Program as of 20 June 2024
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Ansly ................................. 14-16
Belcan Engineering Group, LLC............... 9
Dassault Systèmes ........................ 6-8
Georgia Tech Resarch Institute ............ 27
IBM ....................................... 11
InfQuery Labs Zrt ..................... 21
Jama Software ........................... 32
MathWorks ............................... 18
MID GmbH ............................... 24
PDSVISION UK Ltd .................... 20
Project Performance International ........ 17
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QRA Corp .................................. 15
SE Scholar, LLC .......................... 23
Siemens Digital Industry Software ......... 2-4
Sensmetry .................................. 19
Studio SE, Ltd ............................. 10
SyntheSys Systems Engineers .......... 13
Systems Engineering A/S ............... 25
Thales & Obeo ............................. 1-3
The REUSE Company .................. 29-31
Tom Sawyer Software ................. 12
tracecloud ................................ 30
UL Solutions ............................. 33-34
VWAY ...................................... 28
Zuken Vitech Inc .......................... 5-7

Academic
Caltech ..................................... A2
Johns Hopkins Whiting School of Engineering .................................. A1
Stevens Institute of Technology ........ A6

INCOSE
INCOSE Village

APP
Flash the QR code or connect to the symposium website with your smartphone or tablet and you will receive instructions on how to download the app for Apple or Android devices.
Monday

Overall Schedule

Corporate Advisory Board Lunch
- Time: 12:00 - 13:00
- Listing: By invitation only
- Room: Liffey Hall 1

Corporate Advisory Board
- Time: 13:00 - 17:00
- Listing: By invitation only
- Room: Wicklow Hall 2A

Decision Analysis Working Group Meeting, Review of the Decision Analysis Data Model (DADM)
- Time: 13:30 - 15:00
- Listing: Open
- Room: EcoCem Room

Enterprise Value Working Group - Mid-Year F2F review
- Time: 13:30 - 15:00
- Listing: Open
- Room: Liffey Meeting Room 3A

Federated PLM needs and experience sharing
- Time: 13:30 - 15:30
- Listing: Open
- Room: Wicklow Meeting Room 1

Academic Council
- Time: 14:00 - 16:00
- Listing: Open
- Room: Liffey Meeting Room 3B

embedding Systems Engineering into Organizations
- Time: 14:30 - 16:00
- Listing: Open
- Room: Liffey Meeting Room 2B

BKCASE Governing Board
- Time: 15:30 - 17:00
- Listing: By invitation only
- Room: Liffey Meeting Room 3A

INCOSE Fellows - General Business
- Time: 15:30 - 17:00
- Listing: Closed
- Room: Wicklow Meeting Room 1

Business/Working Groups Meetings
Overall Schedule

Tuesday

07:00-07:45<br>Speaker/Session Chair Breakfast<br>Location: Liffey Hall 1 - Level 1

08:00-09:30<br>Opening Plenary & Keynote<br>Location: Auditorium - Level 3

09:30-10:00<br>Break<br>Location: Exhibit Hall - Ground Level

10:00-12:10<br>Sessions (1000-1210)<br>Working Group Meetings (1000-1210)<br>Sponsors Presentations (1000-1210)

12:10-13:30<br>Lunch<br>Location: Exhibit Hall - Ground Level

13:30-14:55<br>Sessions (1330-1455)<br>Working Group Meetings (1330-1455)<br>Sponsors Presentations (1330-1455)

14:55-15:30<br>Break<br>Location: Exhibit Hall - Ground Level

15:30-16:55<br>Sessions (1530-1655)<br>Working Group Meetings (1530-1655)<br>Sponsors Presentations (1530-1655)

17:00-18:00<br>Digital Engineering (DE) Game Show<br>Location: Auditorium - Level 3

18:00-19:30<br>Ice Breaker Reception<br>Location: Exhibit Hall - The Forum - Ground Level

07:00-17:00<br>Exhibition<br>Location: The Forum - Ground Level

08:00-09:30<br>Symposium Registration & Speaker Ready Room<br>Location: The Forum - Ground Level

07:45-17:00<br>Speaker Ready Room<br>Location: Liffey Hall 1 - Level 1

07:00-09:00<br>Symposium Registration<br>Location: The Forum Foyer - Ground Level

07:00-07:45<br>Speaker/Session Chair Breakfast<br>Location: Liffey Hall 1 - Level 1

10:00-10:20<br>The Aerospace Corporation<br>Location: Liffey Meeting Room 1 - Level 1

10:30-10:50<br>Dassault Systèmes (6-8)<br>Location: Liffey Meeting Room 1 - Level 1

11:00-11:20<br>Ansys (14-16)<br>Location: Liffey Meeting Room 1 - Level 1

11:30-11:50<br>Jama Software (32)<br>Location: Liffey Meeting Room 1 - Level 1

13:30-13:50<br>Tom Sawyer Software (12)<br>Location: Liffey Meeting Room 1 - Level 1

14:00-14:20<br>Worcester Polytechnic Institute<br>Location: Liffey Meeting Room 1 - Level 1

14:30-14:50<br>DENTSU SOKEN INC.<br>Location: Liffey Meeting Room 1 - Level 1

15:30-15:50<br>SPREAD GmbH<br>Location: Liffey Meeting Room 1 - Level 1

16:00-16:20<br>MID GmbH (24)<br>Location: Liffey Meeting Room 1 - Level 1

16:30-16:50<br>IBM (11)<br>Location: Liffey Meeting Room 1 - Level 1
Posters

A Framework to use Bifurcation Analysis for Insight into Complex Systems Resilience
Rogelio Gracia Otalvaro, Bryan Watson (Embry-Riddle Aeronautical University)

Application of SysMLv1 vs SysMLv2 in the Scope of the MagicGrid Framework
Aiste Aleksandraviciene (No Magic); Zilvinas Strolia, Osvaldas Jankauskas (Dassault Systemes)

Applied Ideation Methodology Selector Tool
Martin Lindell, Benjamin Mansfield, Michael Olson, Carson Storey, Matt Wolf, Emily Wood, Jonathan Weaver
(University of Detroit Mercy)

Context-Based Systems Engineering
Johan Bredin (Saab AB)

Data Element Mapping And Analysis (DEMA) To Enable Systematic Model Creation Using SysML
Allison Ledford, Susan Askew, Edward Huang (Auburn University)

Developing a Model-Based Systems Engineering Tool for Cybersecurity Risk Management of Micro-
Electronic Devices
James Leland, Brett Schraeder, Colin Chilton, James Walliser (United States Air Force Academy)

Hardware-in-the-Loop with SysML and Cameo Systems Modeler
Philipp Helle, Gerrit Schramm (Airbus)

LLM-based Approach to Automatically Establish Traceability between Requirements and MBSE
Maria Bonner (Project Lead); Marc Zeller (Safety Expert); Gabor Schulz, Ana Savu (Software Engineer)

Leveraging Mbse Usage Through Model Checkers
Davy Masson, Lucas Olejarz (SARFAN AIRCRAFT ENGINES)

Leveraging Mission Solution Configuration Through MBSE And Tradespace Exploration
Mohamed Eldesouky, Marcus Vinicius Pereira Pessoa (University of Twente); Vlad Stefanovici (Thales Netherlands)

