Mobility Systems: Land, Sea, Air and Space

INCOSE 14th Annual GLNC Regional Conference

Detroit, MI, USA

Hybrid Edition

Coming in the Spring of 2023 – To Be Announced Dates

At a Glance ……

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Program Schedule

Preliminary Advanced

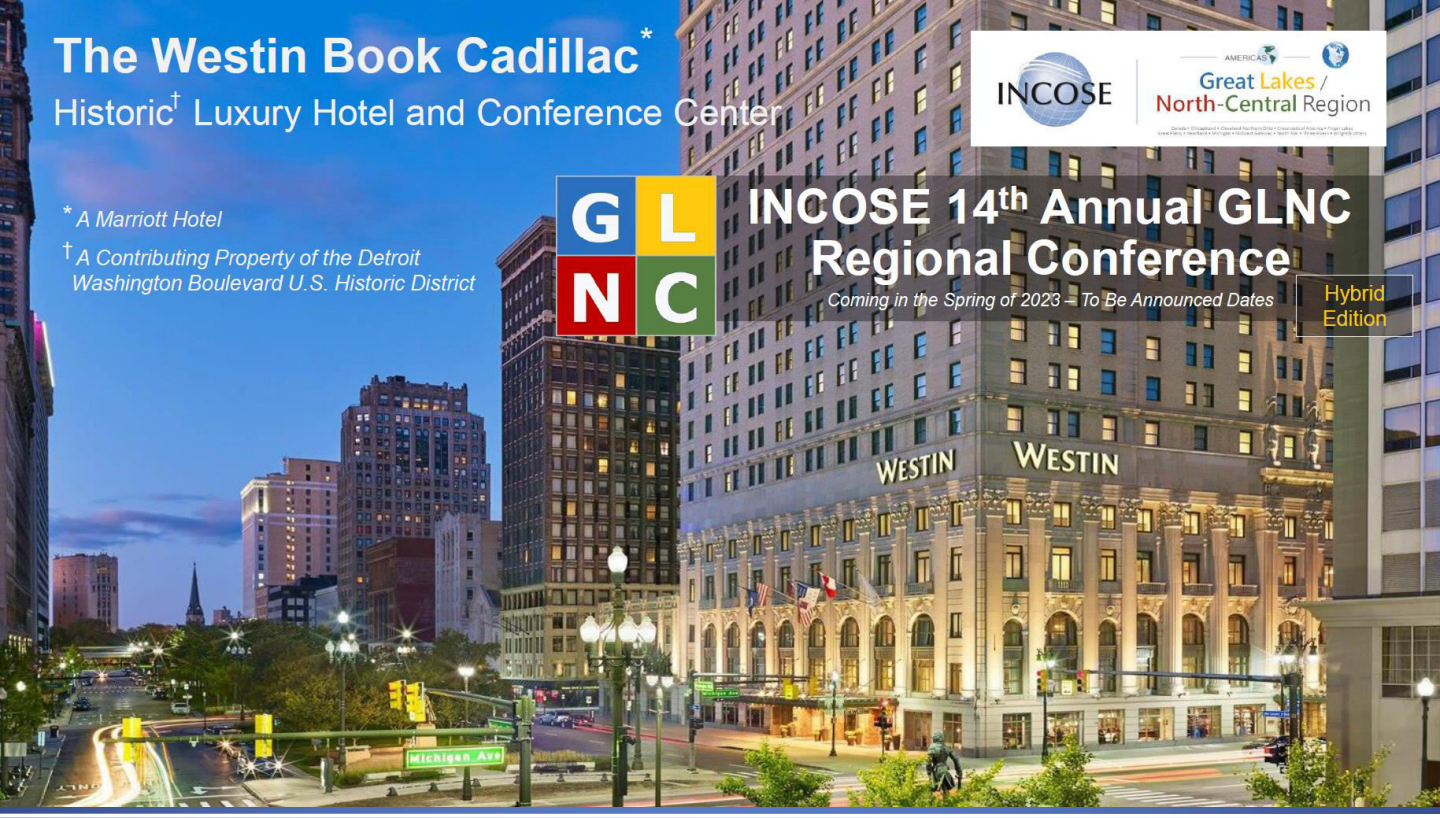
Presentations, Workshops, Tutorials & Roundtables ….

