

Future Devices & Technologies SIG 'Making smart devices smarter!'

6 October 2022

The Future Devices & Technologies SIG is championed by Graham Anderson of **Beko**, Nadia Aziz of **Unbounded Future**, Esther Ford of **Marks & Clerk**, Zahid Ghadialy of **3G4G**, David Roberts of **Jaboo Software**, Charles Sturman of **Huawei Technologies Research & Development (UK)**

Venue: The XCHG, Floor 7, 22 Bishopsgate, London EC2N 4AJ

Wifi: XCHG Events network Password: sarahgilbert

AGENDA

13:30 Registration and networking with refreshments

14:00 CW welcome by **Mark Rayner, CEO, CW (Cambridge Wireless)**

14:03 Welcome from event host, **The XCHG**

14:05 Introduction to Future Devices & Technologies SIG and scene-setting: **Zahid Ghadialy, Future Devices & Technologies SIG Champion** and **Principal Analyst and Consultant, 3G4G**.

14:10 **Esther Ford, Future Devices & Technologies SIG Champion and Partner, Marks & Clerk**

14:15 **Session to be chaired by Zahid Ghadialy, Future Devices & Technologies SIG Champion**
'Smart chips for smart devices'

Charles Sturman, Senior Director International Marketing, Huawei Technologies R & D

What actually makes a Smart-thing Smart? Charles will take stock of the current state of the art in System-on-chip design which is fueling the proliferation of 'things' within the Internet of Things and in particular discuss the emerging technologies which are being integrated within the chips at the heart of the digital revolution.

14:35 Q & A

14:40 **'Digitising scent to connect'**

Koji Goto, Director of Sales & Business Development, Aroma Bit, Inc

14:55 **'The role of HW IP on smart devices'**

Gilberto Rodriguez, Director of Product Management for Automotive ADAS/AV Segment, Imagination Technologies

The increase in demand for smarter and more devices is driving the need for efficient hardware components that are capable of executing intelligence algorithms on the device with minimum power. Imagination Technologies develops state of the Hardware IP that can support the requirements of complex smart-algorithms with minimum power consumption.

15:15 Q & A

15:20 **'Hardware innovation in smart device analytics'**

Kumi Thiruchelvam, Chief Commercial Officer, My Voice AI in conversation with **Abhishek Binaykia, Chief Operating Officer, Spektacom Technologies**

Sports is being disrupted at an unprecedented level by smart devices getting smarter, and machine learning algorithms presenting sports management, fans and broadcasters with augmented data derived from hardware innovation. We will explore this in the world of cricket in this talk.

15:30 Q & A

15:35 **Refreshments and networking**

Session to be chaired by Esther Ford, Future Devices & Technologies SIG Champion

16:00 'Future of connected devices'**Peter Richardson, VP & Research Director, Counterpoint Research**

Peter will look at the trends we've seen in smart device technology and what we can expect to see developing over the next few years.

16:20 Q & A**16:25 'Smart bioelectronics'****Christopher Proctor, Associate Professor in Bioelectronics, Tutorial Fellow at Keble College, University of Oxford**

Chris will provide an overview of his research programme on "smart bioelectronics" including the broad motivations and long-term aspirations of it as well as their recent developments in implantable, wearable and in-vitro technologies.

16:40 'Scenarios for smarter devices, 2025'**David Wood, Chair, London Futurists**

Black mirror? Creepy connectivity? QAnon on steroids? Or angelic helper, trustworthy fact-checker, and our inner guru? Which scenarios for the future of smart devices deserve the most attention? What's preventing better progress? Which innovations in hardware and software will make the biggest difference?

17:00 Q & A**17:05 Panel session chaired by Esther Ford, Future Devices & Technologies SIG Champion****17:25 Wrap-up by Esther Ford, Future Devices & Technologies SIG Champion****17:30 End of session followed by networking****18:00 Event closes**

With the permission of the speakers, presentations will be loaded to the CW website following the event

Profile of organisers

Cambridge Wireless (CW)

CW is the leading international community for companies involved in the research, development and application of wireless and mobile, internet, semiconductor and software technologies. With over 400 members from major network operators and device manufacturers to innovative start-ups and universities, CW stimulates debate and collaboration, harnesses and shares knowledge, and helps to build connections between academia and industry. CW's 19 Special Interest Groups (SIGs) provide its members with a dynamic forum where they can network with their peers, track the latest technology trends and business developments and position their organisations in key market sectors. CW also organises major conferences and start-up competitions along with other high-quality industry networking events and dinners. With headquarters at the heart of Cambridge, UK, CW partners with other international industry clusters and organisations to extend its reach and remain at the forefront of global developments and business opportunities. www.cambridgewireless.co.uk

Profile of host

The XCHG

The XCHG is an exclusive workspace for innovators and entrepreneurs, nestled in the iconic 22 Bishopsgate, one of the most iconic sustainable buildings in London. www.xchgspaces.com

Profile of SIG Champions

Graham Anderson, Beko @Beko

Graham Anderson is Senior Specialist at Beko R&D, with research interests focused around novel sensors, data analytics, and energy storage/harvesting. Previously he worked as a Senior Scientist at Cambridge Display

