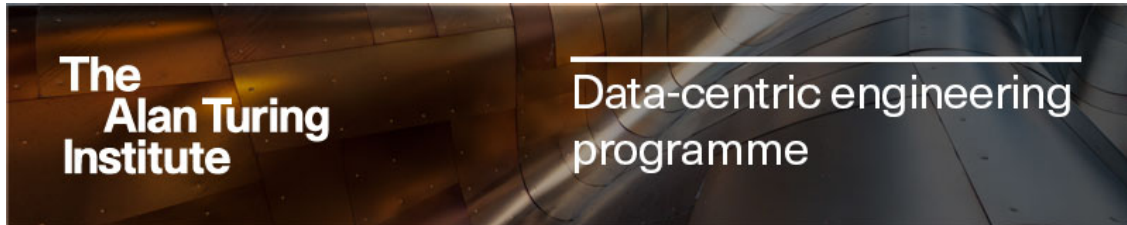## DCE Community Update June 2023

DCE Programme <dceprogramme@turing.ac.uk>

Fri 16/06/2023 4:12 PM

To:Alice Budden <abudden@turing.ac.uk>

Click here if you are having trouble viewing this message.

If you're a Turing Slack user follow #data-centric-eng for information and reminders about DCE activity between these monthly updates. To submit any items in future updates please contact Alice Budden.

News

Adam Sobey Appointed DCE Programme Director

We are delighted to announce that Professor Adam Sobey has been appointed to lead The Alan Turing Institute-Lloyd's Register Foundation's growing programme in data-centric engineering (DCE).

As Programme Director, Professor Sobey will be responsible for leading the DCE programme, building on its core challenges, and working with industry to deploy data-centric engineering techniques to real-world problems.

Adam Sobey is a Professor in the Maritime Engineering group at the University of Southampton, and previous Group Lead for Marine and Maritime in the DCE Programme. He is also understood to be the world's first Professor of Data-Centric Engineering, at University of Southampton, and says:

'I am delighted to join the Lloyd's Register Foundation-Turing team as Programme Director, and I look forward to growing its leading international programme on data-centric engineering. The field of data-centric engineering has made rapid progress, enabling us to improve our ability to understand and improve the safety of engineered systems, and transforming the way new infrastructure projects, and complex machinery is designed and delivered. I look forward to working with colleagues and our network of partners to accelerate the Turing's scientific and real-world impact in this area.'

For the full news article follow the link here.
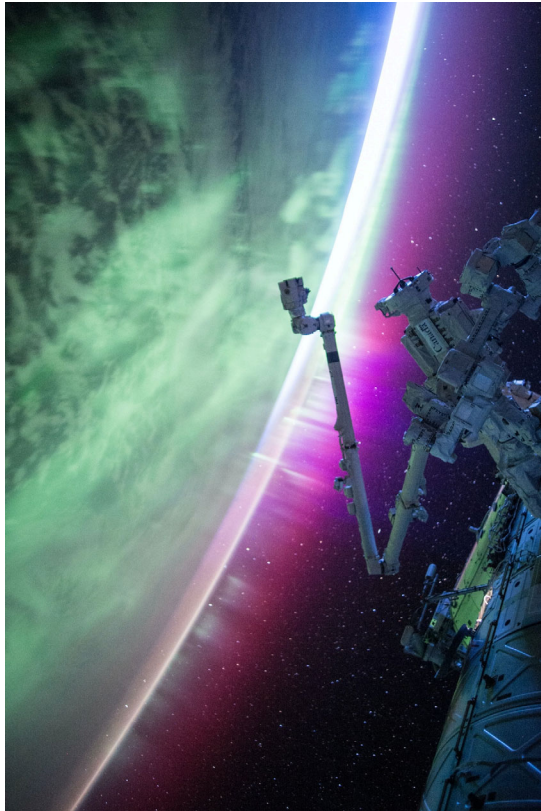

Cyber-SHIP Lab Annual Symposium
University of Plymouth

1-2 November, International Maritime Organization, London
3 November, Cyber-SHIP Lab, University of Plymouth

The third Cyber-SHIP Lab Annual Symposium will build on the success of the previous symposia that attracted hundreds of delegates and brought together the world's leading maritime cyber security experts and innovators. The event will take place at the United Nations International Maritime Organization Head Quarters in London on days 1 and 2, followed by an option to visit the Cyber-SHIP Lab at the University of Plymouth on day 3.

