



2023

Clausthal



Conference Program

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SOMP 2023

33rd Annual General Meeting of the Society of Mining Professors
September 10 – 16 Clausthal-Zellerfeld & Goslar, Germany

A full schedule of the 33rd Annual General Meeting
can be found under <https://bergbau.tu-clausthal.de/somp23-op>

Wednesday, September 13th

17:00 Welcome Reception at Großes Heiliges Kreuz, Hoher Weg 7, 38640 Goslar

Thursday, September 14th

Opening Session

08:30 Welcome address, O. Langefeld, *SOMP President 2022/23*

08:40 Welcome address, H. Y. Schenk-Mathes, *President (in charge) of Clausthal University of Technology*

08:50 Welcome address, J. Schachtner, *State Secretary at the Ministry of Science and Culture of Lower Saxony*

Building Trust in Mining I (Research Committee)

Session Chair: S. Saydam

09:00 Keynote: **Current ICMM priorities**, M. Addy, *International Council on Mining and Metals*

09:30 Keynote: **Mining for followers and future talents – How K+S involves social media in the acquisition of mining engineers**, S. Höntzsch, S. Schöbel, *K+S Aktiengesellschaft*

10:00 Coffee break

10:20 Pitch talks (8 min) on trust-boosting tech vision by SOMP members

- **Current status and future perspectives of the global mining industry concerning the net zero emissions goal: An academic point of view**
G. Barakos¹, M. A. Islam², A. Mammadli¹, M. Hitch¹, ¹ Curtin University, Australia ² TUBAF-TU Bergakademie Freiberg
- **Sustainability in Mining: a vision of the mines of the future, its challenges and opportunities**
S. Nowosad¹, A. Tobar², ¹ Clausthal University of Technology, Germany, ² Epiroc, Peru
- **Critical Minerals: Importance, Risks, and Future Prospects in Australia and Beyond**
I. Canbulat, S. Saydam, *University of New South Wales Sydney, Australia*
- **Sustainable Green Mining Engineering based on Efficient Power Generation and Utilisation: Towards Low Carbon Footprint**
L. Madziwa; G. Dzinomwa, H. K. Musiyarira, *Namibia University of Science and Technology, Namibia*

10:55 Discussion of pitch talks

11:15 **The Business Case of Reducing Emissions**

Michael Karmis, *Virginia Tech, USA*

11:35 **Open Panel Discussion: Path to the Green Mine**

Panel Chairs: S. Saydam / E. Sarver

- M. Addy, *International Council on Mining and Metals*
- Michael Karmis, *Virginia Tech, USA*
- Ronny Webber-Youngman, *University of Pretoria, South Africa*
- Ismet Canbulat, *University of New South Wales Sydney, Australia*

12:20 Lunch break

Brief and effective communication I (Members Development Committee)	
Session Chair: E. Sarver	
13:25	Welcoming and introduction to committee and session, E. Sarver, A. Brickey Welcome and Introduction to the Session
13:35	How to make a pitch, R. Tegtmeier
14:05	Workshop on Pitch Development
15:00	Coffee break
Building Trust in Mining II (Research Committee)	
Session Chair: G. Barakos	
15:20	Pitch talks (8 min) on Building Trust in Mining <ul style="list-style-type: none"> • Building trust through Citizen Science in Mining F. Apollo, A. Binder, M. Bothe-Fiekert, O. Langefeld, <i>Clausthal University of Technology, Germany</i> • Valorization of mining heritage in the process of Post Mining D. J. Carvajal Gomez, <i>Universidad de Huelva, Spain</i> • Proposal of Support for the Process of Formalization and Consolidation of Mining Activities in the Community of Santa Rita - Andes, Antioquia – Colombia O. J. Restrepo-Baena, <i>Universidad Nacional de Colombia-School of Mines, Colombia</i> • Mining in Kazakhstan with adopted international standards and globally educated specialists S. Sabanov, <i>Nazarbayev University, School of Mining and Geosciences, Kazakhstan</i> • Mining as an Expression of Sustainability W. Frenz, <i>RWTH Aachen University, Germany</i>
16:05	Discussion of pitch talks
16:25	Coffee break
The Sustainable Mine I (Research Committee)	
Session chair: W. V. Liu	
16:45	Pitch talks (8 min) on The Sustainable Mine <ul style="list-style-type: none"> • Technological innovation as a tool for sustainable development in clay mining in La Guajira, Colombia D. D. López Juvinao, L. M. Torres Ustate, E. R. Toncel Manotas, <i>University of La Guajira, Colombia</i> • Battery Electric Vehicles (BEVs) in underground mines - The major requirement for sustainable underground mining A. Halim, <i>Luleå University of Technology, Sweden</i> • Employability of mining tailings of polymetallic origin in the production of shotcrete for underground support L. Mendieta Britto, A. Delgado, <i>Pontificia Universidad Catolica del Peru, Peru</i>
17:10	Discussion of pitch talks
17:25	End of the first conference day
Miners Evening	
18:00	Miners Evening @ Corps Montania (Erzstraße 45, 38678 Clausthal-Zellerfeld) Open beginning from end of meeting, No special attire Busses to Goslar at 21:00 and 22:00

Friday, September 15th

08:45 Summary of the first day, O. Langefeld, *SOMP President 2022/23*

The Sustainable Mine II (Research Committee)

