

# University of Birmingham and RazorSecure join forces to accelerate, improve and address rail cyber security

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The University of Birmingham's Birmingham Centre for Railway Research and Education (BCRRE) today signed a Memorandum of Understanding (MOU) with rail cyber security company, RazorSecure, establishing a strategic partnership on addressing railway system cyber security.

The signing took place at the 13<sup>th</sup> World Congress on Railway Research, hosted by RSSB and the University of Birmingham this week.

The MOU establishes strategic research and thought leadership partnership between BCRRE and RazorSecure to address specific cyber security challenges including threat detection for railway systems, monitoring railway signalling systems used in the UK and EU railways, establishing a common body of knowledge for education in rail cyber security and integrating cyber security within safety and regulatory requirements.

The UK Rail Research and Innovation Network's Centre of Excellence in Digital Systems, led and housed at

BCRRE, offers world-leading expertise in railway control and operations simulation, condition monitoring and sensing, and data integration and cyber security.

BCRRE's dedicated rail cyber security laboratories develop and test solutions for 'real world' operational systems and identify new explanations through theoretical background evidence and transfer the data into implementable solutions.

Founded in 2015 by CEO Alex Cowan, with headquarters in Basingstoke, RazorSecure provides tailored cyber-security solutions for the rail industry, covering both onboard and trackside applications. RazorSecure's customers include train manufacturers such as Siemens, and rail operators such as Northern Trains, West Midland Railway and Capital Corridor.

Alex Cowan, CEO of RazorSecure said: "It is critical that we continue to elevate cybersecurity within rail, by working openly and collaboratively. Cybersecurity shouldn't be addressed in silos. By partnering with BCRRE, we are able to expand and enhance our solution portfolio, by developing new innovative technology designed specifically to meet the unique challenges faced by the rail industry."

Dr Richard James Thomas, Industrial Fellow in Data Integration and Cyber Security and Rail Cyber Security Technical Lead at BCRRE says; "Our railways around the world are digitalising at pace, and cyber security is a critical aspect that train operators, infrastructure managers and the supply chain now have to manage today and into the future. This partnership with RazorSecure puts us at the forefront of rail cyber security R&D, working closely with the rail supply chain and train operators to identify and develop new solutions that address key questions, in addition to providing the necessary information, skills and content required to cultivate the necessary maturity and cyber security knowledge for the sector."

Professor Clive Roberts, Head of School of Engineering at the University of Birmingham says: "We are proud to establish this R&D partnership, working with a rapidly growing and leading SME in rail cyber security. Starting with a joint project our relationship has grown stronger and this partnership will allow us to engage and provide industry leadership. Our joint expertise, in-depth knowledge, and unique skills, will enable us to assess threats to railway systems, develop a common body of knowledge for rail cyber security and further advance the relationship between safety and cyber security."

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