3 – "Mobility Systems: Land, Sea, Air and Space"

Leveraging NASA Tech Transfer/Small Business Programs, and Michigan Office of Future Mobility and Electrification (OFME) Resources & Programs for Rapid Innovation of Mobility Systems of Systems (SoS).

2 – "Smart City Systems Initiative" *Stakeholder & Community Outreach and Dialogue on Urban Planning, Smart Mobility, Frameworks, System Modeling, Standards (e.g., ISO 37122, ISO 37120, IEEE P2784), etc.*

1 – "Transformation Through Digital Engineering" *Vision, Strategies and Implementation of System & Software Modeling (MBSE, SysML, UML), Industry 4.0 , Artificial Intelligence (AI), and CyberSecurity.*



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At a Glance .....

Program Schedule

Preliminary Advanced

An "Innovation Accelerator" Hybrid Conference and Workshop Event Streamed from Detroit, Michigan, USA.

Featured Speakers and Instructors

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Confirmed Presenters – "To Be Confirmed" Not Shown

Thomas M. Doehne
Partnership and Commercialization Specialist, Office of Technology Incubation and Innovation, NASA John H. Glenn Research Center

Trevor Pawl
Chief Mobility Officer, State of Michigan, Office of Future Mobility and Electrification (OFME)

Kerry Lunney
President, International Council on Systems Engineering (INCOSE), 2020-21. Engineering Director and Chief Engineer, Thales Australia

Gavin Brown
Executive Director, Michigan Aerospace Manufactures Association (MAMA); Chair, North American Space Summit (NASS)

Dr. Bruce Powel Douglass
Senior Principal Systems Engineer, MITRE; Author, MBSE Instructor in SysML/UML

Brett Hillhouse
Global Automotive Leader, IBM Artificial Intelligence (AI) Applications.

Speakers, Panelists and Instructors (Cont.)

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Confirmed Presenters – "To Be Confirmed" Not Shown

Dr. Tina P. Srivastava
Co-Chair, INCOSE PM-SE Integration WG, PMI-INCOSE Strategic Alliance;
Fellow, MIT Aeronautics and Astronomics Engineering, Design and Management School

Pascal Thalin
Director, Aerospace Standards, Technology and Innovation, SAE International

Charlie Tyson
Technology Activation Manager, Michigan's Office of Future Mobility & Electrification (OFME).

Claude Laporte, Ph. D.
Professor, École de Technologie Supérieure (ÉTS), Montreal, Quebec, Canada; Committee Member, ISO/IEC 29110, Systems and Software Engineering Standards, Guide for Very Small Entities

Jon Mooney, PE
INCOSE Smart Cities Initiative (SCI); Principal, Acoustics by JW Mooney, LLC.

Stephane Lacrampe
Director, ObeoSoft Canada Inc.

Steve Cash, CSEP
Principal Systems Engineer, Vitech Corporation

Quick Reference – Keynote & Featured Speaker Presentation Topics

Confirmed Presentations – "To Be Confirmed" Not Shown

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Kerry Lunney

President, International Council on Systems Engineering (INCOSE), 2020-21; Engineering Director and Chief Engineer, Thales Australia.

Travelling the Trajectory of Future Mobility Solution: A System of Systems Approach

Trevor Pawl

Chief Mobility Officer, State of Michigan Michigan Economic Development Corporation (MEDC) Office of Future Mobility and Electrification (OFME).

Future Mobility & Electrification: Realizing Michigan's Vision for an Advanced Transportation Ecosystem

Thomas M. Doehne

Partnership and Commercialization Specialist, Office of Technology Incubation and Innovation; NASA Glenn Research Center.

NASA Glenn Research Center Overview: NASA Entrepreneur and Small Business Programs

Gavin Brown

Chair, North American Space Summit (NASS) Executive Director, Michigan Aerospace Manufactures Association (MAMA).

Michigan: Mid-America's Space Harbor

Brett Hillhouse

Global Automotive Leader, IBM Artificial Intelligence (AI) Applications.

The New Frontier: Artificial Intelligence (AI) and the Transformation to Digital Engineering

Dr. Bruce Powel Douglass

Senior Principal Systems Engineer, MITRE; Chief Evangelist (SysML/UML), IBM (1995-2019).

