

## MONDAY, APRIL 22

1100 – 1730 **REGISTRATION OPEN**  
GRANBY BALLROOM FOYER

1230 – 1245 **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)**  
President, National Training & Simulation Association

1245 – 1300 **CONGRESSIONAL KEYNOTE ADDRESS**  
GRANBY BALLROOM DE

**Congressman Bobby Scott**  
VA-03

1300 – 1330 **INTRODUCTION OF INDUSTRY KEYNOTE SPEAKER**  
GRANBY BALLROOM DE

**Mr. Marco Estrada**  
Newport News Shipbuilding, MODSIM World 2019 Conference Chair

**Industry Keynote Address**

**Mr. Brian Fields**  
VP of Business Transformation, Newport News Shipbuilding

1330 – 1430 **SPECIAL EVENT: SENIOR MILITARY PANEL**  
GRANBY BALLROOM DE

The theme for the Senior Military Leader panel is “Training and Readiness in the Digital Age - how is the digital transformation affecting the way modern military trains.” The panel will aim to provide understanding of the challenges our military faces today to maintain readiness in a continuously changing digital world. We have recently seen all the traditional industries transform and now we are seeing the national security space being disrupted by digital innovation.

**RADM James A. Robb, USN (Ret)**  
President, National Training & Simulation Association  
Moderator

**CAPT Timothy M. Hill, USN**  
Commanding Officer, Naval Air Warfare Center Training  
Systems Division (NAWCTSD)

**COL Lawrence Mullany, USA**  
Environment Operations Division Chief, Joint Staff J7 Deputy Directorate  
for Joint Training

**Col Robert Epstein, USAF**  
Commander, Air Force Agency for Modeling and Simulation  
(AFAMS)

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:**

- **Quantified Design Solutions:** Real-Time facial animation, Scenario Design
- **JANUS Research:** Haptics, Scenario Design
- **Plas.md:** Real-Time motion capture, 3D Modeling, Scenario Design
- **ICF:** Subject Matter Expertise, Scenario Design

1430 - 1500 **NETWORKING BREAK AND DEDICATED EXHIBIT TIME**  
GRANBY BALLROOM FOYER

1500 – 1630 **SPECIAL EVENT: "THE SIMULATION CENTURY" – THE BIG LEAP FROM BIG DATA TO IMMERSIVE INTELLIGENCE**  
GRANBY BALLROOM DE

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! Don't miss this session for ideas you can implement this year with high multiple returns on investment.

**Mr. Richard Boyd**

*"10x ROI Machine Learning Ideas to Implement this Year"*

CEO, Tanjo, Inc.  
Moderator

**Mr. Troy Knight**

*"The Future of Learning: Advanced Technologies and Behavioral Nudges thru Gaming"*

Founder & Chief Executive Officer, BLDG-25

**Ms. Simona Georgescu**

*"Harnessing Simulation to Better Equip Manufacturers in an Evolving B2B World"*

Founder & President, Adduco Communication

**Mr. Allen Badeau**

*"Robotic Process Automation"*

CTO, NCI Inc

1630 – 1730

## **SPECIAL EVENT: “A PAIR OF ACES” – YOUR DATA IN A BIG DATA SOCIETY** GRANBY BALLROOM DE

In this second annual session, we will continue discussing the role of data in society. Is it for the people or simple of the people? A duality is at play - people share personal data to improve their healthcare and business transactions, yet there is growing concern in how the “ruling class” has performed in deploying increasingly sophisticated data science techniques to use their data. Our discussion focuses on data and trending data science techniques.

Join in on the discussion with your mobile device as our panelists provide insights on the use of personal data in a big data world and how striking a reasonable balance involves both people’s rights and responsibilities.

