# **ENGINEERING AI FOR CRITICAL SYSTEMS**

<del>ረ</del>

~~~~

0

0

 $\mathbf{\hat{}}$ 

E S

(¥) €

ĨĨĨ

SPONSORSHIP BROCHURE

27 June 2024 Cambridge

# CW TEC 2024: ENGINEERING AI FOR CRITICAL SYSTEMS

### Thursday 27 June 2024 Hosted by The Computer Laboratory, University of Cambridge

Celebrating its 10<sup>th</sup> anniversary this year, the Cambridge Wireless Technology and Engineering Conference (CWTEC) is among the highlights of the UK tech calendar and its main purpose is to advance key technology challenges which have wide-ranging economic impact.

This year, we focus on the rapid integration of Artificial Intelligence (AI) into critical infrastructure management. As such, we'll explore how AI can be engineered to manage telecommunications, cybersecurity, healthcare, banking, and other life critical systems. We'll dissect the multifaceted applications of AI - from predictive analytics bolstering cybersecurity defences to machine learning algorithms revolutionizing healthcare diagnostics. We'll also discuss the intricate interplay between AI methodologies like neural networks, reinforcement learning, and natural language processing, and their transformative potential across diverse sectors. And we'll look at the engineering challenges of AI systems, data management and deployment tools as well as exploring upcoming technologies and trends in AI.

Hosted at the Cambridge University Computer Laboratory, this landmark event will gather technical experts to share their knowledge and insights as well as offering attendees the opportunity to network, make meaningful connections and explore future collaborations.

Find out more about our sponsorship opportunities within this brochure and contact us to discuss how we can work together to achieve your business goals **sponsorship@cambridgewireless.co.uk** 

Sponsorship of CWTEC offers you the opportunity to:

- Promote your company to technology leaders and decision makers.
- Showcase your business, putting a spotlight on your products, services, and innovations.
- Cultivate new contacts and generate new business leads.
- Network and engage with tech talent.
- Explore future collaborations across the tech ecosystem.





**#CWTEC | cambridgewireless.co.uk/cw-tec** 

## AGENDA

| 09:00 Registration and networking with refreshments                                                                                                                                                                                                                                                                                                                                                                                                                      | 13:00 |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| 09:30 Welcome to the conference                                                                                                                                                                                                                                                                                                                                                                                                                                          | 14:00 |
| <ul> <li>09:40 Introduction to AI This session outlines AI basics, its evolution, and the current surge in technologies like convolutional neural network (CNN) and Generative AI, setting the stage for understanding AI's role in modern applications. <li>09:45 Introduction to the family of AI tech and where Machine Learning (ML) fits in.</li> <li>Technical Jargon Buster</li> <li>Why now? Why the upsurge in AI?</li> <li>What is the latest?</li> </li></ul> |       |
| 10:45 Refreshments and networking                                                                                                                                                                                                                                                                                                                                                                                                                                        |       |
| <b>11:15 Applications of AI in Critical Industries</b><br>This session explores AI's impact across telecommunications, cybersecurity, healthcare, and banking, showcasing its capacity to enhance infrastructure resilience, cybersecurity defences, healthcare diagnostics, and banking services. We will explore a selection of use                                                                                                                                    | 15:45 |
| cases where AI has and is being applied to critical industries.                                                                                                                                                                                                                                                                                                                                                                                                          | 16:15 |
| <ul> <li>AI in Telecommunications: AI applied at scale to manage key infrastructure with requirement for resilience and reliability</li> <li>AI for network management and configuration</li> <li>AI for network planning and optimisation</li> <li>AI for diagnostics and stream analytics</li> </ul>                                                                                                                                                                   |       |
| <ul> <li>11:40 AI in Cybersecurity: AI applied to detecting, responding, and preventing cyber-attacks.</li> <li>Increasingly used by both bad and good actors</li> <li>Example application: Discovery and detection of anomalous behaviour in very large network traffic data sets</li> <li>NCSC challenges protecting UK plc</li> <li>12:00 AI in Healthcare/Health Sciences:</li> </ul>                                                                                |       |
| <ul> <li>Growing use and application of AI in healthcare, ranging from clinical<br/>diagnostics through to drug research.</li> </ul>                                                                                                                                                                                                                                                                                                                                     |       |
| 12:20 AI in Banking Industry:                                                                                                                                                                                                                                                                                                                                                                                                                                            | 17:25 |

- Trading algorithms in capital markets
- New generation of personal banking services

#### 13:00 Lunch and networking

#### 14:00 AI Engineering Challenges

This session discusses the practical aspects of building AI solutions, including data management, risk mitigation, interoperability standards, and deployment tools, emphasising the organisational readiness required for AI integration.

