

## **MINISYMPOSIUM**

# **STRUCTURAL INTEGRITY AND FATIGUE ASSESSMENT OF PRESSURIZED METALLIC COMPONENTS (PRESSURE VESSELS, PIPES, HYDRAULIC COMPONENTS) AND MATERIALS**

### **1. Thematic session title**

Structural integrity and fatigue assessment of pressurized metallic components (pressure vessels, pipes, hydraulic components) and materials (SIPRESS)

### **2. Organizers, including affiliations**

Michał Stosiak (Wrocław University of Science and Technology, Poland)

Wojciech Błazejewski (Wrocław University of Science and Technology, Poland)

Michał Barcikowski (Wrocław University of Science and Technology, Poland)

Shun-Peng Zhu (University of Electronic Sciences, Chengdu, China)

Grzegorz Lesiuk (Wrocław University of Science and Technology, Poland)

José António Correia (University of Porto, Portugal)

Abilio M.P. De Jesus (University of Porto, Portugal)

Roman Frątczak (Nobo Solutions S.A., Wrocław, Poland)

Bergant Anton (University of Ljubljana, Ljubljana, Slovenia)

Urbanowicz Kamil (West Pomeranian University of Technology, Szczecin, Poland)

Michiel Brongers (Engineering Mechanics Corporation of Columbus, OH, USA)

Poh-Sang Lam (Savannah River National Laboratory, Materials Science and Technology, Savannah River Site, Aiken, South Carolina, USA)

Vladimír Chmelko (Slovak University of Technology in Bratislava, Faculty of Mechanical Engineering, Institute of applied mechanics and mechatronics, Bratislava, Slovak Republic)

### **3. Corresponding organizer and contacts (e.g. e-mail, phone)**

***Prof. Michal Stosiak***

Faculty of Mechanical Engineering

Wrocław University of Science and Technology

Email: [michal.stosiak@pwr.edu.pl](mailto:michal.stosiak@pwr.edu.pl)

#### **4. Short description of the symposium including the scope and target public**

The symposium is intended to be a forum for discussing the latest developments in structural integrity, inspection, monitoring, operation, repair, maintenance, fatigue, fracture mechanics, structural design, stability, safety, reliability, and computation and computer simulation in both predetermined and dynamic states. Contributions are expected from design and construction engineers, scientists, consultants, technical advisors in the areas of design and technology for the manufacture of high-pressure loaded components such as vessels, hoses, hydraulic cylinders, which are used in the agricultural, offshore, marine, mining, heavy-mobile, aerospace and many other industries.

The goal of the Thematic Session on Structural integrity and fatigue assessment of pressurized metallic components (pressure vessels, pipes, hydraulic components) and materials (SIPRESS) is to provide a platform to present the last research advances on:

- Design and Construction
- Structural Integrity
- Structural Safety and Reliability
- Fatigue and Fracture Mechanics
- Bi- or multimaterials construction and technology
- Structural Dynamic and Computational Fluid Dynamics

Selected papers of the I-ICMFM2020-SIPRESS will be encouraged to be submitted to journals associated to the ICMFM2020. I-ICMFM2020-SIPRESS symposium is envisaged as an ESIS activity promoted by the ESIS-TC12.

Please submit your work by email to **micHAL.stosiak@pwr.edu.pl** or **icmfmx@pwr.edu.pl** with subject G-ICMFMXX-SIPRESS