





# 'Getting the energy into Cambridge Tech' Hosted by The Maxwell Centre, University of Cambridge

Delivered by The Cambridge Wireless Connected Thinking SIG.

Wednesday 25<sup>th</sup> June 2025

**Venue: Maxwell Centre,** Cavendish Laboratory, University of Cambridge, JJ Thomson Ave, Cambridge, CB3 0HE **WIFI**: Available via the 'UniOfCam Guest network', please search and follow the directions supplied.

Agenda	
10:30	Registration and networking with refreshments
11:00	Welcome from Cambridge Wireless, from CEO, Michaela Eschbach
11:05	Welcome from our event host, Dr Shafiq Ahmed
	Energy IRC - www.energy.cam.ac.uk & The Maxwell Centre, University of Cambridge
11:15	Session 1: The Big picture
	Chaired by Nick Hunn, Wi-Fore & Cambridge Wireless SIG Champion
11:15	'Setting the scene – opportunities in energy '
	Nick Hunn, Wi-Fore
11:25	'The UK Electricity Grid Overview'
	Shahzad Nadeem, Itron
11:40	'Supply Chain Decarbonisation '
	Spencer Brennan, Founder, Neutreeno
12:00	'Flexibility is here'
	Pilgrim Beart, VP Energy Services, Pod Point
12:20	'Wireless power transfer - the ultimate convenience'
42:40	Prof Richard McMahon, Professor of Electrical Power Conversion, WMG, University of Warwick
12:40	Flash Presentation: Tom Cox, Founder and Managing Director, Decent Energy - <a href="https://www.decentenergy.io">https://www.decentenergy.io</a>
12.50	
	Lunch and networking
14:00	Session 2: The role of data and AI in energy?  Chaired by Sylvia Lu, Silicon Catalyst & YOOVIP & Cambridge Wireless SIG Champion
44.05	
14:05	'Friend or Foe? Electric Vehicles in the Energy System' Jeremy Yapp, former Policy & Regulation Director (EU & UK), ev.energy
14:25	'Energy: what might happen, and what will not'
14.25	Prof. Sir Richard Friend FRS, FREng, Director of Research, Maxwell Centre, Cavendish Laboratory,
	University of Cambridge
14:45	'Consumerisation of the energy transition: putting customers at the heart of the energy system'
	Hamish Lazell, Group Strategy Director, Octopus Energy
15:05	'Opportunities for industry to engage'
	Paul Jewell, Senior Electrical Engineer, The Energy Innovation Centre

15:25	Flash Presentation:
	Riya Sharma, TTP plc 'Net Zero Needs a Brain - How Smart Tech is Powering the Transition'
15:35	Closing remarks
15:40	Further networking over refreshments

With the permission of the speakers, presentations will be available upon request following the event

# **Profile of organiser**

#### Cambridge Wireless <u>www.cambridgewireless.co.uk</u>

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 an active community of over 1000 businesses ranging 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 20 Special Interest Groups (SIGs) provide its members with a dynamic forum where they can network with their peers, track the latest technology trends and position their organisations in key market sectors. The CW team organise major conferences and competitions along with intimate industry networking events and dinners.

### The Connected Thinking SIG Group

After twenty years of espousing the best way to connect things, the Connected Devices and Industrial IoT SIG's believes it's important to start connecting our thinking, working across industries to bring people together to solve some of our biggest challenges. To help achieve this they've joined forces and changed their name to the Connected Thinking SIG and are planning events with within multiple technology sectors, exploring better ways of working together. It is championed by:

- Paul Bearpark, Head of Electronics & Software, 42T <u>www.42T.com</u>
- Paul Green, Non-Exec Director, Iotics
- Nick Hunn, CTO, WiFore Consulting <u>www.wifore.com</u>
- Sylvia Lu, Silicon Catalyst & YOOVIP
- Shahzad Nadeem, Director Business Growth, Itron <u>www.itron.com</u>
- Tim Whittaker, Head of Professional Audio Visual, Wireless & Digital Services, Cambridge Consultants <a href="https://www.cambridgeconsultants.com">www.cambridgeconsultants.com</a>

To learn more about the activities of this group and its Industry Champions please visit: <a href="https://www.cambridgewireless.co.uk/special-interest-groups/connected-thinking.html">https://www.cambridgewireless.co.uk/special-interest-groups/connected-thinking.html</a>

### **Profile of Event Host**

## Maxwell Centre, Cavendish Laboratory, University of Cambridge - www.maxwell.cam.ac.uk

Maxwell Centre provides an active interface linking leading University of Cambridge research across Physical Sciences and Technology with industry and policymakers, to align and connect expertise, and collaboratively develop solutions within strategic challenge areas. Our mission is to act as a convener, facilitator, knowledge broker and a catalyst for meaningful partnerships that jointly tackle grand challenges through cutting-edge research, new knowledge generation and knowledge exchange, training and objective influencing. The Maxwell Centre is committed to support meaningful partnerships based on: responsible research and innovation, fostering diversity, recognition of mutual complementarity of discovery science and downstream applications, open access to trustworthy expertise, and commitment to delivering positive impacts on the environment and humankind.

