

## Monitorail Project Webinar

29<sup>th</sup> January 2013

Time: 13:00 (GMT)

### Date

The Webinar will be held on **29<sup>th</sup> January 2013** starting at **13:00 (GMT)**.

### Webcast Registration

To join the Webinar please follow the instructions via

<https://www.eventsforce.net/rail13>

**Registration closes at 17:00 (GMT) on 28<sup>th</sup> January 2013**

### -Programme-

13:00	Welcome, Introduction to the Monitorail Project and an overview of Industrial Issues in Rail Inspection & Maintenance
13:15	Detection of crack propagation using Acoustic Emission (AE)
13:30	Measurement of defects using Guided Waves (GW)
13:45	Automatic defect detection and measurement
14:00	The Monitorail prototype and its benefits to the Rail Industry
14:20	Questions and feedback
14:30	Close



### Speakers

#### Dr Adam Wilkinson, TWI Ltd

Dr Adam Wilkinson joined TWI in 2011 as a Principal Project Leader in the Long-Range Ultrasonic Section (LRU), Non Destructive Technology Group (NDT). He was a Development Engineer at Macgregor Welding Systems developing electronics, software, systems integration and automation. Other experience as a development engineer was preceded by a PhD(Cantab) in Magnetic Resonance Imaging and an Engineering MA(Cantab). Currently, he is project coordinator of Monitorail, an FP7 collaborative project and is involved in the delivery of hardware and software for a variety of other projects.

#### Dr Makis Livadas, BIC

Dr Makis Livadas joined BIC in 2012 as a Research Fellow working on deployment of software technologies and signal processing algorithms to solve NDT problems and how to deliver these solutions to the end user. Prior to this Makis has contributed in the development of Plant Integrity very successful long-range guided wave ultrasonic testing equipment. Makis has an electronics engineering background and has completed his doctorate degree at Imperial College, London on the subject of digital signal processing algorithms applied to image interpolation.

#### Dr Serafeim Moustakidis, Cereteth

Dr Moustakidis received his master's and Ph.D. degree in Electrical and Computer Engineering from the Aristotle University of Thessaloniki (AUTH). He has worked as a teaching assistant at the Department of Electrical and Computer Engineering of AUTH and as a visiting laboratory lecturer at the Technological Educational Institute of Thessaloniki. As a main author or co-author has published 7 international peer reviewed journal papers and his work has been cited in 29 published papers. His main scientific interests cover various areas of Computational Intelligence such as signal/image processing, pattern recognition, feature extraction/selection, data fusion, fuzzy logic, genetic algorithms and control systems. He is now a Research Associate in CERETETH working in several European projects.



### Overview

The railway industry has for many years been seeking a method of identifying damage to the foot of the rail. Existing techniques of track inspection rely on testing from the top of the rail. Although this approach can work well for defects in the head and web. It cannot test the whole of the rail foot. "Monitorail" is the answer for all those, who need information on the state of the rail foot.

This webinar aims to introduce the principles of the technology used and the developed system throughout the Monitorail project to those involved in operation, maintenance and repair of railways, including non-destructive testing (NDT) experts. During the webinar, the examples of issues and structures, test results and benefits of project outcomes to the railway industry will be discussed.

### Contact

For further details please contact Dr Adam Wilkinson: T: +44 (0) 1223 899000 E: adam.wilkinson@twi.co.uk

[www.monitorail.eu](http://www.monitorail.eu)

### The Monitorail Project is a collaboration between the following organisations:

TWI Limited, Vermon SA, OpenPattern, Aerosoft S.p.A, Jackweld Limited, Network Rail Infrastructure Limited, Kentro Erevnas Technologias Kai Anaptyxis Thessalias (CERETETH), Brunel University K.

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