Announcing the 9th Annual Cohort of the INCOSE Technical Leadership Institute

A global learning network of active INCOSE members seeking to improve their leadership skills in an open, collaborative environment

January 2023
Coaches Patrick Godfrey, Suja Joseph-Malherbe, and David Long
The Foundations of the INCOSE Technical Leadership Institute (TLI)

Developing systems leaders equipped to address today's product, enterprise, and societal complexity

**TLI Vision**

- **Individual members** become more capable leaders and join an international network of systems engineering leaders

- **Sponsoring organizations** obtain non-proprietary, tuition-free technical leadership training for future SE leaders

- **INCOSE** has a growing pool of leaders to draw on and an enhanced international reputation for SE leadership
A Story of Continued Growth and Advancement

- Established as an initiative of the President and Board of Directors in 2014
- Launched program and first cohort at IS 2015 with additional cohorts launched annually each June/July
- Founded upon an initial two-year learning journey of engagement, exploration, and reflection
- Pivoted from in-person to virtual workshops in 2020 resulting in a more diverse and inclusive program
- Inducted 77 members of the first six cohorts as full members with Cohort 7 (19 members) and Cohort 8 (22 members) working towards induction
- Accepting nominations for members of Cohort 9, which will be conducted virtually, and there are no required costs for participation
A Vibrant Network of **122 Leaders** from 6 Continents, 18 Countries, and 23 U.S. States!
Building a Global Footprint
Nomination Package

31 Mar 2023

Jun 2023

Jan 2024

Apr-Dec 2024

Jul 2025

Nomination Package

Major Projects (Q4-Q6)

Induction as a Full Member of the Institute

Quarterly Projects (Individual and Collaborative)

A Continuing Through-Life Learning Journey
• Two-year initial component of the experience is **ever-evolving**

• **Adapt** based upon what each multi-domain, multi-organization, multinational cohort brings

• Create a shared journey where we are “learning together”

• Apply **probe-sense-respond** to learn in the complex endeavor of technical leadership

• Develop **experiential learning** stimulated by curriculum fed by individual efforts and cohort synthesis

*More Contributions → More Benefits!*
What Constitutes “Success”? 

• Technical leadership development is a complex endeavor  
  • Every individual’s journey is different  

  **STARTING POINT ● NEEDS ● DESIRES ● PERSONAL CONTEXT ● ENVIRONMENT**  

• Coaches assess where each participant begins, guide them in clarifying their desired journey, and help them progress as far as they can  

• Self-awareness and growth  
• Communicating effectively  
• Fostering collaboration  
• Enabling others  
• Leading through influence  

• Operating within complexity and uncertainty  
• Leveraging diverse viewpoints and skills  
• Thinking holistically and strategically  
• Advancing leadership concepts  
• Owning their learning journey  

Coaches assess and encourage engagement, contributions, and constructive approaches. Coaches do not grade, compare, or evaluate participants.
Several Ball Aerospace team members have participated in the TLI cohorts. These participants have been able to take lessons learned through the TLI and quickly apply the skills into a real-world setting, which benefits our customers, leadership and fellow team members.

Erik Wilkinson
Chief Systems Engineer
Ball Aerospace

It's easy to say that TLI helps with networking and reflections on your journey to help you grow as a leader. And this is all true, but TLI is more than that for me. It is a safe harbor. It is a foundation. There are not only times of doubt in a leadership journey - where you question, 'can I really do this?' - but there are also critical tipping points, conflict and all kinds of other messy things that happen along the way. TLI provides a space that supports you when things get messy.

Col (ret) Tim West
US Air Force
Research Laboratory
TLI Cohort 7

I share TLI’s belief that leadership, like engineering skills, must be crafted and honed. I personally applied for TLI because I am convinced that even after a successful 30-year career in the US Air Force leading the development of the weapon systems of tomorrow, I still have much to learn about leadership – and much to share with my fellow cohort members. I have especially enjoyed the opportunity to share ideas and experiences from those in other industry sectors and other countries so that we can mutually develop more diverse, robust, and inclusive leadership skills.

