



The Budapest University of Technology and Economics  
kindly invites you to the

## CENTRAL EUROPEAN ROCK STRESS COURSE IN BUDAPEST

Prof Ove Stephansson and Dr Arno Zang

GFZ - German Research Centre for Geosciences,  
Potsdam

### List of Topics

- Rock Stress Terminology and Definitions
- Fracture Mechanics and Rock Failure
- Measuring Crustal Stress; Borehole and Core-based methods
- Borehole Breakouts
- Hydraulic Fracturing
- Best Estimate Stress Model
- World Stress Map and its Application to Science and Industry
- Special Topic: Geothermal Potential & Resources in Hungary



October 4-5<sup>th</sup> 2016

Budapest University of Technology and Economics, Hungary



M Ű E G Y E T E M 1 7 8 2



The course hosted by the Budapest University of Technology and Economics and co-organized by Golder Associates Hungary will be held by **Prof. Ove Stephansson** and **Dr. Arno Zang**, GFZ - German Research Centre for Geosciences, Potsdam. The event aims at providing training on recent developments of rock stress and its measurement in the Earth's Crust as well as on its applicability in science and industry. Guest lecture will be held by **Prof Frank Horváth**.

The language of the course is English.

## Course Material

The course is following the main structure of the book 'Stress Field of the Earth's Crust' by Arno Zang and Ove Stephansson, Springer Netherlands, 322 pp, 2010 with a DVD containing extra video materials.

## Lecturers

**Ove Stephansson** (GFZ - German Research Centre for Geosciences, Potsdam, Germany) is an Engineering Geologist and Rock Mechanics specialized in the application of rock stress and its measurement.

**Arno Zang** (GFZ - German Research Centre for Geosciences, Potsdam, Germany) is a Geophysicist specialized in rock fracture mechanics and stress estimation from deep boreholes.

**Frank Horváth** (Department of Geophysics and Space Science, Eötvös Loránd University, Budapest, Hungary) is a Geophysicist specialized in Geodynamics

## Schedule

Day 1 (October 4<sup>th</sup> 2016)

- Introduction to Rock Stress, OS
- Rock Stress Terminology, OS
- Strength and Failure of Rock, AZ
- Fracture Mechanics, AZ
- Crustal Stress Models, AZ
- Borehole methods; Borehole Breakouts and Hydraulic Fracturing, OS
- Core-based Methods, AZ

Day 2 (October 5<sup>th</sup> 2016)

- Local Stress Data (KTB, etc), OS+AZ
- Best Estimate Stress Model, OS
- World Stress Map and its Application to Science and Industry, OS
- Geothermal Resources & Potentials in Hungary, FH
- Conclusions & Closure, OS+AZ



## Venue

Address:

Building K (Central Building), Budapest University of Technology and Economics

1111 Budapest, Műegyetem rkp. 1.

<http://www.bme.hu/?language=en>

Event room may vary, the participants will be informed well in advance

## Registration

Registration fees:

- Students of Hungarian Universities: up to 10 Students may receive free attendance after submitting an application that includes a CV in English and a A4, maximum one-page-long application letter
- Other students: 50 €
- Regular participant: 160 €, including the course material book 'Stress Field of the Earth's Crust' by Arno Zang and Ove Stephansson

The book may be purchased for 80 €

Please send your registration to the contact below. You will receive the registration details and form afterwards.

## Contact

**Márton Pál Farkas**

Geophysicist at Golder Associates Hungary &

Geophysics PhD Student at GFZ - German Research Centre for Geosciences, Germany

[farkas@gfz-potsdam.de](mailto:farkas@gfz-potsdam.de), Tel.: +36205528833

## Organizing Committee

|  |   |   |   |
|--|---|---|---|
| <b>Prof Ákos Török</b><br>Head of Department<br>Department of Engineering Geology and<br>Geotechnics<br>Budapest University of Technology and<br>Economics | <b>Balázs Vásárhelyi</b><br>Associate Professor | <b>Gyula Dankó</b><br>Principal, Leader of<br>Nuclear Team<br><br>Golder Associates Hungary | <b>Márton Pál Farkas</b><br>Geophysicist & PhD<br>Student |
|--|---|---|---|



**WE LOOK FORWARD TO SEEING YOU!**

