

SCIENTIFIC AND TECHNICAL  
UNION OF MINING, GEOLOGY  
AND METALLURGY



FEDERATION OF  
THE SCIENTIFIC ENGINEERING  
UNIONS IN BULGARIA



## VIII INTERNATIONAL GEOMECHANICS CONFERENCE

2 – 6 July 2018  
International House of Scientists “Fr. J. Curie”  
Resort “St. St. Constantine and Elena”, Varna, Bulgaria

**Dear Ladies and Gentlemen,**

The Bulgarian National Organizing Committee invites scientists, managers, researchers and specialists to the **VIII International Geomechanics Conference**. The conference will take place from 2 to 6 July 2018 in the International House of Scientists "Frederic Joliot Curie", Resort "St. St. Constantine and Elena", Varna, Bulgaria.

This scientific forum will take place for the eighth time in a row which shows its importance and prestige. This year the conference will be focused on the motto "Geomechanics - the basis of mining and construction". The topics cover the whole range of fundamental issues for the formation of stressed and deformed state of the rock mass, research methods for assessment, ecological issues and environment protection. There is a separate thematic area of mine surveying methods which will be included both in the proceedings and the agenda of the conference and it will reflect the achievements in the computer systems for monitoring, management and innovations in the mine surveying technologies.

The results from the studies discussed during the conference are a possibility for application of the geomechanical methods related to the development and utilization of the underground space in the mining industry, the construction, the industrial and public buildings, the transport facilities, etc.

Your participation in the forum will increase the scientific significance of the **VIII International Geomechanics Conference** and you will have the possibility to promote your scientific achievements and to establish new personal and business contact.

We are looking forward to seeing you at the beautiful Bulgarian seaside!

**Welcome!**

**Chairman:**



**Prof. Dr. Tzolo Voutov**

## Organizers



SCIENTIFIC AND TECHNICAL UNION OF MINING, GEOLOGY AND METALLURGY

FEDERATION OF THE SCIENTIFIC ENGINEERING UNIONS IN BULGARIA

## Co-organizers

- University of mining and geology "St. Ivan Rilski"
- University of architecture, civil engineering and geodesy
- National Institute of Geophysics, Geodesy and Geography
- University of Transport "Todor Kableshkov"
- University of Structural Engineering & Architecture "Lyuben Karavelov"
- Bulgarian chamber of mining and geology
- "Antech TFA" Ltd.
- "Assarel Medet" JSCo
- Association "Bulgarian Coal mining"
- "Geotechmin" Ltd.
- "Gips" JSCo.
- "Dundee Precious Metals Chelopech" EAD
- "Ellatzite-med" JSCo.
- "Kaolin" JSCo.
- "Metropolitan" JSCo.
- "Maritza-Iztok Mines" JSCo.
- "Minproekt" JSCo.
- "Minstroy holding" JSCo.
- "Niproruda" JSCo.
- "Hemus - M" JSCo.

## With media partners

Journal "Mining and geology"

Journal "Geology and mineral resources"

Newspaper "Rudnichar"

Publishing house "Ore and metals"

Newspaper "Science and society"

## Organizing committee

### **Chairman:**

Prof. Dr. Tzolo Voutov

Chairman, Scientific and technical union of mining, geology and metallurgy

### **Honorary Chairman:**

Prof. DSc Nikolai Nikolaev

Chairman of the National Committee of Rock mechanics

### **Deputy Chairmen:**

Prof. DSc. Nikolai Valkanov

Chairman of the Bulgarian chamber of mining and geology

Prof. Dr. Lyuben Totev

Rector, University of mining and geology "St. Ivan Rilski"

MSc Eng. Shteryo Shterev

Vice-chairman, Scientific and technical union of mining, geology and metallurgy

### **Scientific Secretaries:**

Dr. Eng. Kremena Dedelyanova

Secretary general, Scientific and technical union of mining, geology and metallurgy

Dr. Eng. Konstantin Georgiev

Honorary member of the ISM

Dr. Juliyan Dimitrov

University of mining and geology "St. Ivan Rilski"

### **Organizer:**

Dr. Krassimira Arsova

Scientific and technical union of mining, geology and metallurgy

### **Members:**

Prof. Dr. Dimitar Anastasov

Director, Branch of the University of mining and geology "St. Ivan Rilski", Kardjali

MSc Eng. Andon Andonov

Executive director, Maritza-Iztok Mines JSCo.

