University Defence Research Collaboration (UDRC) for Signal Processing

Themed Meeting

Underwater Sensing, Signal

Processing and Comms

16th May 2017

University Defence Research Collaboration (UDRC)

Collaborative Centre for excellence for Signal Processing

Aims:
- World-class research
- Long-term sustainable skills
- Community of Practice

Approach:
- Joint funding with EPSRC
- Dstl technical leadership
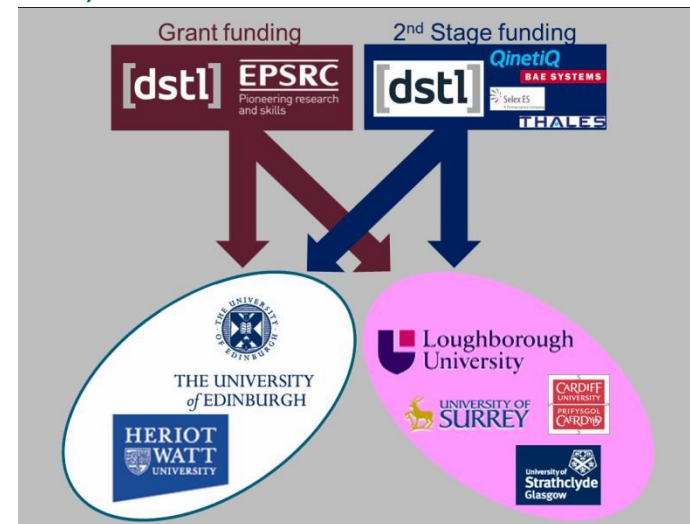- Close, early engagement with industry

Phase 2

- EPSRC / MOD Joint funding £8M over 5 years (2013 – 2018)
- 2 Consortia, totalling 8 Universities.
- Consortium Coordinator – University of Edinburgh
- Started in April 2013

Approach

- Joint programme with EPSRC
  - Requires strategic technical alignment between MOD and Research Council
  - Requires work at UNCLASSIFIED
- Technical Challenge led research
- Provision for follow-on funding
  - Parallel contract with consortium leads

UDRC Portfolio – Phase 2

Edinburgh research partnership

- **WP1: Sparse Representation and Compressed Sensing**
- **WP2: Distributed multi-sensor processing**
- **WP3: Unified detection, localisation and classification in complex environments**
- **WP4: Context-driven behaviour monitoring and anomaly detection**
- **WP5: Network enabled sensor management**
- **WP6: Efficient computation of complex signal processing algorithms**

Lboro, Surrey, Strathclyde, & NCL Cardiff

- **WP1: Automated statistical anomaly detection and classification in high dimensions for the networked battlespace**
- **WP2: Handling Uncertainty and incorporating domain knowledge**
- **WP3: Signal Separation and broadband distributed Beamforming**
- **WP4: MIMO and Distributed sensing**
- **WP5: Low complexity algorithms and efficient implementation**

Other ways of engaging

Annual Conference

Other ways of engaging

UDRC Website

Educating the next generation

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Books

Articles

End of Project Showcase

21st February 2018

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