MBSE for Real World Teams
David Hetherington (System Strategy, Inc); Oliver Hoehne (WSP); Pascal Roques (PRFC); Junji Kuriyama,
Takashi Nishimura (Denso Create)

Model-Based Switching Costs
Haifeng Zhu (The Boeing Company)

Requirement Discovery Using Embedded Knowledge Graph with ChatGPT
Braxton Vangundy, Nipa Phojanamongkolkij (NASA Langley Research Center); Barclay Brown (Collins Aerospace); Ramana Polavarapu, Joshua Bonner (NASA Langley Research Center)

Security Interpretations and Elaborations on Systems Engineering Principles
Mark Winstead (MITRE)

Translating the STPA-SEC security method into a model-based engineering approach
Ehab Silawi (Tel Aviv University); Avi Shaked (University of Oxford); Yoram Reich (Tel Aviv University)

Business/Working Groups Meetings

<table>
<thead>
<tr>
<th>Meeting Name</th>
<th>Time Start</th>
<th>Time End</th>
<th>Meeting Listing</th>
<th>Room</th>
</tr>
</thead>
<tbody>
<tr>
<td>Systems Thinking RoundTable (STRT)</td>
<td>07:00</td>
<td>08:00</td>
<td>In person session</td>
<td>Wicklow Meeting Room 1</td>
</tr>
<tr>
<td>Certification Exam</td>
<td>10:00</td>
<td>13:00</td>
<td>Ticket Required</td>
<td>Liffey Meeting Room 2A</td>
</tr>
<tr>
<td>Knowledge Systems Working Group</td>
<td>13:30</td>
<td>14:55</td>
<td>Open</td>
<td>Wicklow Meeting Room 1</td>
</tr>
<tr>
<td>System Adaptability Working Group Meeting</td>
<td>13:30</td>
<td>14:55</td>
<td>Open</td>
<td>Liffey Meeting Room 2A</td>
</tr>
<tr>
<td>Asia Oceania Sector - Chapter Leader and Member Meeting</td>
<td>15:30</td>
<td>18:00</td>
<td>Open</td>
<td>Wicklow Meeting Room 1</td>
</tr>
<tr>
<td>Configuration Management Working Group Meeting</td>
<td>15:30</td>
<td>18:00</td>
<td>Open</td>
<td>Liffey Meeting Room 3A</td>
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</table>
**Tuesday**

<table>
<thead>
<tr>
<th>Time</th>
<th>Track 1</th>
<th>Track 2</th>
<th>Track 3</th>
<th>Track 4</th>
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</thead>
<tbody>
<tr>
<td>08:00</td>
<td>Ireland</td>
<td>Keynote</td>
<td></td>
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<tr>
<td>09:30</td>
<td>Break</td>
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<tr>
<td>10:00</td>
<td>MBSE Application Domains</td>
<td>Cybersecurity in SE</td>
<td>Maritime</td>
<td></td>
</tr>
<tr>
<td>10:40</td>
<td>Matthew Hause</td>
<td>Mark Wristad</td>
<td>Terje Fosnes</td>
<td></td>
</tr>
<tr>
<td>Presentation#35: 1.1.1 / ANDES, the high resolution spectrograph for the ELT: the adoption of Model-Based Systems Engineering approach</td>
<td>Paper#19: 1.2.1 / A Proposal for Model-Based Systems Engineering Method for Creating Secure Cyber-Physical Systems</td>
<td>Presentation#399: 1.3.1 / System Product Line Cost and Investment Modeling Applied to UUVs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Allesto Zarutta, Marcello Agostino Scalera, Marco Riva, Andrea Balestra (IHF)</td>
<td>Martin Haug Larsen, Satyanarayana Kokkula, Gerrit Muller (University of South-Eastern Norway)</td>
<td>Raymond Madocly, John Green (Naval Postgraduate School)</td>
<td></td>
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<tr>
<td>Garret Fitzpatrick, Ryan Chaves (Center for Astrophysics</td>
<td>Ivan Taylor (Policy Dynamics Inc.); Keith Willet (CTN Technologies)</td>
<td>Magnus Sjøholdt Grønningspaat (Kongsberg Maritime), Siv Engen (University of South-Eastern Norway)</td>
<td></td>
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<tr>
<td>11:25</td>
<td>Lunch</td>
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<tr>
<td>11:25</td>
<td>MBSE Application Domains</td>
<td>Security</td>
<td>Methods</td>
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<tr>
<td>12:10</td>
<td>James Martin</td>
<td>Yilong Yang</td>
<td>Jason Stroup</td>
<td></td>
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<tr>
<td>Paper#109: 2.1.1 / Systems Engineering Application for Better Design and Analysis of an Assembly Process</td>
<td>Paper#242: 2.2.1 / Secure Design: A Practical Approach for Systems Engineers</td>
<td>Presentation#247: 2.3.1 / Systematically Pulverised EARS - Improvements in requirements authoring and presentation</td>
<td></td>
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<tr>
<td>Adel Taghiyar (Dassault Systems Deutschland GmbH); Saulius Pavalkis (Dassault Systems); Ralf God, Oliver C. Eichmann (Technische Universität Hamburg, Institut für Flugzeug-Kabinensysteme);</td>
<td>Mark Wristad (MITRE)</td>
<td>John Welford (WSP)</td>
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<tr>
<td>Katia Potron (KNDS); James Inge (Ministry of defence)</td>
<td>Adam Williams, Susan Caskey (Sandia National Laboratories)</td>
<td>David Center (Cummins, Inc); Stephanie Bauer, Shamil Baldeosingh (Cummins)</td>
<td></td>
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<tr>
<td>13:30</td>
<td>Session 2</td>
<td></td>
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<tr>
<td>14:10</td>
<td>Break</td>
<td></td>
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<tr>
<td>15:00</td>
<td>MBSE in Defense</td>
<td>Industry 4.0</td>
<td>Deploying SE</td>
<td></td>
</tr>
<tr>
<td>15:30</td>
<td>Rick Heffer</td>
<td>Sivu Gupta</td>
<td>Thomas Manley</td>
<td></td>
</tr>
<tr>
<td>Paper#42: 3.1.1 / Developing an Integrated Mission Simulation to Evaluate Technology Impact on Military Scenarios</td>
<td>Paper#342: 3.2.1 / T&amp;TOT Integration by Design</td>
<td>Presentation#475: 3.3.1 / Systems Engineering Capability Development using the “Green and Blue Track Approach”</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tara Sarathi, Michael Shatz, Edward Lomdner, Chad Council (MIT Lincoln Laboratory)</td>
<td>Georg Schäfer, Hannes Wachtel (Josef Ressel Centre for Intelligent and Secure Industrial Automation); Sarah Redmann, Christoph Binder, Christian Neureiter (Josef Ressel Centre for Dependable System-of-Systems Engineering); Stefan Huber (Josef Ressel Centre for Intelligent and Secure Industrial Automation)</td>
<td>Tom Strandberg, Jonas Larsson, Kanika Garg (CAG Syntall AB)</td>
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</tr>
<tr>
<td>16:15</td>
<td>Session 3</td>
<td></td>
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<tr>
<td>16:55</td>
<td>Break</td>
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<tr>
<td>17:00</td>
<td>Digital Engineering (DE) Game Show</td>
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<tr>
<td>18:00</td>
<td>Ice Breaker Reception</td>
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</table>
Systemic leadership in a TUNA world

