

POLYMER COMPOSITES 2021



PROGRAMME

**October 26 – 27, 2021
Tábor, Czech Republic**

**ASSOCIATION FOR TECHNICAL SUPPORT
AND PROMOTION OF POLYMER COMPOSITES**

organizes in cooperation with

**CZECH SOCIETY FOR MECHANICS,
expert group
MECHANICS OF COMPOSITE MATERIALS AND SYSTEMS**

and

**CZECH TECHNICAL UNIVERSITY IN PRAGUE,
FACULTY OF MECHANICAL ENGINEERING**

the international conference

POLYMER COMPOSITES 2021

**The conference is organized under the auspices
of the Mayor of Tábor Ing. Štěpán Pavlík.**

The aim of the Conference is to enable specialists from research and industry to present actual knowledge and trends in research and development, analyses, materials, technology, manufacturing and applications of composite materials.





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Organization and program committee of Polymer Composites 2021 conference

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Detailed information:

<http://polymer-composites.cz/polymer-composites-2021/>

CONFERENCE PROGRAMME

Tuesday, October 26, 2021

9:00 – 10:30 **Registration**

10:30 **Opening and welcome**

11:00 – 11:45 **Plenary lecture**

Fatigue of fiber composites

Růžička M., *CTU in Prague, Prague, Czech Republic.*

12:00 – 13:30 **Lunch break**

13:30 – 15:00 **Section: ANALYSIS AND DESIGN**

Chairmen: Josef Křena, Zdeněk Padovec

Optimization of composite beams

Vondráček, D., Mareš, T., *CTU in Prague, Prague, Czech Republic.*

Multiscale viscoelastic analysis of plain weave textile composites combining first order homogenization and Mori-Tanaka method

Šejnoha, M., Vorel, J., Valentová, S., *CTU in Prague, Prague, Czech Republic.*

Simulation model of steel and CFRP blade for flutter measurement

Vomáčko, V., *TU of Liberec, Liberec, Czech Republic.*

Problematics of CFRP robot gripper construction

Potěšil, A., Veselý, M., *LENAM, s.r.o., Liberec, Czech Republic.*

15:00 – 15:30 **Coffee break**

15:30 – 17:00 **Section: TECHNOLOGY AND APPLICATION**

Chairmen: Richard Moravec, Marek Ščerba

Numerical simulation of a vacuum assisted resin infusion using a porous zone

Kazda, A., *VÚTS, a.s., Liberec, Czech Republic.*

Precision bonding of CFRP with application in sports optics

Kupčák, R., Zouhar, J., *BUT in Brno, Brno, Czech Republic.*

Innovation of the thermobarrier solution on a vibration testing machine

Zámečnicková, T., et al., *CTU in Prague, Prague, Czech Republic.*

Time-dependent behaviour of thermoset polymers used in anchorage systems

Vorel, J., Sedláček, R., Vozáb, J., *CTU in Prague, Prague, Czech Republic.*

17:00 **Poster section**

19:00 **Evening party in hotel restaurant La Cave**

Wednesday, October 27, 2021

9:00 – 10:30 **Section: MATERIALS, PROPERTIES, TESTING (part 1)**

Chairmen: Eva Nezbedová, František Socha

Mechanical and fracture mechanics investigations of unidirectionally fibre-reinforced polymer tapes

Lach, R., Langer, B., *Polymer Service GmbH, Merseburg, Germany.*

Key, L. C., Michel, P., *Hochschule Merseburg (HoMe), Fachbereich Ingenieur- und Naturwissenschaften (INW), Merseburg, Germany.*

Tillner, B., Celevics, S., Jahn, I., *Fraunhofer Institut für Mikrostruktur von Werkstoffen und Systemen (IMWS), Halle, Germany.*

How thermic and mechanical analysis helps in design and manufacturing of composites

Kolejka, J., *TA Instruments, division Waters, G.m.b.H.*

Design and validation of motorcycle single side swingarm made of CFRP using digital image correlation and photogrammetry

Gregor, L. *BUT in Brno, Brno, Czech Republic.*

Polymer composites based on PO matrix and hollow glass beads

Kovář, M., Nezbedová, E., *UNO Praha, spol s r. o., Prague, Czech Republic.*

10:30 – 11:00 **Coffee break**

11:00 – 12:15 **Section: MATERIALS, PROPERTIES, TESTING (part 2)**

Chairmen: Eva Nezbedová, František Socha

Electrically spun composite nanofibrous materials

Kuželová Košťáková, E. et al, *TU of Liberec, Liberec, Czech Republic.*

Structural core material: The SAERFOAM series

Šcerba, M., *SAERTEX GmbH, Krnov, Czech Republic.*

Properties of flax and hybrid materials for strength applications

Zouhar, J., Fiala, Z., Joska, Z., *BUT in Brno, Brno, Czech Republic.*

12:15 – 12:30 **Close of the conference**

12:30 – 14:00 **Lunch break**

POSTER SECTION

17:00

Tuesday, October 26, 2021

Development and Tribological Testing of Self-lubricating Composite Foil for Bearings

Melichar J., Mészáros M., Foitlová A., Steiner V., *SVÚM, a.s., Čelákovice, Czech Republic.*

Preparation of Polymer Composites with Thermoplastic Matrix with the Use of Recycled Carbon Fibers

Jeníková, Z., Antoň, J., Sezemský, J., *CTU in Prague, Prague, Czech Republic.*

ORGANIZATION HINTS

Date: October 26 – 27, 2021

Place:



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LH Hotel Dvořák Tábor Congress & Wellness

Hradební 3037,

Tábor 390 01

tel.: 381 212 221

e-mail: recepce@lhdvoraktabor.cz

www: lhdvoraktabor.cz

Conference languages: Czech, Slovak and English

Accommodation:

Accommodation is not included in the participation fee. Accommodation is provided at the LH Hotel Dvořák in Tábor (lhdvoraktabor.cz). However, participants are asked to order the overnight directly in this hotel themselves with the use of promo code **PC2021**.

Participation fee:

The participation fee for a regular participant is **180 EUR** and includes:

- Conference proceedings
- Drinks and lunch during breaks
- Evening party



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