We Are Connected — Are We Protected? | 21 February 2024
Speakers Bios

Welcome and Introductions
10:00 - 10:10

Prof. Jeremy Watson CBE FREng FIET
PETRAS Director
Professor of Engineering Systems, University College London
Recent Chief Scientist & Engineer, BRE
Past-President (2016–17) of the Institution of Engineering and Technology
jeremy.watson@ucl.ac.uk

Jeremy Watson CBE FREng is Professor of Engineering Systems at UCL. Until recently he was also Chief Scientist and Engineer at the Building Research Establishment (BRE). A past MHCLG Chief Scientific Adviser, he has senior industrial experience as BOC (Edwards) plc Technology Director, and Global Research Director at Arup.

Jeremy is a Fellow and Trustee of the Royal Academy of Engineering (and recent past Chair of the National Engineering Policy Committee). His specialties include emerging technology identification, cybersecurity at the 'Edge', sustainable engineering, systems thinking, research strategy and innovation processes.

Jeremy is currently Director and PI of the seven-year £24m PETRAS National Centre of Excellence for IoT Systems Cybersecurity funded by EPSRC under the £35m Securing Digital Technologies At the Periphery (SDTaP) initiative, co-developed by Jeremy. PETRAS comprises 22 universities and has 120+ industrial and government user partners.

Twitter: @ProfJeremyW

Keynotes
10:10 - 11:10

Caroline Gorski
CEO, Capital Enterprise
Former Head of R² Data Labs, Rolls-Royce's Data Analytics and Artificial Intelligence division

Caroline Gorski is the CEO of Capital Enterprise and a recognised innovation leader. She is known for her tenure as the head of R² Data Labs, Rolls-Royce's Data Analytics and Artificial Intelligence division, and as the former CEO of the R² Factory. With a background that includes her role as Head of IoT and Digital Manufacturing at Digital Catapult, Caroline frequently appears as a speaker and panellist on topics including AI, leadership, and digital transformation.

Twitter: @CarolineGorski

Professor Sir Anthony Finkelstein
President of City, University of London
Former Chief Scientific Adviser for National Security
Chair – Police Science Council

Anthony Finkelstein is a computer scientist and President of City, University of London. He was formerly the Government's Chief Scientific Adviser for National Security. During this time, Anthony's research was based at The Alan Turing Institute and he held a Chair in Software Systems Engineering at University College London (UCL). Prior to this, he was Dean of the UCL Faculty of Engineering Sciences and Head of UCL Computer Science. His scientific work is in the broad area of systems engineering. Anthony is currently Chair of the Police Science Council and a member of the DfE National Implementation Board for Reform to Children's Social Care. He will introduce the concept of intelligence equities and the dynamics of contested security.

Twitter: @profserious

In the moment with AI... In Music
11:25 - 11:45

Professor David De Roure FBCS FIMA FRSA
Professor of e-Research
University of Oxford

Professor David De Roure FBCS FIMA FRSA is Professor of e-Research at the University of Oxford. Throughout his career he has investigated emerging technologies and models in large scale distributed and sociotechnical systems, with a broad interest in society, technology and creativity while also focusing on innovation in the process of scholarship. From an early background in electronics and computer science, he became closely involved in the Hypertext, Web, and linked data communities, in pervasive computing, and in digital social research.

Today he focuses on living in the Internet of Things, on new methods of digital scholarship, and innovation in knowledge infrastructure. David's personal research is at the intersection of music, maths, machines and AI, empowering the creative human in music composition, performance and production. David works closely with multiple disciplines including humanities (digital humanities, digital musicology), engineering (Internet of Things, cybersecurity), social sciences (Social Machines, Web Science), information science (knowledge infrastructure, computational archival science), and computer science (large scale distributed systems, AI).

He is a founding member of two major UK initiatives: the PETRAS National Centre of Excellence for Internet of Things Cybersecurity, and the Software Sustainability Institute.

