July 30, 2024 PPP in CET Workshop -- Automated and Connected Infrastructure
Speaker Biographies

Welcome Remarks

Ghassan Kridli
Dean at the College of Engineering and Computer Science
University of Michigan-Dearborn

Ghassan T. Kridli is the Dean at the College of Engineering and Computer Science, University of Michigan-Dearborn. His research focuses on the application of fundamental engineering knowledge in the design and manufacture of sheet metal products of lightweight alloys. Ghassan's research has significant industrial applicability and includes mechanical and metallurgical characterization of light alloys coupled with numerical models for predicting the material formability.

Ghassan's experience includes significant work in program assessment for continuous improvement and in curriculum development. His work involves developing strategies for student success as well as exploring effective pedagogical practices in engineering education. Ghassan is collaborating with other STEM faculty at UM-Dearborn to develop educational programs to prepare K-12 teachers to present engineering in an integrated STEM curriculum.

Ghassan received his Bachelor of Science and Master of Science degrees in Mechanical Engineering from the University of Miami in 1986 and 1988, respectively, and his Ph.D. from the University of Missouri in 1997. Since then he has been a faculty member in the Industrial and Manufacturing Systems Engineering department at the University of Michigan-Dearborn.

Session 1 — Technology Convergence and Standards Readiness Briefings

Timothy Klein
Director, Office of Technology Policy and Outreach
Office of the Assistant Secretary for Research and Technology
U.S. Department of Transportation

As Director of Technology Policy and Outreach, Timothy Klein has broad responsibility for and oversight of all external and policy relationships, including Office of the Secretary, Congress, White House, media, international and stakeholder activities for the U.S. DOT's Office of the Assistant Secretary for Research and Technology. Over the past year, he has continued a focus on supporting USDOT's implementation of the research and technology sections of the Bipartisan Infrastructure Law; providing leadership to innovation pieces of Administration and Secretarial initiatives; and pursuing successful implementation of research and technology results. Mr. Klein is a longtime member of the National Academies' Transportation Research Board, and serves as U.S. DOT's Standards Executive.

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Clare Allocca
Senior Advisor for Standardization
National Institute of Standards and Technology (NIST)

Clare Allocca is Physical Scientist and Senior Advisor for Standardization in the Standards Coordination Office at NIST. Clare leads and supports extensive standardization activities, and holds multiple chair, secretariat, and convenor roles, both internationally and domestically, within ISO/TC276 Biotechnology, ISO/TC276/SC1 Analytical methods, ISO/TC276/SC1/WG3 Nucleic acid characterization, IEC-ISO/JTC3 Quantum technologies, and other entities. Clare has also developed and supported programs to increase engagement of industry in international standardization and to explore frameworks such as standardization readiness to guide standardization strategies.

Clare holds S.B. degrees in Materials Science and Engineering, and Geochemistry, from the Massachusetts Institute of Technology, an M.S. degree in Ceramic Engineering from the University of Illinois at Urbana-Champaign, and an Executive Master of Management of Technology jointly from the University of Pennsylvania Wharton Business School and School of Engineering.

Christine Bernat
Associate Director, Standards Facilitation
American National Standards Institute (ANSI)

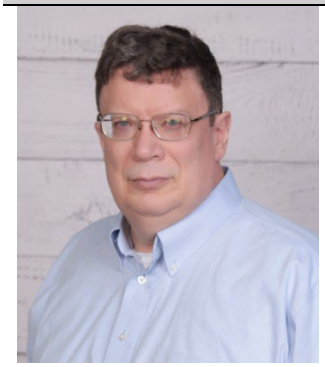
Christine Bernat joined ANSI as Associate Director, Standards Facilitation in May 2022. In this role, she supports industry stakeholders, such as manufacturers, research institutions, government and standards development organizations, identify and conduct standards gap analyses through ANSI standards collaboratives and workshops.