Prof. Dr. Bozhidar Bozhinov

University of mining and geology "St. Ivan Rilski"

MSc Eng. Stoyo Bosnev

Executive director, "Minproekt" JSCo.

Prof. Dr. Stoyan Bratoev

Executive director, "Metropolitan" JSCo.

Prof. Dr. Mihail Vulkov

University of mining and geology "St. Ivan Rilski"

Dr. Eng. Vladimir Genevski

Scientific and technical union of mining, geology and metallurgy

Dr. Eng. Iliya Garkov

Executive director, "Dundee Precious Metals Chelopech" EAD

Prof. Dr. Petar Daskalov

Scientific and technical union of mining, geology and metallurgy

MSc Eng. Dragomir Draganov

Executive director, "Ellatzite-med" JSCo.

Prof. DSc. Dimcho Iossifov

Scientific and technical union of mining, geology and metallurgy

Sashka Kojuharova

Executive director, "Eurotest-control" JSCo.

Assoc. Prof. Dr. Ivaylo Koprev

Dean MTF, University of mining and geology "St. Ivan Rilski"

Prof. Dr. Ivan Markov

Rector, University of architecture, building and geodetics "Videx" JSCo.

Prof. Dr. Valeri Mitkov

Executive director, "Assarel Medet" JSCo

MSc Eng. Delcho Nikolov

Vice-Rector, University of mining and geology "St. Ivan Rilski"

Assoc. Prof. Dr. Pavel Pavlov

University of mining and geology "St. Ivan Rilski"

Prof. Dr. Dragomir Stefanov

Executive director, "Niproruda" JSCo.

MSc Eng. Dancho Todorov

University of mining and geology "St. Ivan Rilski"

Assoc. Prof. Dr. Stanislav Topalov

## **National editorial committee**

Prof. DSc Nikolai Nikolaev  
Assoc. Prof. Dr. Veliko Parushev  
Prof. Dr. Ventzislav Ivanov  
Prof. Dr. Georgi Mihaylov  
Prof. Dr. Dragomir Stefanov  
Prof. DSc. Kolyo Kolev  
Prof. Dr. Krastyo Dermendzhiev  
Prof. Dr. Mihail Vulkov  
Assoc. Prof. Dr. Chavdar Kolev

## **International Advisory Committee**

Prof. Michael Zhuravkov	- Belarus
Corr. member Victor Prushak	- Belarus
Prof. Nikolai Nikolaev	- Bulgaria
Prof. Ivan Vrklijan	- Croatia
Dr. Eng. Petr Konicek	- Czech Republic
Prof. Carsten Drebendstedt	- Germany
Prof. George Gazetas	- Greece
Prof. Ákos Török	- Hungary
Prof. Risto Dambov	- Macedonia
Prof. Dorj Dondov	- Mongolia
Prof. Anton Sroka	- Poland
Prof. Petru Ciobanu	- Romania
Prof. Vassilii Barishnikov	- Russia
Prof. Viktor Gordeev	- Russia
Acad. Mikhail Kurlenya	- Russia
Prof. Vladimir Sedlak	- Slovakia
As. Prof. Dr. Joze Kortnik	- Slovenia
Dr. Eng. Milinko Radosavljevic	- Serbia
Prof. Nebojsa Gojkovich	- Serbia
Prof. Ersin Arioglu	- Turkey
Prof. Resat Ulusay	- Turkey
Prof. Garri Litvinskii	- Ukraine

## **Topics**

- 1. Physical and mechanical properties of rocks and structural characteristics of the massif.**
- 2. Investigation of the stress condition and strain state of the rock mass.**
- 3. Geomechanical provision of mining and civil engineering.**
- 4. Mine surveying geodetic and geophysical methods used in geomechanics**
- 5. Geomechanical state of explosive and seismic impacts.**
- 6. Environment protection in mining and construction activities.**
- 7. Education and qualification.**

## **Instruction to the authors**

### **Abstracts**

- Abstracts must be in English and limited to 100 words. Text must be in Arial Narrow, 12 pt, Italic.