Erika Palmer
INCOSE Deputy Technical Director
Systems Engineering Program
Cornell University
TLI Cohort 6
Nomination Process

Applicants must be *nominated by an INCOSE leader* and then submit a package that includes

- **Nominating letter** from an INCOSE Board Member, Director, Assistant or Associate Director, Chapter President, or member of the Corporate Advisory Board

- **Letter of recommendation and support** from the candidate’s home organization, including acknowledgement of the commitments of the initial two-year experience

- **Personal statement** describing the expected benefits to the candidate, his or her organization, and INCOSE

- **Resume** describing positions held and specific systems engineering accomplishments

Packages for Cohort 9 are due **31 March 2023**
Nomination Criteria

Nominees should be chosen based on
• Proven aptitude in both systems engineering and technical leadership
• Comfort working in an uncertain world and ability to tackle wicked, messy problems
• Demonstrated interest in and commitment to enhancing personal technical leadership
• Potential for assuming positions of greater leadership in the future

Nominating letters should describe a specific instance in which the candidate has demonstrated one or more of the following behaviors*
• Held the vision
• Thought strategically
• Fostered collaboration
• Communicated effectively
• Enabled others to be successful
• Demonstrated emotional intelligence

*Behaviors are more fully described in the Appendix
Nomination Process

• Nominating letters should be sent both to the nominee and to info@incose.net

• Once nominated, participants are required to assemble an application package that includes:
  • Nominating letter
  • Letter of organizational support
  • Personal statement
  • Resume

Completed application packages should be zipped and e-mailed to info@incose.net no later than 31 March 2023
The TLI Coaches would be happy to speak at an upcoming event or otherwise answer any questions you or your members might have.

For more information, visit www.incose.org/about-incose/tli or contact david.long@incose.net

An information package will also be provided:
- Presentation Slides
- Instructions for Applicants
- What Benefits Can I Expect?
- Frequently Asked Questions
Frequently Asked Questions
How much will participation in the INCOSE Technical Leadership Institute cost?

There are **no required costs** for participation in the Technical Leadership Institute
• The Institute charges **no tuition**. Coaches donate their time and workshop materials are provided free of charge
• All Cohort 9 workshops will be delivered virtually, so **no travel costs** will be required
• Additional collaboration utilizes remote collaboration tools at **no cost** to the participants

Participants are **encouraged** to participate in at least one IS or IW during the initial two-year experience to meet with their TLI colleagues and broaden their connections across INCOSE
• Participation in IS/IW requires normal member registration fees and travel and living costs to the venue when participating in person
How much time is required for participation in the Technical Leadership Institute?

- Participants are required to participate in approximately **40 hours of scheduled online activities in year one** and **20 hours in year two**
- Participants are also expected to invest additional time working on **individual and team projects** throughout the initial two-year experience
  - Time spent on projects is scheduled at the discretion of the participants
  - The more time and energy participants invest in projects, the more benefit they derive
  - Actual time invested varies from a few hours per week to several hours per month
- Participants are encouraged to participate in **one IS or IW** during the initial two-year experience
- Participants are expected to put what they learn into practice full time, in their jobs, in their professional activities, and in their private lives. **Leadership is best learned through practice!**
What should participants in the INCOSE Technical Leadership Institute expect to learn?

• Topics covered during workshops include becoming a self-aware leader, leading in the presence of complexity and uncertainty, visioning, leading through influence, leveraging and being a mentor, seeking and responding to feedback, understanding cognitive biases, intercultural communications, storytelling, active listening, etc.

• While modules such as these are addressed, the Technical Leadership Institute is not a training program. Participants primarily learn through a series of experiences designed to stretch them as leaders and encourage exploration, observation, and reflection in the process.