Her most recent role prior to ANSI, Christine served as Director of Global Innovation and Policy at the General Aviation Manufacturers Association (GAMA), where she was responsible for supporting emerging technologies and innovation initiatives. At GAMA, she worked with key global aviation stakeholders, regulators and standards developers to enable introduction of new aircraft designs, propulsion technologies, flight capabilities to the market. During her tenure at GAMA, she also served as the Chairman of ASTM International F44 General Aviation Aircraft committee which develops standards for Part 23 airplanes, VTOL aircraft, electric propulsion and increasing automation.

Previously, Christine served as Director of Business Development and Manager of Technical Committee Operations, at ASTM International. In her 13 years at ASTM Christine supported organizational strategies for various industries including the aviation and aerospace, pharmaceutical, forensics, robotics, additive manufacturing, energy sectors. Her responsibilities included monitoring industry trends, exploring and launching new standards activities and related programs, establishing partnerships, and providing guidance regarding how standards can solve common challenges to bringing new products to market and support workforce development.

A native of New Jersey, Christine holds Bachelor of Arts degrees in Law and Justice and Spanish from Rowan University and a master's certificate in Translation from La Salle University. She is a former Ironman and is training for her private pilot's license.

Session 2 Challenges, Opportunities, and Standards Readiness Discussion



Eric Moughler
ISO TC 127
Earth Moving Machinery Chair

Standards Developing Organization

- ISO - International Organization for Standardization
  - TC 127 – Earth-Moving Machinery – Chair
  - TC 82/SC8– Advanced automated mining systems – US TAG Chair

Industry Associations

- AEM – Association of Equipment Manufacturers
- GMG – Global Mining Guidelines Group
- EMESRT – Earth Moving Equipment Safety Round Table

Employment

- Caterpillar (1989-Present) - Engineering Fellow
- Multiple Construction Companies (1984-1988) – Heavy Equipment Operator, Truck Driver (CDL Class A license)

Education

- University of Missouri – Columbia - BS Computer Engineering 1988

Miles Johnson
Executive Engineer
Toyota North America

Miles Johnson is an Executive Engineer in the Integrated Vehicle Systems group at Toyota Motor North America R&D. He works at the intersection of motion planning, machine learning, and software engineering to realize next generation vehicle systems. Miles has developed localization, mapping, and learning-based planning and control systems, from early concept to production software development for automated driving systems (ADS). Highlights from this work include production algorithm and software responsibility for components in both Toyota Safety Sense and Lexus Advanced Drive systems. In addition to product development, Miles enjoys designing the infrastructure that enables efficient development and testing, including software engineering processes, DevOps/MLOps pipelines, and simulation (software/hardware in the loop).

Prior to joining Toyota, Miles was a member of the robotics group in the department of Aerospace Engineering at the University of Illinois, where he earned his PhD, advised by Professor Timothy Bretl in 2013. While designing theoretical frameworks in learning-based control, he also developed avionics and control infrastructure that form the core of AE483 Autonomous Systems Lab -- a course that brought students from modeling the dynamics of quadrotor helicopters to performing autonomous navigation and collision avoidance in a motion capture lab.

Miles entered robotics motivated by his time at Cornell University as a member of the science camera team working with the NASA Jet Propulsion Laboratory on the Mars Exploration Rovers missions. During this mission he performed and developed software for pre-flight and in-flight camera calibration, instrument health monitoring during cruise and landed operations, and science image planning and visualization.

Born and raised in Champaign, Ill., Miles received his Bachelor of Science in Mechanical and Aerospace Engineering from Cornell University.