**V&V**

<table>
<thead>
<tr>
<th>Track 4</th>
<th>Track 5</th>
<th>Track 6</th>
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</thead>
<tbody>
<tr>
<td>Wicklow Hall 2B</td>
<td>Liffey Hall 2</td>
<td>Liffey Hall 2</td>
</tr>
</tbody>
</table>

**SE Fundamentals**

<table>
<thead>
<tr>
<th>Paper #</th>
<th>Title</th>
<th>Author(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1040</td>
<td>Engineering the Future</td>
<td>Paul Nielsen (Carnegie Mellon University)</td>
</tr>
<tr>
<td>1002</td>
<td>Systems Thinking: What Systems Engineers Need to Know</td>
<td>Dr. Michael C Jackson OBE (University of Hull)</td>
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</tbody>
</table>

**INCOSE Content**

<table>
<thead>
<tr>
<th>Paper #</th>
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<tbody>
<tr>
<td>1004</td>
<td>Architecture starts when you carefully split a system into two subsystems. There it begins...</td>
<td>Maarten Bonnema (University of Twente)</td>
</tr>
<tr>
<td>1005</td>
<td>Interfaces and the Somebody Else's Problem Field</td>
<td>Paul Davies (TheSystemsEngineer.uk)</td>
</tr>
</tbody>
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**V&V**

<table>
<thead>
<tr>
<th>Paper #</th>
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<tbody>
<tr>
<td>2.4.1</td>
<td>Validation Framework of a Digital Twin: A System Identification Approach</td>
<td>Ibukun Phillips, C. Robert Kenley (Purdue University)</td>
</tr>
<tr>
<td>2.6.1</td>
<td>The Human-Technology Spectrum: A Framework for Evaluating Sociotechnical System Function Allocation, Risk, and Performance</td>
<td>Graeme Troxell (Cornell University); Christian Sprague (INCOSE)</td>
</tr>
</tbody>
</table>

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<tr>
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<tbody>
<tr>
<td>1003</td>
<td>Requirements—Why Both?</td>
<td>Dr. Mike Ryan (Capability Associates Pty Ltd.)</td>
</tr>
<tr>
<td>1002</td>
<td>Multiple Pathways of Influence for Tightly and Loosely Structured Organizations: Implications for Systems Resilience</td>
<td>Raquel Valdez, Thushara Gunda, Susan Caiskey (Sandia National Laboratories)</td>
</tr>
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**Neurodiversity**

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<tr>
<th>Paper #</th>
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<tbody>
<tr>
<td>2.4.2</td>
<td>Promoting Neurodiversity Through MBSE and Other Technical Approaches</td>
<td>Taylor Duffy (SPEC Innovations); Maria Romero (Modern Technology Solutions, Inc.)</td>
</tr>
</tbody>
</table>

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**SE Fundamentals**

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<tbody>
<tr>
<td>1006</td>
<td>Engineering in the Digital Age - Revolutionising Digital Engineering with MBSE</td>
<td>Prof. Dr.-Ing. Lydia Kaiser (Technische Universität Berlin)</td>
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</tbody>
</table>

**T&E**

<table>
<thead>
<tr>
<th>Paper #</th>
<th>Title</th>
<th>Author(s)</th>
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<tbody>
<tr>
<td>3.5.5</td>
<td>Participatory Methods in SE</td>
<td>Jennifer Russell (Garver); Panelists: Dale Brown (Holst); René King (Project Performance International); Market Kurtz (Mitre Corporation)</td>
</tr>
</tbody>
</table>

**INCOSE Content**

<table>
<thead>
<tr>
<th>Paper #</th>
<th>Title</th>
<th>Author(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1007</td>
<td>Embrace Yourself! Our Responsibilities and Competencies as Complex Problem Solvers</td>
<td>Nicole Hutchison (Systems Engineering Research Center (SERC))</td>
</tr>
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Wednesday

Overall Schedule

07

Speaker/Session Chair Breakfast (0700-0745)
Location: Liffey Hall 1 - Level 1

08

Plenary Session & Keynote (0800-0930)
Location: Auditorium - Level 3

09

Break (0930-1000)
Location: Exhibit Hall – Ground Level

10

Sessions (1000-1210)

Working Group Meetings (1000-1210)

Sponsors Presentations (1000-1210)

11

Exhibition (0800-1700)
Location: The Forum – Ground Level

12

Symposium Registration (0700-1740)
Location: The Forum – Ground Level

13

Break (1500-1530)
Location: Exhibit Hall – Ground Level

14

Sessions (1330-1455)

Working Group Meetings (1330-1455)

Sponsors Presentations (1330-1455)

15

Sponsored by

16

Sessions (1530-1740)

Working Group Meetings (1530-1740)

Sponsors Presentations (1530-1655)

17

Sponsored by

18

Sponsored by

Sponsor/Exhibitor Track

Caltech (A2) ..................................................................................................................10:00-10:20 (Liffey Meeting Room 1 - Level 1)
Siemens Digital Industry Software (2-4) ........................................................................10:30-10:50 (Liffey Meeting Room 1 - Level 1)
Dassault Systèmes (6-8) ..........................................................................................11:00-11:20 (Liffey Meeting Room 1 - Level 1)
The REUSE Company (29-31) ..............................................................................11:30-11:50 (Liffey Meeting Room 1 - Level 1)
Sensmetry (19) .........................................................................................................13:30-13:50 (Liffey Meeting Room 1 - Level 1)
ptc (26) .......................................................................................................................14:00-14:20 (Liffey Meeting Room 1 - Level 1)
Intercax, LLC ..............................................................................................................15:30-15:50 (Liffey Meeting Room 1 - Level 1)
Boeing ..........................................................................................................................16:00-16:20 (Liffey Meeting Room 1 - Level 1)

Posters

A Configuration Management Strategy for Model-based Product Line Engineering in Aircraft Systems Development
Jordan Epp (University of Toronto); Thomas Robert, Olivier Ruch (Safran Landing Systems); Alison Olechowski (University of Toronto)
A modular simulation-based MBSE approach applied to a cloud-based system
Thomas Booth (Colorado State University, Nexus Digital Engineering, US Air Force); Sudipto Ghosh (Colorado State University)

An ontology example in Configuration Management at Airbus
Balachandar Ramachandriya Amarnath, Adriana D’Souza, Bernd Podey, Javier Reines, Moises Ramon Martinez (Airbus)

Exploring the Executable SysML Capabilities to Integrate and Operate Hardware in the Loop
Alexander Yeiser (Naval Postgraduate School); Saulius Pavalkis (Dassault Systemes); Oleg Yakimenko (Naval Postgraduate School)

Francisco Alvarez, Leslie Britt, Jon Trujillo (Sandia National Laboratories)

Introduction of Systems Engineering Practices in a Product Lifecycle Management (PLM) course for master students
Krister Sutinen (Siemens PLM Software)

