

Garry Roedler

Candidate for President-Elect (Two Year Term),
then President (Two Year Term)



Vision for INCOSE

I have seen INCOSE grow over the past 20+ years that I have been a member. It has been my honor to be a systems engineer and a member of INCOSE. During this time I have seen INCOSE become very influential in the definition of the discipline and the practices, methods, and standards that form the body of SE knowledge. We have grown into the organization and community we are today that includes nearly 10,000 individual members; nearly 100 Corporate Advisory Board members with nearly two dozen academic organizations; and over 70 chapters. Our footprint spans the globe and with a diversity that is much more than just geographic. With this growth, comes many challenges that we need to address. The foremost of these challenges is keeping our discipline and organization relevant. I now hope to use my demonstrated leadership, management, and technical skills to help INCOSE address these challenges and to meet its future objectives.

Based on my previous experience with the strong membership and leaders in INCOSE, I am confident that we can move INCOSE forward addressing the challenges that come with our future evolution. One of our strengths is the ability to look at our organization from a holistic system view. Another strength of INCOSE is our energetic and passionate membership. We have embraced diversity of domains, cultures, perspectives, and nationalities. We need to work as a united set of stakeholders to build on these strengths and continue to evolve our INCOSE in a way to meet tomorrow's system, system-of-system, and complex system challenges. As identified by our current and past presidents, our team effort needs to focus on our membership, our discipline, and our leadership role.

I am committed to working with our membership, chapters, technical operations, corporate sponsors, academic organizations, and other stakeholders to better understand our needs and develop action plans to keep INCOSE relevant and viewed as the leaders in System Engineering.

My vision is for us to build INCOSE into a unified, global organization that learns how to best engage and leverage the talents of our diverse membership in collaboration with others to increase the competency of our systems engineering practitioners and leaders, and to evolve the discipline. I see four key areas of focus that we need to address to move INCOSE forward, meeting the future challenges:

1. INCOSE In-reach and Integration – One INCOSE; A Global INCOSE
2. INCOSE Outreach – Greater Collaboration with industry on targeted objectives
3. INCOSE Focus on Professional Development and Competency
4. INCOSE Focus on Evolving the Discipline

The following paragraphs provide some insight into these four key focus areas.

1. INCOSE In-reach and Integration – One INCOSE; A Global INCOSE

Although INCOSE continues to expand its international footprint, we need to build a truly global view of INCOSE, one that learns to act as a single, integrated, world-wide organization. In order to do

this, we need to establish and communicate a mission and vision that is relevant to all of our stakeholders and provides value to our members, both individual and institutional. This starts with embracing the SE Vision 2025, but goes further to understand the diverse needs across our membership and how we can effectively engage all of our resources to benefit the entire membership. The journey forward needs to include the ability to enable sectors and chapters to act locally, yet support the global needs and objectives as well.

2. INCOSE Outreach – Greater Collaboration with industry on targeted objectives

We need to develop a more strategic and structured outreach approach at all levels of INCOSE to establish high impact collaboration and agreements with key external groups. We cannot affect the change that is needed in our discipline in a vacuum; it requires teamwork with others. But this needs to be done in a thoughtful manner that focuses on the desired outcomes for our members and our discipline. The collaboration will likely include various government agencies, professional societies, standards organizations, academic institutions, and adjacent technical groups. There are too many of our current MOUs for which we really do not understand how to ensure they are carried out to the benefit of both INCOSE and the “partner” organization. If we want to build more effective relationships that truly move INCOSE and the SE discipline forward, then we need to improve here.

3. INCOSE Focus on Professional Development and Competency

SE professional development and competency has become the top priority of the Corporate Advisory Board (CAB) and the focus of one of the strategic objectives of INCOSE. This includes technical skills, as well as leadership and soft skills. This priority is shared by many of our stakeholders across industry, government, academia, and chapters. In order to achieve this objective, we need to approach it as a team sport, both internally across INCOSE entities and externally through collaboration. There needs to be a level of urgency to accelerate, communicate, and instantiate the Competency Framework and Professional Development Portal that INCOSE is working to complete, and to build on the ideas of the Academic Council, such as the Capstone Marketplace. Finally, this will need to have a broad application that includes SE performed by non-SE professionals and at all levels of the supply chain.

