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President's Message

2026 is going to be an interesting year. Systems engineers can look forward to the continuing emergence of SysML 2.0 capabilities as the major existing (and new) tool vendors release their implementations. Artificial intelligence will continue to be a hot topic as professionals learn to use it and avoid misuse. Good systems engineering practices will remain important and foundational to the success of complex and complicated systems; INCOSE Michigan will continue to be the local resource and partner for professional development and networking for our members.

In addition to the President's Message, other sections of our monthly newsletter will include upcoming chapter events (this issue has a few exciting announcements), Engineering Expeditions (outings to Michigan museums, cultural sites, or other venues with interesting SE-related content), events hosted by PMI Great Lakes Chapter or other local technical societies/partners, and a Historical Corner featuring noteworthy past systems engineering successes and failures. There will also be occasional features on new members, certification accomplishments, and other relevant content.

This newsletter is already long, so I will keep this section short. Our elections close January 31st; next month I will introduce our new board members and share more about our plans for 2026.

Michael J. Vinarcik, ESEP-Acq, P.E, FESD

President

P.S. I am using Claude.ai to help me with many aspects of leading the chapter (including drafting some newsletter content) but I pledge that this section will always be 100% written by me.

Upcoming Events Calendar

Date	Event	Organization
January 27	Tools Tutorial: Innoslate	INCOSE WMA Chapter
January 28	Webinar: SysML v2 & Space Systems	Tom Sawyer Software
February 9	Lunch & Learn: Servant Leadership	PMI Great Lakes Chapter
February 9	Bay Bridge Bolt Failure Presentation	ASM International Detroit Chapter
February 10	Winter Social	INCOSE Michigan Chapter
February 12	Turbine Talk with Steve Lehto	INCOSE Michigan Chapter
April 14-16	SysML v2 3-Day Bootcamp	INCOSE Michigan Chapter
April 17	Spring Symposium: AI in PM	PMI Great Lakes Chapter
Ongoing	SEP Certification Study Group	INCOSE Canada Chapter

Upcoming Chapter Events

Monthly Meeting: None in January

INCOSE Michigan Winter Social

Date: February 10, 2026, 6:00 PM - 8:30 PM

Location: Schoolcraft College, 18600 Haggerty Road, DiPoinio Room D, Livonia, MI 48152

The INCOSE Michigan Chapter cordially invites you to a fun social event to kick off the new year for the chapter and to welcome the new Board of Directors. Dinner and drinks will be provided. Join us for a fun evening and come meet others from the community in Michigan. We look forward to seeing you there!

Register: <https://lp.constantcontactpages.com/ev/reg/zu5yt8s>

Engineering Expeditions: Fuel for Thought — Turbine Talk with Steve Lehto

Date: Thursday, February 12, 2026, 5:00 PM - 8:00 PM (Presentation begins at 6:00 PM)

Location: Stahls Motors & Music Experience, 56516 N Bay Drive, New Baltimore, MI 48051

Cost: FREE (RSVP recommended)

The Chrysler Turbine Car represents one of automotive history's most fascinating systems engineering case studies. While the program achieved remarkable technical successes—reducing engine parts from 300 to 60, enabling multi-fuel operation, and delivering 5,000-hour durability versus 3,000 for piston engines—it ultimately succumbed to classic systems engineering challenges: manufacturing cost constraints, emerging emissions requirements, fuel economy tradeoffs, and infrastructure dependencies.

This inaugural event of Stahls' new "Fuel for Thought" speaker series features automotive historian and attorney Steve Lehto, author of the newly revised *Chrysler's Turbine Car: The Rise and Fall of Detroit's Coolest Creation*. Through interviews with original engineers and program insiders, Lehto reveals how

Chrysler challenged conventional thinking during the Jet Age, executed an ambitious 203-driver user evaluation program spanning 133 cities and one million miles, and navigated the complex decision to end the program in 1979.

Systems Engineering Lessons:

- Requirements management under changing regulations
- Design-to-cost vs. performance optimization
- Stakeholder tradeoffs between user experience and manufacturing constraints
- External system dependencies and operational context

Stahls' own Chrysler Turbine Car will be on display—a rare opportunity to experience this engineering landmark firsthand. INCOSE Michigan Chapter officers will attend.

RSVP: <https://www.stahlsauto.com/event/fuel-for-thought-turbine-talk-with-steve-lehto/>

Save the Date: SysML v2 3-Day Intensive Bootcamp

Date: April 14-16, 2026, 8:00 AM - 5:00 PM

Location: Dassault Systèmes, 118 N. Main Street, Suite 200, Royal Oak, MI 48067

Hosted by: INCOSE Michigan Chapter & Dassault Systèmes

This in-person 3-Day Intensive SysML v2 course will teach you the three pillars of Model-Based Systems Engineering: Language, Tool, and Methodology. You'll learn the fundamentals of the new language through lectures, demonstrations, and hands-on activities using CATIA Magic 2026x.