#### The Energy Interdisciplinary Research Centre, University of Cambridge - www.energy.cam.ac.uk

The Energy Interdisciplinary Research Centre (IRC) has established a central role in supporting energy research across the University, fostering new connections between exciting energy research areas, enhancing research and education opportunities, performing horizon-scanning for funding opportunities and government priorities, and coordinating Cambridge-led national and international energy initiatives towards a sustainable planet and society.

# **Profile of Speakers**

#### Nick Hunn, CTO, WiFore Consulting www.wifore.com

For the past thirty years Nick has been closely involved with short range wireless and communications, designing technology that helps to bring mobility to products, particularly in the areas of telematics, M2M, IoT, wearables, smart energy and mobile health. He is closely involved with the Bluetooth SIG, the Continua Alliance and other medical and wireless standards bodies. He is the author of 'The Essentials of Short Range Wireless' - a book attempting to explain the application of wireless technology to product developers.

#### Shahzad Nadeem, Director Business Growth, Itron - www.itron.com

Shahzad is the Director Business Growth at Itron Metering Solutions. Previously he worked at Plextek as the Head of Smart Cities Business and later as Head of Industrial Sensing Business. . His focus is delivering business value utilising technology innovations. Development of a major IoT connectivity platform is one of Shahzad's recent works. He specialises in EVs, DEMs (Distributed Energy Management Systems), Smart Cities, mobile networks, MNOs, MVNOS, MVNEs, Wholesale, m2m and IoT and has keen interest in both technical and commercial aspects. Working cross functionally with businesses, customers, technology, marketing and suppliers – he has delivered complex solutions in the mobile networks and IoT industry. Shahzad has spent 15 years in different technology roles and a decade in business development roles.

#### Spencer Brennan, Founder, Neutreeno - www.neutreeno.com

Spencer is the founder of Neutreeno and has spent 15 years as a sustainability scientist with an academic background that spans environmental and chemical engineering alongside renewable energy physics. He holds a PhD from the University of Cambridge, building ultra-high resolution measurement systems and exploring sustainable energy generation, receiving Canada's top international Physics scholarship and the American Chemical Society's first young researcher award for non-Americans. At Cambridge, he taught engineers and captained the (ice) hockey team.

## Pilgrim Beart, VP Energy Services, Pod Point - <a href="https://pod-point.com">https://pod-point.com</a>

<u>Pilgrim Beart FIET</u>: Pilgrim is an innovator with 40 years' experience of the startup lifecycle across multiple technologies and industries, and 25 years as a founder, raising \$10ms with a \$100m exit (BG Hive), achieving world firsts, millions of recurring customers, and billions of units shipped. See his TEDx talk <u>Connected Innovation</u>. Pilgrim is currently in an "intrapreneur" role building grid flex capability at Pod Point, the UK's leading charge-point provider

# Prof Richard McMahon, Professor of Electrical Power Conversion, WMG, University of Warwick - <a href="https://warwick.ac.uk/fac/sci/wmg/">https://warwick.ac.uk/fac/sci/wmg/</a>

Richard McMahon is Professor of Electrical Power Conversion at WMG, University of Warwick, leaving Cambridge University Engineering Department in 2016. He leads the Power Electronics Machines and Drives Group which includes two Driving the Electric Revolution funded centres, one in electrical machines and the other in power electronics. The group has worked on wireless charging for electric vehicles for a decade and has participated in several trials across the UK including the retrofitting of a BMW i3 to work with a Warwick designed system for Milton Keynes Council. The work on wireless charging has expanded to include megahertz charging systems for drones as well wireless charging systems for medical applications. Professor McMahon has published over 250 papers and is named on 19 patents. He is a Chartered Engineer and a Fellow of the IET.

