

# IEEE SMART TECH METRO AREA WORKSHOP SERIES

Professional workshops in a learning environment



## IEEE Signature Event | Birmingham, England, UK | Speaker Bios

---

**Professor Harold Haas** received the PhD degree from the University of Edinburgh in 2001. He currently holds the Chair of Mobile Communications at the University of Edinburgh, and is co-founder and Chief Scientific Officer of pureLiFi Ltd as well as the Director of the LiFi Research and Development Center at the University of Edinburgh. His main research interests are in optical wireless communications, hybrid optical wireless and RF communications, spatial modulation, and interference coordination in wireless networks. He first introduced and coined spatial modulation and LiFi. LiFi was listed among the 50 best inventions in TIME Magazine 2011.

Prof. Haas was an invited speaker at TED Global 2011, and his talk: "Wireless Data from Every Light Bulb" has been watched online more than 2.2 million times. He gave a second TED Global lecture in 2015 on the use of solar cells as LiFi data detectors and energy harvesters. This has been viewed online more than 1 million times. Professor Haas holds 31 patents and has more than 30 pending patent applications. He has published 300 conference and journal papers including a paper in Science. He co-authors a book entitled: "Principles of LED Light Communications Towards Networked Li-Fi" published with Cambridge University Press in 2015. Prof. Haas is editor of IEEE Transactions on Communications and IEEE Journal of Lightwave Technologies. He was co-recipient of recent best paper awards at the IEEE Vehicular Technology Conference (VTC-Fall) in Las Vegas in 2013, and VTC-Spring in Glasgow in 2015, and ICC in Kuala Lumpur, 2016. He was co-recipient of the EURASIP Best Paper Award for the Journal on Wireless Communications and Networking in 2015, and co-recipient of the Jack Neubauer Memorial Award of the IEEE Vehicular Technology Society. In 2012, he was the recipient of the prestigious Established Career Fellowship from the EPSRC (Engineering and Physical Sciences Research Council) within Information and Communications Technology in the UK. Prof. Haas is recipient of the Tam Dalyell Prize 2013 awarded by the University of Edinburgh for excellence in engaging the public with science. In 2014, he was selected by EPSRC as one of ten RISE (Recognising Inspirational Scientists and Engineers) Leaders in the UK.

**Dr. Wasiu O. Popoola** received a first class (Hons.) degree in electronic and electrical engineering from Obafemi Awolowo University, Nigeria, an MSc and a PhD degree from Northumbria University at Newcastle upon Tyne, UK. During his PhD, he was awarded the 'Xcel

Best Engineering and Technology Student of the year 2009<sup>1</sup>. He is currently a chancellor's fellow at the Institute for Digital Communications, University of Edinburgh. Previously he was a lecturer in electronic engineering at Glasgow Caledonian University, UK between Aug. 2012 and Dec. 2014. He has published well over 70 journal articles/conference papers/patent and a number of those are invited papers; see: <http://goo.gl/JdCo3R>. He is an invited speaker at the 2016 IEEE Photonics Society Summer Topicals. He co-authored the book 'Optical Wireless Communications: System and Channel Modelling with MATLAB, published by CRC in 2012. His research interests include Optical (wireless and fibre) and Digital Communications.

**Professor Jian S Dai** is Chair in mechanisms and robotics at King's College London, a fellow of ASME and a fellow of IMechE. He is the vice chair of IFToMM UK MO and chaired ASME UK & Ireland Section during 2010-2012. He serves several leading journals in robotics as associate editors and as a subject editor of the journal of Mechanism and Machine Theory. His research covers kinematics and screw algebra, mechanism theory and development, reconfigurable mechanisms and robots, manipulation theory and multifingered hands, rehabilitation and medical robotics, and robotised packaging and industrial robotics. Prof Dai received the 2015 ASME Mechanisms and Robotics Award for a lifelong contribution to the fundamental theory, design and applications of mechanisms and robotic systems as the 27th recipient since the award established in 1974.

As stated in this lifelong contribution, Prof Dai is a founder of reconfigurable mechanisms and robots in the world, and established a prestigious conference series, IEEE International Conferences on Reconfigurable Mechanisms and Robotics (ReMAR), basically established from scratch the field of reconfigurable mechanisms and robots, and the sub-field of metamorphic mechanisms; coined and advocated the idea of reconfigurable mechanisms and robots as a promising concept to bridge the gap between versatile but expensive robots, and efficient but non-flexible machines. Prof Dai is pioneer in many aspects of research in mechanisms and robotics and an international leading figure in the research. He has published over 450 peer-reviewed papers including over 250 journal papers, with citation number over 9000, h-index 48 and i10-index 210.

