Guy A. Boy's Statement

I feel privileged to call INCOSE my professional home! I joined when I was at NASA to improve human integration in complex systems of systems and to further contribute to the development of sociotechnical organizations. I am also connected to other professional and scientific societies such as the Association for Computing Machinery (ACM) and the International Ergonomics Association (IEA).

If I am honored to be elected to the position of **Director for Academic Matters**, I will use the experience I have gained from my previous volunteer positions to help INCOSE strengthen its role as an academic leader, remain responsive to the evolving needs of the systems engineering (SE) community, and expand its extensive services for the benefit of all SE educators, students, researchers, and industry professionals worldwide. I am ready to chair the Academic Council (AC) as defined in ACD-101 and organize Academic Forums to explore topics of interest to the academic community. In addition to strategic initiatives already in progress, I intend to pursue the following issues that are important to me:

- *Expand footprint and become the home of interdisciplinary areas that involve SE*: Our field is on the critical path of most scientific and societal activities. I plan to coordinate education and research activities within INCOSE, including STEM, and work closely with academic partners. Interdisciplinarity is at the heart of this, and INCOSE needs to unify and interact better at the academic level with communities such as "Product Life Cycle", "Engineering Design" and "Artificial Intelligence" for example.
- *Facilitate Education based on SE Research results and methods*: INCOSE should be a pioneer again and help redefine scholarly communication and the entire education/research life cycle, based on the principles of replicability and accountability. I will manage INCOSE's relationship with academic accreditation organizations at the international level (e.g., ABET in the United States). I will do my best to oversee strategy for all INCOSE-sponsored academic publications, including Systems Engineering (the Journal of INCOSE).
- *Manage INCOSE's relationships with internal and external academic conferences and events*: for example, the Systems Engineering Research Conference, the American Society for Engineering Education, and the International Federation of Engineering Education Societies. While consolidating its spectrum of purely technological communities, INCOSE should also take the lead in shaping interdisciplinary systems-related fields, forming strategic alliances with peer scientific societies, and expanding its membership with colleagues from diverse backgrounds, giving them space to grow. As an example, I am already in charge of the INCOSE-IEA partnership at the global level.
- *Recalibrate for the next generation*: Established 32 years ago, INCOSE has made a significant impact by continually evolving to better meet the needs of its diverse and inclusive members. Today, it is time to fuel systems engineering educational programs around the world. It is again time to take stock of INCOSE's strategies and mechanisms, to listen to all voices and especially of academics, and to make innovative changes that will transition INCOSE to the 21st century requirements in full strength and agility, continuing to realize its vision of being "the world leading systems engineering community."
- *Join forces to address global challenges*: The INCOSE Academic Council, in collaboration with academic partners around the world, should identify teaching, research and development needs for the INCOSE Annual Operating Plan and put in place appropriate mechanisms for its members to team up and contribute to relevant solutions.
- *Prioritize social responsibility*: INCOSE should widely promote its new code of ethics within the SE educational community and should engage with and advise policy makers on advanced technologies that may have significant consequences for society, such as threats on democracy, increased inequalities, and loss of privacy. It should speak out strongly in favor of the application of technological innovation within clear ethical boundaries.

Short bio

Guy A. Boy, Ph.D., is University Professor at Paris Saclay University (CentraleSupélec) and Chairman of the Scientific Council of ESTIA Institute of Technology, France. He is an Invited Scholar at ISAE-SUPAERO (the French Aerospace Institute of Technology). He is INCOSE Fellow (Human-Systems Integration [HSI] Working Group Chair and member of the FuSE project), Fellow of the French Air and Space Academy, and Fellow of the International Academy of Astronautics. He is very active in the development of HSI worldwide. He was Professor and Dean of the Human-Centered Design (HCD) Institute and and the HCD Doctoral School at the Florida Institute of Technology, and Senior Research Scientist at the Florida Institute for Human and Machine Cognition (IHMC). He was IPA Chief Scientist for HCD at NASA Kennedy Space Center (2010-2016). He was associate professor at the École Polytechnique de Paris (Comasic Master). He was President and CEO of the European Institute of Cognitive Sciences and Engineering (EURISCO, a research institute of Airbus and Thales). He co-founded EURISCO in 1992, and led it from its creation until its closure in 2008. Between 1980 and 1991, he worked in the field of artificial intelligence and cognitive sciences at ONERA (French Aerospace Lab) as a researcher and group leader, and at NASA Ames Research Center in California as the Advanced Interaction Media Group Lead. Engineer and research scientist in aerospace engineering and cognitive sciences, he obtained his degrees (including Master in 1977 and Doctorate in 1980) from ISAE-SUPAERO (École Nationale Supérieure de l'Aéronautique et de l'Espace) and the Federal University of Toulouse, and the Research Professor Habilitation (HDR) from Sorbonne University (Pierre and Marie Curie University, Paris) in 1992. For more information, https://en.wikipedia.org/wiki/Guy_Andr%C3%A9_Boy.