# DIGITAL ROADS OF THE FUTURE 2023 MARCH I Volume 1 | Issue 1 NEWSLETTER

#### **ANNOUNCEMENTS**

#### **New starters**

#### Senior Research Associate in Digital Twins – 1<sup>st</sup> May

Digital Roads Prosperity Partnership welcomes our new Senior Research Associate in Digital Twins <u>Dr Ran Wei</u>. Dr Wei will be starting with us on 1<sup>st</sup> May 2023. Find out more about Dr Wei and the rest of the Digital Roads Research team here: <u>Research Team</u> | <u>Digital Roads of the Future (cam.ac.uk)</u>

## Marie Curie Future Roads Fellowships Cohort 2 - Starts on 15th June

13 Fellowships are offered in Cohort 2. Three weeks of induction training will be organised in July 2023. Fellowships are awarded in the following research themes: Digital Twins, Smart Materials And Automation & Robotics.

#### **NEWS**

#### Job vacancies

# EPSRC FIBE2 CDT PhD Studentship with National Highways: 3D Printing for Smart Pavement Applications – Closing date 16<sup>th</sup> May

This is a four-year (1+3 MRes/PhD) studentship funded through the Cambridge EPSRC Centre for Doctoral Training in Future Infrastructure and Built Environment: Resilience in a Changing World (FIBE2 CDT). This project will explore the potential for 3D printing in a range of pavement applications, such as bespoke repairs and robotic-assisted on the spot maintenance and assess and test the areas that would be most feasible and deliver the biggest impacts. The project will involve experimental work, including different materials and nozzles as well as 3D printing configurations combined with design and optimisation techniques and would ideally lead to full-scale trials. Further information and how to apply is available here.

# EPSRC FIBE2 CDT PhD Studentship with National Highways: Sensor Development for Autonomous Large-Area Monitoring and Fault Detection in Expressways – Closing date 16<sup>th</sup> May

This is a four-year (1+3 MRes/PhD) studentship funded through the Cambridge EPSRC Centre for Doctoral Training in Future Infrastructure and Built Environment: Resilience in a Changing World (FIBE2 CDT). The research will enable automated monitoring and fault detection of national expressway that will be used for robotic maintenance and repair. The resulting sensor dataset over time will be used to probabilistically highlight areas of high-priority inspection, then the use of robotic active sensing systems will drive the sensor devices for acquiring high-quality sensor information. Further information and how to apply is available here.

#### Future Roads Fellowships Programme – Closing date 16th June

We are hiring up to 11 post-doctoral fellows in the 3<sup>rd</sup> cohort of their Marie Curie Future Roads Fellowships Programme. The fellowships are focused primarily on Digital Twins, Smart Materials, Data Science, Automation and Robotics, and Sustainability solutions for the road infrastructure industry. The deadline for applications is on 16 June 2023. Further information and how to apply is available here.

#### **UPCOMING TALKS, LECTURES AND EVENTS**

# DRF Lunchtime Clinics - 24th March

The next DRF talk will be given by Prof Daniel Hall, TU Delft on "Smart mobile factories for infrastructure projects". The talk will be held in the Civ Eng Seminar Room.

## FUTURE ROADS WEBINAR FOLLOW UP - Maximizing Benefits and Pathway to Impact - 31st March

Following the Webinar Future Roads Fellows and Industry Partners – maximizing benefits and pathway to impact held on  $22^{nd}$  March, follow up sessions is scheduled. Objective of this webinar is to continue discussions with Industry partners, highlight the main characteristics of the FutureRoads Fellowship Programme relevant for the Industry partners and the role of the industry supervision in the programme. Overview of the technical readiness level concept and pathways to impact principles will be provided to complement the main outline. Online free event from 15:00 - 16:00.

# KEYNOTE SPEECH at Internation Road Federation "Vision Zero for the Balkans" Regional Road Safety Conference & Technology Showcase in Belgrade, Serbia – 16<sup>th</sup> May

Dr Nevena Vajdic will give a presentation on the future of road digitisation & automation, and how this can be leveraged for safer road mobility at the Internation Road Federation "Vision Zero for the Balkans" Regional Road Safety Conference & Technology Showcase in Belgrade, Serbia, on 16<sup>th</sup> May 2023.

# TALK at Digital Construction Week - 17th - 18th May

Future Roads Fellow Dr Jyining Xu will be presenting on Building Trust in Carbon Data to Achieve Net-Zero in Infrastructure Assets Lifecycle, coauthored by Tim Embley, Costain Ltd.

# FutureRoads Fellowships Updates – 7th September

Future Roads Programme will be holding the update sessions where FutureRoads Fellows will be presenting the progress of their research projects together with Industry partners involved in the supervision. The agenda will be shared in the coming months.

## Digital Roads of the Future Annual Event - 8th September

The Digital Roads Prosperity Partnership will be holding its annual review on the 8<sup>th</sup> of September. The first year of the project has seen us establish a road dataset to develop the backbone of our cyber-physical platform. The Digital Roads Annual Review will include a visual tour of the dataset, a review of project progress, a demonstration of the platform and our plans and proposals for the coming year. The agenda will be updated on our website in the coming months: <u>Digital Roads Annual Review</u> 2023 | <u>Digital Roads of the Future (cam.ac.uk)</u>

DRF monthly newsletter will be circulated on the third Friday of every month. Please send any items that you would like to be included to <a href="mailto:drf-initiative@eng.cam.ac.uk">drf-initiative@eng.cam.ac.uk</a>.





