Scientific and Technical Conference

BLASTING SAFETY

Conference Programme

October 5-7, 2026
Ustroń, Hotel Diament

Organizer
Central Mining Institute – National Research Institute (GIG-PIB)

Patronage
President of the State Mining Authority
European Federation of Explosives Engineers

Monday, October 5, 2026

08:30 – 10:00 **Conference Registration**

10:00 – 10:45 **Conference Opening**

Welcome address by:
Jarosław Zagórowski – Director of GIG-PIB
Piotr Litwa – President of the State Mining Authority
Dariusz Stefaniak – Head of the Conformity Assessment Body at GIG-PIB
Piotr Mertuszka – Chair of the Scientific Committee of the Conference

10:45 – 11:50 **Session I**

Session Chairs: **mgr inż. Jarosław Zagórowski**
Central Mining Institute – National Research Institute
dr inż. Piotr Litwa
State Mining Authority

10:45 – 11:00 **Blasting safety in light of hazardous incidents that occurred in mining operations during 2024-2025**

Adam Maj – State Mining Authority

11:00 – 11:20 **Safety under control: practical aspects of oversight and analysis of non-compliance by entities licensed to acquire and use explosives intended for civil use**

Dawid Wojciechowski – Silesian Voivodeship Office in Katowice

11:20 – 11:35 **Legal and technical requirements for the design and construction of permanent explosive storage facilities in underground mining**

Piotr Mertuszka – KGHM CUPRUM Sp. z o.o. Research & Development Center
Mateusz Pytlik – Central Mining Institute – National Research Institute

11:35 – 11:50 Discussion

11:50 – 12:20 Coffee Break

12:20 – 13:45 **Session II**

Session Chairs: **dr inż. Jacek Sobala**
Retired employee of the Central Mining Institute – National Research Institute
prof. Ján Lokaj
Slovak University of Technology, Slovakia

12:20 – 13:00 **Modern methods of non-explosive fracturing of boreholes using liquid CO_2**

Jan Smuda, Paweł Gajdosz – Zakład Odmetanowania Kopalń "ZOK II"
Sylwester Rajwa, Mateusz Pytlik – Central Mining Institute – National Research Institute

13:00 – 13:15 **Safety and technology of blasting operations in areas at risk of gas and rock outburst**

Nikodem Szlązak – AGH University
Tomasz Sołtysiak – Jastrzębska Spółka Węglowa S.A. KWK Pniówek
Jakub Ryszka – District Mining Authority in Rybnik

13:15 – 13:30 **Conducting blasting operations in the context of coal dust explosion hazard**

Adam Michałek, Mateusz Waluga – Central Mining Institute – National Research Institute

13:30 – 13:45 Discussion

13:45 – 14:45 **Lunch**

15:00 – 16:15 **Session III**

Session Chairs: **prof. dr hab. inż. Andrzej Maranda**
Łukasiewicz Research Network – Institute of Industrial Organic Chemistry
dr hab. inż. Piotr Mertuszka
KGHM CUPRUM Sp. z o.o. Research & Development Center

15:00 – 15:15 **Prediction and verification of the dynamic effects caused by the demolition of tall industrial structures using explosives, as illustrated by coal silos**

Józef Pyra, Anna Sołtys, Dariusz Chlebowski – AGH University
Leon Budzicz, Anna Rokicka – Przedsiębiorstwo Cama

15:15 – 15:30 **Specialized blasting in underground mining - a case study**

Marcin Szumny, Piotr Mertuszka – KGHM CUPRUM Sp. z o.o. Research & Development Center

15:30 – 15:45 **Assessment of Rock Fragmentation after Blasting Operations – Capabilities, Limitations and Validation of Results**

Tomasz Żołądek – Holcim Kruszywa

15:45 – 16:00 **Fertilizer grade ammonium nitrate used for production of high-quality ANFO**

Andrzej Brzozowski – Holcim Poland (KOSD Rudawa)

16:00 – 16:15 Discussion

16:15 – 16:45 Coffee Break

16:45 – 17:45 **Session IV**
Session Chairs: **dr inż. Mateusz Pytlik**
Central Mining Institute – National Research Institute
dr hab. inż. Andrzej Biessikirski
AGH University

16:45 – 17:00 **MEMU vehicles and charging vehicles manufactured by Biuro Handlowe RUDA**

Marcin Pondel, Krzysztof Rudnikowicz, Stanisław Zając – Biuro Handlowe „RUDA" Sp. z o.o. Sp. k.

17:00 – 17:15 **EC TEST measuring equipment useful for analyzing high-speed phenomena**

Piotr Gawecki – EC TEST

17:15 – 17:30 **Company presentation: NITROERG S.A.**

Elżbieta Błotny – NITROERG S.A.

