

Systems Engineering

The Integrator North Star Chapter of INCOSE Newsletter

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Fourth Quarter 2017

Chapter News

The President's Corner...

Thank you, everyone, for a phenomenal 2017! All of your efforts and participation really paid off. A few of 2017's highlights

- Monthly company tours: Transportation, HVAC, test equipment, biomedical, to solar and much more. Thank you to our industrial partners for giving us an inside peek into your industries and sharing your competencies.
- Spring tutorial on Model Based System Engineering: 2 days of hands-on training by Matthew Hause, one of the best in the industry.
- We hosted the Great Lakes Regional Conference: Networking over beers, a STEM showcase for our student partners, a comedy show based on SE, to all the collected presentations and discussions, this was a fantastic event bringing the entire SE community together across the Great Lakes Region. A culmination of a year's worth of effort from our and other chapters. I am grateful that we have so many passionate people in our community.
- Exploring the MN Arboretum on a warm sunny summer day in the largest scavenger hunt that I have ever been on.
- Connecting with 400 people to celebrate Engineering Week with many of our brother and sister technical organizations. Thank you MFESTS for throwing a fantastic party and including us!
- The North Star Chapter membership is growing...we are up 20% in 2017. Thank you to all our members for your support.
- A slippery, slide-y, winter social. So much fun connecting while we Curled and toasted the successes of 2017.

My term is soon expiring and it has been an incredible experience to foster, nurture, and lead the North Star Chapter.

I am excited and looking forward to 2018. Roz Dolid will be coming in as President and we have a terrific board of Directors to lead our efforts in Chapter Finance, Communication, Ambassadors to Industry, Academia and STEM, Membership, and Programs. If you are looking for an opportunity to grow and give back to the INCOSE community, reach out to us at northstar.incose@gmail.com.

With 2018 almost here, we are already planning and executing programs. In January, we have our first meeting about Autonomous Vehicles—January 18. And SAVE THE DATE for the Healthcare Working Group Conference on April 19-20, 2018. It will be hosted in Bloomington, and it will cover a broad range of topics from cybersecurity, to SE in a regulated environment, to Agile and SE and more. Let us know if you would like to present. We hope to see you there.

Wishing you a wonderful Winter break and happy holidays!

Michele Zoromski North Star Chapter President 2016-2017

Save the Date April 19-20, 2018!

We are excited to be hosting the Healthcare Working Group Conference in 2018. It is right around the corner and will be a great opportunity to connect with other system engineers in the life science industry to learn best practices on a variety of topics. Join us for the technical presentations, networking, and panel discussions. The theme for the conference is

"How SE Can Reduce Cost & Improve Quality"

Interested in Presenting? INCOSE appreciates all submissions on Systems Engineering in Healthcare; however, there are areas of emphasis for this conference:

- SE in Regulated Environment
- Design Input & Stakeholder Analysis
- Usability and User Experience
- Systems Architecture and SoS.
- Product Line Engineering

- > Agile & Lean Methods
- Modelling & Simulation
- Digital & Systems Security
- Risk Management
- Systems Tools Best Practices
- Emerging Topics in Systems Engineering for Medical Technology

Submissions are open now, due Feb 15, 2018. Follow this link to EasyChair: https://easychair.org/conferences/?conf=2018healthcaresystems

In your submission, emphasize:

- A compelling description Why would someone want to attend your session?
- Your target audience Who should (or should not) attend?
- Key takeaway What knowledge and wisdom will your audience gain?

Conference Website Link: http://bit.ly/2AWzsdO

Key Dates: Submissions Due – Feb 15, 2018 Acceptance Notification – Feb

We hope to see you there!

Michele Zoromski, 2017 North Star INCOSE President

Meet your new officers... President-elect Sean McCoy



Sean McCoy is the Staff Architect at Trane. He received his CSEP last fall, has 13 patents, is a 6-Sigma black belt, and has over 33 years of experience designing and building software systems; 21 of those at Trane developing Building Automation Systems and helping develop their Systems Engineering discipline. Sean has been an active member of INCOSE since 2011. His most recent work assignment was leading the development effort for the Requirements Management, Process Automation, and Test Management tools in PTC Integrity. In his spare time, Sean likes to play guitar and can often be seen at Rock Camp for Dads events.

Treasurer Mike Keyes



Michael Keyes is a Senior Test Engineer at Phillips-Medisize. He is an active member of the INCOSE North Star Chapter and a past president. He has 10 patents and over 28 years of experience in product and materials development with 6-sigma green-belt and black-belt experience. He worked for 20 years at 3M Corporation in various positions from research laboratories to manufacturing on technology development. For the last 7 years, he has worked at Phillips-Plastics Corporation, which is now Phillips-Medisize LLC. He has been working in process development, product testing, and since 2013 worked primarily on their medical device testing. He performed independent design work for lens housings. In his spare time, he likes reading, wood working, saber fencing and spending time with the family. His most recent free time endeavor is as an assistant soccer coach for his son's team.

The Academia Program...

From Dan Stone: 2017 was a great year for the Academia Program in the chapter. The year was spent solidifying connections with existing outreach programs throughout the Metro area and laying the groundwork for continued expansion of efforts in 2018. The highlight of the year was the STEM showcase at the Great Lakes Regional Conference (GLRC) held this fall in Minneapolis. Four local STEM programs and teams attended the showcase, providing an opportunity for conference attendees to learn more about STEM groups, as well as have a little fun driving robotic vehicles.

GLRC11 STEM Night









We went *CURLING* for our Christmas Party!



New Chapter Members and Certifications

Certifications Congratulations!