Technology working on the development of ink jet printed OLED displays and organic thermoelectric generators. Graham has a PhD from Leeds University in spintronics. www.beko.co.uk

Nadia Aziz, Unbounded Future @NadiaAzizTweet

Nadia is an emerging technology consultant with heavy focus on AR/VR & new technology areas. She has a broad experience over 12 years as an engineer, programmer, consultant, advisor, speaker, IP scouting and has a passion for emerging technologies and its impact on business transformation. She has also helped in mergers & acquisition programmes in France specifically in the engineering areas. Nadia Aziz was recently an Innovation leader for Emerging Technologies at NTT DATA where she led the development of innovation applications in Augmented (AR) & Virtual Reality (VR) technologies, AI, sensors and wearables. She is active in the Digital Health community and was a co-producer for the GIANT Health Event in 2018.

Esther Ford, Marks & Clerk @marksandclerk

Esther obtained an MEng in Electronic Engineering after studying at the University of Kent and the Technische Hochschule Darmstadt. Having been awarded an Engineering Prize from the Royal Academy of Engineering, she went on to obtain a PhD in Microelectronics from the University of Cambridge. During her research, Esther developed a nanodot array single electron device with controlled threshold voltage at high temperatures. She also presented the Institute of Engineering and Technology (IET) Faraday Lecture "The Digital World", which was delivered to live audiences throughout the UK and broadcast over Europe and North America, reaching an audience of 20,000. After completing her PhD, Esther worked as a research engineer in Nortel Networks and subsequently in a telecommunications design consultancy. She joined the patent profession in 2004 and has extensive experience in managing international patent portfolios. She also has significant experience representing clients at the EPO in oppositions and appeals. Esther joined Marks & Clerk in 2008, and in 2011 enjoyed a secondment as an in-house attorney for a valued client in the Oil/Gas industry. Her recent focus has been in the fields of Internet Service Provision, Oil/Gas recovery, Power Electronics, and the Internet of Things. Esther has been recognised as a rising star by Managing Intellectual Property, IP Stars, 2017. www.marks-clerk.com

Zahid Ghadialy, 3G4G @zahidtg

Zahid is a technologist with a deep understanding of architecting world-class mobile products and solutions. With over 20 years' experience in the telecom industry in various roles, he has been an evangelist for mobile and wireless technologies. Over the years he has accumulated a vast following on his blogs and social networks with simple explainer posts and videos. His 3G4G blogs about different aspects of mobile technology and especially 5G and 6G are widely read, including the architecture, deployments, use cases, applications, etc. His YouTube channel is also very popular where he explains many new features expected as part of 5G in the future. While his style and content is unique, he also references many industry publications and provides slides that are very useful to view online. He is also active on Twitter under his @3G4GUK brand helping disseminate the benefits of 5G and why 5G will be needed in the long run. He covers a very wide portfolio of 5G related information that is hard to find otherwise. Until recently, Zahid was a Senior Director looking at Technology & Innovation Strategy in Parallel Wireless. As a brand ambassador, he represented the company in various Open RAN discussions and also created tutorials on Open RAN and O-RAN which are being used as reference for new starters on the topic. www.3g4g.co.uk

Dave Roberts, Jaboo Software

David is a technology leader with over 25 years' experience working in the hi-tech arena. He has recently completed a successful project for ghd in conjunction with CW where he carried out the role of System Architect and facilitator. Prior to this he worked in in the C-IoT space where he ran a multi-national R&D department that developed silicon and software designed for the burgeoning IoT market. He was also responsible for driving an agile transformation programme and assisting the organisation with their integration into a large Chinese multi-national telecoms company. Having started his career as a software developer working for BT and Acorn Computers, he went on to hold senior roles in a number of world-class organisations such as Symbian, Cambridge University and Citrix in the areas of Software Development, Project Management, Product Management, Research, Consultancy and Architecture. His background includes leading and developing teams involved in the creation of large-scale integrated hardware and software products, web-based services and CE devices. He is also highly experienced in large-scale agile development practices, agile coaching/transformation and creating and executing strategies for increasing the efficiency and effectiveness of organisations.

Charles Sturman, Huawei Technologies R & D @CharlesSturman

Charles is responsible for International Marketing for HiSilicon (Huawei's chipset business). Based in Cambridge UK, with responsibility for product strategy, go-to-market and business development in IoT, edge and smart devices fields. Prior to this he lead u-blox' activities in the fast moving consumer IoT segment (wearables, smart-home and

entertainment) following the acquisition of the ARM Software Radio spin-out Cognovo, where we has founder and executive VP Sales & Marketing. Charles has held various positions in system design, business development and product marketing within Acorn Computers, TTPCom, Motorola and ARM. www.huawei.com

