Roundtable

Organizers: Alex Gelman, Mehmet Ulema
Moderator: Mehmet Ulema
Panelists:
  • Laura Pullum, Oak Ridge National Laboratory (ORNL), USA
  • Mehmet Ulema, Manhattan College, New York, USA
  • Alexander Gelman, NETovations, USA
  • Roby Robson, Eduworks Corporation, USA
  • Ali G. Hessami, Vega Systems Ltd., UK
Moderator's Remarks

• Rapid Technology Evolution → introduce new and/or enhanced product and services in much shorter time → accelerate standardization to accompany the product/service introduction

• Requires new approaches and new constituencies for standards development
  • Increased emphasis on market driven/relevant standards in the face of fast changing industry dynamics
  • Focus on market driving/disrupting standards (Innovation at every phase of the tech life cycle)
  • Standardize emerging technologies in early phases of the technology evolution; Involving researchers
  • Open-source development as a rapid response to facilitate standardization
  • Ethical considerations in technology standardization in the face of fast changing industry dynamics

• The panel brings together standardization experts to explore and address these issues and more.
Laura Pullum

• Senior research scientist at Oak Ridge National Laboratory in the Computer Science and Mathematics division.
• Conducts R&D in dependable ML and AI in a wide range of applications
• Significant participation in standards development for dependable ML and AI for the following organizations: IEEE, ISO, INCITS, SAE, ASME, and Underwriters Laboratories (UL).
• Recent representative projects in AI/ML dependability
  • Explainable high-confidence models for dynamic systems;
  • Robustness of reinforcement learning and deep neural networks;
  • V&V and uncertainty quantification of ML
  • Dependability of multi-modal learning systems.
• BS in Math; MS degrees in Operations Research, Business Administration, and Geology; and a doctorate in Systems Engineering and Operations Research.
Mehmet Ulema

• Professor of Computer Information Systems at Manhattan College, New York. Previously, he held management and technical positions in AT&T Bell Laboratories, Bellcore, and Daewoo Telecom.

• On the editorial board of a number of journals. He is also the co-editor of a IEEE Press-Wiley book series on Network and Service Management. Dr. Ulema is the author of a book entitled “Fundamentals of Public Safety Networks and Critical Communications” published by Wiley.

• Actively involved in standardization in ITU, TIA, ATIS, and IEEE. Currently, he is a member of IEEE Standards Association Board of Governors. He is also a co-chair of the IEEE Public Safety Technology Initiative.

• Had leading roles in numerous IEEE ComSoc conferences including IEEE ICC and IEEE GLOBECOM. He is the co-founder of IEEE BlackSeaCom conference series.

• Received a number of awards including IEEE SA Standards Medallion award and IEEE ComSoc Harold Sobol Award.

• Holds MS & Ph.D. degrees in Computer Science at Polytechnic University (now the New York University Tandon School of Engineering). also received BS & MS degrees at Istanbul Technical University.
Alexander D. Gelman

- CTO of NETovations Consulting Group. Previously he was with Panasonic Research Laboratory, Bell Communications Research (Bellcore)
- Chair of the IEEE Access and Core Networks Standards Committee, Vice Chair of the IEEE SA Fellow Nominations Support Committee, co-chair of the Standardization Building Blocks Working Groups of the FDC Future Network Initiative.
- Served on ComSoc BoG, including first VP- Standards Activities, served on IEEE SA BoG including VP Technical Innovation and Engagement; served on IEEE SA Standards Board, served as the Inaugural Vice-chair of the TAB committee on Standards
- Initiated ComSoc Technical Committee and standardization in Power Line Communications and IEEE standardization in the area of cognitive radio;
- Has numerous publications and several patents.
- Recipient of ComSoc Donald McLellan Meritorious Service Award, IEEE SA Corporate Standards Sponsor Award and IEEE SA Standards Medallion.
- He received M.E. and Ph.D. from the City University of New York.
- IEEE Life Fellow.
Robby Robson

- A researcher, entrepreneur, and standards professional who has made foundational contributions to fields ranging from pure mathematics to learning technology
- Chair of the IEEE Standards Education Committee, the IEEE Standards Association Open Source Committee, and a member of the IEEE Standards Association Board of Governors
- Co-founder and CEO of Eduworks Corporation, a company that applies advanced technologies to learning, education, training, and workforce development
Ali G. Hessami

• Director of R&D and Innovation at Vega Systems.
• Extensive track record in systems assurance and safety, security, sustainability, knowledge assessment/management methodologies and has a background in design and development of advanced control systems for business and safety critical industrial applications.
• Represents UK on CENELEC & IEC safety systems, hardware & software safety & security standards committees.
• Chair and Technical Editor of the landmark IEEE 7000 standard focusing on “Addressing Ethical Concerns in System Design”
• Vice Chair and Process Architect of the IEEE’s global Ethics Certification Program for Autonomous & Intelligent Systems.
• Visiting Professor at London City University’s Centre for Systems and Control in the School of Engineering and at Beijing Jiaotong University School of Electronics & Information Engineering.
• A Fellow of Royal Society of Arts (FRSA), Fellow of the UK Institution of Engineering & Technology (IET) and a Life Senior Member of IEEE.