

# IoT/CPS Expert Group Members Short Bios

ICT Policy, Research and Innovation for a Smart Society

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## Prof. Dr. Sebastian Engell – TUDO, Germany (chair)



Prof. Sebastian Engell, Dr.-Ing., graduated in Electrical Engineering from Ruhr-Universität Bochum, Germany in 1978 and obtained his PhD and venia legendi in Automatic Control from Universität Duisburg in 1981 and 1987. 1990 he became Full Professor of Process Dynamics and Operations at TUDO. 2008 he was a Distinguished Visiting Professor at Carnegie Mellon University, Pittsburgh, USA. He served as Vice-Rector for Research and International Relations of TU

Dortmund and has since played a leading role in the development of international collaborations at TUDO. He received several awards for his scientific work, including an ERC Advanced Investigator Grant. He was involved in the EU ICT Support Actions EUCLID (India), BALCON (Western Balkan) and contributes to the EU-South-East Asia Support Action CONNECT2SEA. He leads the ICT STREP DYMASOS and the CSA CPSoS (Cyber-physical Systems of Systems) and is the scientific coordinator of the STREP MORE (Real-time Monitoring and Optimization of Resource Efficiency in Chemical Plants).



## Tr. Tariq Samad - Technological Leadership Institute (TLI), University of Minnesota, US (Co-chair)

Tariq Samad holds the Honeywell/W.R. Sweat Chair at the Technological Leadership Institute, University of Minnesota. He joined TLI in May, 2016 after 30 years with Honeywell, for the last half of which he was Corporate Fellow with Honeywell Automation and Control Solutions. During his career with Honeywell he contributed to and led automation and control technology developments for

electric power systems, clean energy, building management, the process industries, automotive engines, unmanned aircraft, and advanced manufacturing. In 2015-2016 he also served as the first Global Innovation Leader for the business.

Dr. Samad has served as President of the American Automatic Control Council and IEEE Control Systems Society. He is a Fellow of the IEEE and the recipient of some other awards and recognitions. He is editor-in-chief of IEEE Press. Dr. Samad holds 20 patents and his recent publications include The Impact of Control Technology (2nd ed) (co-editor), and the Encyclopedia of Systems and Control (co-editor-in-chief). He was a founding Director of the U.S. Smart Grid Interoperability Panel and he co-led technology deep dives on advanced sensing, controls, and platforms for the U.S. Advanced Manufacturing Partnership. Dr. Samad received a B.S. from Yale University and M.S. and Ph.D. from Carnegie Mellon University.).





## ★ Prof. Dr. Massoud Amin - Technological Leadership Institute (TLI), University of Minnesota – US

Massoud Amin is the director of the Technological Leadership Institute (TLI), holds the Honeywell/H.W. Sweatt Chair, is a professor of Electrical & Computer Engineering (ECE), and a University Distinguished Teaching Professor Award Recipient at the University of Minnesota. He is Chairman of the IEEE Smart Grid, a Fellow of the IEEE and ASME, and a member of two

utility industry regional entities that oversee reliability: the Texas Reliability Entity (as board chairman) and the Midwest Reliability Organization (as a board member). Before joining the University, Dr. Amin was with the Electric Power Research Institute (EPRI) in Palo Alto, Calif. He pioneered R&D in smart grids in 1998, led the development of 24 technologies that transferred to industry and, after 9/11, directed all security-related R&D for U.S. utilities. He has led research, development and deployment of smart grids, and the enhancement of critical infrastructures' security during this period and is considered the father of smart grid. At EPRI, he twice received the Chauncey Award, the Institute's highest honor. He is the author of more than 200 peer-reviewed publications, editor of seven collections of manuscripts, and serves on the editorial boards of six academic journals.



## Tr. Chris Greer - National Institute of Standards and Technology (NIST), US

Dr. Chris Greer is Director of the Smart Grid and Cyber-Physical Systems Program at the National Institute of Standards and Technology (NIST). NIST promotes innovation and industrial competitiveness by advancing measurement science, standards, and technology in ways that enhance economic security and improve the quality of life. The goals of the Smart Grid and Cyber-Physical Systems

program are to coordinate the development of a framework for interoperable smart grid technologies and to promote the emergence of a globally interoperable Internet of Things through international consensus around shared technology frameworks.



## T Dr. Paul D. Nielsen - Software Engineering Institute, Carnegie Mellon University, US

Dr. Paul D. Nielsen is the Director and CEO of Carnegie Mellon University's Software Engineering Institute. The SEI is a federally funded research and development center sponsored by the US Department of Defense. The SEI concentrates on software engineering and cybersecurity methods that enhance mission assurance for complex systems. Earlier Nielsen served in the US Air

Force and retired as a major general. Nielsen is a member of the U. S. National Academy of Engineering.



