Notification for Operating in the Future Electromagnetic Environment Symposium 2023

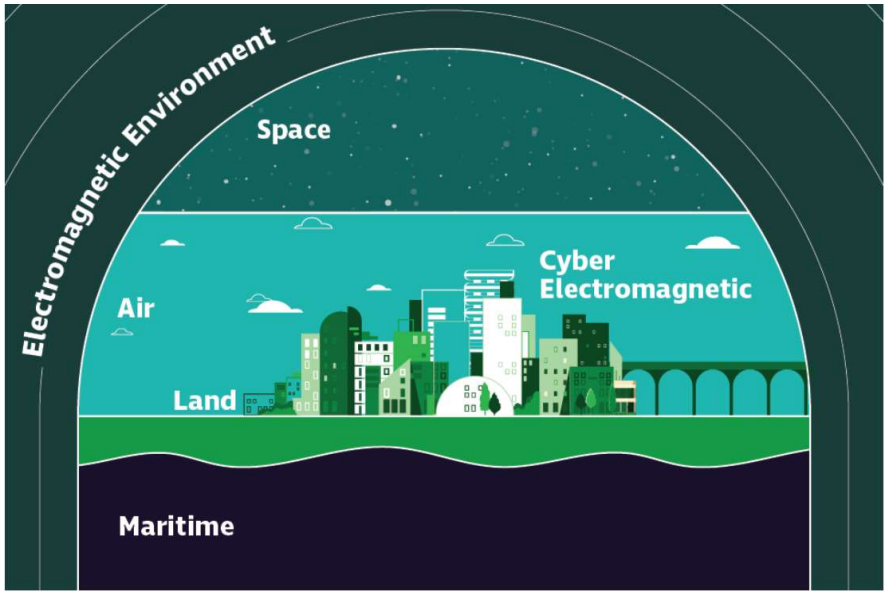
2022 OFEME Symposium

The Defence Science and Technology Laboratory (Dstl), facilitated by the Electromagnetic Environment (EME) Hub, is hosting its fourth Operating in the Future Electromagnetic Environment (OFEME) symposium on 20th and 21st November 2023, inviting representatives from industry, academia and across government.

In today's connected world, the electromagnetic environment is crucial for many sectors, such as mobility (moving people, goods and services), a connected society and healthcare. In defence, spectrum dependent systems are ubiquitous across land, maritime, air and space, being used for communications, sensing, weapons systems and more.

As demand grows so reliable access to the electromagnetic spectrum becomes more challenging. Furthermore, in the Defence context, adversaries will actively contest spectrum access, such as through electromagnetic warfare to deliberately deny or degrade access. Maintaining freedom of action and delivering effects in and through the electromagnetic environment is therefore an important and growing challenge.

Academics, suppliers including small and medium-sized enterprises, and colleagues from MOD and other government departments are invited to join the OFEME symposium, to work alongside Dstl's scientists and shape future thinking.



The event will cover:

- shared challenges for operating within the future electromagnetic environment, both inside and outside of defence
- how research and development investment can be harnessed in future approaches

Dstl and The EME Hub are planning to hold the symposium as an in-person event, but also live-stream the main talks for those who are unable to attend. It will feature a range of keynote speakers, technical presentations, poster sessions and interactive workshops. The event will take place in Nottingham at the East Midlands Conference Centre.

At this year's event, presentations will consider advances and implications in topics including:

- Timing precision for distributed systems
- Electromagnetic spectrum access and planning
- Mathematical innovation for decision making strategies
- Human performance: decision making and trust
- Free-space optical communications
- Quantum RF Sensing

In addition to technical posters and a technology watch workshop, Dstl-led workshops will consider challenges in areas such as:

- Communications and Networks
- Space Environment
- Operating in the future EME

Posters are invited aligned with the themes of the conference and can be submitted using the OFEME 2023 Poster Abstract Submission form.

Posters will be presented across the two conference days (20th/21st November). Based on the poster abstract submissions some authors will also be invited to give lightning talks.
Poster submission deadline: 28th July 2023.
Outcome notification: 25th August 2023.

OFEME 2023 will be collocated with the inaugural Future Sensing and PNT (FSP) Symposium. Delegates registering for OFEME 2023 can participate in both events.

Please complete the Microsoft Form available at OFEME 2023 – Expression of Interest by 6th October to indicate your interest in attending OFEME 2023. We will then send you a link to complete the symposium delegate registration.

Any information that is to be presented by any party at this symposium and further that is detailed within this event will be deemed to be in the public domain and therefore will not require further approval for its use by the receiving parties not withstanding any rights of ownership of information set in law.

Electromagnetic Environment (EME) Hub

The EME Hub, funded by Dstl, was established in October 2022 and is led by Loughborough University. The Hub's academic consortium includes Queen's University Belfast, Queen Mary University of London, University of Leeds, and University of Glasgow, all hosting Doctoral Researchers and Postdoctoral Research Associates. It is a centre of excellence led by academics working in collaboration with industry partners to drive innovation in electromagnetic activities.

The focus is on generation-after-next capability for the wireless delivery of offensive and defensive effects – the ability to degrade, deny, destroy, deceive and disrupt – and assessing the impact of these effects. It will also concentrate on the synchronisation and coordination of wireless activities across deployed assets regardless of defence operating domains (air, space, land, sea, cyber and electromagnetic).

Furthermore, the Hub supports and enhances skills of the UK workforce in the defence and security sector through science and technology outreach and training. Please contact EMEHub@lboro.ac.uk for further information.