









Inftitut für Hüttenkunde, Hauptanficht.

# Wrocław, 19<sup>th</sup> January 2013

The 19<sup>th</sup> Bohemian-Saxon-Silesian Mechanics-Colloquium is organized by the Institute of Materials Science and Technical Mechanics (Faculty of Mechanics) of the Wrocław University of Technology. It is a great pleasure for us to invite you to a presentation of our scientific program.

The aim of the "Bohemian-Saxon-Silesian Mechanics-Colloquium" is to bring together colleagues to exchange recent scientific results, to provide a forum for young researchers for first presentations and last not least to improve the personal understanding of all colleagues working in the wide field of mechanics of solids and fluids.

Since we live in the heart of Europe it seems to be a good idea to support the unification of neighbouring countries such as the provinces Bohemia, Saxony and Lower Silesia from the Czech Republic, Germany and Poland.

# Programme

- 8:30–9:30 Come together (coffee/tea/juice/snacks).
- **9:30–9:45** Welcome addresses and information about building B1, Faculty of Mechanics, and Institute of Materials Science and Technical Mechanics.
- 9:45–10:00 Optical fibre based strain monitoring method for high pressure composite vessels for gaseous fuel storage. W. Błażejewski, P. Gąsior, J. Kaleta.
- 10:00–10:15 Homogenization and identification of effective material parameters of reinforced composite.
   T. Czapliński, G. Ziętek.
- 10:15–10:30 Idea of a new type of heat pump based on magnetocaloric effect — experimental verification.
  D. Lewandowski, A. Czernuszewicz.

 10:30–10:45 Composite pontoon for military floating bridge. Concept, design and testing. M. Barcikowski, W. Błażejewski, E. Juskowiak, R. Rybczyński.

### 10:45–11:20 Coffee Break (coffee/tea/juice/snacks).

- 11:20–11:35 Damping of impact forces by cellular composites filled with magneto-rheological fluids.
   D. Bodniewicz, D. Lewandowski, J. Kaleta.
- 11:35–11:50 Magneto-rheological elastomer based on thermoplastic matrices — experiments and application. J. Kaleta, M. Królewicz, M. Przybylski, D. Lewandowski.
- 11:50–12:05 Magneto-mechanical properties of monolithic Terfenol-D versus epoxy-bonded composite with Terfenol-D powder. J. Kaleta, R. Mech, P. Wiewiórski.
- 12:05–12:20 Residual strength of composite damaged by high-velocity impact. M. Barcikowski.
- 12:20–12:35 Evaluation of selected mechanical properties of ultra thin oxide coatings obtained by the sol-gel method. J. Krzak-Roś, A. Donesz-Sikorska, A. Szczurek.
- **12:40–13:40** A visit to the selected laboratory and a short tour around the renovated building B1.

13:50–14.50 Conclusions and Lunch

#### Venue:

Institute of Materials Science and Technical Mechanics, (Faculty of Mechanics), Wrocław University of Technology. Building B–1, 50–372 Wrocław, Smoluchowskiego str 25.

Use this link to open the map (in Web browser) and plan your trip using "Directions" link.

# Registration:

Preferably via e-mail

#### Contact:

Wroclaw University of Technology Institute of Materials Science and Applied Mechanics Wybrzeże Wyspiańskiego 27 50-370 Wrocław, POLAND

## Tel.: (0048)713202790 (0048)713202766 Fax: (0048)713211235

Dr. Wojciech Myszka e-mail: wojciech.myszka@pwr.wroc.pl Prof. Jerzy Kaleta e-mail: jerzy.kaleta@pwr.wroc.pl

