





## Report on 50<sup>th</sup> Meeting of Young Professionals



The 50<sup>th</sup> Meeting of the Young Professionals (ISZA) was held on March 29-30, 2019 in Ráckeve, at the Duna Relax & Event Hotel, jointly organized by MGE and MFT. The participation of young professionals was strongly supported by both associations. Participants were given 29 oral presentations and 9 posters. The poster section was again in two parts, and on Friday, before lunch, in a short 3-minute presentation, everyone could explain the essence and the most important results of the poster; the actual presentation of the posters and the discussion was possible in the 1 hour before dinner. The presentations were evaluated by a 6-member jury for their own work, its content, stories and presentation.

Considering the anniversary, the 6 jury members also held a 5-minute short presentation of their own ISZA experiences, so they were invited to direct jury members who even gave themselves as students. This year, the jury was formed by László Bereczki, Csaba Attila Kovács, István János Kovács, Szilvia Kövér, Attila Ősi and Péter Zahuczki.













High-quality presentations have revealed to everyone the professional skills and demanding research work of young researchers. On the basis of the jury's evaluation, the first prize in the poster category was shared, while the third place in the practical category was also awarded. In addition, 17 special awards were awarded due to the offerings of companies and institutes. The slides of the presentations will be available on the <a href="http://isza.hu/isza30/index.php/hu/site">http://isza.hu/isza30/index.php/hu/site</a>, and the photos taken at the event are on our Facebook page. Congratulations to all participants, and we wish you more successful work!

On behalf of the organizing committee:

Judit Petrovszki











# The 50<sup>th</sup> Meeting of Young Professionals' Award Winners:

### **Practical Category:**

**I.** Porosity-Permeability Estimations based on Sonic Velocity, Critical Porosity, and Rock Typing Approaches

## Muhammad Nur Ali Akbar

University of Miskolc

II.: Complex evaluation of fluid flow systems and hydraulic trapping of hydrocarbons in the broader area of Hajdúszoboszló and Ebes, Hungary

**Zsóka Szabó,** B. Zentai-Czauner, J. Mádl-Szőnyi József and Erzsébet Tóth Endowed Hydrogeology Chair, Department of Physical and Applied Geology, Eötvös Loránd University, Budapest

III.: Heterogeneous geochemical processes in mine waste dumps —Assessing the behaviour of potentially toxic elements (PTEs) in mine waste dumps and tailings in the Recsk mining area

**Péter Szabó**<sup>1</sup>, Gy. Jordán<sup>2</sup>, G. Földing<sup>3</sup>, I. Gaburi<sup>3</sup>, Cs. Alföldi<sup>3</sup>, I. Kiss<sup>4</sup>, M. Balázs<sup>4</sup>, I. Kovács<sup>4</sup>, Cs. Szabó<sup>5</sup>, Jun Yao<sup>6</sup>
<sup>1</sup>Doctoral School of Environmental Sciences, Eötvös L. Univ.
<sup>2</sup>Dept. of Applied Chemistry, Szent István Univ., <sup>3</sup>Mecsekérc Ltd., Pécs, <sup>4</sup>Division for Biotechnology, Bay Zoltán Nonprofit Ltd, Szeged, <sup>5</sup>Lithosphere Fluid Research Lab, Eötvös L. Univ., <sup>6</sup>Institute for Earth Sciences, China Univ. of Geosciences in Beijing, Beijing, China

III.: Complex geophysical survey of Keresztes-halom András Virók<sup>1</sup>, K. Szilágyi<sup>3</sup>, T. Lukács<sup>1</sup>, Zs. Klembala<sup>2</sup> <sup>1</sup>Eötvös L. Univ., Dept of Geophysics and Space Science, <sup>2</sup>Budavári Ingatlanfejlesztő és Üzemeltető Nonprofit Kft., <sup>3</sup>Budapest Univ. of Technology and Economics, Faculty of Civil Engineering

#### **Theoretical Category:**

**I.** Inherited Triassic salt structures in the Silica Nappe, Aggtelek Mts.

**Éva Oravecz**<sup>1</sup>, L. Fodor<sup>2,3</sup>, G. Héja<sup>2</sup>

<sup>1</sup>Eötvös L. Univ., <sup>2</sup>MTA-ELTE Geological, Geophysical and Space Sci. Res. Gr., <sup>3</sup>MTA-ELTE Volcanological Res. Gr.