Interconnected Challenges of Connected Places
Expert Panel Discussion and Q&A
11.45 - 13:00

Panel Chair
Dr Gideon Ogunniye
Senior Research Fellow,
University College London

Dr Gideon Ogunniye is a Senior Research Fellow at PETRAS National Centre of Excellence for IoT Systems Cybersecurity, Department of Science, Technology, Engineering and Public Policy (STEaPP), UCL, specialising in AI and IoT ethics, privacy and cybersecurity. He is a member of the BSI committee IOT/1 Internet of Things and Digital Twin responsible for standardisation in the area of Internet of Things and Digital Twin; including their related technologies. He is an Affiliate Fellow of the Research Institute for Sociotechnical Cyber Security (RISCS), funded by the UK National Cyber Security Centre (NCSC) and hosted at the University of Bristol. He obtained his PhD degree in Computing Science from the University of Aberdeen, Aberdeen, U.K., which was about modelling trust and trust dialogues using augmentation theories. He has worked on a variety of issues relating to the following themes: i) knowledge representation and reasoning, ii) argumentation theories, iii) argumentation-based agent dialogues, iv) trust computing and reputation mechanisms, v) explainable and responsible AI, vi) agent communication and language semantics, vii) AI and IoT ethics, viii) machine reasoning, and ix) human-computer interaction.

Ben Edginton-Thomas
Innovation Lead
Plexal

Ben is an Innovation Lead for Plexal, the government-led innovation agency, which works across central and local government and industry. Ben focuses on places for innovation, helping create technology clusters which can provide transformative moments for regions through spaces for collaboration. Previously Ben has worked at Connected Places Catapult and L Marks, helping to run startup accelerators and data-driven projects in the automotive, telecoms and smart cities spaces.

Ed Parham BA(hons) DipArch RIBA
Architect and Director of Innovation and Design
Space Syntax

Ed is an Architect and Director of Innovation and Design at Space Syntax. His role combines the development of tools to analyse cities with their application to real-world projects. He has lead multi-disciplinary design teams to masterplan capital cities and shaped the development of digital tools to support evidence-informed decisions. The objective behind these activities is to create better cities for people by understanding how the built environment impacts on daily activities.

Liam O'Brien
Head of Demand, Secure Connected Places
Department for Science, Innovation & Technology

Liam O'Brien has had a varied career across the civil service, working in the Cabinet Office, Foreign Office, and Home Office. He is currently the Head of Demand in the Secure Connected Places team in DSIT. In this role he had led on the creation of the Secure Connected Places Playbook and is keen to extend central government's awareness of connected places projects across the UK.

Prof. Julie McCann
Deputy Director of PETRAS; Co-I Logistics 4.0: Securing High Value
Goods using Self-Protecting Edge Compute (LOG40)
Imperial College London

Professor Julie McCann heads up the Adaptive Emergent Systems Engineering (AESE) group in the Department of Computing at Imperial College where she leads a highly multi-disciplinary group of Post Docs and PhD students. From this she leads the Resilient and Robust Infrastructure challenge part of the Data Centric Engineering theme in the Alan Turing Institute.

She is PI for the NRF funded Singapore Smart Sensing project, and the Logistics 4.0 project with PETRAS and the Tate Modern. She is Imperial PI for the EPSRC Science of Sensing Systems Software (S4) programme grant. Until recently she was Co-director of the Intel Collaborative Research Institute on Sustainable Connected Cities and Co-PI of the NEC Smart Water Lab. She is currently Director of the cross-Imperial Smart Connected Futures Network.

Until recently she was Co-director of the Intel Collaborative Research Institute on Sustainable Connected Cities and Co-PI of the NEC Smart Water Lab and Director of the cross-Imperial Smart Connected Futures Network. She is actively involved in the field's top conferences (Infocom, Sensys, IPSN, and EWSN) and is an Associated Editor for IoT-J. McCann's body of practical work unifies decentralised algorithms, protocols, cross-layer, dynamical solutions, with a particular focus on low-powered, low-resourced devices that can act as modern wireless sensor-based systems or future smart matter.

She applies this to Space, Agri and Infrastructure Engineering challenges (encompassing the Internet of Things and Cyber-physical systems). Her interests lie in harnessing the various interactions between the cyber and physical to improve performance, resilience and to make secure.