MBSE Analysis and Update of the U.S. Infrastructure Data Taxonomy (IDT) Using the U.S. National Critical Functions (NCFs)
Anthony Adebonojo (Northrop Grumman); Kirk Moen (Self Employed); Jennifer Russell (Garver, Inc)

Model-Based Systems Engineering Approach for Designing an Artificial Magnetic Field Generator System for Spacecraft Radiation Protection
Charles Baker, Steven Simske (Colorado State University)

Outcomes and Perspectives from the 4th ESA Model-Based Space Systems and Software Engineering Workshop (MBSE2023) on reducing the gap between model-based systems engineering and domain-specific approaches.
Nikolina Christofi, Nils Fischer (European Space Agency); Mohammad Chami (SysDice); Akos Horvath (Inquery Labs); Andreas Jung (European Space Agency); Marie De Roquemaurel (Airbus Defence and Space); Pierre Dissaux (Ellidiss Technologies); Catherine Morlet, Elaheh Maleki, Marcel Verhoef (European Space Agency)

Risk Management in Project Planning for Life Science R&D: An Integration of the NTCP Framework
Yangyang Zhao (University of Oslo); Terje Lehn Karlsen (University of Southeast Norway); Timothy Craig (Pfizer Worldwide Research)

Risk and Systems Analysis for Renewable Power Generation with Environmental and Other Stressors
Megan C. Marcellin, Gigi Pavur (University of Virginia); John J. Cardenas (United States Agency for International Development); Saddam Q. Waheed (Iraq Ministry of Water Resources); Benjamin D. Trump, Igor Linkov (U.S. Army Corps of Engineers); Venkataraman Lakshmi, James H. Lambert (University of Virginia)

Systems Perspective Outcomes from Aerospace Failure Investigations
Elizabeth Matranga, Calvin Fong, Dianne DeTurris (Cal Poly State University, San Luis Obispo, CA); Shannon Flumerfelt (Oakland University)

Tactical Network Bandwidth Analysis: Application of the Wearables Model-Based Systems Engineering - System Architecture (MBSE-SA)
Jillian Cyr, Tara Sarathi, James Balcius, Michael Shatz (MIT Lincoln Laboratory)

The European Space Agency MBSE Methodology
Alberto Gonzalez Fernandez, Elaheh Maleki, Nils Fischer, Evelyn Honoré-Livermore, Nikolina Christofi, Marcel Verhoef (European Space Agency (ESA))

**Business/Working Groups Meetings**

<table>
<thead>
<tr>
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<tbody>
<tr>
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<td>07:00</td>
<td>08:00</td>
<td>In person session</td>
<td>Wicklow Meeting Room 1</td>
</tr>
<tr>
<td>EMEA Chapter leader Workshop</td>
<td>13:30</td>
<td>14:55</td>
<td>Open</td>
<td>EcoCem Room</td>
</tr>
<tr>
<td>Knowledge Systems Working Group</td>
<td>13:30</td>
<td>14:55</td>
<td>Open</td>
<td>Wicklow Meeting Room 1</td>
</tr>
<tr>
<td>SEBoK Overview &amp; How to get involved!</td>
<td>13:30</td>
<td>14:55</td>
<td>Open</td>
<td>Liffey Meeting Room 2B</td>
</tr>
<tr>
<td>Smart Cities Meeting: Model effort</td>
<td>13:30</td>
<td>14:55</td>
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<td>Liffey Meeting Room 3A</td>
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<tr>
<td>System Adaptability Working Group Meeting</td>
<td>13:30</td>
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<tr>
<td>Americas Sector Chapter Leaders</td>
<td>15:30</td>
<td>18:00</td>
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<tr>
<td>Digital Engineering Information Exchange (DEIXWG) Open Meeting</td>
<td>15:30</td>
<td>18:00</td>
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<td>INCOSE Fellows - General Business</td>
<td>15:30</td>
<td>18:00</td>
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<td>Wicklow Meeting Room 1</td>
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<tr>
<td>Product Line Engineering Working Group - Meetup</td>
<td>15:30</td>
<td>18:00</td>
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<td>Liffey Meeting Room 3A</td>
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<tr>
<td>TLI Topical Engagement with Dave Snowden</td>
<td>15:30</td>
<td>18:00</td>
<td>By invitation only</td>
<td>EcoCem Room</td>
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<td>Transportation WG - Industry Update</td>
<td>15:30</td>
<td>18:00</td>
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<td>Liffey Meeting Room 2A</td>
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<td>Automotive WG meetings in Dublin</td>
<td>18:00</td>
<td>19:00</td>
<td>Open</td>
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<td>INCOSE Foundation Board of Directors Meeting</td>
<td>18:00</td>
<td>19:00</td>
<td>Closed</td>
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<td>Time</td>
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<td>The Auditorium</td>
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<td>10:00</td>
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<td>MBSE Lightning Round</td>
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<td>Design</td>
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<td>Daniel Call (Colorado State University); Daniel Herber, Steven Corral (Colorado State University)</td>
<td>Andrew Pickard (AFRL); Richard Beasley (NASA Systems); Dean Beale (Bristol University); Dorothy McKinney (Retired); Rudolph Oosthuizen (University of Pretoria); Dave Stewart (EACI); Kenneth Cureton (University of Southern California); Chandra Mishandhan (Leidos)</td>
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<td>Yi Long Yang (Beihang University); Wenshui Song, Chuanxiang Cang (Beihang University); Xin Gao (Institute of unformed system)</td>
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<td>10:45</td>
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<td>Paper#516: 4.1.4 / Using VR to Validate and Visualize MBSE-Designed Interfaces</td>
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<td>Sean Ranagan (Integration, Innovation, Inc.)</td>
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<td>Ryan Ngouchi (The Aerospace Corporation)</td>
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<td>Paper#488: 4.1.6 / NASA’s Use of MBSE and SysML Modeling to Architect the Future of Human Exploration</td>
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<td>Terry R. Hill (NASA); Audrey Morris-Eckert (NASA); Alain J. Carnevale (Aerospace Corporation); Vladifin Sundaram (Booz Allen Hamilton); Leon Farha (Jacobs Technology)</td>
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<td>12:10</td>
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<td>Lunch</td>
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<td>Digital Transformation</td>
<td>Systems Engineering Concepts</td>
<td>Military</td>
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<td></td>
<td></td>
<td>Stepanie Chieci</td>
<td>Frank Salvatore</td>
<td>Mike Shearn</td>
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<td>13:30</td>
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<td>Paper#269: 5.1.1 / Accelerating Digital Transformation through MBSE, Multi-physics Simulation and Digital Twin in Industry</td>
<td>Paper#284: 5.2.1 / System Revisited - Again</td>
<td>Presentation#455: 5.3.1 / Digital Engineering in Military Systems Integration</td>
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<td>Jacques Martinez (Safran SEATS company); Imane Bouhalli (ISAE and INSA PhD Student); Luca Palladino (Safran SEATS company); Vincent Tissani (INSA Professor); Frederic Kratz; Jean-Yves Choekey, Faïza Mherri (ISAE Professor)</td>
<td>Anthony Quayle (Independent researcher)</td>
<td>Carly Fridlin, Nicole Olbricht (US Army Space and Missile Defense Command)</td>
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<td>Presentation#91: 5.1.2 / The A to Z for Implementing a Digital Transformation on a Systems Project</td>
<td>Paper#262: 5.2.2 / Enterprise: Exploration of Concepts, Perspectives and Implications for Systems Engineering</td>
<td>Presentation#219: 5.3.2 / An holistic view of the implementation of the Open Architecture Approach in military systems</td>
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<td>Kenny Lunney, Stephanie Bonnet (Thales)</td>
<td>Charles Kasting (Old Dominion University); Polipapinio Kotina (University of South Carolina Upstate); Joseph Bradley (Leading Change, LLC); Richard Hodge (drfrichardhodge.com); James Martin (The Aerospace Corporation); Sue Caskey (Sandia National Laboratories)</td>
<td>Raquel Lampazca Viera Radoman, Michael Hershaw, Melanie King (Loughborough University); Tim Rabbets (QinetiQ Ltd)</td>
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<tr>
<td>15:00</td>
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<td>Break</td>
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<td>15:30</td>
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<td>SE Practice</td>
<td>Space</td>
<td>Nuclear and Panama Canal</td>
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<td>Jennifer Russell</td>
<td>Mark Winstead</td>
<td>Ron Claghm (Idaho National Laboratory)</td>
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<td>Barry Papke (Dassault Systems); Gan Wang, Sean Demford (Dassault Systems); Ricardo Valeri (University of Arizona)</td>
<td>Mamadou Lamine Ndao, Claude Baron (Université de Toulouse)</td>
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<td>Richard Wise (Georgia Tech Research Institute)</td>
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<td>Paper#449: 6.3.1 / Convergence of COSYMO Parametric Cost Estimation with Model-Based Systems Engineering</td>
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<td>William Barrum, William Fisher, Mark Winstead, Stephen Walsh (The MITRE Corporation)</td>
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Risk, uncertainty and complexity