**II.** Existence of thermal convection in the Buda Thermal Karst: free or forced?

### Márk Szijártó

Eötvös L. Univ., Dept of Geophysics and Space Sci.; József and Erzsébet Tóth Endowed Hydrogeology Chair, Budapest

III.: 'Water' content of quartz from pyroclastic fall deposits (Bükk Foreland Volcanic Area) – first step towards a new correlation tool

**Mátyás Hencz**<sup>1</sup>, T. Biró<sup>1</sup>, I. J. Kovács<sup>2</sup>, Zs. Pálos<sup>3</sup>, D. Kesjár<sup>4</sup>, D. Karátson<sup>1</sup>

<sup>1</sup>Dept of Physical Geography, Inst. of Geography and Earth Sci., Eötvös L. Univ., <sup>2</sup>Geodetic and Geophysical Inst., HAS RCAES, <sup>3</sup>Lithosphere Fluid Research Lab, Eötvös L. Univ., <sup>4</sup>Inst. for Geological and Geochemical Res., HAS RCAES

#### **Poster Category:**

**I.** Pannonian mollusc biostratigraphy of two large calcareous marl sections from opposite margins of the Drava Trough

Dániel Botka<sup>1</sup>, I. Magyar<sup>2,3</sup>, K. Sebe<sup>4</sup>

<sup>1</sup>Dept. of Palaeontology, Eötvös L. Univ., <sup>2</sup>MOL Plc., <sup>3</sup>MTA-MTM-ELTE Res. Gr. for Paleontology, <sup>4</sup>Dept. of Geology and Meteorology, Univ of Pécs

**I.** From continental rifting to Alpine shortening: preliminary structural observations in the Trojane Anticline, Middle Slovenia

**Benjámin Scherman**<sup>1</sup>, L. Fodor<sup>1,2</sup>, Sz. Kövér<sup>1</sup>
<sup>1</sup>MTA-ELTE Geological, Geophysical and Space Science Res. Gr. <sup>2</sup>MTA-ELTE Volcanology Res. Gr.

III.: Five decades of atmospheric electric potential gradient measurements at the Széchenyi István Geophysical Observatory

**Attila Buzás**<sup>1,2</sup>, V. Barta<sup>1</sup> and J. Bór<sup>1</sup>

<sup>1</sup>Geodetic and Geophysical Inst., Res. Centre for Astronomy and Earth Sci., HAS <sup>2</sup>Dept of Geophysics and Space Sci., Faculty of Science, Eötvös L. Univ.

#### **Special awards:**

#### **First Presenter Award:**

Examinations of the neotectonic of the Pannonian basin based on 2D restoration and other methods

Kitti Váradi





100th anniversary of Roland Eötvös (1848-1919), physicist, geophysicist, and innovator of higher education Commemorated in association with UNESCO







Dept of Geophysics and Space Science, Eötvös L. Univ.

#### **Biocentrum Kft.:**

'Water' content of quartz from pyroclastic fall deposits (Bükk Foreland Volcanic Area) – first step towards a new correlation tool

**Mátyás Hencz**<sup>1</sup>, T. Biró<sup>1</sup>, I. J. Kovács<sup>2</sup>, Zs. Pálos<sup>3</sup>, D. Kesjár<sup>4</sup>, D. Karátson<sup>1</sup>

<sup>1</sup>Dept of Physical Geography, Inst. of Geography and Earth Sci., Eötvös L. Univ., <sup>2</sup>Geodetic and Geophysical Inst., HAS RCAES, <sup>3</sup>Lithosphere Fluid Research Lab, Eötvös L. Univ., <sup>4</sup>Inst. for Geological and Geochemical Res., HAS RCAES

#### Elgoscar 2000 Kft.:

Complex geophysical survey of Keresztes-halom

**András Virók**<sup>1</sup>, K. Szilágyi<sup>3</sup>, T. Lukács<sup>1</sup>, Zs. Klembala<sup>2</sup> <sup>1</sup>Eötvös L. Univ., Dept of Geophysics and Space Science, <sup>2</sup>Budavári Ingatlanfejlesztő és Üzemeltető Nonprofit Kft., <sup>3</sup>Budapest Univ. of Technology and Economics, Faculty of Civil Engineering

## **Geo-Log Kft.:**

Porosity-Permeability Estimations based on Sonic Velocity, Critical Porosity, and Rock Typing Approaches

# Muhammad Nur Ali Akbar

University of Miskolc

#### Magyar Bányászati és Földtani Szolgálat:

Study of quartz xenocrysts and mafic enclaves from "Laleaua Alba" ("White Tulip") composite dacite dome, Gutai Mts., Romania

**Ákos Kővágó**<sup>1</sup>, I. Kovács<sup>2</sup>, S. Józsa<sup>1</sup>, M. Kovács<sup>3</sup>, Cs. Szabó<sup>1</sup>

<sup>1</sup>Dept of Petrology and Geochemistry Eötvös L. Univ., <sup>2</sup>Geodetic and Geophysical Inst. Res. Centre for Astronomy and Earth Sci. HAS, <sup>3</sup>Technical Univ. Cluj-Napoca, North Univ. Centre Baia Mare,

#### Mecsekérc Zrt.:

A wetland mapping method by temporal integrals derived from H/A/alpha decomposition of Sentinel-1 images

**Vivien Pacskó**<sup>1,2</sup>, O. Petrik<sup>2</sup>, Z. Friedl<sup>1,2</sup>, G. Nádor<sup>2</sup>, D. Kristóf<sup>2</sup>, M. Belényesi<sup>2</sup>, G. Molnár<sup>1,3</sup>

<sup>1</sup>Eötvös L. Univ, <sup>2</sup>Government Office of the Capital City Budapest, Dept. of Geodesy Remote Sensing and Land

Offices, Division of Geodesy and Remote Sensing, <sup>3</sup>MTA-ELTE Geological, Geophysical and Space Sci. Res. Gr.

