

Edge computing for Earth observation

Agenda

Enigma, The Alan Turing Institute
The British Library
96 Euston Road
NW1 2DB, UK

The Alan Turing Institute is located on the first floor of the British Library (right hand side) and can be accessed via the main doors from 09:30 onwards. Please allow 15 minutes for queuing when planning your journey.

Tuesday 17 March 2020

10:00 – 10:15 Registration

10:15 – 10:20 Introduction and welcome

10:15 – 10:35 **SAR satellite clusters from design to exploitation**
Victoria Nockles, The Alan Turing Institute

Theme 1: Machine learning, deep learning and AI for earth observation

10:35 – 10:50 **Machine learning analysis of geodetic data for earthquake and landslide detection**
Richard Walters, University of Durham

10:50 – 11:05 **Application of machine learning to detect ground deformation from volcanoes and urban sources in InSAR data**
Pui Anantrasirichai, University of Bristol

11:05 – 11:20 **Big data processing of sentinel-1 InSAR to monitor earthquakes, volcanoes and building subsidence**
Tim Wright, University of Leeds

11:20 – 11:35 Refreshment break

Theme 2: Novel RF technologies

11:35 – 11:50 **Multistatic ground-based SAR laboratory investigations**
Dan Andre, Cranfield University

11:50 – 12:05 **Embedded automatic object recognition for synthetic aperture radar systems**
Michael Woollard, UCL

Theme 3: Space missions and platforms

12:05 – 12:20 **The digitisation of future spaceborne SAR systems**
Sam Doody, Airbus

12:20 – 13:20 Lunch

Theme 4: Distributed systems

- 13:20 – 13:35 **Do switches dream of machine learning? Using in-network computing to accelerate real-time processing**
Noa Zilberman, University of Oxford
- 13:35 – 13:50 **Distributed analytics in resource constrained environments**
Kin Leung, Imperial
- 13:50 – 14:05 Refreshment break

Theme 5: Computer architectures/FPGAs

- 14:05 – 14:20 **A hardware platform for efficient multi-modal sensing**
Phillip Stanley-Marbell, University of Cambridge
- 14:20 – 14:35 **Emerging connectivity approaches for FPGA accelerators**
Suhaib Fahmy, University of Warwick
- 14:35 – 14:50 **Developing SAR and Machine learning on Intel FPGAs**
Jahanzeb Ahmad, Suleyman Demirsoy and Yaprak Eminaga, Intel
- 14:50 – 15:05 **Strategies for efficient implementation of neural networks in hardware**
Rob Mullins, University of Cambridge
- 15:05 – 15:25 Refreshment break
- 15:25 – 15:55 **Breakout session**
- 15:55 – 16:30 **Overview of breakout sessions, including a panel discussion**
Facilitated by Victoria Nockles, The Alan Turing Institute
- 16:30 – 17:00 Event summary
- 17:00 – 18:00 Drinks and posters
- 18:00 Event close