Jonathan Archer
Director, Aerospace Standards, Strategy & Innovation – SAE International
SAE International

Jonathan joined SAE International in September 2021 to lead the Aerospace Standards Business Development Team in developing and executing strategy and facilitating committees to advance new technology and innovation solutions to address aerospace mobility challenges through consensus standards, with specific emphasis on Advanced Air Mobility (AAM) and Unmanned Aircraft Systems (UAS). Before coming to SAE, he was with the General Aviation Manufacturers Association (GAMA) as Director of Airworthiness and Certification, with an international focus on avionic systems, rotorcraft, and Safety Management Systems (SMS) issues. Prior to this he held positions as an Associate with Booz Allen Hamilton where he provided key support to the Federal Aviation Administration (FAA) in aviation safety, certification, and system integration expertise on FAA NextGen Air Traffic Management (ATM) and the Voluntary SMS for design and manufacturing initiatives. He also has served as a Systems Engineering Manager at Hawker Beechcraft Corporation, where he focused on improving engineering design and development processes. Jonathan has held senior airworthiness, certification, and systems engineering positions in the United Kingdom for Raytheon Systems Ltd., Datel Defense Ltd., Marshall Aerospace Ltd., and BAE Systems.

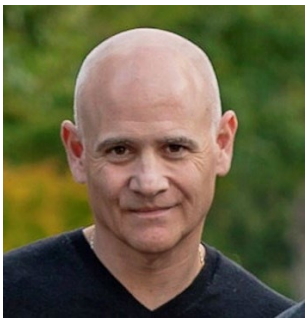
A US Citizen, Jonathan is a native of York, England, holding a Bachelor of Engineering with honors in Engineering and Technology from Leicester Polytechnic, UK; a Fellow of the Royal Aeronautical Society, a Member of the Institute of Engineering and Technology (IET), a Member of the Vertical Flight Society (VFS), and a Program Management Institute (PMI) Project Management Professional (PMP).

Session 3 Standards Driven Public-Private Partnerships (PPPs)

Natalia Globus Martin
NIST

Natalia Globus Martin is a Deputy Director for National Cybersecurity Center of Excellence (NCCoE) within the Information Technology Laboratory at the National Institute of Standards and Technology (NIST). In this role, she directs broad range of initiatives involving legislative, policy and technical issues related to cybersecurity, privacy, and information technology. The mission of NCCoE is to accelerate adoption of secure technologies by providing practical guidance and enabling companies to rapidly deploy commercially available standards-based cybersecurity technologies and reducing technological, educational, and economic barriers to adoption. With more than 20 years of experience in organizational and security risk management, she is a passionate motivational leader with a growth mindset. Prior to joining NIST, Natalia served as Senior Advisor to the Food and Drug Administration (FDA) Deputy Chief Information Officer (CIO) and led strategic initiatives to research, analyze and develop new solutions for secure, innovative, cost effective and agile ways to support ongoing digital business transformation that meets FDA public health mission. And prior to that, Natalia served as Systems Engineering Branch Chief for the Extramural Research Administration (eRA), NIH's enterprise grants management system, responsible for management and successful implementation of information technology initiatives across multiple federal agencies in support of grants business lifecycle.

Natalia holds both Masters and Bachelor degrees in Electro-Mechanical Engineering and Metrology from North-West State Technical University, St. Petersburg, Russia. She is certified by $(ISC)^2$ as Certified Information Systems Security Professional (CISSP), by GSA as Level III- Senior/Expert Federal Acquisition Certification for Program and Project Managers and Contracting Officer's Representatives (FAC-COR, FAC- P/PM), Project Management Institute (PMI) as Project Management Professional (PMP).



Pat A. Picariello
Director, Developmental Operations
ASTM International

Pat serves as Director, Developmental Operations for ASTM International, one of the largest voluntary standards development organizations in the world. In his role, he leads a team that coordinates the standardization activities of over 30 ASTM Technical Committees covering a diverse portfolio of global industry sectors including steel, forensic engineering, rubber, composites, security systems and equipment, textiles, automated guided vehicles, roofing, & cement/concrete.

