






## D-STANDART FIRST TRAINING WORKSHOP

 **17 June 2024**

 **Faculty of Aerospace Engineering**  
Building 62, Kluyverweg 1  
2629 HS Delft

 **Delft University of Technology** 

 This first training workshop is addressed to researchers and R&D engineers involved in any aspect of composites characterisation and testing. **To get the most out of the training workshop requires attendees to be experienced in using advanced FEA software.**



Look out the updates on the event on our website and LinkedIn:

 [www.d-standart.eu](http://www.d-standart.eu)

 [@d-standart](https://www.linkedin.com/company/d-standart)

### THE D-STANDART PROJECT AIMS TO

Develop **rapid methods to characterise fatigue damage in composites** and **sustainability of composite supply chains** and thereby model the durability and sustainability of large-scale composite structures with arbitrary layups **under realistic conditions** (loads, environment, manufacturing imperfections).

- › **Through minimal and accelerated testing** of generic specimens.
- › Transferring the results of the experiments to large-scale structures using **artificial intelligence and machine learning**.

**To support this ambition, the D-STANDART consortium is offering a free workshop to give researchers hands-on experience with fatigue testing of composite materials.**

### LEARNING OBJECTIVES

In this workshop you will:

- › Learn about different **experimental techniques for fatigue characterisation** of fibre reinforced composites.
- › Learn how to select an **appropriate technique** to support a given fatigue evaluation case.
- › Get hands-on practice with analysis of delamination growth experiment data.
- › Learn the principles of **high frequency fatigue testing**.
- › Get hands-on practice with **numerical simulations of both quasi-static and vibration fatigue analysis**.

### TOP-CLASS RESEARCH EXPERTS WILL SUPERVISE THE TRAINING



**J.A. Pascoe**, Assistant professor in Faculty of Aerospace Engineering of Delft University of Technology

**UNIVERSITY OF TWENTE.**

**D. Di Maio** Associate Professor of Structural Dynamics in University of Twente

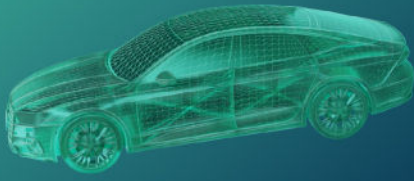
The event is public and without registration fees. **However, registration is mandatory.**



To sign up, please use the following form:

**SIGN UP**





## PRELIMINARY PROGRAMME

Start time	Session (theory / practice)	Organizer
9:00	<b>Fatigue testing methods</b>	J.A. Pascoe, Delft University of Technology
10:30	<b>Analysis of a fatigue delamination growth test</b>	
12:30	Lunch	-
14:00	<b>High frequency fatigue testing</b>	D. Di Maio, University of Twente
15:30	<b>Numerical analysis of vibrational fatigue</b>	
16:45	Closure –drinks offered by the host	-

### PREREQUISITES AND ORGANIZATION ASPECTS:

Knowledge of mechanical behaviour and analysis of composite materials. Proficiency with advanced finite element software (e.g. HMI CAE Fatigue, ABAQUS, Ansys).

Preferably attendees should bring a laptop that is capable of running small to medium sized FE problems. Appropriate temporary licenses will be made available during the workshop.

### TRAINING CERTIFICATE

Both practical sessions will include a test for validation of acquired knowledge.

A certificate of completion will be delivered shortly after the event to successful candidates.

### ANY QUESTIONS?

Feel free to get in touch with us at:

 [contact@d-standart.eu](mailto:contact@d-standart.eu)