17:30 – 17:45 **Company presentation: EXPLOMINETECH**

Piotr Kapustianyk, Tomasz Stanio – EXPLOMINETECH

17:45 – 18:00 Coffee Break

20:00 – 24:00 **Gala dinner**

Tuesday, October 6, 2026

08:00-10:00 **Breakfast**

10:00 – 11:15 **Session V**
Session Chairs: **dr inż. Marcin Szumny**
KGHM CUPRUM Sp. z o.o. Research & Development Center
dr inż. Anna Sołtys
AGH University

10:00 – 10:15 **Safety regulations for blasting works in the territory of Armenia**

Jolanta Biegańska – AGH University
Mariam Avagyan, Kristine Sahakyan – National University of Architecture and Construction of Armenia

10:15 – 10:30 **Nitromethane influence on detonation parameters, sensitivity and thermal stability of ANFO**

Andrzej Biessikirski, Michał Dworzak, Andrzej Baziak, Jolanta Biegańska –AGH University
Mateusz Pytlik, Sonia Nachlik – Central Mining Institute – National Research Institute

10:30 – 10:45 **Explosion welding of metals, physical aspects and applications**

Ján Lokaj, Jan Hives, Martin Sahul – Slovak University of Technology
Miroslav Sahul – Czech Technical University in Prague

10:45 – 11:00 **Experimentally supported simulations for AI digital twin development in blast engineering**

Robert Laszlo, Emilian Ghicioi, Ciprian Jitea – National Institute for Research and Development in Mine Safety and Protection to Explosion – INSEMEX (Romania)
Florea Dinu – Politehnica University of Timisoara, Romanian Academy

11:00 – 11:15 Discussion

11:15 – 11:30 Coffee Break

11:30 – 12:45 Session VI
Session Chairs: **dr inż. Józef Pyra**
AGH University
dr inż. Bartłomiej Kramarczyk
Nitroerg S.A.

11:30 – 11:45 **Influence of drill bit types on progress and quality of drilling in sandstone quarries**

Marcin Pustelnik – Holcim Poland (KOSD Rudawa)

11:45 – 12:00 **Selection of blasting parameters to minimize vibration impact on the environment**

Kamil Gądek – Holcim Kruszywa

12:00 – 12:40 **General overview of the nature of criminal incidents in the context of explosives for civil use**

Łukasz Michałek, Piotr Borzencki – Independent Counter-Terrorist Police Sub-Unit in Katowice

12:40 – 12:45 Discussion

12:45 – 13:45 Lunch

13:45 – 15:00 **Session VII**

Session Chairs: **dr inż. Mateusz Pytlik**
Central Mining Institute – National Research Institute
dr hab. inż. Marek Rotkegel
Central Mining Institute – National Research Institute

13:45 – 14:45 **Project SEDAS - Safe and Effective Removal of Arch Supports in Mine Workings**

Mateusz Pytlik, Marek Rotkegel, Sonia Nachlik, Wojciech Pająk, Dariusz Stefaniak, Robert Hildebrandt, Wojciech Adamus, Adrian Toman – Central Mining Institute – National Research Institute
Wojciech Głuchowski, Marek Łagoda, Karol Krukowski – Łukasiewicz Research Network – Institute of Non-Ferrous Metals
Robert Laszlo, Stefan Ilici – National Institute for Research and Development in Mine Safety and Protection to Explosion – INSEMEX (Romania)
Konrad Szydło, Karol Ćwielong, Łukasz Dulski, Adrian Guzy, Adam Rurański – Łukasiewicz – Institute of Industrial Organic Chemistry
Paweł Baranowski, Krzysztof Damaziak – Military University of Technology

14:45 – 15:00 Discussion

15:45 – 16:00 **Transfer to Regional Dinner**

16:30 – 20:30 **Regional Dinner**

Note:
18:30 – 19:30 **Dinner at the hotel for participants not attending the regional dinner (please inform us in advance if you wish to choose this option).**

Wednesday, October 7, 2026

08:00-10:00 **Breakfast**

10:15 – 12:15 **Session VIII**
Session Chairs: **prof. dr hab. inż. Jolanta Biegańska**
AGH University
dr inż. Dariusz Stefaniak
Central Mining Institute – National Research Institute

10:15 – 10:30 **Comparison of standards for assessing the impact of vibrations from blasting operations**

Tomasz Sałaciński, Andrzej Maranda – Łukasiewicz – Institute of Industrial Organic Chemistry

10:30 – 10:45 **Comparison of standards for assessing the impact of vibrations from blasting operations**

Anna Sołtys, Józef Pyra, Jan Winzer – AGH University

10:45 – 11:00 **Effect of quarry transport ramp inclination on energy consumption level needed for its construction and operation**

Michał Dudek – Holcim Poland (KOSD Rudawa)
Michał Dworzak, Przemysław Bodziony, Andrzej Biessikirski – AGH University

11:00 – 11:15 **Risk of musculoskeletal strain among workers performing blasting operations in open-pit mining**

Michał Dworzak, Andrzej Biessikirski, Krzysztof Barański – AGH University

11:15 – 11:30 **Overview of legal regulations regarding the safety of production, transport and storage of ammonium nitrate**

Krzysztof Barański, Andrzej Biessikirski, Michał Dworzak – AGH University

11:30 – 11:45 **Transport classification of shock tubes**

Daniel Buczkowski – Łukasiewicz – Institute of Industrial Organic Chemistry

11:45 – 12:00 **The impact of the future update of the list of harmonised standards on the conformity assessment process of explosives in light of Directive 2014/28/EU**

Mateusz Pytlik – Central Mining Institute – National Research Institute
Piotr Mertuszka – KGHM Cuprum Sp. z o.o. Research & Development Center

12:00 – 12:15 Discussion

12:15 – 12:30 Conference Closing

12:30 – 13:30 Lunch

Contact persons:

- **Mariusz Borek** – **+48 506-184-866**
- **Mateusz Pytlik** – **+48 508-810-969**