

# Blended Intensive Programme

## Material and Structural Integrity Aspects

**22–26 April 2024,**

**Veveří 331/95, BRNO, Czech Republic**

**Room: C421**

### Partners:

- Brno University of Technology, Czech Republic
- Slovak University of Technology in Bratislava, Slovakia
- University of Malaga, Spain
- University of Sevilla, Spain
- University of Warmia and Mazury in Olsztyn, Poland
- University of Žilina, Slovakia
- Vienna University of Technology, Austria
- Wrocław University of Science and Technology, Poland

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## Monday, 22 April 2024

9:30	9:55	Registration and refreshment
10:00	10:15	Welcome speech Prof. Drahomír Novák – head of Institute of Structural Mechanics
10:15	12:30	Fracture and Fatigue fundamentals Assoc. prof. Grzegorz Lesiuk (Wroclaw, Poland)
12:30	13:30	Lunch
13:30	15:00	Recycled Aggregate Concrete – a building material with a high potential Prof. Ildiko Merta (TU Wien, Austria)
15:00	15:15	Coffee break
15:15	17:00	Excursion to Holedna – lookout tower build in 2020 in the shape of hyperboloid Mohammad Sami Al Khazali (BUT, Czech Republic)



## Tuesday, 23 April 2024

8:00 9:40 Fatigue properties: S–N curve and Miner's rule  
**Mohammad Sami Al Khazali (BUT, Czech Republic)**

9:40 10:00 Coffee break

10:00 11:40 Determination of mechanical fracture parameters of quasi-brittle materials using inverse analysis  
**Prof. David Lehký (BUT, Czech Republic)**

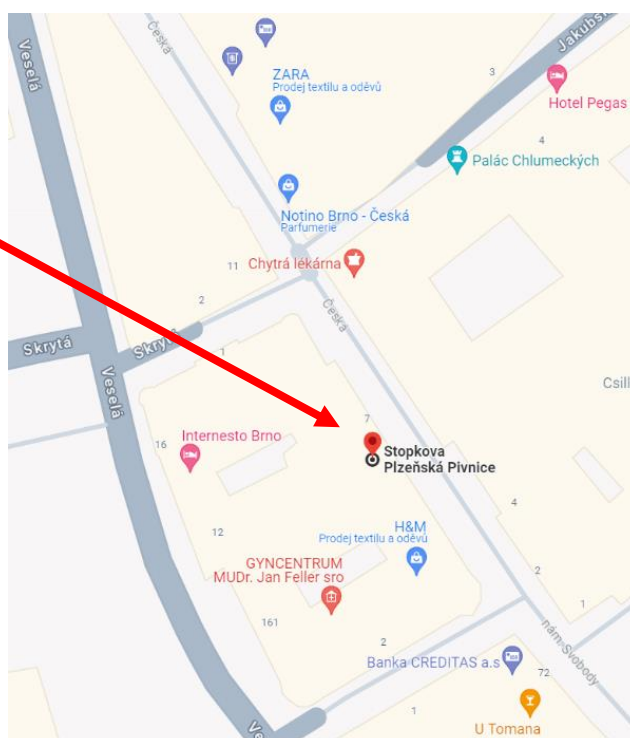
12:00 13:30 Lunch

13:30 14:45 Optimization of recycled concrete materials and their BIM-based characteristics  
**Dr. Václav Venkrbec (BUT, Czech Republic)**

14:45 15:00 Coffee break

15:15 17:00 Excursion to Yellow hill – company Zlínstav  
**Dr. Václav Venkrbec (BUT, Czech Republic)**

19:00 22:00 BIP dinner  
**The BIP dinner will be held in the Stopkova Pivnice, Česká 163, Brno, <https://www.kolkovna.cz/en/>**



## Wednesday, 24 April 2024

9:00 9:45 Ductile, brittle, and quasi-brittle material behaviour  
Assoc. prof. Stanislav Seitl (BUT, Czech Republic)

