

Blended Intensive Programme 2026

Application of numerical methods for
mechanical behaviour analysis and
experiment comparison

Distance Learning (MS TEAMS):

15 April 2026

In-Person Learning - Room: C421

Veveří 331/95, BRNO, Czech Republic

20–24 April 2026

Partners:

- Brno University of Technology, Czech Republic
- University of Malaga, Spain
- University of Košice, Slovakia
- University of Žilina, Slovakia
- Faculty of Civil Engineering STU Bratislava, Slovakia
- Wrocław University of Science and Technology, Poland
- University of Koszalin, Poland
- University of Warmia and Mazury in Olsztyn, Poland
- Vienna University of Technology, Austria

The BIP is supported by:



Co-funded by
the European Union



FACULTY OF CIVIL
ENGINEERING
institute of structural mechanics



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ENGINEERING of technology, mechanization
and construction management

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BIP ID: 2024-1-CZ01-KA131-HED-000217245-1

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Prof. Stanislav Seitl – Stanislav.Seitl@vut.cz (guarantee)



Monday, 20 April 2026

- 9:30 9:55 Registration and refreshment
- 10:00 10:15 Welcome speech - Organizational information
Prof. David Lehký – head of Institute of Structural
Mechanics (Czech Republic)
- 10:15 12:30 Plane Stress vs. Plane Strain – matrix
Prof. Stanislav Seitl (Czech Republic)
- 12:30 13:30 Lunch
- 13:30 15:00 Hooke's Law and Plastic Behavior of Materials
MSc. Mohammad Sami Al Khazali (BUT, Czech Republic)
- 15:00 15:15 Coffee break
- 15:15 17:00 Excursion to Holedna – lookout tower build in 2020 in the
shape of hyperboloid
MSc. Mohammad Sami Al Khazali (BUT, Czech Republic)
- 19:00 22:00 BIP dinner - Round about table – topics for following
research
**The BIP dinner will be held in the Garden Restaurant & Pub,
Benešova 605/18, Brno, <https://www.gardenpub.cz/>**

Prof. Stanislav Seitl (BUT, Czech Republic)

Bc. Anna Motejzíková Pospíšilová (BUT, Czech Republic)

Prof. Jacek Katzer (University of Warmia and Mazury in Olsztyn, Poland)



Tuesday, 21 April 2026

- | | | |
|-------|-------|--|
| 8:30 | 10:00 | Deformation Work of Structure MSc. Mohammad Sami Al Khazali (BUT, Czech Republic) |
| 10:00 | 10:30 | Coffee break |
| 10:30 | 12:00 | FORMULATION OF FEM FOR TWO-DIMENSIONAL PROBLEMS Prof. Stanislav Seitl (BUT, Czech Republic) |
| 12:00 | 13:00 | Lunch |
| 13:00 | 14:45 | Determination of mechanical fracture parameters of quasi-brittle materials using inverse analysis Prof. David Lehký (BUT, Czech Republic) |
| 14:45 | 15:00 | Coffee break |
| 15:00 | 17:00 | Lecture – A pioneer in formwork and scaffolding technology – lecture room B-226 , 2 nd floor. Ing. Martin Juren – Peri - https://www.peri.cz/ Assoc. prof. Radka Kantová (BUT, Czech Republic) Prof. Jacek Katzer (University of Warmia and Mazury in Olsztyn, Poland) Prof. Grzegorz Lesiuk (Wrocław University of Science and Technology, Poland) Ing. Martina Němcová (BUT, Czech Republic) |

Wednesday, 22 April 2026

8:30 9:30 Ductile, brittle, and quasi-brittle material behaviour
Prof. Stanislav Seitl (BUT, Czech Republic)

9:30 9:55 Coffee break – group photo in front of building A

10:00 11:30 Elucidating Microstructure-Property Relationships for Polycrystalline Alloys with Micromechanical Modeling – lecture room - **IPM Lecture hall 4th floor**
Prof. Alexander Hartmaier (ICAMS, Ruhr-Universität Bochum, Germany)
Prof. Stanislav Seitl (BUT, Czech Republic)

12:15 13:30 Numerical modelling of fracture mechanics problems
Dr. Lucie Malikova (BUT, Czech Republic)

13:30 14:30 Lunch

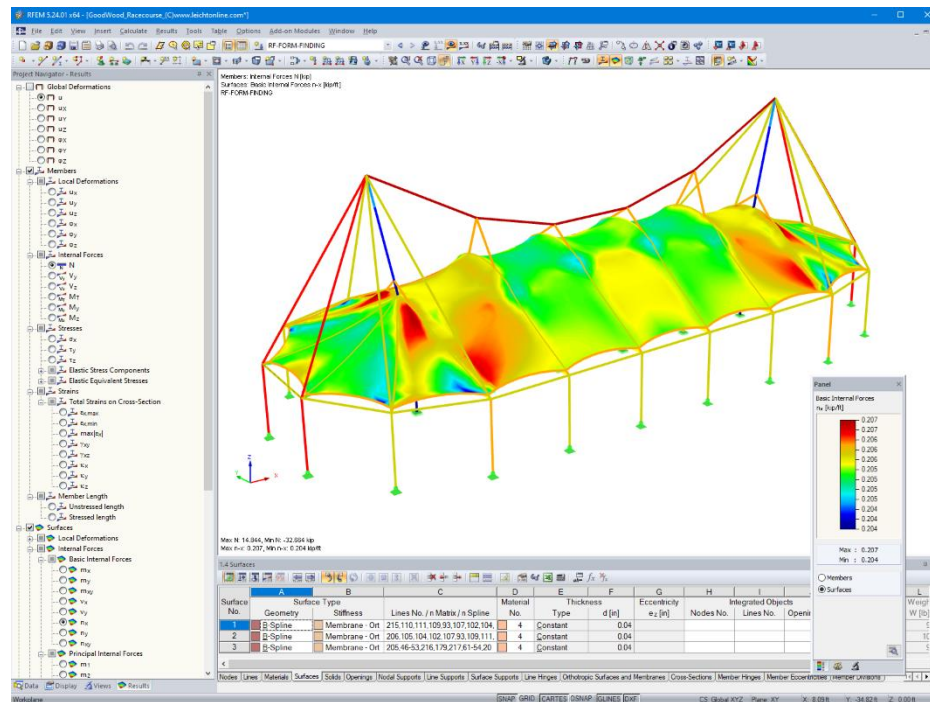
14:30 17:30 Excursion - Former **monastery of the Voršilki**, corner of Josefská and Orlí streets, https://www.cirkev.cz/zacina-dlouho-ocekavana-rekonstrukce-brnenskeho-klastera-vorsilek_67325
Ing. Rostislav Doubek (BUT, Czech Republic)
Ing. Martina Němcová (BUT, Czech Republic)
Assoc. prof. Radka Kantová (BUT, Czech Republic)
Prof. Jacek Katzer (University of Warmia and Mazury in Olsztyn, Poland)