### **Deadline for submission of abstracts – 15. 03. 2018**

### **Papers**

- **Volume** – up to 8 standard pages, A4 Format (210x297mm), including figures, tables and references with margins: top – 30 mm, bottom, left and right – 20 mm. Papers will be at one of official languages – Bulgarian, English, Russian;
- **Font** of main text – Arial Narrow, 12 pt., line spacing Single Space.
- **Title** – centered, bold capital letters, 12 pt. Below the title follows names of author/s, address, affiliation, position and E-mail address;
- **Subtitles in text** – centered and underlined;
- **Figures** – black-and white computer graphics placed in the respective position within the text field.
- **Color figures and pictures are not accepted!**
- **Tables** – numbered on the right (font size 10 pts, italic);
- **Formulae** – numbered on the right of the formula (in brackets);
- **Measurement units** – according to the International System of Units (SI);
- **Notes** – marked by stars (\*) in text and placed in the bottom of the respective page;
- **References** – the references cited are numbered according to their appearance in the main text and enclosed in brackets [ ];

### **Deadline for submission of papers – 30. 04. 2018**

### **Duration of the paper presentation:**

- Plenary paper – 15 min.
- Oral presentation – 12 min.

**Please send the papers by e-mail in DOC format!**

**Please specify the topic of the papers.**

## **Forms of participation**

- Plenary sessions;
- Exhibition;
- Company presentations;
- Oral presentation;
- Discussions;
- Business meetings.

## Official languages

The official languages of the conference will be **Bulgarian, English and Russian**. Simultaneous translation will be provided.

## Registration desk

The registration desk will be situated in the lobby of International House of Scientists "Fr. J. Curie", Resort "St. St. Constantine and Elena", Varna, Bulgaria and will be open on 2 July 2018 from 10<sup>00</sup> to 19<sup>00</sup> h and will be work along the conference from 09<sup>00</sup> to 15<sup>00</sup> h.

## Registration fee (EURO)

	<b>Before 15.05.2018</b>	<b>After 15.05.2018</b>
<b>Conference participant</b>	<b>250</b>	<b>300</b>
<b>Accompanying person</b>	<b>100</b>	<b>150</b>
<b>Exhibitor</b>	<b>250</b>	<b>300</b>
<b>Student, PhD student</b>	<b>60</b>	<b>60</b>
<b>Publication of paper *</b>	<b>50</b>	<b>50</b>
<b>Price of conference proceedings</b>	<b>50</b>	<b>50</b>

\* **Publication of paper** (50 EURO) must be paid from the participants with more of one paper and also for participants that have publication in the proceeding but have not opportunity to participate in the conference.

**The registration fee includes** admission to plenary session and exhibition, Proceedings of the conference, Welcome cocktail, coffee break, Gala dinner and 3 lunches (3, 4 and 5 July 2018).

Accompanying person, students and PhD students will not receive the Proceedings of the conference.

The publication fee includes postage.

Students and PhD student must be present an opinion from having academic rank scientists.

## Exhibition and advertising

During the conference companies and organizations can advertise their products and activities at an exhibition on the lobby of International House of Scientists "Fr. J. Curie". The fee for the exhibition is 150 EURO/m<sup>2</sup> (minimum exhibition area - 2 m<sup>2</sup>).

Advertising during the conference is possible in the form of company presentation – price 30 EURO/min.

Advertising in the Proceedings volume is possible at the cost of 1000 EURO - Color / Format A4.

## Hotel accommodation (BGN)

Hotel	Single room	Bed in double room
<b>International House of Scientists "Fr. J. Curie" *** standard</b>	<b>45</b>	<b>30</b>
<b>International House of Scientists "Fr. J. Curie" *** renovating</b>	<b>50</b>	<b>35</b>

The hotel payment will be realized on the hotel reception. The accommodation will be after 14<sup>00</sup> h.

