

ReSyLAB 2019

4th Regional Symposium on Landslides
in the Adriatic-Balkan Region

GEO-EXPO 2019

9th Scientific and Expert Conference



Geotechnical Society of
Bosnia and Herzegovina



Federal Institute for Geology,
Bosnia and Herzegovina

Geological Survey of the
Republic of Srpska,
Bosnia and Herzegovina



Geotechnical Society of Bosnia and Herzegovina appreciates the opportunity to organize and welcome you to 4th Regional symposium on Landslides in the Adriatic-Balkan Region - ReSyLAB 2019 and 9th Scientific and Expert Conference - GEO-EXPO 2019 in Sarajevo, Bosnia and Herzegovina on October 23-25, 2019.

We are sincerely looking forward to meeting you in Sarajevo.

Sessions and Themes

The ReSyLAB & GEO-EXPO 2019 symposium themes are as follows:

- landslides in general
- mapping
- geotechnical investigation and monitoring
- environment engineering
- underground structures
- geotechnical hazard and risk
- road infrastructure
- foundations
- landfills

Organizers

Geotechnical Society of Bosnia and Herzegovina



Federal Institute for Geology, Bosnia and Herzegovina

Geological Survey of the Republic of Srpska, Bosnia and Herzegovina



International Consortium on Landslides Adriatic-Balkan Network (ICL ABN)



ReSyLAB & GEO-EXPO Background

The Regional symposium on Landslides in the Adriatic-Balkan Region (ReSyLAB) is a bi-annual symposium organized to strengthen the cooperation among the members of the ICL Adriatic-Balkan Network and gather the scientists, researchers, engineers, professionals and decision-makers from the region and beyond, concerned with landslides' hazard and risk, their reduction and impact on society. The 1st ReSyLAB was organized in Zagreb, Croatia, in 2013. It was followed by the 2nd ReSyLAB in Belgrade, Serbia, in 2015 and by the 3rd ReSyLAB in Ljubljana, Slovenia in 2017.

The annual GEO-EXPO scientific and expert conference gathers experts, scientists, mining and civil engineers and geologists from Bosnia and Herzegovina and the region. The main topic of the scientific-expert conference is geotechnics. Each of eight GEO-EXPO conferences, organized by the Geotechnical Society of Bosnia and Herzegovina, were held in different Bosnian and Herzegovinian town: Sanski Most (2011), Tuzla (2012), Jahorina (2013), Mostar (2014), Zenica (2015), Banja Luka (2016), Sarajevo (2017) and Neum (2018). This year's GEO-EXPO scientific-expert conference has a regional character and the support of geotechnical associations from the region.

GENERAL INFORMATION

Venue Hotel Holiday

Address: Zmaja od Bosne 4, 71000 Sarajevo, Bosnia and Herzegovina
<https://www.hoteleuropegroup.ba/ba/holiday>



Hotel accommodation for the symposium can be booked at the conference rates:
1/1 single room 37 Euros;
2/1 double room 43 Euros.
To make a reservation, please contact Hotel Holiday on email address directly:
marketing@hotelholiday.ba

Hotel Holiday contact info:
Phone: +387 33 288 500
Fax: +387 33 288 288

Official Language

The official language of the ReSyLAB symposium is English.

Bosnian, Croatian, Serbian and English are the official languages for the GEO-EXPO conference. Simultaneous interpretation from/to English will be provided.

Coffee break, lunch and symposium dinner

During session breaks and lunch on 23rd and 24th, refreshments will be served free of charge to participants wearing symposium identification badges. Symposium dinner is included in the registration fee and will be served at 20:00 on October 24.

Oral and Poster Presentations

Paper authors will have an opportunity to deliver oral and poster presentations to the symposium audience. Each oral presentation should last 10 minutes. Poster presentations will be delivered during coffee breaks between sessions.

Registration fee

The registration fee for all participants is 120 EUR, except for the members of the Geotechnical Society of Bosnia and Herzegovina for whom it is 80 EUR. The fee can be paid in advance (with invoicing) and on-spot at the registration desk.