Profile of speakers

Abhishek Binaykia, Spektacom Technologies @spektacom

A dynamic product and business leader with extensive global experience working in Fortune 500 companies including Qualcomm, Broadcom, etc, as well as with high tech start-ups, in multiple geographies. Have held various leadership roles in product management, business development and marketing, and have taken various cutting-edge products and technologies to market. Am a major sports enthusiast, a former state junior badminton champion, and have consulted for multiple IPL franchises in the area of digital transformation. Currently head product, operations and marketing responsibilities at Spektacom, a company which I firmly believe will change the paradigm on usage of technology in sports. Our cutting edge products include IoT driven smart sensors, machine learning/AI based intelligent analytics and computer vision technologies that take fan engagement and performance analysis to a completely different level. I have an MBA from the UCLA Anderson School of Management, and an MS in Electrical Engineering from North Carolina State University. www.spektacom.com

Koji Goto, Aroma Bit, Inc www.aromabit.com

Christopher Proctor, University of Oxford @DrSeeProctor

Christopher Proctor is an Associate Professor in Bioelectronics and BBSRC David Phillips Fellow. He is also a Tutorial Fellow at Keble College. Chris received a B.Sc. in Interdisciplinary Physics from the University of Michigan. Following two years as a general scientist at the U.S. Nuclear Regulatory Commission, he earned a Ph.D. in Materials from the University of California, Santa Barbara where he investigated loss mechanisms in organic photovoltaics. Subsequently, Chris was awarded a postdoctoral fellowship from Whitaker International to develop implantable bioelectronic devices for treating neurological disorders in the Bioelectronics Department at the Ecole des Mines de St Etienne. He then joined the University of Cambridge as a Research Associate and Borysiewicz Biomedical Sciences Fellow. In 2020, Chris started as a BBSRC David Phillips Fellow and group leader in the Engineering Department at Cambridge before moving to Oxford in 2022. www.ox.ac.uk

Peter Richardson, Counterpoint @MobilePeter

Peter has been in the mobile industry for more than 30 years with experience in product management, market analysis and corporate strategy. Before being a founder member of Counterpoint Research, Peter was Global Head of Market and Competitive Intelligence at Nokia. There he headed a team responsible for analyzing and quantifying the industry. Prior to Nokia, Peter was an equity analyst at SoundView Technology Group, a research-driven investment bank. And before that he was VP and Chief Analyst of mobile and wireless research at Gartner. Peter's early years in the industry were spent in product management and marketing with Japanese handset manufacturers, Panasonic and NEC. www.counterpointresearch.com

Gilberto Rodriguez, Imagination Technologies @ImaginationTec

Gilberto is Director of product management in the automotive ADAS/AV segment. Responsible for the strategy in the disruptive area of vehicle autonomy using our expertise in AI and other heterogeneous compute capabilities. Mr Rodriguez has over 20 years leading global teams and organizations. He has co-founded start-ups and lead teams of more than 70 engineers distributed worldwide. Gilberto has expertise in multi-disciplinary product development for the semiconductor industry in areas of artificial intelligence, telecommunications, and video processing. Gilberto holds an Executive MBA from London Business School and MEng in Telecommunications. www.imaginationtech.com

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Charles is responsible for International Marketing for HiSilicon (Huawei's chipset business). Based in Cambridge UK, with responsibility for product strategy, go-to-market and business development in IoT, edge and smart devices fields. Prior to this he led u-blox' activities in the fast moving consumer IoT segment (wearables, smart-home and entertainment) following the acquisition of the ARM Software Radio spin-out Cognovo, where we has founder and executive VP Sales & Marketing. Charles has held various positions in system design, business development and product marketing within Acorn Computers, TTPCom, Motorola and ARM. www.huawei.com

Kumi Thiruchelvam, My Voice AI @kumithiru

A disruptive Senior Executive, Technology Thought Leader and Entrepreneur, who possesses over 15 years' global leadership across EMEA, Asia Pacific, and the Americas. I direct transformational change, drive business development, commercialise products and deliver smart value chain solutions that realise high ROI, shareholder value and profits for Private Equity, Venture Capital and public listed companies. www.myvoice.ai

David Wood, London Futurists @dw2

David Wood was a pioneer of the smartphone industry and is now a full-time futurist writer, consultant, and publisher. In 1998 he co-founded Symbian, the creator of the world's first successful smartphone operating system. Software written by his teams was included in half a billion smartphones over the following years, from companies such as Nokia, Motorola, Samsung, Panasonic, Fujitsu, and Sony Ericsson. He previously spent ten years at UK-based mobile computing innovator Psion PLC, and subsequently three years as CTO of Accenture Mobility, where he co-led the company's Mobility Health business initiative. He is the author or lead editor of eleven books, including The Singularity Principles, Vital Foresight, Smartphones and Beyond, The Abolition of Aging, and Sustainable Superabundance. As Chair of London Futurists, he has hosted 300 public events on futurist and technoprogressive topics since 2008. As Principal of Delta Wisdom, he works with organisations around the world to inject urgency into discussions of future scenarios and to anticipate forthcoming exponential disruptions. He is a fellow of the IEET and a fellow of the RSA. He has a triple first class mathematics degree from Cambridge and undertook doctoral research in the Philosophy of Science regarding the implications of quantum physics. He has an honorary Doctorate in Science from Westminster University, awarded in recognition of his services to the smartphone industry. www.londonfuturists.com