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<th>Track 4</th>
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<th>Track 6</th>
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<tr>
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<td>The Liffey A</td>
<td>Liffey Hall 2</td>
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### Risk
- Presentation#225: 4.4.1 / A Comprehensive Risk Assessment Methodology for Extended Product Lifecycles
  - Gregory Parnell

### Education
- Presentation#438: 4.5.1 / An MBSE group project challenge as a learning experience for Masters degree students
  - Paul Davies (thesystemsengineer.uk)

### Sustainability
- Paper#265: 4.6.1 / Sustainability Mindshift: Incorporating the Systems Perspective
  - Charles Keating (Old Dominion University); Pelinpapillinho Katina (University of South Carolina Upstate); James Pyne (Old Dominion University)

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### STPA - Risk
- Paper#203: 5.4.1 / Application of the System-Theoretic Process Analysis (STPA) technique to enabling systems in the rail industry
  - Cecilia Haskins

### Panel
- Presentation#281: 5.5 / What works and what does not work in teaching non-Systems Engineers about systems thinking
  - John Slowey (Think Systems)

### Sustainability
- Paper#175: 5.6.1 / Sustainability Designing Products / Designing Sustainable Products
  - Jim Marsh (INCOSE Member); Gianluca Monticone, Edmund Mayer (IBM)

---

### MBSE Adoption
  - Tara Sarathi

### Education
- Presentation#542: 6.5.1 / Full STEDE Ahead: Developing a Simulation Training Environment for Digital Engineering
  - Satyanarayana Kokkula

### Sustainability
  - Niko Martel, Cj Reda, Richardo Larez, Sharon O’Neal (University of Arizona); Alejandro Salado (The University of Arizona); David Armanta (University of Arizona)

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### STPA - Risk
- Paper#292: 5.4.2 / Integrating STPA Extended for Coordination into SysML Using RAAML
  - Elizabeth Pennington, Kip Johnson, John Colombi (Air Force Institute of Technology); Kiarienne Hobbs (Air Force Research Laboratory)

### Sustainability
  - Raquel Hoffmann (Keio University); Fabio Silva (University of Arizona San Diego); Annie Sy (University of California San Diego)

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### MBSE Adoption
- Paper#26: 6.4.3 / Providing tailored heuristic advice to Systems Engineers
  - Zab Sharifi, Mo Mansouri (Stevens Institute of Technology)

### Education
- Presentation#389: 6.5.3 / A Model for Cybersecurity Education through Challenge Events
  - Satyanarayana Kokkula

### Sustainability
- Paper#312: 6.6.3 / Seeing the bigger picture with the Unified Architecture Framework (UAF) - Offshore Wind to Hydrogen Enterprise
  - Joseph Hughes, Matti Koskipaa (Dassault Systemes)
Thursday

Overall Schedule

07:00 - 07:45
Speaker/Session Chair Breakfast
Location: Liffey Hall - Level 1

08:00 - 09:30
Plenary Session & Keynote
Location: Auditorium - Level 3

09:30 - 10:00
Break
Location: Exhibit Hall - Ground Level

10:00 - 12:10
Sessions
Working Group Meetings
Sponsors Presentations

12:10 - 13:30
Lunch
Location: Exhibit Hall - Ground Level

13:30 - 14:55
Sessions
Working Group Meetings
Sponsors Presentations

14:55 - 15:30
Break
Location: Exhibit Hall - Ground Level

15:30 - 16:55
Sessions
Working Group Meetings
Sponsors Presentations

18:30
Meet at the entrance of the Convention Center for a transfer by bus.

Official Dinner (Ticket required)
(1900 - 2130)
Location: Royal Dublin Society, Merrion Road, Ballsbridge, Dublin

Sponsor/Exhibitor Track
Siemens Digital Industry Software (2-4)
10:00-10:20 (Liffey Meeting Room 1 - Level 1)
Project Performance International (17)
11:00-11:20 (Liffey Meeting Room 1 - Level 1)
Meeting Name | Time Start | Time End | Meeting Listing | Room
--- | --- | --- | --- | ---
Systems Thinking RoundTable (STRT) | 07:00 | 08:00 | In person session | Wicklow Meeting Room 1
MBSE Patterns Working Group Meetings | 10:00 | 12:10 | Open | EcoCem Room
CAB Engagement on AI with Mark Kelly | 13:30 | 14:55 | Open | Liffey Meeting Room 2B
SEBoK Overview & How to get involved! | 15:30 | 16:55 | Open | Liffey Meeting Room 2B
TLI Topical Engagement: Leading in an AI-enabled world | 15:30 | 16:55 | By invitation only | EcoCem Room

Posters

A Technical Approach to the Digital Signature of MBSE Models
Risa Gorospe, Shannon Dubicki (The Johns Hopkins University Applied Physics Laboratory)

Addressing Cross-Domain Interoperability between Automotive and Smart Grid Architecture Models
Jounes-Alexander Gross, Katharina Polanec, Dominik Vereno, Christoph Binder, Christian Neureiter (Salzburg University of Applied Sciences)

Application of Model-Based Systems Engineering Within the Automotive Industry — a Current State
Daniel Brenk, Sebastian Seiffert, Artur Rauh (UL Method Park GmbH)

Are Electric Vehicles Always Better for the Environment?
Eng Seng Chia (College of Design and Engineering, National University of Singapore); Zhe Yang, Han Wang (NUS (Suzhou) Research Institute)