• Throughout the program, participants are provided with opportunities to discuss their observations and learning not only with coaches but also with others in their own cohort and in other cohorts. Learning from this global network of emerging leaders is perhaps the greatest benefit of participation and has given rise to the Institute tagline Learning Together.
What contributions have members of the Technical Leadership Institute made to date?

- Built a Technical Leadership Model and presented it at IS 2016
- Conducted a technical leadership model “World Café” discussion at IS 2016
- Conducted a panel discussion on Leadership and Management at IS 2017
- Conducted a workshop on Intercultural Communications at IW 2018
- Presented a paper entitled “Experiments in Leading through Influence: Reflections from a Group of Emerging Technical Leaders” at IS 2020
- Presented a paper entitled “Technical Leadership of Virtual and Remotely Distributed Teams” at IS 2021
- Presented a paper entitled “Collaborative Systems Thinking Culture: A Path to Success for Complex Projects” at IS 2022
- Created proficiency level descriptions for the Professional Category in the INCOSE Competency Framework
- Developed a sustainable model for the Technical Leadership Institute
- Assumed leadership positions on the INCOSE Board of Directors; at technical, sector, and chapter levels; and within their organizations
Appendix:
Systems Engineering Technical Leadership Model
Nominating Letter Requirement

Describe a *specific instance* in which the nominee has demonstrated one or more of the following:

- Held the vision
- Thought strategically
- Fostered collaboration
- Communicated effectively
- Enabled others to be successful
- Demonstrated emotional intelligence
SE Technical Leadership Model

• **What:** A shared INCOSE leadership model

• **Who:** Developed as a collaborative learning initiative by the first cohort of the INCOSE Institute

• **Why:** Provides a cohort definition of systems technical leadership in their engineering environment

• **How:** “Being a systems technical leader” is defined by six interdependent branches of a mind map
  • Each branch is elaborated in the following slides
Behaviors of a Systems Technical Leader
Holding the Vision

A vision is an aspirational statement that defines who we are and where we want to go. It provides an impelling purpose that energizes people to do more than they thought they could or would. To accomplish this, however, a vision must be more than just a statement posted on the wall. It must be the start of a continual and ongoing conversation that we, as systems engineers, are well positioned to support, reinforce and encourage.
Thinking Strategically

Strategic thinking is long term, rather than short-term, tactical thinking. It must be continuous and ongoing, not a one-time, up-front event. We formulate a hypothesis before taking action, treat the action as an experiment to test the hypothesis, and based on the results we observe, we continue along the path we started or formulate a new hypothesis and begin the testing anew. This is the scientific method applied to everything we do.
Fostering Collaboration

Complex problems cannot be resolved by individuals working alone; their resolution requires the efforts of many. Individual contributions must be woven together into a collective enterprise for which success means success of the whole, not of the individual parts. This enterprise represents a vast social network and systems engineers play a vital role in building, maintaining and strengthening these networks. Our goal should be to foster not just tradeoffs that compromise between competing positions but collaboration that allows new ideas to emerge through creative conflict and experimentation.
Communicating Effectively

Often when people seek to improve their communication skills, they begin tweaking their “transmitters.” But effective communication is not just about speaking it is also about listening. We need to improve our “receivers.” Good listening requires attention to the content being spoken and the emotion with which it is communicated. We have to learn the language of those we seek to influence and speak to them in words they understand.
Enabling Others to Be Successful

Since systems engineers must lead through influence, the results we seek to achieve will necessarily be accomplished by others. Our role is to influence, guide, encourage and support those who are in a position to produce those results. This requires a sense of humility and a deep respect those we seek to lead. We must trust in their abilities, and in their capacity to learn through discovery not lecture. Our success will derive from their success and their acknowledgement that we contributed to it.
Demonstrating Emotional Intelligence

In order to lead, we must first understand ourselves, the differences between ourselves and others. Unless we recognize and understand these differences, we risk talking past others or causing them to reject our input. We must continually seek feedback to decrease our blind spots and be willing to reveal things that help others know us better. While the former can make us uncomfortable, and the latter more vulnerable, the payoff will be more than worth the effort.