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news ecoCORK

Student Training at WUST !

Polish partner WUST organized a great training program for participants. The program was on sectors for cork products, cork properties and future trends for cork. Experts shared their knowledge about mechanical behavior of cork composites, cork reponse under impact and dynamic properties of cork structures. Students were also introduced to **TRIZ** method «*theory of inventive problem solving*». As the engineers of future, participants will benefit from this unique training in their professional business lives. Training at WUST provided great experience for the participants.

Wrocław University of Science and Technology

Wrocław University of Science and Technology (WUST) *is notable for cork composites and has jointly studied with University of Aveiro in a long-term collaborations. WUST team is good at mechanical side of cork composites. They conduct several great works on impact behavior and mechanical properties of cork composites.*

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Compression test for a cork block!

Tough jobs for CORK!

Cork composites have been studied to adapt them into crashworthiness applications. Helmets for micro-mobility vehicles are one of prospective areas for cork composites. For this reason, impact behavior and compressibility of cork composites are investigated by researchers. Due to its cellular microstructure, cork exhibits cell wall buckling during loading. This deformation mode ends up with densification of cork. Thanks to this, a large part of applied energy is consumed and thereby leading to a quite efficient energy absorbing behavior. Another application area is thermal insulation for cork composites. The cells contain air within the microstucture. Since air is one of the best insulators due to its very high thermal resistance, heat transfer is significantly blocked in cork composites. Vibration damping behavior is another merit of cork. As in the thermal insulation, cellular microstructure is responsible for damping of mechanical vibrations. All these properties make cork a unique material for aerospace applications.
That's why ecoCORK focuses on corks!

Student Training at WUST covered different topics about cork products in engineering. One of important topics is ***Computer Aided Design (CAD)*** for designing cork composites. Participants showed their engineering skills for designing cork based products.

To produce cork based helmets, ***Mike the skull :)*** helped the students about head-form. Laser scanning is a reverse engineering method that provides the geometry of scanned objects for engineers. By this means, integrated products can be designed in various engineering areas.


***Mike** wearing sunglasses during laser scan ☺*


Students in CAD office at WUST while designing cork based products!

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