**Mr. Jay Gendron**  
Data Scientist, USAA  
Moderator

**Dr. Eric Weisel**  
VMASC  
Moderator

**Dr. Justin Brunelle**  
Principal Researcher, The MITRE Corporation

**Dr. Ralitsa Maduro**  
Quality Research Institute, Sentara Healthcare

**Dr. Aaron Glassman**  
Chair, Department of Technology Management,  
Embry-Riddle Aeronautical University -Worldwide

**Dr. Jaclyn Simpkins**  
Instructor, EVMS-Sentara HADSI

**Ms. Lauren Green, MPH**  
Clinical Data Specialist, EVMS-Sentara HADSI

1730 – 1900

## **OPENING NETWORKING EVENT** GRANBY BALLROOM FOYER

### **Sponsored by: VMASC Industry Association**

MODSIM World opening reception, a networking event on the opening night of the event that will include industry, academia and government attendees involved in the modeling and simulation community. This standing reception will be heavy appetizers and beverages served at various stations throughout the lobby of the Hilton, participants will have the chance to network and visit exhibitor tables to discover the latest in simulation technology.

### **Welcome Remarks**

**Mr. Marco Estrada**  
Newport News Shipbuilding  
MODSIM World 2019 Conference Chair

**Johnny Garcia**  
VMASC Industry Association

**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. David Jones**  
Quantified Design Solutions  
MODSIM World 2020 Conference Chair

**Introduction of Government Keynote Speaker**

**RADM James A. Robb, USN (Ret)**  
President, National Training & Simulation Association

0900 – 0930 **GOVERNMENT KEYNOTE SPEAKER**  
GRANBY BALLROOM DE

**Government Keynote Address**

**Dr. Sae Schatz**  
Director, ADL Initiative

0930 – 1000 **SPECIAL EVENT: INTERNATIONAL PERSPECTIVE – THE STORY OF FINLAND'S DIGITAL TRANSFORMATION**  
GRANBY BALLROOM DE

Join us, as Finland's Executive Director for Digital Transformation of Finnish Industries, Mr. Pekka Sivonen, an accomplished global leader in Digital Transformation shares Finland's journey in successfully implementing a nationwide strategy and structure to become one of world's leaders digital infrastructures/economy enabling all key vertical market segments. Pekka will share Finland's Digital Transformation Strategy, already a success story and also discuss what the future holds for Finland's Digital Strategy including collaboration opportunities.

**Mr. Pekka Sivonen**  
Executive Director, General of Digital Transformation, Finnish Industries

1000 – 1730 **EXHIBIT HALL AND INNOVATION CORNER HOURS**  
GRANBY BALLROOM FOYER

1000 – 1030 **NETWORKING BREAK AND DEDICATED EXHIBIT TIME**  
GRANBY BALLROOM FOYER

1030 – 1200 **SPECIAL EVENT: DEFENSE AND HOMELAND SECURITY PANEL – THE DISRUPTION OF CONVENTIONS IN DEFENSE AND HOMELAND SECURITY BY MODELING AND SIMULATION**  
GRANBY BALLROOM DE

The integration of modeling and simulation into defense and homeland security will fundamentally change how we plan, train, prepare and perform our stated missions. It also involves a cultural change that will require us to continually challenge the status quo and experiment often in order to optimize our mission effectiveness. This might mean walking away from long-standing processes and beliefs in favor of practices that are still being defined. This panel will explore which conventions need to change, emerging new practices, and the benefits to Defense and Homeland Security.

