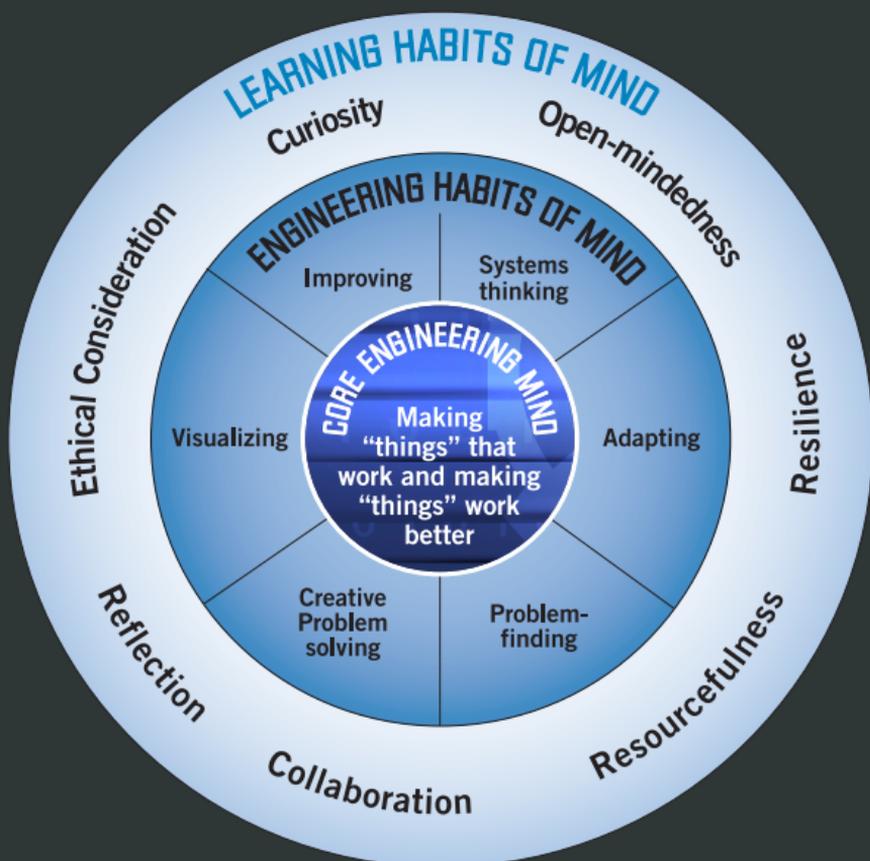# THE
INCOSE
INSTITUTE
FOR TECHNICAL LEADERSHIP

A development program for active INCOSE members seeking to improve their leadership skills in an open, collaborative environment.

TWENTY-FIFTH
INCOSE
2015
ANNIVERSARY

– Technical leadership skills are essential for systems engineers

– While not all systems engineers are technical leaders, all good technical leaders are systems thinkers[1]

– Technical leadership is essential for innovation

– Systems engineers lead primarily through influence, not position or power

– Technical leadership development is central to INCOSE's mission to "Share, promote and advance the best of systems engineering…"

– Leadership first and foremost requires personal mastery

– While leadership is learned by doing, it can be accelerated through training, peer-to-peer learning and mentoring

LEARNING HABITS OF MIND

Curiosity

Open-mindedness

Ethical Consideration

Resilience

Reflection

Resourcefulness

Collaboration

ENGINEERING HABITS OF MIND

Improving

Systems thinking

Visualizing

Adapting

Creative Problem solving

Problem-finding

CORE ENGINEERING MIND

Making "things" that work and making "things" work better

[1]Thinking like an Engineer
Royal Academy of Engineering UK (2014)

WHO

Candidates must be nominated by an INCOSE Board Member or Chapter President and submit an application package that includes:

– Nomination letter from the INCOSE Board Member or Chapter President describing the candidate's demonstrated leadership capability and contributions to INCOSE

– Letter of recommendation and support from the candidate's home organization, describing the candidate's leadership accomplishments and potential for greater leadership roles in the future, and acknowledging the two year commitment

– Personal statement discussing how participation will benefit the individual, his or her home organization and INCOSE

– Resume describing positions held and systems engineering accomplishments, with supporting evidence

Selection Criteria

It is expected that this first pioneering program will be over-subscribed. Participants will be selected based on:

• Aptitude in both systems engineering and technical leadership, with evidence of personal accomplishments

• Comfort working in an uncertain world, and the willingness and ability to address wicked and messy problems at the socio-technical interface

• Interest in enhancing personal systems engineering leadership capabilities and personal commitment to do so

• Potential to assume positions of greater leadership in the future as certified by the home organization

Completed application packages should be zipped and e-mailed to **info@incose.org** not later than February 28, 2015.

FIRST WORKSHOP (IS 2015):
PERSONAL LEADERSHIP

Intended Outcomes

- Deeper appreciation of SE leadership challenges
- Understanding of personal strengths as an SE leader
- Ways to grow and become an even more effective leader in the future

Topics

- Attributes of a successful systems engineering leader
- Becoming a more self-aware leader
- Personal accountability and empowerment
- Dealing with uncertainty and complexity
- Learning from success and failure
- Coaching and mentoring
- Reflection and action planning

SECOND WORKSHOP (IW 2016):
LEADING TEAMS

Intended Outcomes

- Understanding and improving team dynamics
- Enhanced skills for enabling others to become more successful
- Action plan for continued development as a leader

Topics

- Utilizing 360º feedback
- Leading from the future
- Influencing without authority
- Leading teams
- Supportive communications
- Leading others in creative problem-solving
- Dealing with constructive conflict
- Organizational learning
- Reflection and commitment

PURPOSE

As INCOSE continues to grow in an ever more complex and interdependent world, we seek to accelerate the development of systems engineering leaders who will exemplify the best of our organization and our profession.

BENEFITS

- Individual members will become more capable leaders within their organizations
- INCOSE will have a growing pool of capable leaders from which to draw in filling leadership positions
- INCOSE's international reputation will be enhanced by helping to develop systems engineering leaders of the highest caliber

OVERVIEW

- Two-year program
- New cohort formed annually
- Four events per year:
  - One-day face-to-face workshops at the IS and the IW
  - Webinar events in October and April
- Individual project work between events
- Initial cohort will employ peer-to-peer mentoring; thereafter, each cohort will serve as mentors for the following cohort
- Candidates must apply for the program and be recommended by a supervisor who understands and agrees to the two-year commitment
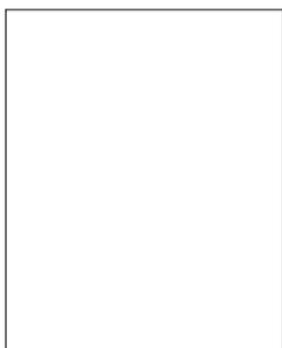
Michael Pennotti
*Stevens Institute of
Technology*

Patrick Godfrey
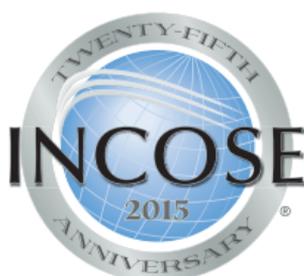*University of Bristol*

Donald Gelosh
*Worcester Polytechnic
Institute*

Ruth Deakin-Crick
University of Bristol

Fifth Coach
To be named

For further information, please contact **info@incose.org**.