#### Jeremy Yapp, former Policy & Regulation Director, ev.energy - <u>www.ev.energy/en-gb</u>

Jeremy has worked for the Australian Parliament and has held various roles in energy and environmental policy in the UK Civil Service, including the smart metering program. He spent a decade as an industry representative and lobbyist for manufacturers in the UK electrotechnical sector. He chaired the Technical Working Group of the UK's EV Energy Taskforce, helped establish the UK Government's Cyber Security Code of Practice & Darthership with Industry, was for some years a member of EnergyREV's Strategic Advisory Board, and has contributed to countless other working groups and taskforces on smart metering, EV infrastructure, energy data and demand-side flexibility. Jeremy is Policy and Regulation Director (EU & UK) for ev.energy, providers of managed charging services. He chairs the smartEn e-mobility taskforce and is a passionate advocate for energy flexibility as the foundation of a clean power system.

Steven Burns, Senior Solutions Architect, Itron - www.itron.com

Steven is a Chartered Engineer with a passion to see technology adoption for the benefit of society. During an extensive career in Electricity Distribution, he has undertaken a wide range of roles from hands-on operational engineering, to network strategy and innovation project delivery. Within Itron, he has applied a keen customer focus to international technical sales across the EMEA region within the Smart Grids and Smart Cities IoT spaces, architecting and delivering complex solutions with high value consultancy. Steven is also a STEM Ambassador, supporting the promotion of technical careers in educational settings.

# Cristina Data, Director of Spectrum Information and Analysis at Ofcom and Non-Executive Director at Energy Systems Catapult - <a href="https://es.catapult.org.uk">https://es.catapult.org.uk</a>

Cristina is Director of Spectrum Information and Analysis at the UK's communications regulator Ofcom and has responsibility for providing spectrum insight on market trends, through the use of data. Cristina is also Cristina is leading Ofcom's work to make spectrum available for 5G, looking at the role 5G will play, alongside other technology developments such as AI and edge computing, in enabling innovation across a wide range of industry sectors.

#### Hamish Lazell, Group Strategy Director, Octopus Energy - <a href="https://octopus.energy">https://octopus.energy</a>

Hamish Lazell is the Group Strategy Director at Octopus Energy, where he leads M&A and strategic initiatives across the Group. In the past couple of years he has led Octopus's acquisitions of Bulb off of the UK government and Shell's domestic energy supply business which collectively moved Octopus to become the largest household supplier in the UK, as well as led the expansion of the business into over a dozen new markets. Hamish began his career at Boston Consulting Group, advising clients in aviation, technology, finance, energy, and retail. He holds a MSci in NatSci (Physics) from the University of Cambridge and is passionate about driving sustainable, customer-focused innovation in the energy industry.

#### Paul Jewell CEng FIET, Senior Electrical Engineer, The Energy Innovation Centre - www.ukeic.com

Paul's focus is supporting decarbonisation initiatives and lobbying for the development of electricity based net zero developments. He is an associate at the Energy Innovation Centre (EIC) which supports electricity and gas network operators with innovation topics. Paul joined the electricity industry after graduating in 1988. He joined the South Western Electricity Board in the nationalised industry, now part of National Grid, and has experienced the changes through privatisation and market separation. Paul trained as an operational engineer and experienced all aspects of distribution network maintenance, replacement and construction. In 1995 he became a Distribution Manager and was responsible for service delivery, operations and performance in a geographical patch which covered most of Devon. In 2011 Paul left his operational roots to take up responsibility as Policy and Innovation Manager. He brought innovative solutions into a business as usual world whilst also leading the management of standards for an electricity distribution network. In 2019 Paul's focus moved to the new Distribution System Operator area for the distribution business. Paul's last role at National Grid was System Development Manager with a focus on net zero and future networks. His last major innovation before leaving National Grid was to create and establish the "Take Charge" EV charging solution at Moto's Exeter M5 Services.

# Prof. Sir Richard Friend FRS, FREng, Director of Research, Maxwell Centre, Cavendish Laboratory, University of Cambridge - <a href="https://www.maxwell.cam.ac.uk">www.maxwell.cam.ac.uk</a>

Richard Friend is at the Department of Physics at the University of Cambridge, where he held the Cavendish Professorship of Physics from 1995 to 2020. He is currently a Director of Research in the Department of Physics. His research encompasses the physics, materials science and engineering of semiconductor devices made with carbon-based semiconductors, particularly polymers. His research advances have shown that carbon-based semiconductors have significant applications in LEDs, solar cells, lasers, and electronics. These have been developed and exploited through a number of spin-off companies. He explores novel schemes that seek to improve the performance of LEDs and solar cells, using carbon-based semiconductors. His current projects with these are on materials with unpaired electron spins which show novel couplings of spin with photoluminescence.