**Mr. Chris Davidson**

Lieutenant Commander, Royal Australian Navy  
Moderator

**Dr. Syed Mohammad**

Director, HSARPA Modeling and Simulation

**Mr. Wayne Buck**

Modelling & Simulation Specialist, NATO - Allied Command Transformation

**Dr. Eric Weisel**

Director, VMASC

**Mr. David Shuttleworth**

Aerospace Engineer, Navy Modeling and Simulation Office

**Ms. Ellen Purdy (Invited)**

Speaker Title TBD

1200 - 1300 **LUNCH AND DEDICATED EXHIBIT TIME**  
GRANBY BALLROOM ABC AND GRANBY BALLROOM FOYER

1300 – 1500 **PAPER SESSION I**

**Analytics and Decision-Making Track**

**FUSION**

1300 – 1330

**Quantum Computing: Evaluating Potential Quantification of Projective Psychological Test Scoring**

**Dr. Mark Davis**  
Wood Duck Research

1330 – 1400

**Leveraging IIoT for Machine Self-Healing While the Pool of Experienced Maintenance Mechanics Slowly Evaporates**

**Mr. Chris Lang**  
Old Dominion University

1400 – 1430

**A Tabu Search Heuristic for a Mixed Strength Sensor Location Problem**

**Dr. Rex Kincaid**  
College of William and Mary

1430 – 1500

**Avoiding Big Data Overload in an Adaptive Training Use Case**

**Speaker TBD**  
Organization TBD

## Cross Reality Track IMAGINATION

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|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1300 – 1330 | <p><b>The Past Present and Future of XR for Space Exploration</b><br/> <b>Mr. Joel Ryan</b><br/>                     Big Timber Games, SAIC</p>                     |
| 1330 – 1400 | <p><b>Augmented Reality for Training and Operational Support Solutions</b><br/> <b>Ms. Claire Hughes</b><br/>                     Design Interactive Inc.</p>       |
| 1400 – 1430 | <p><b>Photogrammetry in 3D Content Development</b><br/> <b>Mr. Joel Ryan</b><br/>                     Big Timber Games, SAIC</p>                                    |
| 1430 – 1500 | <p><b>A Mixed Reality Platform for Enhanced Military Training</b><br/> <b>Mr. Craig Clark</b><br/>                     Kratos Technology and Training Solutions</p> |

## Science and Engineering Track ENERGY 2

- |             |                                                                                                                                                                             |
|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1300 – 1330 | <p><b>Test and Evaluation of Autonomous Vehicles using Simulated Environments</b><br/> <b>Mr. Thomas Laverghetta</b><br/>                     Old Dominion University</p>   |
| 1330 – 1400 | <p><b>Objective Metrics for Evaluating Flight Training Simulators</b><br/> <b>Mr. Ahmad Momani</b><br/>                     Binghamton University</p>                       |
| 1400 – 1430 | <p><b>Monte Carlo Simulation of Hedonic Games</b><br/> <b>Dr. Andrew Collins</b><br/>                     Old Dominion University</p>                                       |
| 1430 – 1500 | <p><b>Human Subjects Experiment Data Collection for Validating an Agent-based Model</b><br/> <b>Dr. Andrew Collins</b><br/>                     Old Dominion University</p> |

## Training and Education Track ENERGY 1

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|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1300 – 1330 | <p><b>Considerations for Training Evaluations of Emerging Technologies</b><br/> <b>Dr. Julian Abich</b><br/>                     Quantum Improvements Consulting</p>                           |
| 1330 – 1400 | <p><b>New Paradigms Call for New Evaluation Methods: Moving Beyond Kirkpatrick</b><br/> <b>Ms. Lara Bove</b><br/>                     SAIC</p>                                                 |
| 1400 – 1430 | <p><b>Improving Workforce Development Initiatives using Augmented Reality Technology</b><br/> <b>Ms. Mia Joe</b><br/>                     Newport News Shipbuilding</p>                        |
| 1430 – 1500 | <p><b>Advancing Telemedicine through Medical Simulation in Emergency Medicine</b><br/> <b>Dr. Jessica Schoen</b><br/>                     Mayo Clinic Health System, Albert Lea and Austin</p> |

# AGENDA | TUESDAY, APRIL 23

1500 – 1530 **NETWORKING BREAK AND DEDICATED EXHIBIT TIME**  
GRANBY BALLROOM FOYER

1530 – 1730 **PAPER SESSION II**

## **Analytics and Decision-Making Track** FUSION

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|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|
| 1530 – 1600 | <b>Word Has It: Text Analytics for Topic Modeling of MODSIM Track Papers</b><br>Mr. Jay Gendon<br>USAA                                                         | Mr. Gage Morgan<br>Old Dominion University |
| 1600 – 1630 | <b>Understanding the Prevalence of Bidirectional Architecture in Language Models</b><br>Mr. Ryan Baxley<br>Franciscan University of Steubenville               |                                            |
| 1630 – 1700 | <b>Using AI and Natural Language Generation to Automate Pharmaceutical Clinical Study Reports</b><br>Mr. Jeffery McCrindle<br>Yseop                            |                                            |
| 1700 – 1730 | <b>Building a Machine Learning Classification Pipeline for Predicting Navy Reserve Mobilization Cancellations</b><br>Mr. Andrew Turscak<br>Booz Allen Hamilton | Mr. Mark Moreno<br>CNRFC                   |
|             | Dr. Robert Milletich<br>Booz Allen Hamilton                                                                                                                    |                                            |

