

Al and the Future of Engineering Symposium

Date: Tuesday, 18th June 2024 Time: 9:00 AM - 4:00 PM

Location: Roundhouse, Dyson Institute of Engineering and Technology (DIET), Malmesbury, UK

Web-link

Objectives of the Symposium:

- Discuss the latest industry and academic findings on the potential of AI to transform the future of engineering.
- Explore strategies for integrating AI into engineering processes.
- Identify and address challenges in adopting AI in engineering.
- Facilitate collaboration between industry and academia to drive AI innovation.
- Showcase cutting-edge AI research and projects from PhD and PostDoc researchers.
- Provide a platform for emerging researchers to network with established professionals.
- Present Careers in Dyson for early-career researchers

Initial Agenda *(Note that this agenda might slightly change):

8:30 - 9:15 AM: Registration

9:15 - 9:30 AM: Prof Peter Wilson, Dyson Institute of Engineering and Technology

Title: Welcome Notes

9:30 - 10:00 AM: Prof Tom Crick, Chief Scientific Adviser, Department for Culture, Media and

Sport

Title: TBC

10:00 – 10:10 AM: Michael Groom, University of Oxford Title: Safety for Mobile Manipulation for Domestic Robots 10:10 – 10:20 AM: Edward Stow, Imperial College London

Title: Using tensor contractions to bring automatic data layout optimisation to robotics

10:20 – 10:30 AM: Vassil Atanassov, University of Oxford Title: Unsupervised Skill Discovery for Legged Robots

10:30 - 10:45 AM: Break

10:45 - 11:15 AM: Prof Manuch Soleimani, Bath University

Title: Application of AI in Engineering and Design: Opportunities in Research and Education

11:15 - 11:45 AM: Prof Shahrokh Shahpar, Rolls-Royce

Title: Novel Optimisation to Support Turbomachinery Digital Twin

11:45 - 12:00 AM: Tanzy Kelley and Jake Haworth, Dyson Institute of Engineering and Technology Title: What is the New Format of Engineering Education at Dyson Institute of Engineering and Technology?

12:00 – 1:00 PM: Lunch and demo of "VR-aided Engineering Design"

1:00 - 1:30 PM: Michael Mangan, University of Sheffield

Title: Opteran: reverse engineering insect brains to provide the software mind enabling machines to move like natural creatures

1:30 – 2:00 PM: Prof Sabine Hauert, University of Bristol

Title: Swarms for everyday environments

2:00 - 2:20 PM: Break

2:20 - 2:50 PM: Prof Damien Coyle, Bath University

Title: TBC

2:50 -3:20 PM: Stephen James, Dyson

Title: Robot Learning for Advanced Domestic Robotics

3:10 - 3:35 PM: Prof Andrew Davison, Imperial College London

Title: From SLAM to Spatial AI

3:35 – 3:50 PM: Moe Sanni & Antony Waldock, Dyson

Title: Robotics in Dyson

3:50 - 4:00 PM: Closing Remarks

Travel and Maps

Here are some options for travellers to consider:

By Air: The nearest international airport to the Dyson Institute of Engineering is Bristol Airport (BRS), approximately 30 miles away. From Bristol Airport, travellers can take a taxi or hire a car to reach the institute.

By Train: The Dyson Institute of Engineering is approximately 12 miles from Chippenham Station and 10 miles from Kemble Station.

By Car: Travelers coming by car can use this pinpoint on the map. On arrival, please take the visiting route and park in the parking area. The roundhouse should be easily identifiable.

Contact

If you have any problems or queries, please get in touch with Dr Mehdi Biroun at Mehdi.Biroun@Dysoninstitute.ac.uk

Or the organising committee at: diai2024@dysoninstitute.ac.uk