

# SPACECARBON 2<sup>ND</sup> WORKSHOP

## AGENDA

**Title:** Seminar sessions on European Carbon Fibres and Pre-Impregnated Materials for Space Applications

**Date** 8<sup>th</sup> June

**Organizer:** NTUA, INEGI

**Time:** 10.00 – 17.15 Portugal time (CEST -1)

**Venue:** Alfandega Do Porto

**Location:** Porto, Portugal

### Chairs

Nuno Rocha, SpaceCarbon coordinator | Prof. Costas Charitidis, Chair of EsSENce (Cost Action entitled: High-performance Carbon-based composites with Smart properties for Advanced Sensing Applications-CA19118)

Time	Seminars	Presenter
10.00 – 10.10	Welcome	Nuno Rocha
10.10 – 10.50	Precursor and carbon fibre development and manufacturing	SGL, Ricardo Caldas
	Research and development on high performance composites:	INEGI
10.50 – 11.05	<ul style="list-style-type: none"> <li>High performance composite materials and structures and their applicability into Space; (Nuno Rocha)</li> </ul>	Nuno Rocha
11.05 – 11.20	<ul style="list-style-type: none"> <li>Pre-impregnation of high performance composites for Space applications;</li> </ul>	Joana Guedes
11.20 – 11.35	<ul style="list-style-type: none"> <li>Design of nano-enabled CFRP composites for multifunctional and sensing applications</li> </ul>	Raquel Santos
11.35 – 11.50	Coffee Break	
11.50 – 12.30	Testing in Space relevant conditions	AAC, Zoltan Simon
12.30 – 13.10	Advanced characterization of CFRPs by nanoindentation	NTUA, Georgios Konstantopoulos
13.10 – 13.55	Lunch Break	

13.55 – 14.35	Launcher structures: design and manufacturing	AVIO, Giuseppe Pantanella and Federico Di Vizio
14.35 – 15.15	CFRP for satellite structures: design and manufacturing	Airbus Defence & Space, Carlos B. Mangas
15.15 – 17.00	<b>Scientific presentations</b> <b>Focus Area: Space</b>	
15.15 – 15.30	<b>Pedro Fernandes, Composites Structures and Materials Engineer at INEGI</b> <i>On the design and development of composite deployable elastic-hinges</i>	
15.30 – 15.45	<b>Bruno Augusto, Product and Processes Engineer at INEGI</b> <i>Topology optimization of a composite nanosatellite structure, to be manufactured by 3D printing</i>	
15.45 – 16.00	<b>Henrique Santos, Development Engineer at Frezite High Performance</b> <i>Challenges in COPV Development</i>	
16.00 – 16.15	Break	
16.15 – 16.30	<b>Sharali Malik, Staff Scientist at Karlsruhe Institute of Technology (KIT), Institute of Quantum Materials and Technology (IQMT)</b> <i>Nanotubes from Atlantis: Magnetite in Pumice as a Catalyst for the Growth of Carbon Nanotubes</i>	
16.30 – 16.45	<b>James Kuligoski, Business Development Engineer at Addcomposites</b> <i>Automated Fiber Placement in the Space Industry</i>	
16.45 – 17.00	<b>Vasiliki Stergiou, PhD candidate at Research Lab of Advanced, Composite, Nano-Materials and Nanotechnology, NTUA</b> <i>Current limitations in Life-Cycle-Assessment of Carbon Fiber reinforced epoxy-based composites</i>	
17.00 – 17.15	<b>Scientific presentations</b> <b>Topic: Lightweight high-performance materials for Space applications</b>	
17.00 – 17.15	<b>Carolina Losada Fernández, R&amp;D Engineer at AIMPLAS</b> <i>Lightweight Thermoplastic Composites for Mobility Sector</i>	
17.15	Closure of the day	Nuno Rocha