

Time	Monday 5 th January	Tuesday 6 th January	Wednesday 7 th January	Thursday 8 th January	Friday 9 th January
09:00 – 09:50			Introduction to FPGAs – Part 1	Introduction to FPGAs – Part 2	Practical lab on programming FPGAs
10:00 – 10:50	Understanding Cyber and Electromagnetic Activities. Useful Taxonomy	Introduction to antennas	Antenna Arrays and beamforming	Time Domain Communication Theory. Modulation in Digital Communication Systems	
11:00 – 11:50	Defence applications across the EM spectrum	Using the EM spectrum – Law and regulations	Propagation theory and challenges, including example models	Digital Communications	Introduction to AI/ML
12:00 – 13:00	Lunch	Lunch	Lunch	Lunch	Lunch
13:00 – 13:50	Electromagnetic Activities for Defence: A Complex Systems Perspective	Analogue modulation	Introduction to Radar -	Software Defined Radio	AI in jamming
14:00 – 14:50	EM Systems integration in the battlespace – End user perspective	Electromagnetic compatibility and interference	Radar Countermeasures	Practical lab on using SDR to jam device to device communications	New research developments in Defence EM activities
15:00 – 15:50	Electromagnetic Surveillance	Practical lab on using measurement equipment to observe the RF spectrum (Spectrum analyser)	Communications and GNSS jamming		Case studies and tutorial on jamming
16:00 – 16:50	Human decision making and trust		Practical demonstration of deliberate interference	Advanced Electromagnetic Materials	
17:00 – 17:50				SATCOMS	