

Agenda, UDRC Themed Meeting on Signal Processing for the Electromagnetic Environment

As part of the UDRC phase III, a themed meeting on Signal Processing for the Electromagnetic Environment will be held on Wednesday 25th November 2020. This will be a virtual event and will be held using the Zoom platform. This event is intended for academic researchers, industrial partners and Dstl staff to learn about and discuss current trends in Signal Processing for the Electromagnetic Environment.

The program will consist of a series of talks from academia and defence industry followed by a Dstl Challenge competition.

Timings: Wednesday 25th November 2020, Start 9:00am until 4:00pm

Location: Link to be sent to attendees once registered (to register please email janet.forbes@ed.ac.uk)

Organizer: Prof. Bruno Clerckx (b.clerckx@imperial.ac.uk)

Timing	Topic	Name
9:00 – 10:45	Session 1	Chair Kin Leung
9:00 – 9:05	Introductions and Welcome	
9:05 – 9:30	Signal Processing Challenges in the Contested Electromagnetic Environment	Chris Swinerd, Dstl
9:30 – 9:55	Sparse Signal Processing Techniques for Electromagnetic Applications	John Thompson, University of Edinburgh
9:55 – 10:20	Super-Resolved Direction-of-Arrival (DoA) Estimation of Wideband Signals	Wei Dai, Imperial College London
10:20 – 10:45	Active Imaging - Long Range Ladar for Air Platforms	Chris Dawson, MBDA Systems
10:45 – 11:05	Break	
11:05 – 12:20	Session 2	Chair Wei Dai
11:05 – 11:30	Signal sub-space transforms for waveform classification	Matthew Ritchie, University College London
11:30 – 11:55	Beyond the Ambiguity function	Hugh Griffiths, University College London
11:55 – 12:20	TBD	Andrew Burnside, Thales
12:20 – 13:20	Lunch Break	
13:30 – 14:45	Session 3	Chair Matthew Ritchie
13:30 – 13:55	Dual Functional transmission for Radar and communications	Christos Masouros, University College London
13:55 – 14:20	Flexible and Robust Interference Management for the Congested EM Environment: Theory and Applications	Bruno Clerckx, Imperial College London
14:20 – 14:45	RF Techniques for Robust and Agile Operation in Congested Spectrum	Mark Beach, University of Bristol
14:45 – 15:00	Break	
15:00 -	Session 4	Chair Christos Masouros
15:00 – 15:25	Machine learning for EM environments	Kin Leung, Imperial College London
15:25 – 15:55	A Machine Learning Approach to Direction-of-Arrival Estimation in the Low-SNR Regime	Mathini Sellathurai, Heriot-Watt University
15:55 – 16:00	Closing remarks	
16:00	Close	