Thursday, 23 April 2026

9:00 10:30 **MeshCraft**- history, architecture, principles, design and mechanics of bubbles wherever you look

Dr. Rostislav Lang, (BUT, Czech Republic)
MSc. Zbyněk Zajac, (BUT, Czech Republic)
MSc. Ondrej Holis, (BUT, Czech Republic)
Dr. David Juračka (VSB-TU Ostrava, Czech Republic)
Dr. Horňáková Marie (VSB-TU Ostrava, Czech Republic)



12:30 13:30 Lunch

13:30 16:00 **MeshCraft**- Form-finding, material cutting patterns, properties, implementation

Dr. Rostislav Lang, (BUT, Czech Republic)
MSc. Zbyněk Zajac, (BUT, Czech Republic)
MSc. Ondrej Holis, (BUT, Czech Republic)
Dr. David Juračka (VSB-TU Ostrava, Czech Republic)
Dr. Horňáková Marie (VSB-TU Ostrava, Czech Republic)

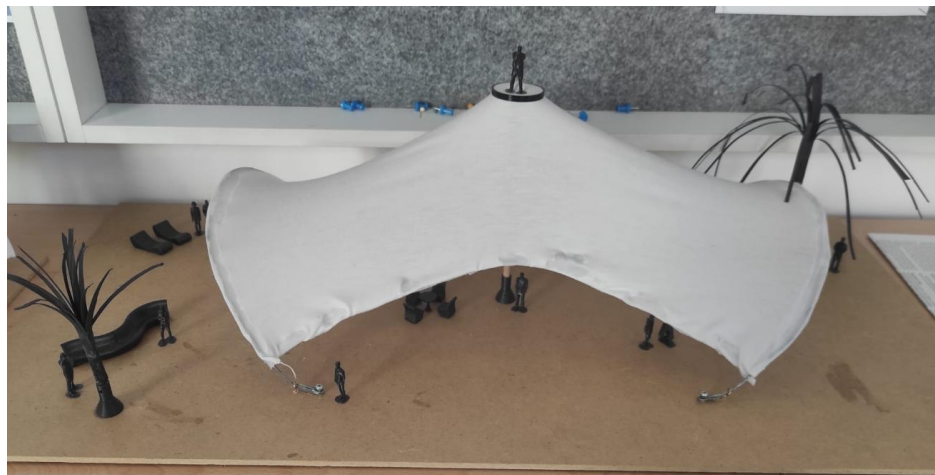
15:45 16:15 Coffee break

Friday, 24 April 2026

9:00 9:45 MeshCraft- Discussion of the principles and theoretical foundations of the practical task
Dr. Rostislav Lang, (BUT, Czech Republic)
MSc. Zbyněk Zajac, (BUT, Czech Republic)
MSc. Ondrej Holis, (BUT, Czech Republic)
Dr. David Juračka (VSB-TU Ostrava, Czech Republic)
Dr. Horňáková Marie (VSB-TU Ostrava, Czech Republic)

9:45 10:00 Coffee break

10:00 12:00 MeshCraft - Making models from wire, bubble mixture and fabric
Dr. Rostislav Lang, (BUT, Czech Republic)
MSc. Zbyněk Zajac, (BUT, Czech Republic)
MSc. Ondrej Holis, (BUT, Czech Republic)
Dr. David Juračka (VSB-TU Ostrava, Czech Republic)
Dr. Horňáková Marie (VSB-TU Ostrava, Czech Republic)



12:00 12:15 Presentation and discussion of the results of
Closing ceremony – wrap up
Prof. Stanislav Seitl (BUT, Czech Republic)
Prof. David Lehký – (BUT, Czech Republic)
Bc. Anna Motejzíková Pospíšilová (BUT, Czech Republic)
Prof. Jacek Katzer (University of Warmia and Mazury in Olsztyn, Poland)

12:30 13:30 Lunch

Faculty of Civil Engineering, Brno University of Technology

Veveří 331/95, Brno

**Lunch
Canteen 1st floor**

**IPM CAS
Lecture Wednesday 22. 4.
Hall at 4th floor**



**Building B
Lecture Tuesday 21. 4.
B -226 at 2nd floor**

**Building A
Main entrance**

**Building C
4th floor**



**Institute of Structural Mechanics, Faculty of Civil Engineering,
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Veveří 331/95, Brno, Czech Republic**

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