Do Algorithms Dream of Electric Requirements? Leveraging AI-Based Approaches for Automated Allocation and Classification of Requirements in Railway Engineering
David Martin, Jaume Sanso (SENER Mobility)

Evaluating Automotive Spice® As Process Requirements
Jan Frank (UL Solutions)

Leading in Uncertainty: A Framework to Improve Performance
Eric Specking (University of Arkansas); Andrew Murrell (Northrop Grumman); Alexander Chang (The Aerospace Corporation); Robert Schwenke (Sandia National Laboratory); Donna Long (Blue Holon); Mikaela Stewart (Cubic Transportation Systems); Luis Andes-Olmedo (Airbus Defence & Space)

Logical Architecture Optimization via a Markov chain based Hierarchical Clustering Method
Beatrice Melani (Politecnico di Milano); Davide Fabbroni (Leonardo Helicopters Division); Lucrezia Manieri, Alessandro Falsone, Maria Prandini (Politecnico di Milano)

Migrating To ARP4754A: Tailoring Of Architecture And Systems Requirements Definition Processes In The Rotorcraft Industry
Davide Fabbroni, Guido Casella (Leonardo Helicopters Division); David Ward (TMC Italia)

Model-Based Cybertronics Systems Engineering (MBCSE)
Susanna Solanti-Iltanen (Tampere University); Brendan Hall (Ardent Innovation Labs); Petri Solanti (Siemens Digital Industries Software)
<table>
<thead>
<tr>
<th>Time</th>
<th>Track 1</th>
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<th>Track 3</th>
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<tr>
<td>08:00 - 09:30</td>
<td>Keynote</td>
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<td>09:30 - 10:00</td>
<td>Break</td>
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<td>10:00 - 10:40</td>
<td>MBSE Methodologies</td>
<td>Digitalization</td>
<td>Modeling</td>
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<td>10:45 - 11:25</td>
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<td>11:30 - 12:10</td>
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<td>12:10 - 13:30</td>
<td>Break</td>
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<tr>
<td>13:30 - 14:10</td>
<td>Session 8</td>
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<td>14:15 - 14:55</td>
<td>Session 9</td>
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<td>15:00 - 15:30</td>
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<tr>
<td>15:30 - 16:10</td>
<td>Panel</td>
<td>Ontology</td>
<td>Systems Engineering in Context</td>
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<tr>
<td>16:15 - 16:55</td>
<td>Session 9</td>
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<td>17:00 - 18:30</td>
<td>Official Dinner</td>
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AI in Action: Current Applications Transforming the World and Their Unintended Consequences

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### AI

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<td>Barclay Brown (Collins Aerospace)</td>
<td>Tom McDermott, Kara Pepe, Megan Clifford (Stevens Institute of Technology)</td>
<td>Brian Johns (United States Air Force Academy); Kristinna Carroll, Casey Medina, Rae Lewark (Studio SE Ltd); James Walliser (United States Air Force Academy)</td>
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### Agile

<table>
<thead>
<tr>
<th>Presentation#271: 8.4.1 / Optimizing Systems Engineering Workflows through Novel Applications of Large Language Models</th>
<th>Paper#230: 8.4.2 / AI-Enhanced Autonomous Formation Flying - Definition of a Mission-driven and Safety-critical Software Development Environment</th>
<th>Presentation#380: 8.5.2 / Practice to adapt MBSE as agility enabling to the agile software development for mobility platforms</th>
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<tbody>
<tr>
<td>Edward Serzo (System Strategy, Inc. (SSI))</td>
<td>Bernard Diori, Alexandre Luc, Nicolas Dalmasso, Guillaume Goretkin, Matthias Paquet (Armyx)</td>
<td>Daisuke Hashimoto, Yutaro Ito (Woven by Toyota, Inc.)</td>
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### Digital Engineering Management

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<tr>
<th>Presentation#474: 9.4.1 / Integrating IVM into a generative AI Enterprise work culture</th>
<th>Paper#184: 9.5.2 / A Model for Trust and Distrust: The Systems Dynamics Approach</th>
<th>Paper#437: 9.5.2 / Integrating AI with MBSE for Data Extraction from Medical Standards</th>
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<tr>
<td>Jason Blevins (National Railroad Passenger Corporation (Amtrak))</td>
<td>Takashi Matuura, Seiko Shirasaka (Graduate School of System Design and Management, Keio University)</td>
<td>Ibrahim Ghanawi, Mohammad Wissam Chami, Mohammad Chami (SySDICE GmbH); Marko Coric (Mechatronics); Nabil Abdouln (SySDICE GmbH)</td>
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### Delivery Capabilities

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<thead>
<tr>
<th>Richard Beasley</th>
<th>Mark Taylor (ManTech International); Matthew Taylor (M&amp;O); Mark Schirmer (ManTech International)</th>
<th>Bonnie Johnson (Naval Postgraduate School)</th>
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<tr>
<td>Presentation#90: 7.5.1 / Is the Journey to the End of the Project Rainbow a Minimal Viable Capability (MVC)?</td>
<td>Presentation#245: 7.5.2 / Enhancing Industry 4.0 Transformation Success with a Solution Debt Playbook</td>
<td>Presentation#256: 7.5.3 / Systems Engineering innovation through ‘futures’ Methods</td>
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<td>Kenny Lunney (Thales)</td>
<td>Heidi Desroziers (ManTech International)</td>
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### Leadership

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<tr>
<th>Stephanie Chiesi</th>
<th>David Long (Blue Holon)</th>
<th>Ennaga Fale (Northrop Grumman, University of Charleston, Society of Women Engineers); Cherie Chain (Raytheon Technologies – Collins Aerospace, Society of Women Engineers)</th>
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<tbody>
<tr>
<td>Presentation#47: 7.6.1 / Perspective and Influence and Leverage, Oh My! Leadership for Systems Engineers</td>
<td>Presentation#194: 7.6.2 / A System Dynamics Model of Organizational Resilience</td>
<td>Presentation#573: 7.6.3 / A Systems Engineering Approach to Driving the ‘Right’ Organizational Culture and Life at the Right Pace</td>
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<tr>
<td>Edward Serzo (System Strategy, Inc. (SSI))</td>
<td>Ivan Taylor (Policy Dynamics Inc.); Niamat Ibne Hossain (Arkansas State University)</td>
<td>Nading Ip (United States Air Force Academy); Kristina Carroll, Bonnie Johnson (Naval Postgraduate School)</td>
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### Systems Engineering in Context

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<th>Presentation#47: 7.6.1 / Perspective and Influence and Leverage, Oh My! Leadership for Systems Engineers</th>
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### Systems Engineering Innovation

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<th>Presentation#230: 8.4.2 / AI-Enhanced Autonomous Formation Flying - Definition of a Mission-driven and Safety-critical Software Development Environment</th>
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<td>Bernard Diori, Alexandre Luc, Nicolas Dalmasso, Guillaume Goretkin, Matthias Paquet (Armyx)</td>
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Friday

