

BLENDED INTENSIVE PROGRAMME



BIP

**FRACTURE MECHANICS AND
FATIGUE LIFETIME PREDICTIONS OF
CRACKED COMPONENTS AND
STRUCTURES**

08-12.09.2025

A **Blended Intensive Programme (BIP)** is a short, intensive course focused on selected academic topics and delivered through innovative teaching methods. These mobilities are organized jointly by universities cooperating within the Erasmus+ Programme.

CONTACT US



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<https://bip.kmim.wm.pwr.edu.pl>

PARTNERS



- Wroclaw University of Science and Technology (Host)
- RTU RIGA
- University of Porto
- Brno University of Technology BUT Brno
- LA Sapienza Roma
- Politehnica Timisoara
- University of Belgrade

LECTURES AND LABS

- ➔ **Grzegorz Lesiuk (WUST) - 4h**
Fatigue crack growth rate analysis and predictions using various models (lecture and lab)
- ➔ **Grzegorz Lesiuk (WUST) - 2h**
Simulations and training
- ➔ **Michał Smolnicki (WUST) - 4h**
Numerical simulation of damage and fracture in metals and composites - Lecture and case studies
- ➔ **Aleksandar Grbovic (UBG) - 2h**
(x)FEM simulation of fatigue crack growth with Abaqus and ANSYS - Lecture
- ➔ **Stanislav Seitzl (BUT) - 2 h**
Selected fatigue models for S-N curve
- ➔ **Aleksandar Sedmak (UBG) - 2h**
(x)FEM simulation of fatigue crack growth with Abaqus and ANSYS - case studies
- ➔ **Marina Cerpinska (RTU) - 4h**
Statistics of engineering failures due to fatigue, Case studies of engineering failures due to fatigue.
- ➔ **Jan Klusák (BUT) -2 h**
Giga Cyclic fatigue of metallic materials
- ➔ **Pietro Foti (La Sapienza) - virtual 2h**
Energy-based Local Approaches for fatigue design
- ➔ **SEMINARY - 6h**
Fatigue analysis and case studies