4. INCOSE Focus on Evolving the Discipline

We need to be in the forefront on moving the discipline forward as indicated in the SE Vision 2025 and the INCOSE strategic objectives. Many of our systems exist in more dynamic system-of-system environments. Change and uncertainty are common, so we need to evolve our approaches and methods to better deal with the learning, discovery, and evolution that accompanies this environment. This needs to be done in a manner that integrates with the advances in Model Based Systems Engineering (MBSE) and digital systems models.

Summary

I believe that my leadership, management and technical skills and experience will enable me to excel in this role. If elected, I commit myself to serving INCOSE to the fullest to ensure that our discipline and our organization both remain relevant and provide value to the stakeholders. I will work to ensure that we continue to reap the benefits of our diversity to meet the challenges of tomorrow.

Biography

Garry Roedler is a Fellow and the Engineering Outreach Program Manager for Lockheed Martin (LM). His 30+ years of systems engineering (SE) experience spans the full life cycle and includes technical leadership roles in both programs and systems engineering business functions. During his career he has performed and led systems engineering activities on a wide range of programs including the space, aeronautics, and intelligence systems domains, as well as commercial systems integration. His previous roles have included Chief Systems Engineer, Senior Systems Engineering Manager, Chief Technologist for Engineering Processes, Senior Program Manager, Technical Lead, Customer Liaison, and Consultant Systems Engineer. While in the role of SE process owner and manager for the Systems Integration business unit in LM, his leadership resulted in the achievement and sustainment of Level 5 CMM/CMMI objectives, including a world first to achieve Level 5 ratings for the SE-CMM process areas.

Garry joined INCOSE in 1994 and has maintained an active role in the organization ever since. He has had the opportunity to serve INCOSE in many key positions, including the Working Group Chair/Co-chair for various working groups, Corporate Advisory Board Chair, member of the Board of Directors, co-founder of the Delaware Valley Chapter, editor of the INCOSE SE Handbook, editor of the SE Body of Knowledge, among other roles. As a result of the dedicated service and leadership to both INCOSE and the discipline of systems engineering, he became an INCOSE Fellow and was the recipient of the INCOSE Founder and Outstanding Service awards.

Garry has held a number of significant leadership roles across many other technical organizations. These include steering group member for the National Defense Industrial Association Systems Engineering Division; chair of the IEEE Joint Working Group for DoD Systems Engineering Standardization; member of the IEEE Computer Society Software and Systems Engineering Standards Committee (S2ESC) Executive Committee, US Head of Delegation for ISO/IEC Software and Systems Engineering Standards Committee (SC7) Life Cycle Management Working Group (WG7), editor of ISO/IEC/IEEE 15288, Systems Life Cycle Processes and several other standards; and key editor roles in the development of the Systems Engineering Body of Knowledge (SEBoK) and the INCOSE Systems Engineering Handbook.

This unique set of roles has enabled Garry to influence the technical co-evolution and consistency of these key SE resources. His leadership in the development and revision of these resources has driven consistency and enabled a transition from a linear, sequential approach to one that is more able to deal with the unique program needs, uncertainty, concurrency, iteration, and evolution.

Garry holds degrees in mathematics education and mechanical engineering from Temple University and the Expert Systems Engineering Professional (ESEP) certification from INCOSE. Garry is an INCOSE Fellow, author of numerous publications and presentations, and the recipient of many awards, including the DoD Meritorious Service Award, INCOSE Founders Award, INCOSE Outstanding Service Award, Best SE Journal Article, IEEE Golden Core, Lifetime Achievement Award from USC Center for Systems and Software Engineering, Lockheed Martin Technical Leadership Award and Lockheed Martin NOVA Award (highest technical honor in Lockheed Martin), among many others.