

CU Innovation Day „Sustainable Composites for future Applications“



September 25th - 26th 2024 at Kordsa Advanced Materials, Freisinger Landstraße 50, 85748 Garching
Moderation: Sven Blanck, MAI Carbon, Roy Thyroff, CU Bau, Denny Schüppel, Ceramic Composites

This joint event of MAI Carbon, Ceramic Composites and CU BAU of Composites United e. V. brings together the expertise of the various material classes - carbon fiber-reinforced plastics, ceramic matrix composites and fiber reinforced constructions. Special Focus will be within:

Resource-saving materials and the circular economy in bulidings

Innovative fiber types such as basalt, glass fibers, carbon fibers and bio-based matrices contribute to the conservation of resources. Recycling processes and the reuse of composite materials are important topics for the circular economy. In the construction sector, corrosion-resistant and weather-resistant composite materials ensure a long service life for buildings and infrastructure.

Lightweight design in hydrogen storage for mobility and energy technology

Hydrogen as a possible drive concept of the future offers huge opportunities. We want to take a closer look at the potential in transportation, defence technology and aviation.

Fiber-reinforced ceramics enable leap innovations in the energy transition

As time goes on, new fiber suppliers are entering the European market. In addition to military applications, there are also a number of civilian applications where Ox/Ox can be used. Particularly in the area of the energy transition, Ox/Ox enable completely new ways of making production more sustainable and bringing sustainable products to the market.

Agenda on 25.09.2024

11:00 Registration, Snacks & Networking

12:00 Welcome and Opening Remarks
Roy Thyroff & Sven Blanck, Composites United e. V.

12:10 Welcome and Opening Remarks
Kordsa

12:30 Political Welcome Remarks
Bavarian Ministry of Economic Affairs, Regional Development and Energy

12:45 SMC nish weaving capabilities
Alev Tuzun, Microtex

13:00 Biobased & Flame Retardancy Materials
Koray Ilhan, Senior R&D Leader, Kordsa

13:15 Session 1: Sustainable construction solutions

13:15 CFRP usage in construction industry (infrastructure, retrofiting)
Prof. Alper Ilki

13:35 *The title and Speaker of the presentation will be provided soon*
Çimsa

13:55 Sustainable Success today, with CO₂ reduced Carbon Fibers
Dr. Sarah Reiser, New Business Development, SGL Carbon Fibers GmbH

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- 14:15 Possibilities of carbon grid reinforcements with mineral binders under consideration of CO₂ reduction
Dr. Patrick Schäffel, General Manager, PAGEL Spezial-Beton GmbH & Co. KG
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- 14:35 Repair of Bus Lanes using High Performance Fiber Concrete (UHPFRC) as ultrathin whitetopping (UTW)
Matthias Braun, Division Civil Engineering – Ingenieurbau Deutschland, Implenia Construction GmbH
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- 14:55 **Coffee Break & Networking**
- 15:15 **Session 2: CFRP for hydrogen applications**
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- 15:15 Towpreg & Slittapes of a new generation
Cem Öztürk, Kordsa
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- 15:35 Material Design for a Lightweight High Performance Axial Flux Motor Cooled with Cryogenic Hydrogen
Prof. Andre Baeten, University of Applied Sciences Augsburg
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- 15:55 Thermoplastic winding technologies for hydrogen vessels and tubes – Benefits and challenges
Phillip Müller, AVANCO Composites
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- 16:15 CU Wild Card: Apply for talk!
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- 16:35 **Finish & Transfer to Oktoberfest via Bus**
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- 18:00 **Get Together @ Oktoberfest Munich (Hotel transfer around 21:00 o'clock)**

Agenda on 26.09.2024

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- 09:00 **Session 3: CMC for sustainable applications**
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- 09:20 CMC for energy saving
Antonios Tontosakis, VP Technology Materials, Kordsa North America
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- 09:40 *The title and speaker of the presentation will be provided soon*
Axiom
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- 10:00 Continuous oxide-ceramic fibers „Made in EU
Marco Hildebrandt, Senior R&D Manager, Rath GmbH
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- 10:20 Impact of High Denier Fabrics on Ox-Ox CMC
Stefan Friedrich, Technical Manager, Advanced Materials Division, 3M Deutschland GmbH
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- 10:40 **Coffee Break & Networking**
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- 11:00 Infusion fabricated oxide CMC – From prototyping to series production
Dr. – Ing. Michael Welter & Dr. Ing. Vito Leisner, DLR-WF
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- 11:20 Ox/Ox Produced by Schunk
Dr.-Ing. Johanna Schmidt, Dr.-Ing. Florian Reichert & Dr.-Ing. Thomas Wamser
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- 11:40 Ceramic Composites as Gamechangers for Thermal Runaway protection in Electric Vehicles
Dr. Mathias Kunz, CEO of WPX Faserkeramik GmbH
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- 12:00 Application potentials of OCMC in the chemical industry
Dr. Matthias Sentko, High Temperature Reactions, BASF SE

Program



12:20 **Wrap-Up & Forecast**

12:30 **Lunch and Networking**