The registration fee includes symposium material, admission to scientific sessions, proceedings, refreshments during coffee breaks and lunches, gala dinner and a field study tour (optional).

In addition, the application form is available at the link:

[http://www.geotehnika.ba/ReSyLAB & GEO-EXPO 2019.html](http://www.geotehnika.ba/ReSyLAB_%20GEO-EXPO_2019.html)

If filled in, the form may be emailed to: geotehnika@geotehnika.ba

**October 23-25, 2019
Sarajevo, Bosnia and Herzegovina**

Symposium Programme

Wednesday, 23 October 2019

- 09:00 - 10:00 Registration
- 10:00 - 10:30 Opening Ceremony
- 10:30 - 11:00 Plenary Lecture - **Norikazu Shimizu**, Prof. PhD, Vice President at Large of the International Society for Rock Mechanics and Rock Engineering (ISRM), Yamaguchi University, Tokio, Japan:
„Landslide monitoring using satellite technology and collaborative research with Balkan countries“
- 11:00 - 11:30 Plenary Lecture - **Željko Arbanas**, Prof. PhD, Vice President of the International Consortium on Landslides (ICL) University of Rijeka, Croatia:
“Protection of the City of Omiš, Croatia, from rockfall threats“
- 11:30 - 12:00 Coffee Break (Poster session - 1)
- 12:00 - 12:10 Hideaki Marui: „Development of landslide control measures in Japan“
- 12:10 - 12:20 Martin Krkač: „Continuous monitoring of the Kostanjek landslide“
- 12:20 - 12:30 Toni Nikolić: „The slope stability around artificial lake Jablanica, with landslide sample project recovery in Donje Paprasko - Jablanica“
- 12:30 - 12:40 Naoki Watanabe: „Geochemical interpretation of groundwaters in the Kostanjek landslide in the western part of Zagreb, Croatia“
- 12:40 - 12:50 Andrea Segalini: „The advantages of the monitoring of a retaining wall with multi-parameters innovative tools for Early Warning purposes“
- 12:50 - 13:00 Oliver Detert: “Geogrid-reinforced wall as quick and flexible solution in mountainous region: Trieben Landslide Project, Austria“
- 13:00 - 13:10 Leo Kuljanski: „Design and real scale verification of a geogrid reinforced cellular mattress“
- 13:10 - 13:20 Petra Đomlija: „Landslide types identified along carbonate cliffs using LiDAR-based DTM imagery – examples from the Vinodol Valley, Croatia“
- 13:20 - 13:30 Snježana Mihalić Arbanas: „Landslide risk management in Croatia: Current state“
- 13:30 - 15:00 Lunch
- 15:00 - 15:10 Yoshinori ITO: „Prediction of groundwater level fluctuation in landslide area using genetic algorithm“
- 15:10 - 15:20 Yasemin Leventeli: „Site investigation for linear structures and landslide in D400 highway (Antalya-Turkey)“
- 15:20 - 15:30 Jelka Krušić: „Influence of DEM resolution on numerical modelling of debris flows in RAMMS – Selanac case study“
- 15:30 - 15:40 Martina Vivoda Prodan „Remediation measures on a deep-seated slow-moving landslide“
- 15:40 - 15:50 Sanja Bernat Gazibara: „Landslide hazard analysis in national-scale for landslide risk assessment in Croatia“
- 15:50 - 16:00 Vjekoslav Budimir: „Multi-level flexible debris flow barriers: case study in Peru“
- 16:00 - 16:15 **Special Presentation, Vitomir Dobric, TENSAR: Tensar solutions in Civil Engineering**
- 16:15 - 16:30 **Special Presentation, Dr. Alexander Zöhrer and Dipl.Ing. Davorin Lesnik, Keller Grundbau Ges. mbH: „Advanced jet grouting technology for deep excavations“**

