



2020 IEEE International Conference on Systems, Man, and Cybernetics (SMC 2020)

11-14 October, 2020, Metro Toronto Convention Centre (MTCC), Toronto, Ontario, Canada

Panel title: Joint INCOSE/SMCS Panel on The Future of Systems Engineering

Summary: The first of these special sessions was successfully held at SMCS2019 in Bari, IT. Twenty-eight attended the session and actively participated in a lively exchange of views. This is the second in a series with the International Council on Systems Engineering (INCOSE), and will build on the evolving relationship between INCOSE and the IEEE Systems, Man, and Cybernetics Society by inviting respective insights on the future of systems engineering from both development and research points of view.

Panelists

William Miller is chair of the INCOSE FuSE initiative, and has more than forty years of experience in the conceptualization and engineering application of communications and information technologies, products and services. Applications areas include resource allocation, R&D priorities, strategic planning, requirements definition, system modeling, system design, system acquisition, system development, system integration and system test. Mr. Miller is a systems engineering consultant to the US government and adjunct professor in the School of Systems and Enterprises, Stevens Institute of Technology, where he teaches graduate courses in systems engineering fundamentals, system architecture and design, and systems integration. He is a 53-year member of the IEEE and a 27-year member of INCOSE where he is the former technical director (2013-





2014) and currently is the editor-in-chief of INSIGHT practitioners' magazine.

Dr. Adrian Stoica is SMCS Vice-President, Systems Science and Engineering. He is currently Senior Research Scientist, Program Manager, and NASA Innovative Advanced Concepts (NIAC) Fellow at NASA Jet Propulsion Laboratory, Pasadena, CA. He has held the position of Visiting Professor at University of Edinburgh since 2004. His personal interests in robot learning, machine intelligence, robot control using bio-signals, biometrics, cyborgs (man-machine hybrids, including prosthetic devices), transformers (self-reconfigurable structures), control of multiple/many robots/DOF.



Dr. Eddie Tunstel is SMCS Junior Past President and former Vice-President Systems Science and Engineering. He is currently Group Leader, Robotics for United Technologies Research Center, Hartford, CT. He previously served as Senior Robotist at Johns Hopkins University Applied Physics Laboratory, Baltimore, MD, after 18 years as Senior Robotics Engineer at the NASA Jet Propulsion Laboratory, Pasadena, CA. His research interests include: autonomous control systems, cooperative robotics, and mobile robot navigation.



Moderator:

Dr. Christopher Nemeth has led the SMCS initiative with INCOSE since 2018 as Chair of the SMCS Industrial Liaison Committee. He is Principal Scientist at Applied Research Associates, Inc. a 1400-member U.S. national science and engineering consulting firm, and Leader of ARA's Cognitive Solutions Group. He has served over 26 years as a member of the faculty at the University of Chicago Medical Center, Northwestern University, and Illinois Institute of Technology, and retired from the U.S. Navy at the rank of Captain after 30-year active duty and reserve career. His recent research interests include technical work in complex high stakes settings, research methods in individual and distributed cognition, and understanding how information technology erodes or enhances system resilience.