Prioritising Privacy and Security of Connected Homes
Expert Panel Discussion and Q&A
14:15 - 15:30

| Keynote Speaker |
Dr Anna Maria Mandalari
Assistant Professor
University College London

Anna Maria Mandalari works as Assistant Professor at University College London (UCL). She is affiliated with the Electronic & Electrical Engineering Department and member of the UCL's Academic Center of Excellence in Cyber Security Research (ACE-CSR). She is member of the Italian technical committee for strategies on the use of AI.

She is Honorary Research Fellow at the Institute for Security Science and Technology at Imperial College London and expert fellow of the UK SPRITE+ Hub. She obtained her PhD within the framework of the METRICS project, which is part of the Marie Skłodowska-Curie action, intended for excellent researchers, affiliated with the Carlos III University of Madrid. Her research interests are Internet of Things (IoT), privacy, security, networking and Internet measurement techniques. She studies privacy implications and information exposure from IoT devices.

She works on the problem of modelling, designing, and evaluating adaptation strategies based on Internet measurements techniques. In addition to her research, Anna gives invited talks all around the world to promote research and create awareness on security, privacy, and ethical AI. Most of her research experiences have also significantly contributed to several EU-funded research projects and have had a significant influence on media and policymaking.

Panel Chair
Dr Oktay Cetinkaya
Senior Research Associate
University of Oxford

Oktay Cetinkaya is a Senior Research Associate at the University of Oxford, working as a Synthesis Fellow of the PETRAS National Centre of Excellence for IoT Systems Cybersecurity.

Before joining the Oxford e-Research Centre at the Department of Engineering Science to synthesise the diverse elements of the PETRAS research base, he worked as a postdoctoral researcher at the University of Sheffield and the University of Southampton for two years each. Dr Cetinkaya received his PhD in Electrical and Electronics Engineering from Koç University, Turkey, and he holds a double major in Electrical Engineering & Electronics and Communication Engineering (H. Hons).

His research interests include energy harvesting, wireless power transfer, drone networking, and the Internet of Things (IoT), on which he has co-authored more than 40 peer-reviewed publications in highly respected journals, conference proceedings, and book series.

Michael Grant
Co-Founder and COO
Metrikus

Michael Grant is the co-founder and COO of Metrikus, a building efficiency platform with a global presence. Michael is an operations, strategy, and management professional with over 20 years' of experience in the technology sector. Specializing in software, building data, cloud technology, and SaaS, Michael delivers world-class solutions and exceptional service for enterprise customers alongside strategic partners. Clients include those from financial services, commercial real estate, and IT sectors. Michael is also the host of The Measure Podcast, which has amassed over 35,000 downloads.

Sam Cater
Security Consultant and Research Manager
BT Research and Network Strategy

Sam has worked in the Cybersecurity field at BT for over a decade, with roles ranging across network infrastructure, policy, practice and product assessment. Currently Sam works in BT's Research and Network Strategy division, tackling Cybersecurity challenges around domestic IoT. He is also an Accomplished Engineer within BT's Tech Fellowship, certified CISSP from ISC2 and an advisor to Innovate UK.

Tony Williams
Founder, Managing Director and Head Design Engineer
Cube Controls Ltd

Tony Williams is the founder, managing director and head design engineer at Cube Controls Ltd, a Building Management System (BMS) specialist. After qualifying in electrical and electronic engineering he went to work for Trend Controls Ltd which was one of the companies forming the vanguard of BMS development. After spending time at Trend Controls learning every aspect of their BMS product range Tony left to work for a range of specialist control system design houses, learning skills such as software design and project management. This culminated in a director level position before leaving to start Cube Controls. Tony has vast experience in bespoke & hybrid BMS system design including several cyber-secure systems for UK Government. He continues to develop cyber defensive practises and product offerings for both building & industrial automation systems via Cube2, a sister company to Cube Controls.

Citizens' Rights and the Cybersecurity Implications of Wearable Technologies
Expert Panel Discussion and Q&A
15:45 - 17:00

| Keynote Speaker |
Dame Caroline Dinenage MP
Chair of the Culture, Media and Sport Select Committee

Dame Caroline Dinenage MP currently serves as the Chair of the Culture, Media and Sport (CMS) Select Committee, having been elected to this role after serving as the Minister of State for Digital and Culture. In this role, she had ministerial responsibility for the Online Safety Bill.