Symposium Programme

Wednesday, 23 October 2019

- 16:30 - 17:00 Coffee Break (Poster session - 2)
- 17:00 - 17:10 Gen Furuya: „Experimental study on squeezing-out phenomenon by landslide mass loading“
- 17:10 - 17:20 Sanja Dugonjić Jovančević: „An overview of geotechnical properties of materials involved in slope instabilities along flysch-karst contact in Croatia“
- 17:20 - 17:30 Matija Orešković: „Remediation of the landslide of Đurđević hill clay pit in Bedekovčina, II. phase of rehabilitation“
- 17:30 - 17:40 Željko Arbanas: „Development of physical model of landslide remedial constructions behaviour“
- 17:40 - 17:50 Vedran Jagodnik: „Cyclic stress ratio of landslide deposits in Vinodol Valley, Croatia“
- 17:50 - 18:00 Ljubomir Palikuća: „Analysis of Geohazards in Road Construction“
- 18:00 - 18:15 **Special Presentation, LANS wGh: Measurement equipment for geotechnics**
- 18:15 - 19:00 Annual Assembly meeting of Geotechnical Society of Bosnia and Herzegovina
- 19:00 Free time

Thursday, 24 October 2019

- 09:00 - 09:30 Plenary Lecture - **Charles Wang Wai Ng**, Prof. PhD, President of the International Society for Soil Mechanics and Geotechnical Engineering (ISSMGE), The Hong Kong University of Science and Technology:
„Ecological engineering for soil slopes: hydrological and mechanical effects“
- 09:30 - 10:00 Plenary Lecture - **Alessandro Corsini**, Prof. PhD, The University of Modena and Reggio Emilia, Italy:
„Unusual becoming Usual: recent persistent-rainstorm events and their implications for debris flow risk management in the northern Apennines of Italy“
- 10:00 - 10:30 The ICL ABN Invited and Experienced Scientist's Lecture - **Martina Vivoda Prodan**, Assist.Prof. PhD, Faculty of Civil Engineering, University of Rijeka, Croatia: *„The influence of weathering process on geotechnical properties of fine grained lithological flysch components“*
- 10:30 - 11:00 Coffee Break (Poster session - 3)
- 11:00 - 11:10 Sabid Zekan, Maksida Zukić: „Current state of landslides and slopes management in the area of Srebrenik, Bosnia and Herzegovina“
- 11:10 - 11:20 Aleksej Aniskin: „Calculation of the slope stability considering the residual shear strength“
- 11:20 - 11:30 Mato Uljarević: „Spatial area of a landslide body in calculations and analysis“
- 11:30 - 11:40 Željko Lebo: „Design and geotechnical supervision of anchored reinforced concrete diaphragm wall „Moj Dvor“ in Zagreb“
- 11:40 - 11:50 Donka Würth: „Designing and performing „white tubs““
- 11:50 - 12:00 Jasmin Jug: „Determination of seepage zones in embankment by in-situ investigations“

Symposium Programme

Thursday, 24 October 2019

- 12:00 - 12:10 Tomasz Jagocha: „Geosynthetics reinforced soil retaining structures in passive facing system“
- 12:10 - 12:20 Vesna Lazarević: „Pile testing on the project "Belgrade Waterfront“
- 12:20 - 12:30 Ana Nanevska: „Hydraulic Instability of Tailings Dams“
- 12:30 - 12:40 Belkacem Moussai: „Numerical analysis of the interaction between adjacent tunnels“
- 12:40 - 12:50 Nikola Sapunar, MEng, C.E., **KREŠO GEO** d.o.o., Zagreb, Croatia: „Analysis and dimensioning of the retaining wall“
- 12:50 - 13:00 Miralem Mulać: „Geological alarm for the Tuzla city area depending on the rainfall intensity“
- 13:00 - 15:00 Lunch
- 15:00 - 15:10 Zlatan Talić: „Causes, occurrence and rehabilitation measures of landslide „Makljenovac“ near Doboj“
- 15:15 - 15:30 **Special Presentation, MACCAFERRI: „Rockfall protection, Soil stabilization, Landfills, Safety barriers“**
- 15:30 - 15:45 **Special Presentation, MARCOM-PLAST: „Application of Leister tools in landfill construction“**
- 15:45 - 16:00 **Special Presentation, İstanbul Teknik İnşaat Sanayi ve Ticaret A.Ş.: „Geosynthetics, Geogrids“**
- 16:00 - 16:10 Violeta Mirčevska: „Stability of tailings dams – part 1: evaluation of eigenvalues“
- 16:10 - 17:00 ICL ABN members meeting (1) and meeting of geotechnical societies from the region (2)**
- 17:00 - 17:30 Coffee Break (Poster session - 4)
- 17:30 - 18:30 Round Table Discussion: „Enhancing cooperation between the landslide scientist and stakeholders from public bodies dealing with policies or decision making“**
- 18:30 Conclusions**
- 20:00 - 24:00 Gala dinner - closing ceremony**