Overall Schedule

08
Speaker/Session Chair Breakfast (0800-0845)
Location: EcoCem Room - Level 2

09
Sessions (0900-1155)

10
Working Group Meetings (0900-1155)

11
Symposium Registration (0800-1700)
Location: The Forum Foyer - Ground Level

12
Lunch (1200 - 1300)
Location: The Liffey B - Level 1

13
Sessions (1300-1425)

14
Working Group Meetings (1300-1425)

15
Closing Plenary & Keynote (1430-1530)
Location: Auditorium - Level 3

16
Working Group Meetings (1530-1700)

17
Speaker Ready Room (0845-1700)
Location: EcoCem Room - Level 2

12
Lunch (1200 - 1300)
Location: The Liffey B - Level 1

13
Sessions (1300-1425)

14
Working Group Meetings (1300-1425)

15
Closing Plenary & Keynote (1430-1530)
Location: Auditorium - Level 3

16
Working Group Meetings (1530-1700)

17
Speaker Ready Room (0845-1700)
Location: EcoCem Room - Level 2

08
Speaker/Session Chair Breakfast (0800-0845)
Location: EcoCem Room - Level 2
### Business/Working Groups Meetings

<table>
<thead>
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<tr>
<td>Systems Thinking RoundTable (STRT)</td>
<td>08:00</td>
<td>09:00</td>
<td>In person session</td>
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<td>Certification Exam</td>
<td>09:00</td>
<td>12:00</td>
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<tr>
<td>Event Stakeholder Meeting</td>
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<td>Automotive WG meetings in Dublin</td>
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<td>Requirements Working Group</td>
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<td>18:00</td>
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### Posters

- **A Rapid Review of How Model-based Systems Engineering is Used in Healthcare Systems**
  Md Doulotuzzaman Xames, Taylan Topcu (Grado Department of Industrial and Systems Engineering, Virginia Tech)

- **Analysis of the Ability of the OSLC Standard to Improve Data Traceability in System Development**
  Lukas Portenlänger (University of Applied Sciences Munich); Andreas Korff (MAHLE International GmbH); Wolfgang Schönecker (consultens Professional Services); Claudio Zuccaro (University of Applied Sciences Munich)

- **Configuration Management of Sets of Links in a Federated Tool Environment**
  Adriana D’Souza (Airbus); David Hetherington (Asatet Press, Inc); Geza Kulcsar (IncQuery Labs); Bryan Orozco (NASA JPL); Aleksander Przybylo (Boeing); Istvan Rath (IncQuery Labs)

- **Impact Analysis of using Natural Language Processing and Large Language Model on Automated Correction of Systems Engineering Requirements**
  Lucas Henrique Marchiori (Ford Motor Company); Arthur Hendricks Mendes de Oliveira, Pedro Almeida Reis, Fernando Sarracini Júnior, Maïron Sena Cavalcante, Jonathan Vinicius de Lima, Luis Fernando Soares (Ford Motor Company Brazil)

- **Introducing a Three-Layer Model Taxonomy to Facilitate System-of-Systems Co-Simulation**
  Dominik Vereno, Katharina Polanec, Jounes-Alexander Gross, Christoph Binder, Christian Neureiter (Salzburg University of Applied Sciences)

- **Leveraging Large Language Models for Direct Interaction with SysML v2**
  John DeHart (Avian)

- **Modeling Enterprise Software with UAF**
  Matthew Hause (SSI); Lars-Olof Kihlstrom (CAG)

- **Models Models Everywhere! A practitioners view on the reality of modeling**
  Duncan Kemp (Loughborough University); Chris Hoffman (Cummins); Meaghan O’Neil (System Design and Strategy)

- **SoS - Global Solutions to Global Problems Using UAF**
  Kristina Carroll, Allison Lyle, Rae Lewark, Casey Medina (Studio SE Ltd); Aurelijus Morkevičius (Dassault Systèmes and Department of Information Systems Kaunas University of Technology)

- **Systems Architecture Meta-Model for the MagicGrid Framework**
  Aiste Aleksandraviciene, Zilvinas Strolia (Dassault Systemes); Aurelijus Morkevicius (Department of Information Systems Kaunas University of Technology and Dassault Systemes); Gintare Krisciuniene (Dassault Systemes)

- **Towards UAF Implementation in SysML V2**
  Aurelijus Morkevicius (Department of Information Systems Kaunas University of Technology and Dassault Systemes); Gintare Krisciuniene (Dassault Systemes)

- **Truly Modular and Open System Design is Difficult**
  David Hetherington (System Strategy, Inc)

- **Unlocking Synergy: Leveraging SysML and Modelica with Bi-Directional Transformation and Simulation Integration Standards**
  Brian Pepper, Habibi Hussein Arifin, Saulius Pavalkis, Jyothi Matam, Ronald Kratzke (Dassault Systèmes)
## Session 10

**Track 1**
- **Moderator:** Phyllis Marbach (SMSWG - INCOSE)
  - **Panelists:** Ian Symington (NAFEMS), Bernardo Delicado (INCOSE), Hans Peter DeKoning (SMSWG), Alexander Buch (SMSWG, Ansys)
- **Panel#1198:** 10.1.1 / Building the digital bridge between MBSE and Engineering Simulation
  - **Presenters:** Richard Beasley
  - **Session 10**
- **Paper#331:** 10.2.1 / A Case Study of AI Usage within the INCOSE Technical Process
  - **Presenters:** Pete Chagnon, Rachelle Forney, Kenneth Harkenrider, Emily Wood, Yiying Zhang, Jonathan Weaver (University of Detroit Mercy)
- **Presentation#379:** 10.2.2 / Spreading the word: How the Brazilian INCOSE Chapter is Contributing to the Growth of the Local Systems Engineering Community
  - **Presenters:** Diego Rangel, Bruno Livramento (INCOSE Brasil)
- **Presentation#490:** 10.2.3 / Safer Complex Systems
  - **Presenters:** Meaghan O’Neil (System Design and Strategy Ltd), Duncan Kemp (Ministry of Defence)
- **Paper#453:** 10.3.1 / Empowering Model-Based Systems Engineering Through Metamodeling
  - **Presenters:** Richard Wise (Georgia Tech Research Institute), Rhett Zimmer (NAVAIR)
- **Presentation#279:** 10.3.2 / Optimizing MBSE adoption: Identifying and prioritizing forces
  - **Presenters:** Marjolein Velthuizen, Erwin Hofman, Marcus Pereira Pessoa, Maria Iacob (University of Twente)
- **Presentation#309:** 10.4.1 / Dealing with Emergence in Systems Engineering Models--Fewer Surprising Failures and more ‘Happy Accidents’
  - **Presenters:** Suzette Johnson (Northrop Grumman), Robin Yeman (Carnegie Mellon)
- **Presentation#303:** 10.4.2 / Enabling Systems Engineering at Scale
  - **Presenters:** Michael Shearin, Val Sitterle, Zac Connor (Georgia Tech Research Institute)