## **Cross Reality Track** IMAGINATION

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|-------------|----------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| 1530 – 1730 | <b>Measuring and Optimizing the Impact of XR Experiences- Impact Results and Lessons Learned</b><br>Mr. Vance Souders<br>Plas.md | Mr. Kishan Shetty<br>JANUS Research       |
|             | Mr. David Jones<br>Quantified Design Solutions                                                                                   | Mr. Tyler Gates<br>Brightline Interactive |

## Science and Engineering Track ENERGY 2

- |             |                                                                                                                                                                                                                                       |
|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1530 – 1600 | <b>A Reusable Simulation Environment for Digital Engineering</b><br>Mr. George Gilman<br>NSWC PCD                                                                                                                                     |
| 1600 – 1630 | <b>Explorative Visualization of Volume Flow Data via Slice Textures</b><br>Mr. Ahmet Saglam<br>Old Dominion University                                                                                                                |
| 1630 – 1700 | <b>Concurrent Engineering in support of High-Water Speed Capabilities</b><br>Mr. David Shuttleworth<br>Navy Modeling and Simulation Office                                                                                            |
| 1700 – 1730 | <b>Development of BIM (Building Information Modeling) concept applied to projects of Substations Integrated with the Geographic Intelligence System (GIS)</b><br>Dr. Gerson Flavio Mendes De Lima<br>Federal University of Uberlandia |

## Training and Education Track ENERGY 1

- |             |                                                                                                                                                                  |
|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1530 – 1600 | <b>Enhancements for Homeschooling and ADL: Virtual Humans, Technologies and Insights</b><br>Dr. Mark Davis<br>Wood Duck Research                                 |
| 1600 – 1630 | <b>Pedagogical Tools to Enhance Communication Skills: Interactive Virtual Tutorial Environments</b><br>CDR (Ret.) Dan Davis<br>University of Southern California |
| 1630 – 1700 | <b>Monitoring Engagement and Motivation Across Learning Environments</b><br>Dr. Benjamin Bell<br>Eduworks Corporation                                            |
| 1700 – 1730 | <b>Enabling Enactive Learning to Implement Modeling, Simulation and Training Technologies</b><br>Mr. Nicholas Armendariz<br>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: Unreal Engine

#### Welcome Remarks

Mr. Sébastien Lozé  
Unreal Engine



## WEDNESDAY, APRIL 24

0700 – 1730 **REGISTRATION OPEN**  
GRANBY BALLROOM FOYER

0730 – 0830 **CONTINENTAL BREAKFAST**  
GRANBY BALLROOM FOYER

0800 – 0815 **DAY THREE OPENING REMARKS**  
GRANBY BALLROOM DE

**Opening Remarks**

**Mr. Matt Spruill**

Virginia Modeling and Simulation Partnership (VMSP)

**Introduction of Senior Leader Panel**

**Mr. Joe L. Bricio**

Senior S&T Engineer, NSWC Dahlgren

0815 – 1000 **SPECIAL EVENT: SENIOR LEADER PANEL – ENABLERS FOR DIGITAL TRANSFORMATION**  
GRANBY BALLROOM DE

Our ability to successfully execute an organization's digital transformation is closely related to how to embrace innovation. Innovation creates uncertainty. Uncertainty creates a human and organizational need to seek more knowledge and information about the innovation and understanding the opportunities and risks involved embracing innovation. Senior Leaders from Government and Industry will share their challenges, opportunities, and principles related to embracing modeling and simulation as an enabler for an organization's digital transformation.

**RADM James A. Robb, USN (Ret)**

President, National Training & Simulation Association  
Moderator

**Mr. Bob Armstrong**

Executive Director, SCSIL (Sentara Center for Simulation Immersive Learning)