# Eötvös Loránd Geofizikai Alapítvány, Böckh János award:

Investigation of groundwater flow system and their driving forces in the Danube-Tisza Interfluve by numerical modeling

**Viktor Dániel Balogh,** Sz. Simon, Á. Tóth Dept of Physical and Applied Geology, Eötvös L. Univ.

#### Magyarhoni Földtani Társulat special award:

Textural observations and Raman spectroscopic studies on Praid salt rocks (Transylvania)

## Orsolya Gelencsér

Lithosphere Fluid Res. Lab, Dept. of Petrology and Geochemistry, Inst. of Geography and Earth Sci., Eötvös Univ.

# Magyarhoni Földtani Társulat Ifjúsági Bizottság:

Metamorphic history of Algyő High

#### Henrietta Kondor

Dept of Mineralogy, Geochemistry and Petrology, Univ. of Szeged

#### **Mining Support kft.:**

Radionuclide content of groundwater in hydrogeological approach – case study of the adjacent areas of Lake Velence

Petra Baják, K. Csondor, A. Erőss

Erzsébet and József Tóth Endowed Hydrogeology Chair, Dept of Physical and Applied Geology, Eötvös L. Univ.

#### Min-Geo Kft.:

Heterogeneous geochemical processes in mine waste dumps –Assessing the behaviour of potentially toxic elements (PTEs) in mine waste dumps and tailings in the Recsk mining area

**Péter Szabó**<sup>1</sup>, Gy. Jordán<sup>2</sup>, G. Földing<sup>3</sup>, I. Gaburi<sup>3</sup>, Cs. Alföldi<sup>3</sup>, I. Kiss<sup>4</sup>, M. Balázs<sup>4</sup>, I. Kovács<sup>4</sup>, Cs. Szabó<sup>5</sup>, Jun Yao<sup>6</sup>
<sup>1</sup>Doctoral School of Envir. Sci., Eötvös L. Univ. <sup>2</sup>Dept. of Applied Chemistry, Szent István Univ., <sup>3</sup>Mecsekére Ltd., <sup>4</sup>Division for Biotechnology, Bay Zoltán Nonprofit Ltd, Szeged, <sup>5</sup>Lithosphere Fluid Research Lab, Eötvös L. Univ., <sup>6</sup>Inst. for Earth Sci., China Univ. of Geosciences in Beijing











#### **MOL Nyrt:**

Gas hydrate generation in Lake Pannon? **Zsófia Harold**<sup>1</sup>, A. Balázs<sup>2</sup>, A. Bartha<sup>3</sup>, Á. Szalay<sup>4</sup>

<sup>1</sup>Dept of Physical and Applied Geology, Eötvös L. Univ.,

<sup>2</sup>Dept of Sciences, Università Degli Studi Roma Tre, Rome,

<sup>3</sup>Schlumberger, Software Integrated Solutions (SIS), Aachen,

<sup>4</sup>Independent Exploration Geologist, Szolnok

#### **O&G** Development Kft.:

Complex evaluation of fluid flow systems and hydraulic trapping of hydrocarbons in the broader area of Hajdúszoboszló and Ebes, Hungary **Zsóka Szabó,** B. Zentai-Czauner, J. Mádl-Szőnyi József and Erzsébet Tóth Endowed Hydrogeology Chair, Department of Physical and Applied Geology, Eötvös Loránd University, Budapest

### **Vermilion Energy Kft.:**

Reservoir Characterization using Artificial Neural Network based Well Log Analysis

# Sabuhi Tapdigli

University of Miskolc

# **Doktoranduszok Országos Szövetsége:**

Geotechnical, geological and hydrogeological investi-gations on a DNAPL contaminated area

#### Ramóna Matula

BIOCENTRUM Envir. Protection and Water Managm. Ltd.

## <u>Dövényi Péter – Horváth Ferenc díj:</u>

Seismic potential in Nyírség

#### Bence Ádám Braun

Department of Geophysics, University of Miskolc

#### **Audience Award:**

Mátyás Hencz et al.: 'Water' content of quartz from pyroclastic fall deposits (Bükk Foreland Volcanic Area) – first step towards a new correlation tool