CSEP: Jon D Schell; Aurora Systems LLC Principal and Owner **CSEP:** Erling Mitchell Danielson; Orbital ATK

Welcome New Members!

SPENCER BONDHUS of ACIST Medical Systems. His experience and goals go beyond engineering. He has worked with marketing and sales groups, reviewed technical manuals, and managed a variety of groups. Spenser likes to design and create in his spare time.

ISABEL CALLAN, Systems Engineer & Science and Engineering Innovation Program Fellow at Beckman Coulter. Her biomedical engineering background and diverse experiences allows her to continue to follow her passion of improving lives through global healthcare, engineering, and technology. Isabel wants to wake up each morning knowing she made a positive impact on the lives of others.

DAVID CARNEY of Plexus.
BRAD ENGLUND, Sr. Systems Staff Engineer at BAE Systems BAE Systems.
KIMBERLY JOHNSON of KAJ Consulting Inc. who is a Senior PM at State of Minnesota MNIT Central
BRYAN KINNEY of Trane - Ingersoll Rand
EUGENE NELSON of Software System Infrastructure LLC. Eugene has software expertise includes the design and implement the SoftEcoSDK software system. A 1973 graduate of Purdue University with a B.S. in Mathematics (including Computer Science) and minor in Physics. Software experience.
JENNA PENDER is a Hardware/Electrical Engineer at Medtronic CRHF.

WARREN PORTER PATRICIA REEVE is a Senior Mechanical Project Engineer at BAE Systems BAE Systems. JEREMY STOCKE of BAE Systems. CHRIS WENTLAND is Versatile Engineering & Management Professional at BAE Systems.

Join us on LinkedIn, INCOSE North Star Chapter

Membership Survey Outcomes

The purpose of this Survey Cycle was to better understand what it takes for non-members to join INCOSE or remain a member and take advantage of the Membership benefits. In this survey cycle we would like to know what will it take for you to join INCOSE or remain a member and take advantage of the Membership benefits.

To better serve the System Engineering Community of the North Star Chapter, promote best practices, share lessons learned, and elevate the practice of system engineering, this survey is designed to find out what engages our meeting attendees we presented this survey.

The last two survey cycles you gave us a great indication of what business sectors, knowledge area, and process areas were of interest to you. Then you let us know how INCOSE could help your particular organization apply systems engineering through competencies, lean processes, and tailoring for your particular business and products.

Link to Complete Membership Survey 2017

The Survey is based on these 10 questions:

- 1. Are you currently a member of INCOSE?
- 2. Rank these membership components according to what do you believe is the value proposition for becoming an INCOSE member?
 - Monthly Presentations
 - Networking
 - Professional Development
 - Certification
 - Working Groups
 - INCOSE Publications
 - SEBok
 - Webinars
- 3. Does INCOSE Certification help you professionally?
- 4. Would you like to be more involved in the North Star Chapter activities?
- 5. Do you know what an INCOSE Working Group is?
- 6. How familiar are you with the work of the annual INCOSE International Workshop?
- 7. What events could the Leadership Team provide that would increase your engagement with the Chapter?
- 8. What events could the Leadership Team provide that would increase your engagement with the Chapter?
- 9. What are some key items the Chapter should start doing, continue doing, or stop doing to improve engagement within the Chapter?
- 10. Please, rank your Systems Engineering Topics preference for future tutorials.

On the International Front...

IW 2018, INCOSE kicks off each year with its annual gathering of the membership to discuss and advance the state of the art of systems engineering. Spend several days of intense activities centered around technical content with volunteers who meet electronically during most of the year. This is the time to collaborate and celebrate in person. The prestigious Working Group Award winners are named at IW, as is the recipient of the Johns Hopkins INCOSE scholarship; and, newly elected officers and directors are installed. The gathering is capped off with an annual INCOSE Foundation Wine Tasting to raise money for Foundation activities.

Join us at the IW 2018 Workshop

- Date: Jan 20, 2017 Jan 23, 2017
- Location: Jacksonville, FL, USA
- Venue: Hyatt

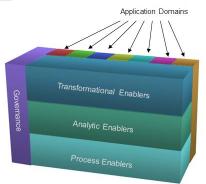
Learn more about what we can do. Click for the Q4 2017 INCOSE Members Newsletter

JOIN THE OFFICIAL INCOSE LinkedIn Group <u>http://www.linkedin.com/groups?gid=7499834</u> Or INCOSE FACEBOOK <u>https://www.facebook.com/groups/INCOSE/</u> and Twitter at <u>https://twitter.com/incose_org</u>

Please visit us at North Star Chapter to find out what is going on in the Twin Cities and surrounding area.

Join a Working Group TODAYI

INCOSE working groups are a great place to meet individuals who are looking to overcome similar challenges. These groups often span multiple regions and industries, so we can really look at these topics in a broad, informed way. In the North Star Chapter, we have several members Chair/working in different groups like the Measurement, SE in Very Small Enterprises (VSE), Handbook as well as others. There are many topics to choose from. Finding the groups and joining is easy! To join any working group:



1. Login to your account at INCOSE.ORG

2. Click on the "Profile Home" link at the top of the page.

3. Scroll down to "My committees/Working Groups and click on the link "Browse/Join a Working Group"

4. This will result in a list of Working Groups under the header Committees. (The terms are interchangeable)

5. Scroll down until you see find a committee that you are interested in. Click the link and then on the right click on the (view) link.

6. This will result in a roster of current WG members.

7. Scroll down to the bottom of the list and under "Committee Tasks" click on "Join this Committee"

Working groups are a great way to learn more about a subject, grow your network, and share your knowledge about a subject.