**Mr. Roger Barga**

General Manager and Director of Development, Amazon Web Services

**Mr. Sanjay Sardar**

Vice President of Operations, Solutions and Technology Group, SAIC

**Dr. Marty Irvine**

Technical Operations Manager, Combat Direction Systems Activity - Dam Neck

**Dr. James Moreland**

OUSD A&S Director, Maritime Interdiction

**Mr. Pekka Sivonen**

Executive Director, General of Digital Transformation, Finnish Industries

0930 – 1900 **EXHIBIT HALL AND INNOVATION CORNER HOURS**  
GRANBY BALLROOM FOYER

1000 – 1030 **NETWORKING BREAK AND DEDICATED EXHIBIT TIME**  
GRANBY BALLROOM FOYER

## 1030 - 1200 PAPER SESSION III

### Analytics and Decision-Making Track

#### FUSION

- |             |                                                                                                                                                                                                                                      |
|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1030 – 1100 | <p><b>The Power of Training Simulations to Support AGILE Acquisition Testing and Experimentation of Advance Analytic Algorithms and Artificial Intelligence</b></p> <p><b>Mr. Mike Saluto</b><br/>Operational Test Command (OTC)</p> |
| 1100 – 1130 | <p><b>The Application of Data Farming to Hybrid Warfare Scenarios for Wargaming</b></p> <p><b>Dr. Gary Horne</b><br/>MCR Global</p>                                                                                                  |
| 1130 – 1200 | <p><b>Defining Decision Types in a Combating Weapons of Mass Destruction Simulation</b></p> <p><b>Dr. Grace Teo</b><br/>University of Central Florida's Institute for Simulation and Training</p>                                    |

### Cross Reality Track

#### IMAGINATION

- |             |                                                                                                                                                 |
|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| 1030 – 1100 | <p><b>Pros and Cons of AR/VR in Healthcare</b></p> <p><b>Mr. Bob Armstrong</b><br/>SCSIL (Sentara Center for Simulation Immersive Learning)</p> |
| 1100 – 1130 | <p><b>The Immersive Ecosystem: The Answer to Readiness</b></p> <p><b>Tyler Gates</b><br/>Brightline Interactive</p>                             |
| 1130 – 1200 | <p><b>Simulation in XR: Enabling Training Mode in The Human Brain</b></p> <p><b>Mr. Sébastien Lozé</b><br/>Epic Games</p>                       |

### Science and Engineering Track

#### ENERGY 2

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|--------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
| 1030 – 1100                                                                          | <p><b>Simulation for the Common Man: How do We Make M&amp;S Accessible?</b></p> <p><b>Mr. Ying Thavipoke</b><br/>Old Dominion University</p>                                                                                                                                                                                                                                                                                                                                     |                                                                                      |                                                                                              |
| 1100 – 1130                                                                          | <p><b>Making the Case for Inter-industry/Inter-disciplinary MS&amp;V Collaboration; Cooperation for Mutual Benefit</b></p> <table border="0" style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> <p><b>Mr. Rick Severinghaus</b><br/>National Modeling &amp; Simulation Coalition</p> </td> <td style="width: 50%; vertical-align: top;"> <p><b>Mr. Bob Armstrong</b><br/>SCSIL (Sentara Center for Simulation Immersive Learning)</p> </td> </tr> </table> | <p><b>Mr. Rick Severinghaus</b><br/>National Modeling &amp; Simulation Coalition</p> | <p><b>Mr. Bob Armstrong</b><br/>SCSIL (Sentara Center for Simulation Immersive Learning)</p> |
| <p><b>Mr. Rick Severinghaus</b><br/>National Modeling &amp; Simulation Coalition</p> | <p><b>Mr. Bob Armstrong</b><br/>SCSIL (Sentara Center for Simulation Immersive Learning)</p>                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                      |                                                                                              |
| 1130 – 1200                                                                          | <p><b>Integration of Technological Changes into long-term Planning: An Agent Based Modeling Approach</b></p> <p><b>Mr. Miguel Toro Jarrin</b><br/>Old Dominion University</p>                                                                                                                                                                                                                                                                                                    |                                                                                      |                                                                                              |

## Training and Education Track ENERGY 1

- |             |                                                                                                                                                                                                   |
|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1030 – 1100 | <p><b>Simulation Based Training’s Incorporation of Machine Learning</b></p> <p>Dr. Ivar Oswald<br/>Alion Science and Technology Corporation</p> <p>Dr. Tim Cooley<br/>DynamX Consulting</p>       |
| 1100 – 1130 | <p><b>Democratization of Immersive Virtual Reality (VR) Content Creation Through a VR Authoring Tool: The Evolution of Training</b></p> <p>Dr. Teresa Riech<br/>Jump Simulation and Education</p> |
| 1130 – 1200 | <p><b>Automated Content Discovery and Learning Objective Alignment: Like MAGIC</b></p> <p>Dr. Benjamin Bell<br/>Eduworks Corporation</p>                                                          |

1030 - 1200

### STEM EVENT

#### GRANBY BALLROOM FOYER

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.

