

GRANBY BALLROOM DE

Opening Remarks

Mr. Matt Spruill

Virginia Modeling and Simulation Partnership (VMSP)

Introduction of Senior Leader Panel

Mr. Marco Estrada

Newport News Shipbuilding
MODSIM World 2019 Conference Chair

0845 - 1000

SPECIAL EVENT: SENIOR LEADER PANEL

GRANBY BALLROOM DE

RADM James A. Robb, USN (Ret)

National Training & Simulation Association
Moderator

Speaker TBD

Speaker Title TBD

Speaker TBD

Speaker Title TBD

Speaker TBD

Speaker Title TBD

Speaker TBD

Speaker Title TBD

0930 – 1900

EXHIBIT HALL AND INNOVATION CORNER HOURS

GRANBY BALLROOM FOYER

Innovation Corner: Extending Medical Training Beyond Reality

The Innovation Corner is dedicated to demonstrating technologies that are pushing the envelope. We're packing VR, Haptics and Genetic Engineering into the Innovation Corner for 2019. Stop by, check out the demos and chat with Innovation Panel speakers at this unique event.

Demonstrations:

- TBD
- TBD

1000 – 1030

NETWORKING BREAK AND DEDICATED EXHIBIT TIME

GRANBY BALLROOM FOYER

1030 - 1200

PAPER SESSION III

Analytics and Decision-Making Track

FUSION

1030 – 1100

The Power of Training Simulations to Support AGILE Acquisition Testing and Experimentation of Advance Analytic Algorithms and Artificial Intelligence

Speaker TBD, Organization TBD

1100 – 1130

The Application of Data Farming to Hybrid Warfare Scenarios for Wargaming

Speaker TBD, Organization TBD

1130 – 1200

Defining Decision Types in a Combating Weapons of Mass Destruction Simulation

Speaker TBD, Organization TBD

Cross Reality Track

IMAGINATION

1030 – 1100

Title TBD

Speaker TBD, Organization TBD

	<p>1100 – 1130 Title TBD <i>Speaker TBD, Organization TBD</i></p> <p>1130 – 1200 Title TBD <i>Speaker TBD, Organization TBD</i></p> <p>Science and Engineering Track ENERGY 2</p> <p>1030 – 1100 Simulation for the Common Man: How do We Make M&S Accessible? <i>Ying Thavipoke, Organization TBD</i></p> <p>1100 – 1130 Making the Case for Inter-industry/Inter-disciplinary MS&V Collaboration; Cooperation for Mutual Benefit <i>Rick Severinghaus, National Modeling & Simulation Coalition</i></p> <p>1130 – 1200 Integration of Technological Changes into long-term Planning: An Agent Based Modeling Approach <i>Miguel Toro, Old Dominion University</i></p> <p>Training and Education Track ENERGY 1</p> <p>1030 – 1100 Using fNIRS Technology to Measure Emotional Regulation in Simulation Training <i>Nina Rothstein, Drexel Univerisy</i></p> <p>1100 – 1130 Advancing Telemedicine through Medical Simulation in Emergency Medicine <i>Jessica Schoen, Mayo Clinic Health System, Albert Lea and Austin</i></p> <p>1130 – 1200 Improving Workforce Development Initiatives using Augmented Reality Technology <i>Mia Joe, Huntington Ingalls Industries, Newport News Shipbuilding</i></p>
1030 - 1200	<p>STEM EVENT GRANBY BALLROOM FOYER</p> <p>The MODSIM STEM event provides the conference a unique opportunity to contribute directly to the school experience of the youth who are just beginning to formulate their dreams for the future.</p> <p>During the MODSIM STEM event, approximately 100 area high school students will get the opportunity to see firsthand the world of M&S. Students will rotate through hands-on M&S demonstrations provided in the exhibit hall to see STEM in action.</p>
1200 – 1300	<p>LUNCH AND DEDICATED EXHIBIT TIME GRANBY BALLROOM ABC AND GRANBY BALLROOM FOYER</p> <p>Scholarship Recognition</p> <p>Dr. Andy Collins Research Assistant Professor, Old Dominion University</p> <p>RADM James A. Robb, USN (Ret) National Training & Simulation Association</p>
1300 – 1500	<p>PAPER SESSION IV</p> <p>Analytics and Decision-Making Track 1 FUSION</p> <p>1300 – 1350 "Predicting the Unpredictable" make crucial decisions in real time <i>Speaker TBD, Organization TBD</i></p> <p>1350 – 1400 PULSEbox: A High Fidelity, Certified-Threat Scene Generator <i>Speaker TBD, Organization TBD</i></p> <p>1400 – 1430 Population Disease Occurrence Models Using Evolutionary Computation <i>Speaker TBD, Organization TBD</i></p> <p>1430 – 1500 Homeland Security and Emergency Management Grant Allocation Multi-objective Benefit-Cost Methodology <i>Speaker TBD, Organization TBD</i></p>

Analytics and Decision-Making Track 2

IMAGINATION

- 1300 – 1350 Creating a Network Digital Twin using Full-Fidelity Virtual Hardware
Speaker TBD, Organization TBD
- 1350 – 1400 Industrial System Process Modeling Using Agent Based Modeling & Simulation
Mustafa Dinc, Middle East Technical University
- 1400 – 1430 An Agent-Based Model Approach to Understanding Complexity in International Relations
Lowell Wilson, George Mason University
- 1430 – 1500 Regional Collaboration for Economic Growth; ‘Maximizing Hampton Roads Business Assets’
Speaker TBD, Organization TBD

Science and Engineering Track

ENERGY 2

- 1300 – 1500 Workshop: Development of a Technological Roadmap for Modeling and Simulation
Miguel Toro, Old Dominion University
Andrew Collins, Old Dominion University

Training and Education Track

ENERGY 1

- 1300 – 1350 Title TBD
Speaker TBD, Organization TBD
- 1350 – 1400 Title TBD
Speaker TBD, Organization TBD
- 1400 – 1430 Title TBD
Speaker TBD, Organization TBD
- 1430 – 1500 Title TBD
Speaker TBD, Organization TBD

1500 – 1530

NETWORKING BREAK AND DEDICATED EXHIBIT TIME

GRANBY BALLROOM FOYER

1530 - 1700

ENGAGING THE FUTURE OF MODELING & SIMULATION

GRANBY BALLROOM DE

The Engaging the Future of Modeling and Simulation Session is devoted exclusively to research findings presented by undergraduate and/or graduate students and will consist of informal discussions between presenters and facilitate the exchange of current, research-based information pertaining to modeling and simulation. This session provides a more intimate forum for exchange than do regular paper presentations. It also provides an opportunity for students at universities and institutions to gain public speaking experience in a professional environment and presents a forum in which existing professionals may meet their rising peers.

1700 - 1900

CLOSING NETWORKING EVENT

GRANBY BALLROOM FOYER

Sponsored by: VMASC – MSVE

Welcome Remarks

Networking Reception Sponsor
VMASC – MSVE