



**TOPICAL ISSUES**  
**2020** OF RATIONAL USE OF  
NATURAL RESOURCES  
June 17 - 19



United Nations  
Educational, Scientific and  
Cultural Organization



International Competence Centre  
for Mining-Engineering Education  
under the auspices of UNESCO



SAINT-PETERSBURG  
MINING UNIVERSITY



The XVI International Forum-Contest  
of Students and Young Researchers

# **TOPICAL ISSUES OF RATIONAL USE OF NATURAL RESOURCES**

June 17 - 19, 2020

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**MYOUTH.SPMI.RU**





## 2019 RETROSPECTIVE:

**340**  
presentations

**427**  
participants

**90**  
universities  
and companies

**33**  
countries

The Forum will be held in a fundamentally new video conference format using the **Cisco WebEx**. The platform allows up to 3000 participants from anywhere in the world to make a live presentation, listeners – to ask both live questions and in text message format.



Webex Meetings



The participants will need a minimum set of equipment: a **computer (laptop)** with a camera and a microphone and Internet access. All participants will be provided with the necessary technical support and links to the videoconference.

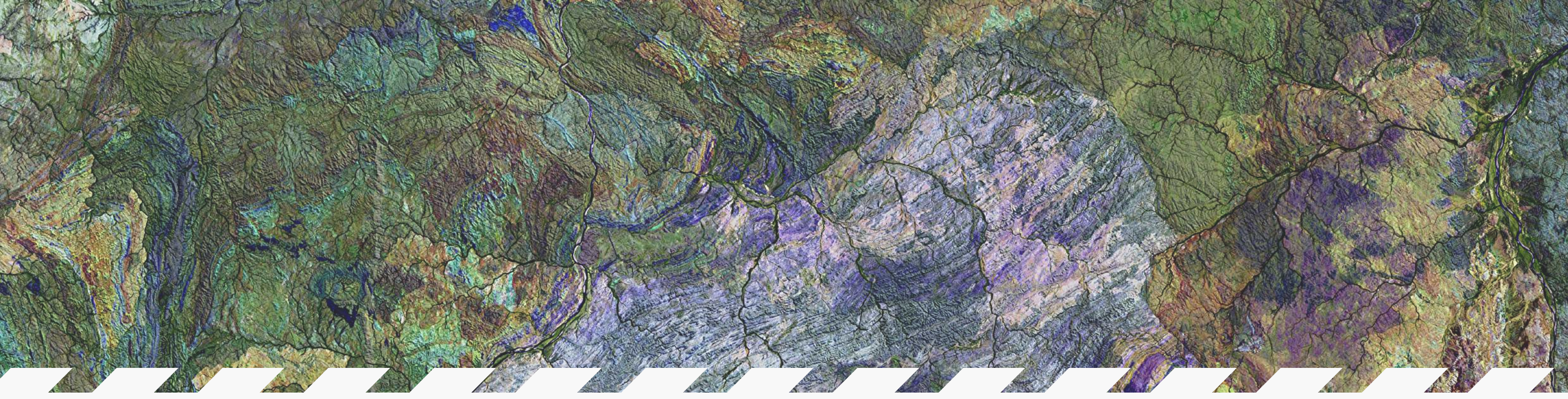
## Participation Terms

Graduate students, post-graduate students and young researchers up to 35 years of age without a PhD degree with a level of English proficiency not lower than B1-B2, whose study area or subjects of research correspond to the list of breakout sessions are invited to participate in the Forum-contest.

To participate in the Forum please register on [myouth.spmi.ru](http://myouth.spmi.ru) and attach 1.5-2 pages abstracts in English by June 01, 2020.

The winners of the Forum-contest will receive a grant from the International Competence Centre for Mining-Engineering Education under the auspices of UNESCO for a short-term internship at one of the leading universities and companies of the mineral resources complex, as well as the possibility of publishing a full-text article after internal and external review, in a separate collection of CRS Press (Taylor & Francis Group, Netherlands).





## **BREAKOUT SESSIONS**

- 1.** New approaches to resolving oil & gas sector-specific issues.
- 2.** Technologies of integrated processing of mineral raw materials with further production of new generation materials.
- 3.** Geotechnologies of resource extraction: current challenges and prospects.
  - 3.1.** Solid minerals mining technologies. Industrial and labor safety.
  - 3.2.** Underground and ground space development technologies. Rock mechanics and control of rock conditions
- 4.** Geological mapping, exploration, and prospecting of mineral resources.
- 5.** Economics of sustainability and global investment trends.
- 6.** Information telecommunication technologies and digital transformation.
- 7.** Equipment, vehicle maintenance and energy efficiency at the enterprises of the mineral resources sector.
  - 7.1.** Innovations and prospects for the developments of mining mechanical engineering.
  - 7.2.** Energy efficiency at the enterprise of the mineral resources sector.
- 8.** Climatic changes, environmental activity, and principles of sustainable development in the mining facility.
  - 8.1.** Sustainable development of regions and environmental safety.
  - 8.2.** Waste management utilization, water treatment, off-gas treatment and land reclamation.
- 9.** Topical issues and contradictions of modern society development.
- 10.** Current aspects of architectural and urban activities.

Creativity competition for students and graduate students in architecture and civil engineering in the following nominated categories:

- design of a public building;
- design of a multi-family house;
- design of a single-family house.