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.

1200 – 1300

### LUNCH AND DEDICATED EXHIBIT TIME

#### GRANBY BALLROOM ABC AND GRANBY BALLROOM FOYER

#### Scholarship Recognition

Dr. Andy Collins  
Assistant Professor, Old Dominion University

RADM James A. Robb, USN (Ret)  
President, National Training & Simulation Association

1300 – 1500

### PAPER SESSION IV

## Analytics and Decision-Making Track 1

### FUSION

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|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1300 – 1330 | <p><b>“Predicting the Unpredictable” make crucial decisions in real time</b></p> <p>Lt. Col Nissim Titan (Ret.)<br/>4Cast</p> <p>Mr. Morgan Brooke<br/>4Cast</p>                                     |
| 1330 – 1400 | <p><b>PULSEbox: A High Fidelity, Certified-Threat Scene Generator</b></p> <p>Mr. Peter Grossman<br/>Systems Engineering Group, Inc.</p> <p>Mr. Julien Pierru<br/>Systems Engineering Group, Inc.</p> |
| 1400 – 1430 | <p><b>Population Disease Occurrence Models Using Evolutionary Computation</b></p> <p>Dr. Jacob Barhak<br/>Independent Researcher</p>                                                                 |
| 1430 – 1500 | <p><b>Homeland Security and Emergency Management Grant Allocation Multi-objective Benefit-Cost Methodology</b></p> <p>Ms. Kaleen Lawsure<br/>VMASC</p> <p>Mr. Barry Ezell<br/>VMASC</p>              |

## **Analytics and Decision-Making Track 2** IMAGINATION

- 1300 – 1330 **Creating a Network Digital Twin using Full-Fidelity Virtual Hardware**  
Col (Ret.) Charles Burdick  
Innovative Decisions, Inc.
- Dr. Deepinder Sidhu  
Cyberspace Analytics Corp.
- 1330 – 1400 **Industrial System Process Modeling Using Agent Based Modeling & Simulation**  
Dr. Mustafa Dinc  
Information Institute, Middle East Technical University (METU)
- 1400 – 1430 **An Agent-Based Model Approach to Understanding Complexity in International Relations**  
Mr. Lowell Wilson  
George Mason University
- 1430 – 1500 **Regional Collaboration for Economic Growth; ‘Maximizing Hampton Roads Business Assets’**  
Mr. Rick Severinghaus  
National Modeling & Simulation Coalition

## **Science and Engineering Track** ENERGY 2

- 1300 – 1500 **Workshop: Development of a Technological Roadmap for Modeling and Simulation**  
Mr. Miguel Toro Jarrin  
Old Dominion University
- Dr. Andrew Collins  
Old Dominion University

## **Training and Education Track** ENERGY 1

- 1300 – 1400 **Shedding light on Brain Training using Functional Optical Brain Monitoring**  
Dr. Hasan Ayaz  
Drexel University  
*Featured Speaker*
- 1400 – 1430 **Using fNIRS Technology to Measure Emotional Regulation in Simulation Training**  
Ms. Nina Rothstein  
Drexel University
- 1430 – 1500 **Neuroadaptive Training for Flight Simulator Skill Improvement**  
Mr. Jesse Mark  
Drexel University

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. Best papers and presentations from the ODU M&S student capstone conference will be presented.

1700 - 1900

## CLOSING NETWORKING EVENT

GRANBY BALLROOM FOYER

**Sponsored by: VMASC – MSVE**

MODSIM closing reception, a networking event on the final night of MODSIM that will bring together attendees after a week of collaboration, to discuss lessons learned and the way forward. This standing reception will be light appetizers and beverages served at various stations throughout the lobby of the Hilton, participants will have the chance to network and visit exhibitor tables to discover the latest in simulation technology. Alumni of the ODU MSVE Department are invited to attend.

### Welcome Remarks

**Roland Mielke**  
VMASC – MSVE

**Networking Reception Sponsor**  
VMASC