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

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