Why Attend?

- End-to-end coverage: Language, Tool, Methodology
- All materials, licenses, and installation files provided
- Network with the CATIA Magic team and fellow modelers

Cost: TBD (30 seats will be available)

Registration is not yet open. Full details and registration information will be announced soon. Stay tuned through INCOSE Michigan Chapter emails, website, and newsletters.

Note: *As our 2026 calendar of events solidifies, we look forward to bringing you additional SysML 2.0 content with other vendors/tools.*

Partner Organization Events

PMI Great Lakes Chapter

February Lunch & Learn (Virtual): Servant Leadership in Agile Environments

Date: Monday, February 9, 2026, 12:00 PM - 1:00 PM EST

Join Jason Lampkin, an accomplished IT Project Management professional with over 17 years of experience, for a session exploring servant leadership as a cornerstone of Agile success. Learn how Agile leaders can shift from command-and-control to coaching, trust, and empowerment.

Session Highlights:

- Practical behaviors that support self-organizing teams
- Building psychological safety and team empowerment
- Removing impediments and driving continuous improvement
- Real-world IT examples for fast-changing environments

Speaker: Jason L. Lampkin Sr. brings extensive experience in large-scale software implementations, enterprise transformations, and serves as Adjunct Professor at Central Michigan University's MBA program and PMI Great Lakes Board member.

PDUs: 1.0 | **Cost:** Members \$15 | Non-members \$20

Registration closes: Tuesday, February 3, 2026, at 12:00 PM

Register: <https://pmiglc.org/calendar?eventId=44980>

2026 Spring Symposium: Implementing AI in a Project Management World

Date: Thursday, April 17, 2026, 7:00 AM - 5:00 PM

Location: Suburban Collection Showplace, 46100 Grand River Ave, Novi, MI 48374

Join PMI Great Lakes for their annual symposium featuring keynote speaker Princess Castleberry, CEO of Castleberry Global and author of *The Truth Is in the Trigger*[™].

Opening Keynote: AI-Ready Leadership: Managing Projects in the World of Generative, Predictive, and Agentic AI. Learn how to integrate AI across the project lifecycle and evaluate AI readiness through data integrity, ethical governance, and human adaptability.

Closing Keynote: *The Truth Is in the Trigger*[™]: Leading Under Pressure in the Age of AI. Discover how behavioral pressure shapes decisions and collaboration during high-stakes project cycles in AI-driven environments.

What to Expect:

- Networking with fellow project management professionals
- Breakout sessions (details TBA)
- Interaction with sponsors

PDUs: 17.0 | **Cost:** Members \$250 | Non-members \$310

Register: <https://pmiglc.org/calendar?eventId=44816>

Note: Cancellations up to 5 days before the event subject to \$8 processing fee; no refunds after the Friday before the Symposium.

Other INCOSE Chapter Events

INCOSE WMA Chapter: Tools Tutorial — Innoslate from Spec Innovations

Date: Tuesday, January 27th, 6:00-8:00 PM

Format: Virtual (Zoom)

Join us for our January 2026 Tools Tutorial highlighting Innoslate from Spec Innovations.

Register: [Google Forms Registration](#)

INCOSE Canada Chapter: ASEP/CSEP Certification Study Group

The INCOSE Canada Chapter has been proudly hosting Systems Engineering Professional (SEP) Certification Study Groups since 2024, helping numerous systems engineers successfully achieve their SEP certification. Our goal is to help you maximize the value of your INCOSE membership while supporting your preparation for the SEP Knowledge Exam and Certification.

Program Details:

- Duration: 12 weeks (1 session per week)
- Session Length: 30 minutes
- Format: Online (Presentation, quiz, and Q&A)

Reimbursement and Award:

Members of selected INCOSE Chapters are eligible for reimbursement if they:

- Take the SEP exam within 6 months of course completion
- Contribute to weekly assignments
- Attend at least 9 sessions

The survey results of the latest SEP Certification Study Group show that 83% recommend it to a friend or colleague and 100% believed the Study Group achieved its objectives and met their expectations.

If you're interested in learning more and joining the next SEP Certification Study Group, please visit the registration link below. Spaces are Limited!