Focusing on the practice of engineering AI solutions and the challenges for organisations to become AI Ready, including business outcomes and technical results from deployment.

- Engineering resilient AI solutions
- Data challenges (AI programming with data)
- Managing risk when building critical AI solutions
- AI for programming and software engineering
- Technical standards for AI interoperation
- Infrastructure & tools AI at the edge / in the cloud, toolsets GCP/ AWS/GPT/Copilot etc.
- How to get started?

#### 15:45 Refreshments and networking

#### 16:15 What does the future of AI look like?

This session speculates on AI's trajectory, covering new models, hybrid systems, sustainability in AI training, multi-agent systems, and explainable AI, aiming to foster discussion on the future of AI technologies.

- Where will this technology be in 5 years' time?
- Beyond Large Language Models (LLM) what are universities working on?
  - Diffusion and Poisson Flow Generative Models (PFGMs)
- Hybrid AI (Combining Statistical and Symbolic AI)
- Efficient and Sustainable AI Training Methods
- Multi-agent systems
- Emergence of autonomics self calibrating systems
- Explainable AI Techniques for enabling transparent AI decision making
- 17:25 Closing remarks
- 17:30 Event close

## **SPONSOR OPPORTUNITIES**

| Sponsorship<br>Item     | Price   | No.<br>available | Benefits                                                                                                                                                                                                                                                                                            |
|-------------------------|---------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Platinum                | £10,000 | 1                | Through highly targeted media and promotional campaigns, thought leadership articles, social media, press campaigns, website presence and email marketing, your company brand will be exposed to a wide audience in a powerfully integrated marketing campaign in the months before the conference. |
| Platform sponsor        | £7,000  | 1                | Achieve maximum visibility by sponsoring the conference platform - all conference talks are live streamed for virtual attendees and recorded for delegates to access after the event.                                                                                                               |
| Tech topic<br>speaker   | £4,000  | 4                | There are several speaking opportunities providing sponsors with the opportunity be recognised as a highly credible and impactful industry thought leader. Sponsors may support a specific session benefiting from visibility and direct interaction with delegates in the session.                 |
| Lunch                   | £2,500  | 1                | Receive exclusive visibility over lunch, you will be acknowledged as the lunch sponsor and can provide rollup banners<br>featuring your logo during the lunch.                                                                                                                                      |
| Refreshments            | £1,500  | 1                | Gain that extra advertising edge by sponsoring the refreshment breaks; provide rollup banners featuring your logo around the refreshment areas. You will be acknowledged as the refreshment sponsor to all delegates.                                                                               |
| Lanyard<br>(co-branded) | £1,500  | 1                | Increase your company's brand reach and exposure by showing your logo on the event lanyard. All delegates, speakers and partners will be given a lanyard at registration which they will be required to wear all day (and keep, if they wish).                                                      |
| Display tables          | £1,000  | 4                | With a high-level audience at your fingertips, increase your reach by showcasing your products, services and technology to our delegates. Reinforce and strengthen your brand; build opportunities with new and existing clients and promote collaborations.                                        |
| Promotional flyer       | £500    | 3                | Providing a promotional insert (A4 or smaller) to be placed on the registration desk for delegates on arrival.                                                                                                                                                                                      |

All Sponsors will receive the following standard benefits in addition to those outlined in the individual packages:

- 100-word organisation profile, logo and weblink on the CWTEC website
- Logo placement in at least one CWTEC email newsletter
- Social media promotion (1 dedicated twitter post, 1 joint tweet, inclusion in 1 LinkedIn post highlighting sponsors, inclusion in 1 LinkedIn post highlighting speakers if applicable)
- Opportunity to provide a Blog/news article on the CW website (sponsor to provide)
- Logo inclusion in the printed event agenda

## **#CWTEC** | cambridgewireless.co.uk/cw-tec