

IET Antennas and Propagation Technical Network

The 11th Colloquium on Antennas, Wireless and Electromagnetics: (CAWE) – Sustainability 31st May 2023, School of Engineering, University of Edinburgh, Kings Buildings Campus, EH9 3FB

This one-day, free-to-attend event, brings together early career and experienced research scientists, engineers, and technologists from industry, Government and academia, to share, discuss and debate their latest technical knowledge about antennas, propagation and wireless and electromagnetics in an informal colloquium style event. The frequency bands of interest range from VLF to free space optics and radio applications ranging from underwater to space.



The colloquium will provide an opportunity for; early stage researchers (e.g. final year apprentices, new graduate, MSc and Phd researches) to gain presentation experience, provide an opportunity for experienced researchers to present early results, a forum to present new project that are just about to start as well as providing a networking opportunity.

This year we look forward to gathering at the University of Edinburgh (<https://www.eng.ed.ac.uk/about/find-us>) and hearing on how your work could contribute to the global “Sustainability” challenge.

Three key note presentations will be also be given:

- “Generation After Next Communications systems for disaster relief” Amy Baldwin Dstl
- “Reconfigurable and upgradable satellites for sustainable space operations” Prof Matthew Angling CTO In-Space Missions Ltd.
- “Exploiting your Phd: create a roadmap!” Dr Anil Shukla, Senior Fellow QinetiQ

To minimise the preparation time and encourage the sharing of the most up to date results and know-how the event is designed to be presentations only, based on a short <300-word abstract, with a sentence highlighting how the work could contribute to sustainability and net zero targets. Send abstracts to:

- APTPN@ietvolunteer.org
- subject 'CAWE 11' by 3rd May 2023

Up to 10 selected abstracts will then be asked to give a 10 minute presentation using a suggested template.

Critical dates:

- Abstracts received by IET by 3rd May 2023;
- Authors notified by midday 10th May;
- Authors presentations received by IET by 24th May;
- Presentations given 31st May.

Presentations are sought from researchers in academia, industry and government organisations such as:

- Final year apprentices, MSc student projects
- Phd students, research assistants
- Experienced researchers and
- researchers about to start a new project

Technical scope, can cover applications from underwater to space and include, but not be limited to: Antennas, Propagation, IoT, 6G, Sensors, Physical layer security, Spectrum management, Dynamic Spectrum Access, Agile radios, Electromagnetics, Wireless Applications, Simulations, Measurements from across the whole engineering lifecycle from concept to products.

Registration page can be found at: <https://events.theiet.org/events/the-11th-colloquium-on-antennas-wireless-and-electromagnetics-cawe/>

Bios:

Amy Baldwin (Principal Scientist, Cyber and Information Systems Division Dstl)

Amy works in the field of resilient communications research with a specialist interest in Free Space Optical Communications and Quantum Communications. Amy has experience in Underwater communications as well as Requirements Management within the Defence and Security sector NATO. Currently, Amy is the Technical Lead for a the “Deployed Communications Research programme” at Dstl which is taking a highly collaborative research approach into Generation after Next communications systems and technologies with a research portfolio that includes quantum, new materials, new antennas, propagation modelling, waveforms as well as supporting a number of Phd’s.

Dr Anil Shukla (QinetiQ Senior Fellow, FIET)

Anil is a QinetiQ Senior Fellow and a Research and Innovation leader in radio systems, RF technologies, propagation and spectrum regulation. His expertise ranges from medium-wave systems to mm-waves systems and his current research interests include: “Operating Radio Systems in Difficult Environments”, “Physical Layer Security and Resilience”, and “Cognitive / Intelligent Radios”. He has a keen interest in accelerating and exploiting innovations through experimentation. He is the chair of the Antennas and Propagation TN, and the Serapis Research-Framework Technical-lead for Communications and Networks.

Prof Matthew Angling (Chief Technology Officer Space Missions Ltd)

Prof Matthew Angling is the Chief Technology Officer at In-Space Missions Ltd and a visiting professor at the Surrey Space Centre at the University of Surrey. He provides oversight of new technologies that might be used within ISM’s products and is responsible for developing the strategy to exploit such technology. He has been active in space technology, space weather and space situational awareness research and development for over 25 years. Before joining In-Space, Matthew was the Director of space weather for Spire Global and, prior to that, the Royal Academy of Engineering, and Defence Science and Technology Laboratory, Professor in the Space Environment at the University of Birmingham. In that role he led the development of next generation space weather models and built capability in other space topics related to the vulnerability of satellite systems such as space traffic control and satellite drag. Matthew has also held the role of QinetiQ Fellow. During that time, he led the QinetiQ space weather team that specialised in the detection, mitigation and exploitation of space weather effects.