If this sounds of interest to you, make sure to save the date and keep an eye out for registration to go live in the coming weeks on the event website.

AI4Space: Connecting Networks to Develop AI for Space Science and Engineering

Workshop, Friday 30 June

The Alan Turing Institute is supporting the Universities of Southampton and Strathclyde who are jointly organising this one-day workshop. The workshop will cover two main themes: Space Science and Space System Engineering, with the aim to generate advancements in data science and AI technologies and accelerate their adoption across the Space sector.

The aim of this workshop is to generate increased activity at the Turing Institute in the area of Space, particularly aligned to Spacecraft systems Engineering and the Data-Centric Engineering programme.

Follow the link here for full details and how to register.

AI and Sustainable Cities

UCL, Monday 3 July

This is a scoping workshop activity centred on the theme of 'Cities' that examines the role of data science and artifical intelligence in paving the way for sustainable cities. To make cities more resource-efficient and environment friendly, different aspects of sustainability need to be considered jointly instead of the current silo-ed approach.

The four key themes to be tackled are: Active Transport | Economics of Cities | Liveability/Inequality | Digital Twins.

Follow the link here to find out more and register for the workshop.

Modelling, Analysis and Inference for Digital Twins

Workshop Recordings Now Available!

The recordings for talks presented at this successful workshop are now live on YouTube. The workshop, organised jointly by the Isaac Newton Institute and The Alan Turing Institute, aimed to advance the foundational aspects of digital twins, by bringing together world-leading researchers in the field to address research challenges against the backdrop of key application areas of digital twins.

This was a satellite workshop for the programme "mathematical and statistical foundation of future data-drive engineering" run by the Isaac Newton Institute, Cambridge.

To see what the researchers had to say, follow the link here.

Become a Point of Contact for Turing Enrichment Students

- Expand your network
- Demonstrate mentoring and leadership skills
- Explore ideas for collaborative projects

The Academic Recruitment Team are launching the role of the Turing Enrichment Student Contact (TESC) which aims to create lasting impact for Enrichment students and Turing communities across the research and innovation ecosystem by linking students with points of contact within the Institute.

To find out more about the role, please read the TESC page on Mathison. To sign up to become a TESC please submit this form by 30 June.

If you have any questions regarding the role, feel free to reach out to the Academic Recruitment Team and they will be happy to help.

Social Ideas Platform Community Event

30 June 2023, University of Warwick

Do you have an idea and are wondering how to develop it?

Are you a researcher interested an inclusive innovation hypothesis?

Come along to this event to collaborate and taste test the concept! The event will include effective algorithms that will guide the sharing, matching and refinement of ideas in real-time so they are 'optimised' - as they would be on Social Ideas Platform (SIP). The power will then be given to you to democratically determine the value of contributions associated with a given optimised idea. Contributors to the given idea will then recieve an effective proof of idea ownership memorabilia unique to SIP's first event!

If this sounds of interest to you - make sure to sign up to the event here.
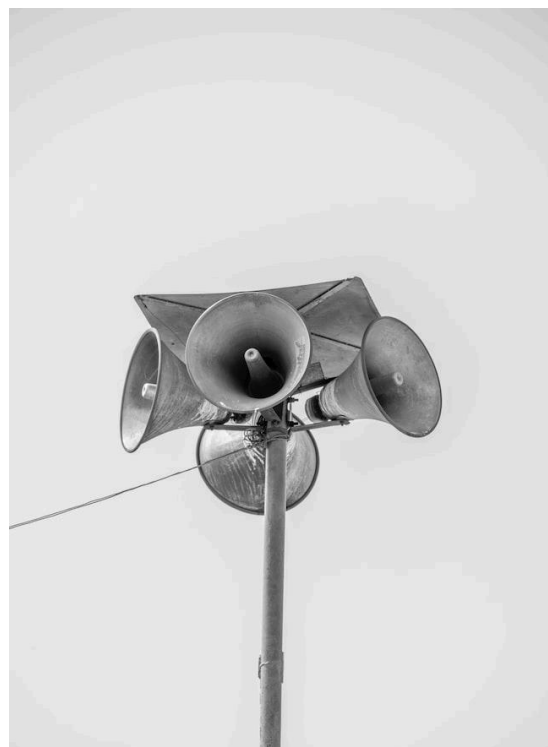

DATA-CENTRIC ENGINEERING

Data-Centric Engineering Journal

Call for Papers!

