

As a young professional, you are building a résumé to prepare yourself for future job and personal growth challenges. You enhance your abilities by participation in educational and networking activities via your involvement with other INCOSE members. You learn, develop, and practice leadership skills via your participation in chapter activities, first as a volunteer and then as a chapter officer. You, as a seasoned professional, have risen through the hierarchy of needs and are looking for fulfillment in additional ways. You can apply your knowledge and leadership to the technical groups and committees, serving in INCOSE leadership positions, or mentoring the young professionals embarking on their careers.

EWLSE at IS 2016

Empowering Women at INCOSE International Symposium 2016

Alice F. Squires, alice.squires@wsu.edu and Regina Griego, griego@sandia.gov

The well-attended Empowering Women as Leaders in Systems Engineering (EWLSE) events at the International Symposium (IS) 2016 in Scotland offered a potpourri of storytelling, exchanging tips and insights among community members, navigating the leadership journey, investigating gender research, and sharing personal experiences – both trying and uplifting. Regina Griego (Sandia National Laboratories) organized an informal Sunday half-day workshop which included a panel: “Beyond the Resume: Personal Journey of INCOSE Women Leaders” led by Anne O’Neil (Anne O’Neil Consulting) with panel members Marilee Wheaton (Aerospace Corporation/USC), Donna Rhodes (MIT), Berber De Liefde (Rijkswaterstaat), Eileen Arnold (ConsideredThoughtfully), and Regina Griego. Each of the panelists talked about the unique aspects of their systems engineering journey. The workshop also included a World Café on four topics moderated by five facilitators:

- Gina Guillaume-Joseph (MITRE): When are you at your best? - “Hero in Victory vs. Hero in Retreat,” - what are the ingredients of a situation that allow you to be your very best self as a leader?
- Richard Beasley (Rolls-Royce) : Emotional Intelligence - looked at impact of having (or not having) emotional intelligence, in leaders or yourself, and what are the important aspects of high Emotional Quotient (EQ)?
- Nicole Hutchison (Stevens Institute of Technology): Storytelling - how do you story yourself as a leader, how do you use stories to reach people as a leader?
- Berber De Liefde, and Claus Nielsen (Cranfield University): Power and Influence - what is your reaction to those words, and how does power & influence work in your leadership; does it look different for women than men?

Participants of the breakout sessions considered examples where they experienced supporting and non-supporting actions and behaviors in the leadership areas; practices they could build to support the aspect of leadership; relevance of the leadership practice to their career; and how we could collectively support each other in the particular aspect of leadership.

Alice Squires (Washington State University) moderated the “Empowering Women as Leaders” panel delivered during the conference. She kicked off the event by asking the audience to open their hearts and minds as the group investigated and discussed research, case studies, personal experiences, and a way forward to empowering women and men as leaders in systems engineering. Topics covered by the panelists included:

- Alice Squires: “The goal: for systems engineering leadership to thrive.” The greatest difference in perception of gender bias appears to exist within one’s own field where women, relative to men, favour research that suggests a gender bias and men, relative to women, favour research that suggests there is no gender bias. The difference in interpretation of the research itself creates an inherent obstacle to raising awareness and creating change.
- Erika Palmer (University of Bergen): “The current gender gap in engineering / systems engineering and the implications. ” Overall, 19% of systems engineers are women, and within INCOSE, representation of women in chapter leadership stands at 18.5%. As diversity is a probabilistic result, the lack of women system engineers indicates that engineering teams are not utilizing the best possible talent.
- Claus Nielsen: “Recruiting qualified systems engineers.” The current situation indicates that gender distribution is almost stationary in mathematics, physics, and engineering and although systems engineering appears to be more accessible than most engineering fields there is a large potential recruitment base that we are missing. If nothing changes, women will do fine; but will systems engineering?
- Regina Griego: “The impact of culture on women in leadership. ” Many women leave or do not enter engineering because of the culture – either they do not like the workplace climate, or their boss, or they perceive engineering as being inflexible, or the engineering workplace non-supportive of women. There seems to be a labyrinth, not a glass ceiling, We see a few women get there, but it is a puzzle as to how they get there, to most women.
- Heather Feli (Ensign-Bickford Aerospace & Defense Company): “Empowering Women as Leaders in Systems Engineering - Industry Perspective.” Empowerment is letting out the power that we have – access to our own resources, authority, and influence. When we become comfortable with the idea of falling down, we can be fearless. Mentors are important for interactive learning

and knowledge transfer and learning from experience.