Enabling Digital Engineering and Model-Based Systems Engineering (MBSE)

Jon Mooney, PE

INCOSE Smart Cities Initiative; Principal, Acoustics by JW Mooney, LLC.

The Glass Bead Game: Bridging the Gap Between Complex Smart City Models and Practical Applications

Claude Laporte, Ph. D.

Professor, École de Technologie Supérieure (ÉTS), Montreal, Quebec, Canada.

The ISO/IEC 29110 Systems and Software Engineering Standards and Guides for Very Small Entities

Charlie Tyson

Technology Activation Manager, Michigan's Office of Future Mobility & Electrification (OFME).

Overview of Michigan Economic Development Corporation (MEDC) and Office of Future Mobility and Electrification (OFME) Programs and Services

Dr. Tina P. Srivastava

MIT Aeronautics and Astronomics Engineering Fellow, MIT System Design & Management School; Co-Chair, INCOSE PM-SE Integration WG.

Innovating for the Future: Why Integrating Project/Program Management (PM) and Systems Engineering (SE) is Important

Pre-Event Tour:

Tour & Overview Presentation, American Center for Mobility (ACM) Willow Run Site, Ypsilanti, Michigan USA .

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Preliminary Advanced – Contains Currently Confirmed Speakers and Content Only

Program Schedule – Day 1

EDT	Track 1 - Presentations	Track 2 – MBSE Workshops
0800 - 0900	Networking / Showcase / Social	
0900 - 0945	**Dr. Bruce Powel Douglass** *Enabling Digital Engineering and MBSE*	**MBSE Workshop Prep:** Participant Arrival and Class Readiness
0945 - 1030	**Brett Hillhouse** *The New Frontier: AI and Transformation to Digital Engineering*	
1030 - 1100	Morning Break (30m)	
1100 - 1230	**Jon Mooney, PE** *The Glass Bead Game: Bridging the Gap Between Complex Smart City Models and Practical Applications*	**MBSE Workshop:** *Scenario-Based Use Case Analysis* (90 minutes) Instructor: **Dr. Bruce Powel Douglass**
1230 - 1330	Lunchtime Break / Showcase / Networking (60m)	
1330 - 1415	**Trevor Pawl** *Future Mobility & Electrification: Realizing Michigan's Vision for an Advanced Transportation Ecosystem*	**MBSE Workshop:** *Test-Driven Modeling with State Machines* (3 hours) Instructor: **Dr. Bruce Powel Douglass**
1415 – 1500	**Thomas Doehne** *NASA Glenn Research Center Overview and Entrepreneur/Small Business Programs*	
1500 - 1530	Afternoon Break (30m)	
1530 - 1615	**Charlie Tyson** *Accelerating Mobility Innovation: An Overview of the OFME's Land, Sea and Air Test Site Network, Grant Programs and Projects*	
1615 - 1700	**Claude Laporte, Ph.D.** *The ISO/IEC 29110 Systems and Software Engineering Standards and Guides for Very Small Entities*	

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Program Schedule – Day 2

Preliminary Advanced – Contains Currently Confirmed Speakers and Content Only

EDT	Track 1 – Presentations and Workshops	Track 2 – Tutorials / Panel / Closing Keynote
0800 - 0900	Networking / Showcase / Social	
0900 - 0945	**Kerry Lunney** *Travelling the Trajectory of Future Mobility Solutions*	**MBSE Tutorial:** *Arcadia and Capella Discovery (3 hours)* Instructor: **Stephane Lacrampe**
0945 - 1030	**Gavin Brown** *Michigan: Mid-America's Space Harbor*	
1030 - 1100	Morning Break (30m)	
1100 - 1230	**Workshop / Q&A Session** *NASA Glenn Research Center Technology Transfer Office Overview and Mobility Related Technologies (90 minutes)* Facilitator: **Thomas Doehne**	**MBSE Tutorial (continued):** *Arcadia and Capella Discovery (3 hours)* Instructor: **Stephane Lacrampe**
1230 - 1330	Lunchtime Break / Showcase / Networking (60m)	
1330 - 1415	**Jon Mooney, PE** *Smart Cities Operational Analysis Workshop* (3 hours)	**Panel Roundtable:** *System Engineering and Technology Challenges and Opportunities –Enabling Electrification of Future Mobility Systems* **Moderator:** R. Beach (NASA, Retired) **Panelists:** P. Thalin (SAE), B. Douglass (MITRE), B. Hillhouse (IBM), T. Srivastava (INCOSE-PMI)
1415 - 1500		
1500 - 1530	Afternoon Break (30m)	
1530 – 1700	**Jon Mooney, PE (continued)** *Smart Cities Operational Analysis Workshop* (3 hours)	**Tina P. Srivastava, Ph.D.** *Innovating for the Future: Integrating Project Management and Systems Engineering*