---

**Chris Shore, ARM Training Manager**, has worked at ARM for over 16 years. For the last 15 years, he has been responsible for ARM's customer training activity – delivering over 200 training courses every year to ARM's customers and end users all over the world. He is also responsible for ARM's Active Assist onsite services and the ARM Approved partner program. Chris is a regular speaker at conferences and industry events and has addressed audiences on

ARM technology on every continent except Antarctica - opportunities there are limited but it is surely only a matter of time!

Chris has lived and worked in Cambridge for over 30 years. He holds an MA in Computer Science from Cambridge University, is a Chartered Engineer and a member of the Institute of Engineering and Technology (MIET).

---

**Prof. Ali Hessami** is Director of R&D and Innovation at Vega Systems, UK and an expert in the systems assurance and safety, security, sustainability and knowledge assessment/ management methodologies. Ali has a background in design and development of advanced control systems for business and safety critical industrial applications.

He contributed significant original material to CENELEC systems standards including TR-50451 on Allocation of Safety Integrity & TR-50506-1 on the Cross-Acceptance of Signalling Systems and represents UK on CENELEC & IEC safety systems, hardware & software standards committees. Ali is currently a Council Member of the Institution of Engineering & Technology (IET) and the Chair of the IEEE Section in the UK and the Republic of Ireland.

Ali is a Visiting Professor at London City University's Centre for Systems and Control in the School of Engineering & Mathematics and at Beijing Jiaotong University School of Electronics & Information Engineering. He is also a Fellow of Royal Society of Arts (FRSA), Fellow of the IET, a Senior Member of IEEE and a member of the Security Institute.

---

**Peter Harris, Software Optimisation Architect, ARM**, has an MEng in Electronics and Computer Systems from the University of York, and is the performance architect for the Mali OpenGL ES team at ARM. He enjoys spending his time working with like-minded engineers on a whiteboard, determining how to get the best performance out of combined hardware and software sub-systems.

---

**Prof. Frank Z. Wang** is the Professor in Future Computing and Head of School of Computing, University of Kent, UK. The School of Computing was formally opened by Her Majesty the Queen. Professor Wang's research interests include cloud computing, big data, green computing, brain computing and future computing. He has been invited to deliver keynote speeches and invited talks to report his research worldwide. In 2004, he was appointed as Chair

& Professor, Director of Centre for Grid Computing at CCHPCF (Cambridge-Cranfield High Performance Computing Facility). CCHPCF is a collaborative research facility in the Universities of Cambridge and Cranfield (with an investment size of £40 million). Prof Wang and his team have won an ACM/IEEE Super Computing finalist award. Prof Wang is Chairman (UK & Republic of Ireland Chapter) of the IEEE Computer Society and Fellow of British Computer Society. He has served the Irish Government High End Computing Panel for Science Foundation Ireland (SFI) and the UK Government EPSRC e-Science Panel. Fawzi organized over 10 international conferences and chaired summits, workshops, tutorials and was a distinguished speaker on key topics such as IoT, 5G, virtualization, Big Data/Analytics and cyber-security.

**Dr. Caroline Ling Li** is a Lecturer in the school of Computing at the University of Kent. She is the founding coordinator of Laboratory of Brain | Cognition | Computing (BC2 Lab) of the School. She is responsible for coordinating multidisciplinary research between Computing, Sports and local NHS. Before she joined the University of Kent, she had six years' research experience at Imperial College London in signal processing with a focus of analyzing body sensor data (EEG, EMG, ECG, eAR-sensor, and etc.). She started her postgraduate research within the Department of Electrical and Electronic Engineering at Imperial and then worked as a research associate in the £6 million EPSRC "ESPRIT with Pervasive Sensing" project (EPSRC reference: EP/H009744/1) at the Department of Computing of Imperial College. She has been focused on developing advanced signal processing methods for understanding sensor data with biomedical applications such as EEG-based biomarker for brain diseases, EMG-controlled robotics, ECG pattern extraction, and human motion analysis.

---

**Prof Bob Stewart** is the MathWorks Professor of Signal Processing in the Department of Electronic and Electrical Engineering at the University of Strathclyde. He has more than 25 years of experience of DSP and communications working extensively in both industry and academia.

**Dr Louise Crockett** is an academic in the same Department and her current R&D work is with Xilinx FPGAs on the implementation of SDR and other DSP systems. Louise is also the lead author of the best-selling text *The ZynqBook on Xilinx FPGAs*, jointly published with Xilinx in 2014.

**Kenneth Barlee** is a PhD researcher in the DSP enabled Communications group at Strathclyde working on DSP enabled radio PHY design. Kenneth is the joint developer of many of the examples and demonstrations used in this course.

---