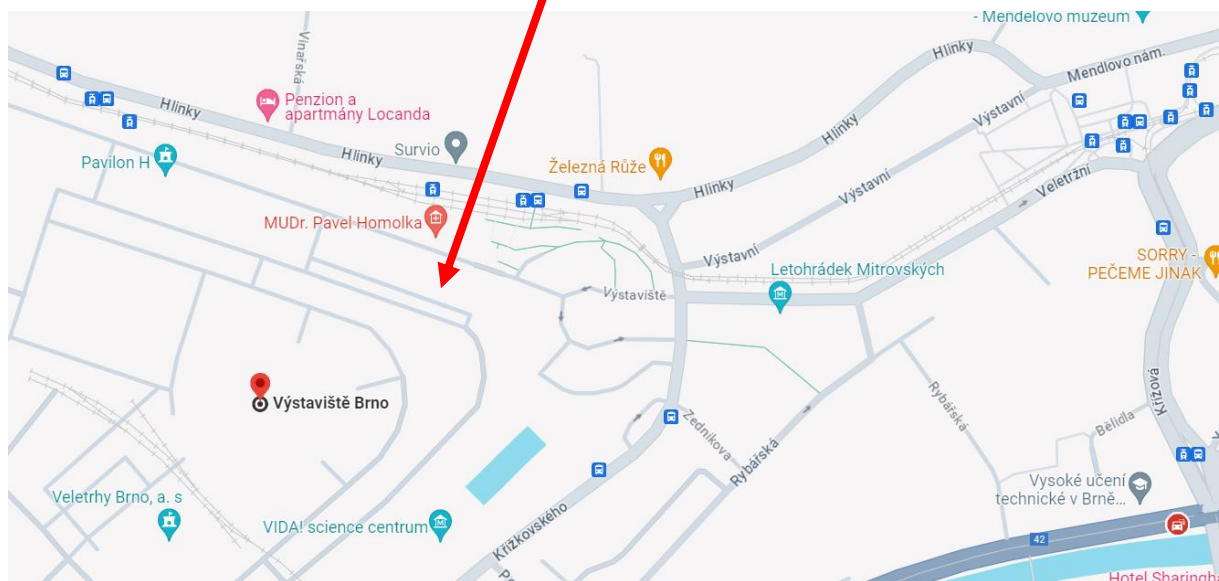
9:45 10:00 Coffee break

10:00 11:15 Excursion to IPM, CAS, Zizkova 22, Brno, [www.ipm.cz](http://www.ipm.cz)  
Assoc. prof. Radka Kantová (BUT, Czech Republic)

11:15 12:30 Numerical modelling of fracture mechanics problems  
Dr. Lucie Malikova (BUT, Czech Republic)

12:30 13:30 Lunch

13:30 19:00 Excursion to Building Fair Brno,  
<https://www.bvv.cz/en/building-fair-brno>  
Ing. Martina Němcová (BUT, Czech Republic)



Thursday, 25 April 2024

10:00 12:00 Excursion to Advanced Materials, Structures and Technologies science centre, <https://admas.eu/en/>  
**Assoc. prof. Stanislav Seitl (BUT, Czech Republic)**  
**The AdMaS excursion meeting point is at main gate of AdMaS, street Purkyňova 139, Brno.**



12:30 13:30 Lunch at Faculty of Chemistry BUT, Purkyňova 464/118, Brno

**C 421, Veveří 331/95, BRNO**

14:00 15:45 Mechanical behaviour of complex and heterogeneous materials at intermediate and high strain rates: Analysis through state-of-the-art experimental methods combined with X-ray imaging  
**Dr. Tomáš Fíla, (ITAM, Czech Academy of Sciences)**

15:45 16:15 Coffee break



## Friday, 26 April 2024

9:00 9:45 Round about table – topics for following research  
Assoc. prof. Stanislav Seitl (BUT, Czech Republic)

9:45 10:00 Coffee break

10:00 12:00 Introduction to Low cycle fatigue  
Prof. Jaroslav Polák (IPM, Czech Academy of Sciences)  
Holder of Ernst Mach Honorary Medal for Merit in Physical  
Sciences

12:00 12:15 Closing ceremony

12:30 13:30 Lunch

Faculty of Civil Engineering, Brno University of Technology

Veveří 331/95, Brno

Lunch  
Canteen

IPM CAS  
Excursion Wednesday 24. 4.



Main  
entrance

Building C





**Institute of Structural Mechanics, Faculty of Civil Engineering,**

**Brno University of Technology**

**Veveří 331/95, Brno, Czech Republic**

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