Day 3:

MBSE Workshop: "Systems Engineering an Off Grid Electrical Supply"
Instructor: Steve Cash, Vitech
9:00am – 5:00pm EDT

LEARN MORE

Visit Event Website

www.incose.org/GLNC

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Thank You!

Sponsors and Partners to Date

Leveraging the Power of Connection!

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PMI-INCOSE Strategic Alliance on Integrating Project/Program (PM) and Systems Engineering (SE)

PMI Project Management Institute

INCOSE

SAE-INCOSE Collaboration Partnership and Dual Membership Discount Program

SAE INTERNATIONAL

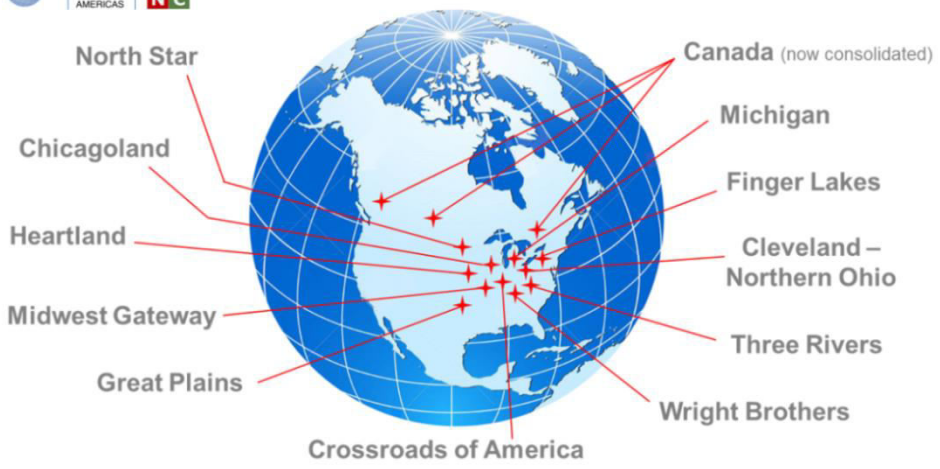
INCOSE

INCOSE-IEEE Systems Council Collaborative

IEEE

INCOSE

The 12 Chapters of the INCOSE Americas Great Lakes North-Central (GLNC) Region



INCOSE Leadership, Boards, Committees and Councils:

- ✓Corporate Advisory Board (CAB)
- ✓Technical Operations
- ✓Outreach / Integration
- ✓Academic Council / Student Services
- ✓Americas Sector Leadership / MARCOM
- ✓Events Portfolio Management Committee

INCOSE WGs and Initiatives:

- ✓Automotive Systems
- ✓AI Systems
- ✓Architecture
- ✓Critical Infrastructure and Protection Recovery (CIPR)
- ✓Digital Engineering Information Exchange
- ✓Infrastructure
- ✓MBSE Initiative
- ✓PM-SE Integration
- ✓Power & Energy Systems
- ✓Smart Cities Initiative
- ✓Small Business Systems Engineering
- ✓Space Systems
- ✓System of Systems
- ✓Systems Security
- ✓Transportation

INCOSE

INCOSE is a not-for-profit membership organization founded in 1990 to develop and disseminate trans-disciplinary principles and practices that enable the realization of successful systems. INCOSE is designed to connect systems engineering professionals with educational, networking, and career-advancement opportunities in the interest of developing the global community of systems engineers and systems approaches to problems. We are also focused on producing state-of-the-art work products that support and enhance this discipline's visibility in the world.