Pat has worked with a broad cross section of industries to help them coalesce within ASTM to facilitate their standardization objectives. Among the varied committees Pat has organized are activities in asset management, unmanned systems (air, maritime, & ground), sustainability, commercial spaceflight, general aviation aircraft & aircraft systems,

nanotechnology, homeland security, aerospace personnel, stormwater control measures, and manufacture of pharmaceutical products.

In addition, he has direct responsibility for operational and strategic initiatives specifically related to additive manufacturing, industrial biotechnology, human resource management, healthcare informatics, and 3D imaging systems.

Pat has 28 years of experience with ASTM related to standards development and strategic standardization initiatives from perspectives both national and global; he holds a B.A. from Dartmouth College, a J.D. from Temple University Beasley School of Law, and is a Fellow of SES, the Society for Standards Professionals, by whom he is certified in Standards Management.

Ted Sienknecht
Principal Architect, Public-Private Partnerships
MITRE

Ted Sienknecht is Principal Architect for Public-Private Partnerships (PPPs) at the non-profit MITRE Corporation. He collaborates with customers across sectors to co-design and operate data- and innovation-driven collaboratives/PPPs that deliver mutual and national benefit. Ted founded MITRE's PPP community of practice and has guided and built multiple PPPs in healthcare, transportation, and cybersecurity. He earned B.S. and M.S. degrees in Systems Engineering from Virginia Tech and is a PMP, ACP, CISSP, and CIPT. He holds a patent for an automated provisioning framework for secure cloud analytics and has received many awards for advancing PPPs.

Session 4 Information Sharing Necessary to Support CET Standards Development

Mary Saunders
Vice President for Government Relations and Public Policy
American National Standards Institute

Mary Saunders leads ANSI's efforts to advocate greater use of voluntary consensus standards and conformance programs by government agencies and broader participation by agency personnel in standards development. She works with ANSI members to create standardization-related outreach programs to legislators and to increase understanding of the private-sector standards community among agencies involved in trade and commerce issues. Mary is a key player at ANSI in fostering understanding among opinion leaders of the major role standards and conformance play in the international and domestic marketplace.

Ms. Saunders has extensive federal government executive-level experience and served in a variety of positions within the Department of Commerce prior to joining the ANSI staff, most recently as the Associate

Director for Management Resources at the National Institute of Standards and Technology (NIST). As Director of NIST's Standards Coordination Office, she represented NIST and its significant interests in the standards and conformity assessment community, advising the NIST Director and other officials throughout the Administration on policy and strategy as they relate to the federal government's role in standardization.

Maria Knake
Acting Group Lead for the Standards and Conformity Assessment Services Group
National Institute of Technology (NIST) Standards Coordination Office

Maria Knake holds a Bachelor of Science in Civil Engineering, with a Concentration in Pavement Design, Construction, and Materials from Michigan Technological University. She has over 19 years of experience in standards development with both ASTM International and the American Association of State Highway and Transportation Officials (AASHTO), as well as and conformity assessment management in the construction materials testing sector. She was the 2022-2023 Chair of ASTM Committee D04 on Road and Paving Materials. Maria is currently serving as the Acting Group Lead for the Standards and Conformity Assessment Services Group at the National Institute of Technology (NIST) Standards Coordination Office. Maria is also the staff lead on NIST's Low Carbon Cements and Concretes Consortium, an effort that brings together stakeholders to identify and address measurement and standards needs related to low carbon cements and concretes.

Christian Thiele
Director Global Ground Vehicle Standards
SAE International

Christian Thiele is passionate global automotive industry leader, with 30 years of experience working with tier one suppliers to the OEMS, proven growth-driver through strategic business development with strong focus on the mobility industry. An entrepreneurial innovator, with an extensive record of accomplishment of analyzing and distilling automotive industry trends and developing actionable strategies across sectors, with proven ability to identify and capture profitable new emerging global markets. Since February 2022, Christian joined SAE International to lead the organizations development of ground vehicle consensus-based standards for the benefit of industry and humanity.