Information and Registration: <https://incose.ca/certification>

Other Events

Webinar: Reimagining Space System Design with SysML v2, AI, and Next-Generation Modeling Tools

Date: Wednesday, January 28, 2026, 9:00 AM PST

Join Johannes Gross, CEO of Planetary Utilities, for an exploration of how SysML v2 is reshaping space system engineering. This webinar will cover:

- SysML v2 as a platform technology
- Starkit: a modular space system architecture for mission development
- AI-integrated workflows for interdisciplinary model-based engineering
- Tom Sawyer SysML v2 Viewer 1.3 new capabilities and features

Who Should Attend: Aerospace and space systems engineers, engineering managers, digital engineering leads, SysML practitioners, and anyone interested in exploring SysML v2 models.

The session includes an interactive Q&A with real-time engagement opportunities.

Register: <https://www.tomsawyer.com/webinars/reimagining-space-system-design>

ASM International Detroit Chapter: Systems Engineering Lessons from the Bay Bridge Bolt Failure

Date: February 9, 2026, 5:30 PM - 8:30 PM

Location: Livonia Marriott, 46100 Grand River Ave, Novi, MI 48374

Speaker: Salim Brahim

The INCOSE Michigan Chapter encourages members to attend this compelling presentation on the Bay Bridge bolt failure investigation, hosted by our colleagues at the ASM International Detroit Chapter. This event offers valuable insights into how systems engineering principles apply to large-scale infrastructure projects.

The Systems Engineering Connection:

The San Francisco-Oakland Bay Bridge bolt failure represents a critical case study in systems engineering challenges. The investigation revealed failures across multiple SE domains:

- **Requirements Management:** Specifications for high-strength anchor bolts that didn't adequately account for environmental conditions and galvanic corrosion
- **Interface Management:** Complex interactions between structural components, protective coatings, and corrosive marine environments
- **Verification & Validation:** Testing protocols that failed to replicate actual operating conditions
- **Risk Management:** Inadequate assessment of material selection and manufacturing process risks
- **Quality Assurance:** Gaps in inspection and acceptance criteria that allowed defective components into the system

The failure of 32 high-strength anchor rods on this critical infrastructure project demonstrates how component-level issues can cascade into system-level failures when interfaces, environmental factors, and operational conditions aren't fully integrated into the design process.

This presentation aligns perfectly with INCOSE's mission to promote systems thinking across engineering disciplines. Understanding how metallurgical failures connect to broader system architecture provides valuable lessons for all systems engineers working on complex projects.

Event Details: [ASM Detroit Chapter Registration](#)

This event supports our chapter's commitment to cross-disciplinary collaboration and continuous learning.

Historical Corner

This Month in SE History: Space Shuttle Challenger Disaster — 40th Anniversary

January 28, 1986

Forty years ago this month, on January 28, 1986, Space Shuttle Challenger broke apart 73 seconds into flight, killing all seven crew members and fundamentally transforming systems engineering approaches to risk assessment and organizational safety culture.

The disaster resulted from O-ring seal failure in the right solid rocket booster, caused by record-low temperatures of 26°F at launch. Morton Thiokol engineers, including Allan J. McDonald, had explicitly warned against launching in cold weather the night before, but NASA managers overruled their recommendation. McDonald, director of the Space Shuttle Solid Rocket Motor Project, refused to sign the launch authorization, stating he wouldn't want to explain the decision to a board of inquiry if something went wrong.

The Rogers Commission investigation exposed NASA's flawed risk management practices, revealing the agency had deliberately avoided probabilistic risk analysis and allowed dangerous "normalization of deviance" where repeated O-ring erosion became accepted as routine. The disaster prompted approximately 1,700 design changes and a 32-month hiatus before return to flight.

Despite initial retaliation for his testimony before the Rogers Commission, McDonald was promoted to vice president of engineering and led the comprehensive solid rocket motor redesign effort. The redesigned boosters, which included an additional O-ring, strengthened joints, and joint heaters, served the shuttle program flawlessly from 1988 until its conclusion in 2011. McDonald later co-authored the definitive account, *Truth, Lies, and O-Rings: Inside the Space Shuttle Challenger Disaster* (2009, with James R. Hansen), documenting both the technical failures and organizational pressures that led to the tragedy.

The Challenger legacy continues through NASA's annual Day of Remembrance each January, the Challenger Center for Space Science Education, and the incorporation of probabilistic risk assessment as standard practice in complex systems engineering worldwide.

Learn more: https://en.wikipedia.org/wiki/Allan_J._McDonald

INCOSE Michigan Chapter

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Fostering a world-class systems engineering environment

Portions of this newsletter were researched and drafted with assistance from Claude.ai (Anthropic, 2026).