Friday, 25 October 2019

09:00- 17:00 Field study tour (optional): Sarajevo - Landslide Bogatići - Foča - Landslide Čemerno - Landslide Sutjeska and National Park Sutjeska

■ „Bogatići“ landslide: A huge landslide in Trnovo in 2010, caused enormous damage to the environment and infrastructure. Urgent stabilization measures have been undertaken.

■ „Čemerno“ landslide: There are four stabilized landslides.

■ „Sutjeska“ landslide and National Park „Sutjeska“: Following heavy rainfall in the Foča region in early 2018, a monument erected to commemorate the World War II Battle of Sutjeska and the memorial skeleton in the vicinity, were threatened by large landslide.

Exhibition Hall

The companies will have an opportunity to present their technology, products, software, projects and equipment in the exhibition space in front of the conference hall.

Plenary Lecturers

Charles Wang Wai Ng, Ph.D, CEng, FICE, FASCE , FHKIE, FHKEng

President of the International Society for Soil Mechanics and Geotechnical Engineering (ISSMGE),

Associate Vice-President (Research and Development),

CLP Holdings Professor of Sustainability,

Chair Professor of Civil and Environmental Engineering,

The Hong Kong University of Science and Technology, Hong Kong:

„Ecological engineering for soil slopes: hydrological and mechanical effects“



Norikazu Shimizu, PhD

Vice President at Large of the International Society for Rock Mechanics and Rock Engineering (ISRM)

Yamaguchi University

Department of Civil and Environmental Engineering, Tokio, Japan:

„Landslide monitoring using satellite technology and collaborative research with Balkan countries“



Alessandro Corsini, PhD

Department of Chemical and Geological Sciences

The University of Modena and Reggio Emilia, Italy:

„Unusual becoming Usual: recent persistent-rainstorm events and their implications for debris flow risk management in the northern Apennines of Italy“



Željko Arbanas, PhD

Vice President of the International Consortium on Landslides (ICL)

Faculty of Civil Engineering

University of Rijeka, Croatia:

„Protection of the City of Omiš, Croatia, from rockfall threats“



ICL ABN Invited Lecture - The Experienced Scientist's Lecture

Martina Vivoda Prodan, PhD

Geotechnical Department

Faculty of Civil Engineering

University of Rijeka, Croatia:

"The influence of weathering process on geotechnical properties of fine grained lithological flysch components".



The young scientist, working in the field of landslide science, will present her research and will be awarded the ICL ABN plaque of the Fourth ReSyLAB in Sarajevo.

**October 23-25, 2019
Sarajevo, Bosnia and Herzegovina**

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**October 23-25, 2019
Sarajevo, Bosnia and Herzegovina**

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October 23-25, 2019
Sarajevo, Bosnia and Herzegovina

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IBAN: BA391611250000651837

USER: Geotechnical Society of Bosnia and Herzegovina

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The bank transfer costs are not included in the registration fee.

- Domestic payment in BAM:

Raiffeisen Bank dd BiH: 1610250029260097

Društvo za geotehniku u Bosni i Hercegovini

Contact Info:

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