



JEC WORLD COMPOSITE CHALLENGE

Creating the link from Research to Industry

A PhD Challenge dedicated to the Composite Industry

Composite Challenge is a competition of PhD sourced and selected for the quality of their research work in the field of composites.

The Challenge: 5 minutes to pitch their thesis using 1 slide
Launched in 2018, Composite Challenge received the support of Zoltek Group, part of Toray Group.

A Win-Win Program

FOR THE PHD

- Direct access to the industry, potential investors or buyer of their research
- A unique way to promote their research to the 41,000+ participants of the show and the 100,000+ JEC World community contacts
- A gateway to recruiters

FOR THE INDUSTRY

- Source of innovation and solutions at early stage
- Source of talent

The Competitors

This year, the PhD talents have been selected from 7 prestigious universities: Bristol – UK, Clément Ader Institute – France, Dresden – Germany, EPFL – Switzerland, ESTACA – France, IMDEA – Spain, Keiserslautern – Germany, Leuven – Belgium, Purdue – USA.

A Great Event

Participate in the Composite Challenge to reap the benefits:

- The recruitment campaign – from September to December 2018
- A press release to announce the finalists
- Marketing campaigns targeting the 100,000+ JEC Group database contacts
- Full coverage in the JEC World Digital Preview (sent one month prior to the show to the visitors and exhibitors)
- A massive voting campaign via social media activities
- A strong setup at the show, including technical posters; printed promotional materials with a dedicated brochure; a pitch session; and an award ceremony

2018 PhD Projects

- **Flax fibres-reinforced PA11:** study on the dynamical mechanical properties by Federico Amenini from ESTACA in Nantes, France.
- **Advanced Automated Tape Laying with Fibre Steering Capability Using Continuous Tow Shearing** by Evangelos Zypeloudis from the University of Bristol in the UK. His research attracted much attention through different awards such as a SAMPE one.
- **Recycling of composites by recovering carbon fibres** of cured prepregs, and their re-use in hybrid laminates by Andrea Fernandez from IMDEA in Spain. Andrea received the Renault Sustainable Mobility award for her master thesis.
- **Can carbon fibre composites be ductile and notch-insensitive?** By Xun Wu from the University of Bristol in the UK. Her PhD is within the HiPerDuCT program.
- **Discontinuous fibre composite tubes** for high performance applications by Alexandre Mordasini from EPFL in Switzerland.
- **Out of Autoclave prepreg manufacturing –** Material characterization, process optimization and mechanical comparison by Léonard Serrano from Institut Clément Ader in Toulouse.
- **Process modelling and flexible manufacturing of multi-phase resin** based thermoset and thermoplastic prepreg by Alex Reichenadter from Purdue University in the US.
- **Multiscale simulation of textile reinforcements** for composite applications in the industry 4.0 by Oliver Döbrich from Technische Universität Dresden in Germany.
- **Multi-scale study of the effect of manufacturing defects on matrix cracking in laminated composites:** in-situ experimental investigation and simulation analysis by Mahoor Mejdikhani from KU Leuven in Belgium.
- **Multifunctional metal-carbon-fibre composites** for damage tolerant and electrically conductive lightweight structure by Benedikt Hannemann from the University of Kaiserslautern in Germany. Benedikt was awarded the PfalzMetall prize for outstanding academic achievements.