Alongside her duties as Chair of the CMS Select Committee, Dinenage is a member of the Women and Equalities Select Committee, Co-Chair of the Parliamentary Internet, Communications and Technology Forum (PICTFOR – the APPG for tech) and represents Gosport in the House of Commons.

Panel Chair
Dr Peter Novitzky,
Senior Research Fellow,
UCL & Associate Professor - Ethics of Emerging Technologies at Avans University of Applied Sciences, the Netherlands

Peter Novitzky is a senior research fellow at PETRAS National Centre of Excellence for IoT Systems Cybersecurity, Faculty of Engineering, Department of Science, Technology, Engineering and Public Policy (STEaPP), University College London and an Associate Professor of Ethics of Emergent Technologies at Avans University of Applied Sciences, the Netherlands. Peter specializes in the ethical challenges of emerging technologies, AI, safety and security. Peter's appointment follows research and teaching roles working mainly on multiple European projects (FP7, NWO, H2020, EPSRC) as well as a position at the National University of Singapore. Peter successfully completed his PhD in applied philosophy at Dublin City University (Ireland), where he specialized in the ethics of artificial intelligence for vulnerable populations. His long-term research interests focus on the intersection of bioethics, AI ethics, research integrity, and most recently, responsibility in research and innovation. He continues to engage in research with collaborators in Canada, UK, and the Netherlands

| Keynote Speaker|
Professor Simon KC Toh
Senior Consultant General Surgeon
Portsmouth Hospitals University NHS Trust

Professor Simon KC Toh is a senior Consultant General Surgeon, Portsmouth Hospitals University NHS Trust and has over 100 publications of his diverse research interests, improving surgical treatments and patient care. He has helped developed one of the leading UK training centres in keyhole and robotic surgery. A spin-off of his research led to a start-up, Velma, to develop high-impact patient video-animations and Apps to improve outcomes. This work on educating patients on prevention of deep vein thrombosis has since won several awards including a Patient Safety-Up, UK Anticoagulation Achievement Award and 3 Ingenuity Impact Awards.

Velma is in the NHS Clinical Entrepreneur Programme and supported by the Academic Health Science Network. He has been a board member of the University of Portsmouth SIGHT Programme supporting over 300 MedTech SMEs to bring their products to market. This has given him opportunities to work with UK innovators including those working on wearable health-tech. He will explore in his talk today the potential and opportunities that this tech can offer to patients and their clinicians.

Dr Maryam Mehrnezhad
Associate Professor at the Information Security Group (ISG)
Royal Holloway, University of London

Dr Maryam Mehrnezhad is an Associate Professor at the Information Security Group (ISG), Royal Holloway University of London (RHUL). She works on Security and Privacy Engineering topics where her research is informed by real-world problems. She works on emerging technologies by performing attacks (side-channel, fingerprinting, tracking) and designing solutions (e.g., sensor-based IoT authentication, and secure contactless payment). She also works on usable security and privacy topics by conducting system and user studies across platforms (web, mobile, IoT) and demography (gender, nationality, age). She has published over 50 peer-reviewed papers in international conferences and journals. She is the PI of an EPSRC PETRAS grant: CyFer (cybersecurity, privacy, trust, and bias in FemTech), and Co-I of a UKRI grant: AGENCY (assuring citizen agency in a world with complex online harms). She is one of the top 100 Women in Engineering 2023 by the UK Women's Engineering Society (WES).

Julie Dawson
Chief Policy & Regulatory Officer
Yoti

Julie is known internationally for driving the ethical framework development at Yoti digital identity platform. She leads regulatory and government relations for Yoti developing policy approaches for safeguarding and fraud prevention and has represented Yoti at bodies such as the World Economic Forum Global Coalition on Digital Safety & WeProtect Global Alliance, UK Digital Identity & Attributes Oversight Board, from the Department of Science, Innovation & Technology.

Mike Hobby
Associate Director of MedTech
Cambridge Consultants

With over 30 years of experience in health and life sciences, Mike is dedicated to improving health outcomes by innovating at the exciting intersection of biology, engineering and advanced computation. He has successfully negotiated and managed complex engineering projects, robotics and artificial intelligence solutions for various applications, including drug discovery, biotech, healthcare, automotive, aerospace, and defence. He is passionate about delivering novel and impactful solutions that make a difference in the world