### 📩 Dr. Martin Serrano - Insight Centre for Data Analytics – Ireland

Dr. Serrano is a recognized research data scientist with more than 15 years experience in industry and applied research within a wide range of successful European (FP5-FP7/H2020) collaborative software projects, Irish National Projects (HEA PRTLI, SFI) and also Enterprise Ireland (EI) innovation projects. Dr. Serrano is an expert on IoT semantic interoperability and distributed data systems and an end-to-end solutions architect with a background on applied semantic and

systems interoperability, Smart Technology, Services and Network Management and Communications Management Systems. Dr. Serrano has a leading role at the European Research Cluster for the Internet of Things (IoT) and he is board member at the Connected Smart Cities Network. He is an active member of IEEE (Computer and Communication Societies) and ACM with more than 100 pair reviewed publications and he is the author of 4 academic books in related areas. He is the coordinator of the FIESTA-IoT project (www.fiesta-iot.eu) and the data management, IPR & analytics manager and leader on research activities in the EU H2020 project ActivAge (www.activageproject.eu). In the past, he was involved in a HEA Irish-based project called HEA-futurecomms (http://futurecomm.tssg.org) where he was investigating methodologies and algorithms for the optimal use of IT technologies (i.e. cloud systems and analytic systems) for remote health monitoring.



## rof. Dr. Haydn Thompson – THHINK, UK

Professor Haydn Thompson, BSc, PhD. CEng has over 25 years' experience working in a mixture of senior industrial research and development roles in flight control systems, space programmes and signal processing applications for leading companies. For nearly 20 years he was the Programme Manager of the Rolls-Royce Control and Systems University Technology Centre. Currently he is Managing Director and Owner of THHINK Wireless Technologies Ltd., a Director

of THHINK Wireless Technologies Japan Ltd. as well as being Managing Director and Owner of Haydn Consulting Ltd. He is recognised and used by the European Commission and European Parliament as an expert in many fields and is a consultant to a range of companies and government bodies. He is Chair of a European Working Group on Cyber Physical Systems of Systems for Transport and Logistics. He has run many research projects with Rolls-Royce (400+), was the co-ordinator of the EU FLEXICON project, led work on the More Electric Aircraft in the Airbus/EU MOET project, led consortia in the Airbus WICAS and SWIFT projects and has also run research programmes with Network Rail on remote infrastructure monitoring. He has over 100 publications and has also written two books on gas turbine engine control.



### 📩 Dr. O. Sinan Tumer – SAP Co-Innovation Lab, US

Sinan Tumer is the Senior Director of SAP Co-Innovation Lab in the East Coast region of USA. He is responsible for establishing an open innovation process by harnessing SAP's partner ecosystem to deliver innovative business solutions to SAP's customers. Previously he was responsible for managing international research policies at SAP Research with special emphasis on innovation deployment and adoption programs of the US Federal Government and the

European Commission like pre-commercial public procurement, technology procurement and precompetitive R&D for commercialization. As the Director of Operations at SAP Research, he was responsible for operations of SAP Research centers around the globe.

Sinan joined SAP in 1991 at SAP America in Philadelphia. Previously, he held management positions at SAP America as the Consulting Director of the North East region and as the Software Partner Alliance Director.

Sinan is serving on the Foundation Board of German Center for Research & Innovation as the Co-President in NY USA. He is an Advisory Board member of the BILAT USA 4.0 consortium funded by the European Commission promoting US-EU Transatlantic innovation cooperation. Sinan holds Master degree in Systems Engineering and Master of Science degree in Computer Sciences, both from Georgia Institute of Technology, Atlanta Georgia USA.

## 📩 Dr. Hubertus Tummescheit – Modelon Inc., US



Dr. Tummescheit is the Chief Executive Officer of Modelon Inc., and one of the founders of Modelon AB.

Dr. Tummescheit received his MSc in Mechanical Engineering from the Technical University of Hamburg-Harburg, Germany in 1996, and his PhD in Automatic Control from the University of Lund, Sweden in 2002.

He has been involved in the Design of the Modelica language from the beginning and is the developer of a number of open source and commercial Modelica Libraries in the energy and HVAC domains. In 2003 he worked as a research scientist at United Technologies Research Center and returned to Sweden in 2004 to start Modelon AB, the first company fully dedicated to tools and services based on Modelica and FMI. Dr. Tummescheit for Modelon is also a member of the FMI steering committee, and active in the future development of the FMI standard.

Dr. Tummescheit has served as the CEO of Modelon AB from 2004 to 2012 and moved to Hartford, Connecticut in 2013 to establish Modelon as a leading player in system simulation in the United States.



### 📌 Dr. Ovidiu Vermesan – SINTEF ICT, Norway



Dr. Ovidiu Vermesan holds a Ph.D. degree in microelectronics and a Master of International Business (MIB) degree. He is Chief Scientist at SINTEF Information and Communication Technology, Oslo, Norway. His research interests are in the area of mixed-signal, embedded electronics and communication systems. He is currently working with projects addressing nanoelectronics, integrated sensor/actuator systems, communication, cyber-physical systems, and IoT with

applications in green mobility, energy, autonomous systems and smart cities. He has authored or coauthored over 75 technical articles and conference papers. He is actively involved in the activities of the Electronic Components and Systems for European Leadership (ECSEL) Joint Technology Initiative (JTI). He coordinated and managed various national and international/EU projects related to integrated electronics. Dr. Vermesan is actively participating in national and international/H2020 EU initiatives, coordinating and managing various projects. He is the coordinator and Chair of the WG01 IoT European Research Cluster (IERC) of the Alliance for Internet of Things Innovation (AIOTI).