## **Flash Presentations**

Tom Cox, Decent Energy - <a href="https://www.decentenergy.io">https://www.decentenergy.io</a>

Decent Energy is developing the digital infrastructure to enable a flexible, decentralised energy system. Our software platform optimises solar and storage assets saving homeowners money and reducing the carbon intensity of the energy they use. We're on a mission to accelerate the transition to a clean, reliable, and affordable energy future.

### Riya Sharma, TTP plc - ttp.com

Riya holds an integrated master's in Physics with Astrophysics from the University of Warwick. During her studies, she developed a strong interest in satellite communications and radio astronomy. Currently, she works as a Physicist Consultant at TTP. TTP plc combines deep multidisciplinary engineering with a proven track record of scaling disruptive energy and chemical technologies toward commercial deployment. Their expertise spans the full innovation lifecycle, delivering cutting-edge solutions such as factory scalable green hydrogen electrolysers and intelligent energy conversion systems, all aimed at accelerating the shift to low carbon energy.

Delegate List	
Name	Organisation
Matias Acosta	Cosysense
Shafiq Ahmed	Maxwell Centre, University of Cambridge
Lucy Allinson	Cambridge Wireless
Lawrence Archard	Factoree Ltd
Kenan Aydin	TE Connectivity
Steve Baker	Fen Technology Ltd
Peter Bates	pjb Associates
Pilgrim Beart	Pod Point
Saheed Bello	University of Cambridge
Paul Beskeen	eCosCentric
Damian Bevan	Real Wireless
Daniel Boddy	Plextek
Julie Bradford	Real Wireless
Spencer Brennan	Neutreeno
Sian Brooks	Laser 2000 UK
Steven Burns	Itron
Lawrance Chiang	42T
Phil Claridge	Mandrel Systems
Damien Clarke	Plextek
Lindsay Cornell	BBC
Chirs Cox	Chris Cox Communications
Tom Cox	Decent Energy
Cristina Data	Energy Systems Catapult & Ofcom
Hanni Doctor	PARAMAGNETIC COMMUNICATIONS LTD
Xuan Du	BT Group
Robert Edwards	MATRIXX Software

Steve Elsom	Fiscale Limited
Michaela Eschbach	Cambridge Wireless
Sally Field	Cambridge Wireless
Ollie Flowers	Howes Percival
Richard Friend	University of Cambridge
Dan Gerard Knought	Guild Capital Partners Ltd
Renato Goodfellow	Commercis
John Grant	Nine Tiles
Paul Green	
Siddhartha Guha	Judge Business School
Susanna Heath	FWD-IP
Ben Henricksen	Fen Technology Ltd
Gareth Hewlett	FRL UK
Sebastian Horstmann	Cosysense
Nick Hunn	Wi-Fore
Mark Hunter	Plextek
Regina Imaledo	Sheffield Hallam University
Nadia Jelani	Sheffield Hallam University
Simon Jelley	42 Technology
Paul Jewell	Energy Innovation Centre (EIC)
Dominic Kemps	Sommartel Ltd.
Clare Kettle	Cambridge Wireless
Marta Kulas	TE Connectivity
Dr Shane Lawrence	University of Cambridge Senstechse
Hamish Lazell	Octopus Energy
Mike Lewzey	Cambridge Kinetics
Jacob Loza	Liberty Global
Sylvia Lu	Silicon Catalyst & YOOVIP Ltd
Gareth Marlow	eqsystems.io ltd.
Richard Marlow	Mini-Circuits
Richard McMahon	University of Warwick
Andrew Milton	rbl brand agency
Peter Morgan	PA Consulting
Rob Morland	Astutim Ltd
Wainaina Muiruri	Wainum - Is
Shahzad Nadeem	Itron Metering Solutions
Lucy Neave	Cambridge Judge Business School

Lunetra
Reneural Technologies
TE Connectivity
Impact management consultancy ltd
Renfrew Group International
Akendi UK Ltd
Anglia Ruskin University
crop development cam limited
University of Cambridge
Project Cambridge
Jabooh Software Services Ltd
Cambridge Wireless
Copia Energy Ltd
Oracle life sciences
TTP plc
Cambridge Enterprise Ventures
Independant
Form the Future CIC
The University of Cambridge
Cambridge Consultants
Reddie & Grose LLP
SMMT
ev.energy
EDHEC Business School