**Track 2**
- **Paper#332:** 10.1.2 / Excuse me Sir/Madam, which Model? (Part II)
  - **Presenters:** Erik Herzog (SAAB AB), Johanna Awebill, Robert Hallquist (Saab AB), John R. Palmer (The Boeing Company)
- **Presentation#69:** 10.2.4 / The Latest on the INCOSE-PMI Alliance and integration between Program Management and Systems Engineering
  - **Presenters:** Tina Srivastava (MIT / Badge Inc.), Molly Kovaka (KOVAX LLC)
- **Presentation#333:** 10.4.3 / Dealing with Emergence in Systems Engineering Models--Fewer Surprising Failures and more ‘Happy Accidents’
  - **Presenters:** Peter Korfiatis, Judith Dahmann, Peter Korfatis (The MITRE Corporation)
- **Paper#554:** 10.3.3 / A Method for Human Systems Integration Requirements within Model Based Systems Engineering
  - **Presenters:** Kenneth Corl, Erika Gallegos (Colorado State University)
- **Presentation#362:** 10.4.4 / Using Systems Engineering and Decision Analysis in Descriptive, Predictive, and Prescriptive Modeling
  - **Presenters:** Gregory Parnell (Univeristy of Arkansas), Eric Specking (University of Arkansas), Randy Buchanan (Engineer Research and Development Center)
- **Presentation#361:** 10.4.5 / Trade Space Wonders: Expanding Horizons with Graph Embeddings to understand large trade spaces
  - **Presenters:** Kefan Sun, Mike Nicolai, Clement Bertheaume (Siemens Industry)

**Track 3**
- **Panel#1198:** 10.1.1 / Building the digital bridge between MBSE and Engineering Simulation
  - **Moderator:** Phyllis Marbach (SMSWG - INCOSE)
  - **Panelists:** Ian Symington (NAFEMS), Bernardo Delicado (INCOSE), Hans Peter DeKoning (SMSWG), Alexander Buch (SMSWG, Ansys)
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  - **Presenters:** Kefan Sun, Mike Nicolai, Clement Bertheaume (Siemens Industry)
### Track 4

- **Wicklow Hall 2A**
  - Presentation#65: 10.4.1 / Industrial DevOps and Digital Twins for Cyber-Physical Systems
    - Suzette Johnson (Northrop Grumman); Robin Yeman (Carnegie Mellon, SEI)
  - Paper#165: 10.6.1 / The Importance of Being Björn – Experiences from Five Age Cohorts of Female Systems Engineers
    - Marianne Johansson, Johanna Avehi; Åsa Nordling Larsson (Saab AB); Linda Cederberg (Combitech AB); Stephanie Chesi (Blue Origin); Erika Palmer (Cornell University)

- **Wicklow Hall 2B**
  - Paper#458: 11.3.2 / A Method for Human Systems Integration
    - Richard Wise (Georgia Tech Research Institute); Rhett Zimmer
  - Marjolein Velthuizen, Erwin Hofman, Marcus Pereira Pessoa, Eileen Arnold (Raytheon - BAE Systems (retired)); Dorothy (CoML) concept - unlocking collaboration in an uncertain/
  - Presentation#85: 10.3.4 / The Contextual Metadata Layer
    - Kefan Sun, Mike Nicolai, Clement Bertheaume (Siemens Industry Software NV)

### Track 5

- **Liffey Hall 1**
  - Presentation#282: 10.3.1 / Digital Engineering Capability Requirements within Model Based Systems Engineering
    - Kenneth Corl, Erika Gallegos (Colorado State University)
  - Paper#453: 10.3.3 / Empowering Model-Based Systems Engineering Through Metamodeling
    - Michael Shearin, Val Sitterle, Zac Connor (Georgia Tech Research Institute)
  - Presentation#315: 10.3.2 / Optimizing MBSE adoption: Increased Systems Engineering Influence
    - Kyle Hall, Etienne Coetzee, Alan Lang (Airbus)

### Track 6

- **Liffey Hall 2**
  - Paper#65: 10.4.1 / Industrial DevOps and Digital Twins for Cyber-Physical Systems
    - Suzette Johnson (Northrop Grumman); Robin Yeman (Carnegie Mellon, SEI)
  - Presentation#270: 10.5.1 / Towards a Reusable Model Based Systems Integration Framework
    - Oliver Hoehne (WSP USA)
  - Paper#165: 10.6.1 / The Importance of Being Björn – Experiences from Five Age Cohorts of Female Systems Engineers
    - Marianne Johansson, Johanna Avehi; Åsa Nordling Larsson (Saab AB); Linda Cederberg (Combitech AB); Stephanie Chesi (Blue Origin); Erika Palmer (Cornell University)
  - Presentation#309: 10.4.4 / Dealing with Emergence in Systems Engineering Models—Fewer Surprising Failures and more ‘Happy Little Accidents’
    - Steve Holt (Boeing)
  - Presentation#392: 11.5.2 / MOSA Implementation Challenges and Opportunities; Perspectives from the NDIA Architecture Committee
    - Robert Schwerer (National Defense Industrial Association (NDIA) SE Division Architecture Committee (Chair)); Edward Moshinsky (National Defense Industrial Association (NDIA) SE Division Architecture Committee (Co-Chair))

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**Engineering Tomorrow: Navigating Pathways to Industry 5.0**
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<td>0700</td>
<td><strong>Speaker/Session Chair Breakfast</strong></td>
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Tutorials

A.1 - Hands-on Journey on Variant Modelling with SysML: Features Models, Methods, SysML v2, and AI Insights

Marco Forlingieri (IBM Engineering), Tim Weilkiens (OOSE)
Wicklow Hall 1 - Level 2 (Ticket required)

A.2 - Security as a Foundational Perspective in Systems Engineering: Engineering Trustworthy Secure Systems

Mark Winstead (The MITRE Corporation)
Wicklow Hall 2A - Level 2 (Ticket required)

A.3 - Dimensional Analysis. A helpful practice for identifying constraints on a system model developed using ISE&PPOOA MBSE methodology

Jose Luis Fernandez (Independent MBSE trainer), Juan Antonio Martinez (Department of Signal Theory and Communications, Escuela Politécnica. Universidad de Alcala de Henares.)
Wicklow Hall 2B - Level 2 (Ticket required)

A.4 - Embracing the Social Dimension of Systems Engineering

David Long (Blue Holon), Suja Joseph-Malherbe (Letter27)
Liffey Hall 1 - Level 1 (Ticket required)

A.5 - Open Source System Modeling with Python

Ryan Longshore, Raymond Madachy (Naval Postgraduate School)
Liffey Hall 2 - Level 1 (Ticket required)

A.6 - Systems Engineering for a Sustainable Future: Leveraging Emerging Technologies and Systems Modernization

Randall Anway (New Tapestry, LLC)
Liffey Meeting Room 3 - Level 1 (Ticket required)

C.1 - Use a Framework for SE in Early-Stage R&D to Build Your Bridge that Spans the Chasm Between Research and Engineering

Ann Hodges (Sandia National Labs (ret); SE in Early-Stage R&D Working Group Co-Chair; Enchantment Chapter Secretary, Past President), Michael DiMario (CEO, Astrum Systems; Lucent Bell Labs, retired; Lockheed Martin, retired; SE in Early-Stage R&D Working Group Co-Chair), Arno Granados (Strategic Technology Consulting; SE in Early-Stage R&D Working Group core member; Enchantment Chapter Past President)
Wicklow Hall 1 - Level 2 (Ticket required)

Business/Working Groups Meetings

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