SusTech 2017 — Environmental Panel

"UN SDG (Sustainable Development Goals) challenges & IEEE's response"

What is the role of technical professional societies like IEEE in responding to the UN SDG? Is it part of their mission? Or it is best left to their members? Should IEEE et al strive to play a key role as a technology innovator?

Moderator: Vin Piuri
Panelists:

Paul Cunningham	2017-2018 President, IEEE SSIT
Rene Garello	IEEE Environmental Engineering Chair
Jim Jefferies	2017 IEEE President-elect

Vincenzo (Vin) Piuri has received his Ph.D. in computer engineering at Politecnico di Milano, Italy (1989). He has been Associate Professor at Politecnico di Milano, Italy and Visiting Professor at the University of Texas at Austin and at George Mason University, USA. He is Full Professor in computer engineering at the University of Milan, Italy (since 2000).

His main research interests are: signal and image processing, machine learning, pattern analysis and recognition, theory and industrial applications of neural networks, biometrics, intelligent measurement systems, industrial applications, fault tolerance, digital processing architectures, embedded systems, and arithmetic architectures. Original results have been published in more than 400 papers in international journals, proceedings of international conferences, books, and book chapters. He is Fellow of the IEEE, Distinguished Scientist of ACM, and Senior Member of INNS.
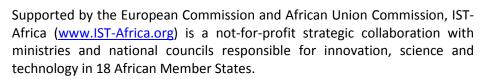
He has been IEEE Past Vice President for Technical Activities (2016), IEEE Vice President for Technical Activities (2015), IEEE Director, President of the IEEE Computational Intelligence Society, Vice President for Education of the IEEE Biometrics Council, Vice President for Publications of the IEEE Instrumentation and Measurement Society and the IEEE Systems Council, and Vice President for Membership of the IEEE Computational Intelligence Society. He is Editor-in-Chief of the IEEE Systems Journal (2013-17), and has been Associate Editor of the IEEE Transactions on Neural Networks and the IEEE Transactions on Instrumentation and Measurement.

He received the IEEE Instrumentation and Measurement Society Technical Award (2002) for the contributions to the advancement of theory and practice of computational intelligence in measurement systems and industrial applications. He is Honorary Professor at the Obuda University, Budapest, Hungary (since 2014), and Guest Professor at Guangdong University of Petrochemical Technology, China (since 2014) and at the Muroran Institute of Technology, Japan (since 2016).

Paul Cunningham

2017-2018 President, IEEE Society on Social Implications of Technology (SSIT)

Paul M Cunningham is the President and CEO of International Information Management Corporation; Founder and Director of the IST-Africa Institute; Visiting Professor, International University of Management (IUM), Namibia; Visiting Senior Fellow, Wrexham Glyndŵr University, Wales; and Founder and Coordinator of mHealth4frika. Paul works as a technology, strategy, and policy expert for international and national government organizations as well as international and nationally funded research and innovation programs in Europe and Africa.

Supported by the European Commission and African Union Commission, IST-Africa (www.IST-Africa.org) is a not-for-profit strategic collaboration with ministries and national councils responsible for innovation, science and technology in 18 African Member States.

Supported by the European Commission, *mHealth4Afrika* (www.mHealth4Afrika) is co-designing an open source, multilingual mHealth platform integrating electronic medical records, medical sensors, and generation of monthly aggregate health indicators to strengthen primary healthcare delivery in resource constrained health clinics in Africa.

An IEEE Senior Member, Paul is 2017 - 2018 President, IEEE Society on Social Implications of Technology (SSIT); Projects Chair, IEEE Humanitarian Activities Committee; Member, IEEE Technical Activities Board and IEEE Global Public Policy Committee; and Founder and Chair, IEEE SSIT IST-Africa SIGHT.

Paul is a graduate of Trinity College Dublin and UCD Michael Smurfit Graduate Business School; has studied at postgraduate level in Hungary and USA; and is completing a PhD at the Department of Computer and Systems Sciences (DSV), Stockholm University.

Rene Garello

Ecole Nationale Superieure des Telecommunications de Bretagne (ENST Bretagne)

Rene Garello received the Ph.D. degree in Signal Processing at the Institut National Polytechnique de Grenoble (INPG) in 1981. From 1982 to 1984 he worked as a Research Associate at Aeronomy Lab, (NOAA) in Boulder, Colorado (USA). He joined the Ecole Nationale Superieure des Telecommunications de Bretagne (ENST Bretagne), Brest, France in 1985. In 1988 he became Professor in this engineering school in the field of signal processing and image processing and in 1995, Prof. Garello obtained the Habilitation to Supervise Research.

His main research interests lie in Remote Sensing, 2D signal processing, statistical and spectral analysis applied to ocean surface features detection and characterization.

In 2005, he was elected VP Conference Operations for the IEEE Oceans Engineering Society (OES) and re-elected in 2006 and 2008. He was elevated to the grade of Fellow of the IEEE, class of 2006. He received the OES Service Awards in 2006. He was elected President in 2012 and 2014.

James A. Jefferies
2017 IEEE President-elect

Professional membership societies like IEEE with a commitment to Advancing Technology for Humanity can play a role in achieving SDG's by communicating their existence and progress, forming communities of interest around individual goals, identifying and matching impactful technology to SDG's, and providing future perspective to address sustainability in design.

Jim Jefferies retired from AT&T and Lucent Technologies following 33 years in engineering and executive positions including fiber optic cable development and manufacturing, quality assurance, and supply chain management. He managed the engineering teams that delivered the first commercial fiber optic cables for AT&T. He served as logistics vice president, responsible for worldwide supply chain and export planning. He has led teams in major technology transfers, transitions of information technology, and organizational change. He has also worked in the entrepreneurial sector as Chief Operating Officer for USBuild.com in San Francisco, CA, USA.

Jim served two separate terms on the IEEE Board of Directors, as well as the 2015 IEEE-USA President. As President of IEEE-USA, Jim supported the expanded focus on public visibility, young professionals, and humanitarian outreach.

He received his BS in Electrical Engineering from the University of Nebraska and an MS in Engineering Science from Clarkson University. He attended the Stanford University Graduate School of Business as a Sloan Fellow and earned an MS in Management.

Jim is a member of the IEEE Eta Kappa Nu honorary society and a licensed professional engineer (Emeritus).