Machine Learning for Control Systems Engineering. *Submission deadline extended to 31 July 2023.*

It's the last chance to be a part of this Special Edition of the DCE Journal, looking to include work exploring the use of AI and machine learning to improve automation in engineering. This special issue will highlight work which is impactful in areas such as control systems theory, process automation, and reinforcement learning for Engineering applications.

For more information on topics of interest and submission guidelines, please follow the link here.

Publication Highlight

Evaluating probabilistic forecasts for maritime engineering operations - *June 2023.*

Lachlan Astfalck, Michael Bertolacci and Edward Cripps

This paper presents methodology to evaluate competing probabilistic forecasts for engineering operations. It summarizes the relevant statistical literature for an engineering audience. A case study is presented on which engineering operators may emulate their own forecast evaluation process. All authors have experience working with maritime engineering industry and know the methods described within to be necessary operations.

To read the full open access article follow the link here.

Events

Physics-informed Machine Learning (Φ-ML) Meets Engineering Seminar Series: upcoming dates (online)

22 June, 13:00-14:00 - Mathis Bode, title TBA

6 July, 13:00-14:00 - Prof. Jean-Philippe Noël, Does your System Inherently contain Feedback? We can Model it from Data!

20 July, 13:00-14:00 - Prof. Alessandro Golkar, Advancements in Pico-, Nanosatellites, and Satellite Constellations: A Comprehensive Overview of TUM's PNS Chair Research, Education and Innovation Activities

How to join, talk abstracts and future details on future seminars.

Jobs

DCE jobs at the Turing

There are currently no DCE jobs at the Turing, but don't forget to check the Turing's recruitment page for positions available within other programmes and within the business team.

DCE jobs elsewhere

Research Fellow in Computational Statistics, University of Wollongong, Australia

The School of Mathematics and Applied Statistics is recruiting for an Associate Research Fellow in Computational Statistics with a focus on Bayesian computations. The successful candidate will develop statistical methodology for contempary and application-driven challenges in high-dimensional Bayesian statistics and contribute to the supervision of an associated doctoral research studentship

Application deadline Sunday 9 July

Full Details

Please e-mail Alice Budden with any external opportunities you wish to be circulated in future DCE Newsletters.

Notifications

Communicating about your project

The DCE programme is always looking to communicate the impact of its projects and research activity. If your project is achieving some interesting real-world applications or impact and you are interested in communicating this to a wider audience please contact Alice Budden. The Turing hosts a Blog and a Podcast and publishes regular Impact Stories on activity. The Turing Communications team can also help support you on any related media activity.

Attribution in Publications

A reminder that all publications resulting from work on the programme should acknowledge the Lloyd's Register Foundation and The Alan Turing Institute Data-Centric Engineering Programme or the AI for Science and Government funding as appropriate. More detailed information can be found under 'Acknowledging the Turing in Publications' on the Turing Intranet, or by contacting publications@turing.ac.uk.

Updated Office Access

The Institute's offices are now fully open. The different spaces have been configured to support different types of working:

First floor: This is the collaboration hub of the Turing and is intended for project/team working, training, workshops, group meetings, presentations and visitor hosting.

Second floor: This space supports individual working at standard desking/workstations in a traditional office environment. Additionally, there is a signposted area to the rear of the office for quiet working. Please refer to the floor plan to identify this area.

Fourth floor: We have meeting rooms located on this floor, please refer to the floor plan for further information. Our colleagues at ARIA now exclusively use the office space on this floor.

Further details and office floor plans can be found on Mathison.

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