Session Chair: M. Cardu

08:50 Pitch talks (8 min) on The Sustainable Mine

- **Application of LiDAR data for numerical analysis of airflow in mine excavations: A case study from a real mine**
R. Zimroz, A. Banasiewicz, P. Kujawa, A. Wroblewski, A. Macek, K. Romanczukiewicz, K. Adach-Pawelus, *Wroclaw University of Science and Technology, Poland*
- **Project ECHO - a new solution for grinding oversize lumps in copper ore mining.**
Wróblewski, A. Banasiewicz, P. Krot, P. Dąbek, K. Romańczukiewicz, P. Kujawa, J. Wodecki, M. Hardygóra, R. Zimroz, *Wroclaw University of Science and Technology, Poland*
- **Advanced predictive maintenance in mining industry - diagnosis and machine health forecasting in presence of non-Gaussian disturbances**
Wyłomańska, R. Zimroz, *Wroclaw University of Science and Technology, Poland*
- **Study on dynamic subsidence prediction of abandoned open-pit mine affected by multi-layer goaf**
Y. Li, X. Lei, J. Wang, *School of Energy and Mining Engineering, China University of Mining and Technology Beijing, China*

09:25 Discussion of pitch talks

09:45 Coffee Break

Business session

Session chair: V. Kecojevic, *SOMP Secretary General*

10:10 SOMP Business Meeting

12:15 Lunch Break

Education Session I (Education Committee)

Session Chair: S. Nowosad

13:15	Pitch talks (8 min) on Innovative and creative teaching <ul style="list-style-type: none">• A success story in Mining Engineering Education that strengthens Africa-Europe links – the Master in Mining of Diamond Deposits, Angola M. C. Vila¹, A. Almeida², ¹University of Porto, Portugal, ² Universidade Agostinho Neto, Angola• Water Management for Future Mining Engineers (Developmental Approach) M. Bothe.Fiekert¹, F. Apollo¹, A. Binder¹, A. Hutwalker^{1,2}, O. Langefeld¹, ¹Clausthal University of Technology, ² Harzwasserwerke GmbH, Germany• TMR – Tactical Medical Mine Rescue (20 minutes including demonstration) F. Reuter¹, A. Fichtner², H. Mischo¹, ¹TUBAF- TU Bergakademie Freiberg, Germany ²Kreiskrankenhaus Freiberg, Germany
13:50	Discussion of the pitch talks
14:05	Tim Shaw Award Presentation
14:30	Coffee Break
	Collaboration on research (Research Committee) Session Chair: W. V. Liu, O. F. Ugurlu
14:50	Introduction to the session
	Research-Focused Speed Dating & World Café
16:15	Transfer to Goslar
	Awards Dinner
18:00	Arriving and Reception @ Kaiserpfalz (Kaiserbleek 6, 38640 Goslar)
18:30	Group Photo
19:00	Awards Dinner <i>A seating plan will be provided at the entrance</i>

Saturday, September 16th

Education Session II (Education Committee)

Session chair: A. Binder

09:00	<p>Pitch talks (8 min) on Education challenges</p> <ul style="list-style-type: none"> • From Lab to Market: Empowering PhD Candidates in the Raw Materials Sector through Entrepreneurship V. Karu, <i>Tallinn University of Technology, Estonia</i> • Best practices of academia-industry collaboration in Spain and Peru: The case of the Epiroc University-Company Chair and the Hub and Spokes Model R. Laín¹, M. Cedrón², S. Nowosad³, A. Tobar⁴, ¹<i>Politécnica de Madrid, Spain</i> ²<i>Universidad Nacional Mayor de San Marcos, Peru</i>, ³<i>Clausthal University of Technology, Germany</i>, ⁴<i>Epiroc, Peru</i> • Integrating interdisciplinary projects in engineering curriculum J.-G. Swanson, <i>Magdeburg-Stendal University of Applied Sciences, Germany</i> • Challenges and opportunities in making the educational offer more attractive at the Faculty of Geoengineering, Mining and Geology of Wroclaw University of Science and Technology K. Adach-Pawelus, M. Hardygóra, G. Paszkowska, M. Worsa-Kozak, R. Zimroz, <i>Wroclaw University of Science and Technology, Poland</i> • Defining the Mining Engineering Graduate of the Future – Mining Engineering Education Within the European Union Vs. Industry Demands and Challenges G. Meissner, H. Mischo, M. A. Islam, <i>TUBAF- TU Bergakademie Freiberg, Germany</i>
09:40	Discussion of the pitch talks
10:05	Workshop: Imagination exercise – The mining engineer of the future
10:35	Coffee Break
10:50	<p>Pitch talks (8 min) on The Emerging Workforce</p> <ul style="list-style-type: none"> • Mining Engineering in International or Intelligent: Can these attract college students? L. Liu, Q. Lan, J. Tang, <i>Chongqing University, China</i> • Recent practices in Japan to attract students to the mining industry and mining engineering education by using internships and other program K. Aikawa, I. Park, N. Hiroyoshi, M. Ito, <i>Hokkaido University, Japan</i> • Stopping the Talent Leakage: How to Attract and Retain Parents as Part of an Inclusive Canadian Mining Workforce C. Mueller¹, A. Johnson² ¹<i>Schulich School of Business</i>, ²<i>York University, Canada</i>
11:15	Discussion of pitch talks
Education III (Education Committee)	
Session chair: Education Committee	
11:30	Workshop: Clash of generations
12:30	Lunch break

Brief communication II (Members Development Committee)

Session chair: A. Brickey

13:30	Michael Karmis SOMP PhD Fellowship Award Presentation
13:45	Welcome and Overview on competition A. Brickey
13:55	Pitch Talk Competition
14:55	Polling and Awards presentation

Closing

15:05	Handover of the Flag
	New SOMP President Address
	Conference Close
15:30	Transfer to Goslar

Cultural program and Farewell Evening

17:00	Mine Tours at the World Heritage Site Rammelsberg (Bergtal 19, 38640 Goslar)
19:00	Farewell Evening

Conference Venue



Aula Academica
Aulastraße 8
38678 Clausthal-Zellerfeld