

EM4I THIRD WORKSHOP

Aproches for the implementation of Digital Twins

AGENDA

Date 21/12/2021
Time 08:50 – 13:30
Location Online

Welcome Speech		
08:50 – 09:00	Welcome	Rafael Mayo-Garcia CIEMAT

ND examination & testing and materials		
09:00 – 09:30	Physics-based and data-driven modelling for non-destructive testing	Edouard Demaldent CEA
09:30-10:00	Advanced NDE in context of digitalization	Hans-Georg Herrman IZPF (Fraunhofer)

Workflows		
10:00-10:30	Maintenance and sustainability optimization of the high-speed railway superstructure through experimental characterization, numerical simulation, and machine learning modelling	Diego Ferreño Universidad de Cantabria

Artificial Intelligence		
10:30 – 11:00	Machine learning powered ultrasonic inspection, reliability of ML inspection and FE simulation of ultrasound	Oskari Jessen-Juhler VTT
11:00 – 11:30	On digital twins, mirrors, and virtualisations	Keith Worden Sheffield University



Digital Twins		
11:30 – 12:00	Digital twins powered by hybrid models - The swan song approach	Diego Galar Tecnalia
12:00 – 12:30	Physics-based digital twins in the nuclear sector	Román Cicero Inesco Ingenieros
12:30 – 13:00	The Digital Twin: from concept to value creation across the product lifecycle	Emilio Di Lorenzo Siemens

Wrap-up and introduction to next EM4I Workshop		
13:00 – 13:10	Wrap-up and introduction to next EM4I workshop 'Materials under harsh conditions'	Lorenzo Malerba CIEMAT

