

The logo for CSSEA 2020 features the acronym 'CSSEA' in a large, blue, blocky font. Above the 'S' and 'E' is a horizontal bar composed of a grid of small squares in blue, red, and orange. To the right of this bar, the year '2020' is written in a large, blue, italicized font. Below the acronym, the full name 'conference on systems engineering research' is written in a smaller, blue, sans-serif font.

CSSEA 2020
conference on systems engineering research

Recent Trends and Advances in Model-Based Systems Engineering


18th Annual Conference on Systems Engineering Research (CSER)

October 08 - 10, 2020

Now Completely Virtual



Technical Program: Friday, October 09, 2020



Pacific Time (PT) 8:00-10:00	Opening Remarks and Welcome: Dr. Azad M. Madni, Conference General Co-Chair
	Keynote Presentations <ul style="list-style-type: none">• General (Ret.) Ellen M. Pawlikowski, Judge Widney Professor at USC• Mr. Scott Miller, Executive Chief Engineer, Automated Driving, & Executive Director, AV/EV Integration, GM



Gen. (Ret.) Ellen M. Pawlikowski
Judge Widney Professor
University of Southern California



General (retired) Ellen M Pawlikowski is an independent consultant providing expertise on strategic planning, program management, logistics, and research and development. She is the Judge Widney Professor at the Viterbi School of Engineering at the University of Southern California. She serves on the Boards of Directors for the Raytheon Company, Intelsat SA, Applied Research Associates, and SRI International. Ellen Pawlikowski was the third woman to achieve the rank of General in the US Air Force. In her last assignment, she served as Commander, Air Force Materiel Command, Wright-Patterson Air Force Base, Ohio. The command employs some 80,000 people and manages \$60 billion annually, providing the Air Force with research and development, life cycle systems management, test and evaluation, installation support, depot maintenance and supply chain management. She entered the Air Force in 1978 as a distinguished graduate of the ROTC program at the New Jersey Institute of Technology, Newark, NJ. She then attended the University of California at Berkeley as a Fannie and John Hertz Foundation fellow and received a Doctorate in chemical engineering in December 1981. General Pawlikowski's career has spanned a wide variety of technical management, leadership and staff positions. She commanded five times as a general officer, commanding the MILSATCOM Systems Wing, the AF element of the National Reconnaissance Office, AF Research Laboratory, the Space and Missile Systems Center, and Air force Materiel Command. She also served as the program director and program executive officer for several multibillion-dollar military-system acquisitions. General Pawlikowski is nationally recognized for her leadership and technical management acumen. Among her recognitions are the Women In Aerospace Lifetime Achievement Award, the NDIA's Peter B Teets Award, and the Air Force Association Executive Management Award. She is a Honorary Fellow of the American Institute of Aeronautics and Astronautics and a member of the National Academy of Engineers.

Mr. Scott Miller

Executive Chief Engineer, Automated Driving, and Executive Director, AV/EV Integration General Motors




Mr. Scott Miller is Executive Chief Engineer Automated Driving and Executive Director, AV / EV Integration. In his role as executive chief engineer he is responsible for Super Cruise and future automated driving programs. Additionally, in his integration role, Scott works internally with product development, safety, and vehicle performance teams to ensure timely success of autonomous and electric vehicle programs within General Motors. Prior to joining the autonomous and electric vehicles team, Scott worked in the Fuel economy space for 14 years. He held the position of Global Director of CO2 Strategy, Development and Governance, where he leads GM's Fuel Efficiency Strategy and Technology Development plans to meet global CO2 / Fuel Economy requirements. Scott has held various key assignments throughout his career at GM, including Director of the Energy, Mass and Aerodynamics organization. Earlier career responsibilities included Vehicle Performance Manager of the first gen Volt, Spark, Two Mode Hybrid Trucks and GM's first Belt Alternator Starter programs. Scott holds a master's in mechanical engineering from the Catholic University and a Bachelor's in Aeronautical Engineering from Embry-Riddle. Scott has worked at GM since 1994. Prior to joining GM, he was a project engineer responsible for military hovercraft technology.





Technical Program: Saturday, October 10, 2020



Pacific Time (PT) 8:00-10.00	Opening Remarks: Dr. Barry Boehm, Conference General Co-Chair
	Keynote Presentations <ul style="list-style-type: none">• Lt. Gen. (Ret.) Larry James, Deputy Director, Jet Propulsion Lab• Prof. Garrett Reisman, Astronautical Engineering, University of Southern California



Lt. Gen. (Ret.) Larry James
Deputy Director
Jet Propulsion Lab



Lt Gen (Ret) Larry James is the Deputy Director and Chief Operating Officer of the Jet Propulsion Laboratory. He was appointed Deputy Director of the Jet Propulsion Laboratory in August 2013. At JPL he is the Laboratory's Chief Operating Officer responsible to the Director for the day-to-day management of JPL's resources and activities. This includes managing the Laboratory's solar system exploration, Mars, astronomy, physics, Earth science, interplanetary network programs, and all business operations. These activities employ 5000 scientists, engineers, technicians, and business support personnel, generating \$1.5 billion in annual revenues. He is a Fellow of the American Institute of Aeronautics and Astronautics and a member of the Board of Directors for United Way of Los Angeles. He received a B.S. in Aeronautical Engineering from the Air Force Academy, Colorado Springs CO in 1978 and a M.S. degree in Aeronautics and Astronautics from the Massachusetts Institute of Technology, Cambridge MA in 1983.



Prof. Garrett Reisman

Astronautical Engineering

Viterbi School at USC



Prof. Garrett Reisman is a former NASA astronaut who recently joined the USC Viterbi ASTE department. He teaches graduate courses on human spaceflight and science and engineering of human-operated space vehicles. In particular, his courses cover human factors engineering, spaceflight biospherics and life support systems, and human spaceflight operations. A NASA veteran who flew on all three Space Shuttles, Garrett Reisman was selected by NASA as a mission specialist astronaut in 1998. His first mission in 2008 was aboard the Space Shuttle Endeavour which dropped him off for a 95 day stay aboard the International Space Station after which he returned to Earth aboard the Space Shuttle Discovery. His second mission in 2010 was aboard the Space Shuttle Atlantis. During these missions, Garrett performed 3 spacewalks, operated the Space Station Robot Arm and was a flight engineer aboard the Space Shuttle. Not only was he an astronaut, but Garrett was also an aquanaut serving as a crewmember on NEEMO V, living on the bottom of the sea in the Aquarius deep underwater habitat for 2 weeks. After leaving NASA in early 2011, he joined Elon Musk at SpaceX where he served in multiple capacities most recently as the Director of Space Operations. Garrett stepped down from his full-time position at SpaceX in May of 2018 and in June 2018 he became a Professor of Astronautical Engineering in the Viterbi School at USC. He also continues to support SpaceX as a Senior Advisor. Garrett attended the University of Pennsylvania and Caltech where he received his Ph.D in 1997.