## Payment

Bank transfer at the following accounts:

**Scientific and technical union of mining, geology and metallurgy**

**VIII International geomechanics conference**

**UniCredit BULBANK**

**1000, Sofia, BULGARIA**

**BIC - UNCRBGSF**

\* **BGN: BG41UNCR76301022561959**

\* **EIRO: BG55UNCR76301422597370**

## **IMPORTANT DATES**

<b>Deadline for receipt of abstracts</b>	<b>15. 03. 2018</b>
<b>Deadline for receipt of paper</b>	<b>30. 04. 2018</b>
<b>Deadline for receipt of registration form and paid fees</b>	<b>15. 05. 2018</b>

## Address for correspondence:

**Scientific and technical union of mining, geology and metallurgy  
BULGARIA, 1000 Sofia, 108, Rakovski Str.**

**Phone/Fax: ++359 2 986 13 79; E-mail: mdgm@fnts.bg ,  
nts\_mdgm@abv.bg**

**Dr. Eng. Kremena Dedelyanova** – Secretary General, Scientific and technical union of mining, geology and metallurgy

**Dr. Krassimira Arsova** – Scientific and technical activities, Scientific and technical union of mining, geology and metallurgy

## **REGISTRATION FORM**

# VIII International geomechanics conference

## 2 – 6 July 2018, International House of Scientists "Fr. J. Curie" Resort "St. St. Constantine and Elena", Varna, Bulgaria

**Title, name and family name** .....

**Address** \_\_\_\_\_

**Phone:** \_\_\_\_\_ **Fax:** \_\_\_\_\_ **E-mail:** \_\_\_\_\_

**Accompanying person:**.....

I wish to participate:  with a paper  without a paper

with an advertisement       as an exhibitor on ..... sq. m area

I will accept accommodation for 2, 3, 4 and 5 July 2018

**International House of Scientists "Fr. J. Curie"**       single room,     bed in double room  
standard

**International House of Scientists "Fr. J. Curie"**       single room,     bed in double room  
renovating

**I have transferred the following amounts:**

.....EURO / registration fee

..... EURO / for advertisement

..... EURO / for exhibition ..... m<sup>2</sup>

..... **EURO / for publication of paper**

Total: ..... EURO

**Bank transfer on the following address:**

## **Scientific and technical union of mining, geology and metallurgy**

**UniCredit BULBANK**

**1000, Sofia, BULGARIA**

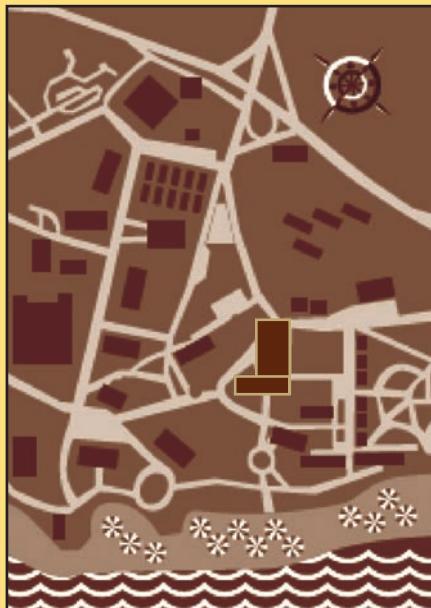
BIC - UNCRBGSF

\* BGN: BG411NCR76301022561959

**SIGNATURE:**

The registration form for participation is expected to be submitted to the Organizing Committee by fax or e-mail to the Scientific and Technical Union of Mining, Geology and Metallurgy:

E-mail: mdam@fnts.bg



International House of Scientists "Fr. J. Curie"  
Resort "St. St. Constantine and Elena", Varna, Bulgaria

НАУЧНО-ТЕХНИЧЕСКИ СЪЮЗ  
ПО МИННО ДЕЛО,  
ГЕОЛОГИЯ И МЕТАЛУРГИЯ



SCIENTIFIC AND TECHNICAL  
UNION OF MINING,  
GEOLOGY AND METALLURGY

ФЕДЕРАЦИЯ НА  
НАУЧНО-ТЕХНИЧЕСКИТЕ  
СЪЮЗИ В БЪЛГАРИЯ



FEDERATION  
OF THE SCIENTIFIC ENGINEERING  
UNIONS IN BULGARIA