Apologies were sent by the sixth panel member, Pat Hale (MIT). The panel had a very interactive, emotional, uplifting and sometime tense, question and answer period following the panel presentations, and the group had to wind down so as not to miss the networking break.

Feedback received during and after the conference on these EWLSE events included (most paraphrased):

- "I'm so glad INCOSE is finally talking about this stuff."
- "I was livid that we started by talking about changing the environment and culture but ended with how women need to adapt."
- "I am so happy that I attended the workshop and/or panel."
- "I really appreciated the synergy and storytelling."
- "I love you."

If you are interested in being matched to a systems engineering mentor, please start by emailing ewlse@incose.org. To become a member of EWLSE please log into your account on incose.org, go to Profile Home and add "Empowering Women" to your Committees/Working Groups.

Sector Updates

Europe/Middle East/Africa (EMEA)

Introduction

Jean-Claude Roussel, Jean-Claude.roussel@airbus.com

Thanks to the significant participation level of nearly 850 attendees and the high quality program, the International Symposium (IS) 2016 was a very successful event with stellar papers, tutorials, and panels. I am very happy and proud that this symposium was hosted in the EMEA sector. This event was good for INCOSE growth, and fostering synergies and cooperation within the EMEA sector itself.



Figure 1. A fine evening at IS 2016

First of all, I would like to start this short introduction by

informing you about the appointment of Berber de Liefde (NL Chapter) as Assistant EMEA Sector Director for Communication, in addition to her present Communications role within INCOSE Central as Assistant Marketing Director. Many thanks to Berber; I am sure her support will be highly appreciated at both the EMEA and Central levels.

For the first time, we experimented at IS 2016 with a forum between EMEA Chapter Leaders and BoD members on Sunday evening. After I held a short overview of the EMEA Sector, an interesting Q&A session followed during which attendees identified topical aspects requiring further development, including translation of documents (English to other languages and vice-versa), student participation, Chapter Memoranda of Understanding, location of events, and more. The Q&A session developed into a soiree with handpicked wines and accompanying snacks. We agreed that this should be a recurrent forum at future international events, hosted by the Sector in which the event takes place, for example the Asia-Oceania Sector will arrange the forum at IS 2017.

Following the AFIS-EMEA Workshop held in Paris, October 2015, attended by 200 participants from 14 countries, INCOSE EMEA agreed this should become a regular biennial event. The next EMEA Workshop will be held in Germany (city still to be confirmed) in the second half of September 2017.

We are also planning to host an International Workshop (IW) in Europe. Targeting IW 2018, we submitted a proposal for Valencia, Spain as the host city. The commercial viability of the offer is currently being investigated in order to inform a decision at the next BoD meeting in October 2016.

United Kingdom (UK) Chapter

Richard Beasley, Richard.Beasley@Rolls-Royce.com

INCOSE UK held a training day on 8 June. Four 1-day tutorials were run; Systems Thinking (presented by Stuart Burge), Systems Engineering handbook and certification (Ian Presland), Model-based Systems Engineering (Jon Holt), and Interfaces (Hazel Woodcock and Paul Davis). 32 people attended; feedback was positive, and the reported outcome was good learning. The chosen quote of the day, overheard from one delegate: "Systems engineering is a second career for me – I didn't know it would be so interesting, compelling or useful."

INCOSE UK believes strongly in professional development and professional recognition. As a part of this belief, over the past 5 years we have arranged to offer UK professional registration (as a Chartered Engineer) through one of the professional engineering institutes licensed through the UK Engineering Council. This is a tremendous step forward in getting systems engineers professionally recognized as systems engineers. INCOSE UK is highly indebted and grateful to the Support the IET (Institute of Engineering and Technology) for their aid in getting us to where we