The United Nations (UN) have highlighted that minerals are essential for human well-being and are fundamental for virtually all sectors of the economy. Most of the Sustainable Development Goals (SDG) of the UN like the reduction of poverty and hunger or the improvement of industry, innovation and infrastructure amongst others cannot be reached without the contribution of the mining industry. Growing world population + increasing urbanization + increasing prosperity = more mining in the future. A very simple formula. Of course, mining in the future has to be smarter than today to realize and to enhance its benefits and to avoid economic, environmental or social risks.

Mining is a complex business. It deserves an excellent education to cover all facets of the industry, no matter if it is artisanal small scale mining or digital large scale “Mining 4.0”.

Because universities enhance progress, they play a key role for a better world! They generate and transfer local knowledge and they exchange knowledge across the scientific community regionally, nationally and world-wide. The universities maintain a network of international relationships and thus a world-wide infrastructure that can be utilized for coping with the tasks of sustainable development. One of the most important networks in the academic mining world is the Society of Mining Professors (SOMP).

SOMP is a non-profit organization constituted in Leoben, Austria in 1990 and registered in Delft, the Netherlands. The purpose of SOMP is to promote the responsible practice of mining engineering as an engineering discipline, and to facilitate information exchange, research and teaching collaboration and other collaborative activities among its members. The mission of SOMP is to contribute towards a sustainable minerals supply for society. To accomplish its mission and achieve its purpose, SOMP holds an annual general and regional meetings, publishes into the international journal of Mining Technology, provides a variety of information on its website, and supports relevant international conferences and other academic activities.

SOMP offers an extremely effective informal international networking opportunity amongst mining academics around the world. This has led to numerous examples of international research collaboration; staff exchange; shared education curriculum and research advice; shared teaching resources; capacity-building support in developing regions; postgraduate student exchange; benchmarking between universities etc. – plus wonderful friendships.

Friendships are important in a world where the rules of the game are changing rapidly. We are facing a redefinition of international political relations based on nationalism. We are concerned about the increasing acceptance of “fake news” in public. We as academics have to argue against these developments. We are a community of global responsibility. We follow a vision of a better mining for a better future of mankind.

It is an honor and privilege to serve as the President of SOMP for 2018-2019. I am very glad and deeply grateful to the Council and the members for electing me and providing me with this wonderful opportunity.

I am very happy to host the SOMP annual meeting at my university, Technische Hochschule Georg Agricola, in Bochum, Germany, from June 29th to July 5th, 2019. I am sure that this meeting will foster our collaboration and innovation in research, teaching and learning practices and point out our relevance and impact for the global mining sector and society at large.
Professor Günter Fettweis (1924-2018)

An Appreciation from his colleagues and friends from the Society of Mining Professors (SOMP)
by
Professor Michael Karmis, Emeritus Secretary General of SOMP
Virginia Tech, USA

Dear Society of Mining Professors Members,

It is with great regret to inform you that Professor Günter Fettweis, a Founding Member and the First President of our Society, died on October 31, 2018, few days before his 94th birthday. Günter was an inspired leader, a passionate advocate of the discipline, an enthusiastic mentor and a committed SOMP supporter.

The Rector of the University of Leoben (Montanuniversität Leoben) and his fellow professor, colleague and successor, Horst Wagner, have delivered eulogies for Günter’s passing, describing his illustrious career and significant accomplishments and contributions. I would like to add to these formal recognitions with some personal remembrances from Günter’s association with and contributions to SOMP and the inspired counseling and mentoring he so generously provided to his younger colleagues.

Günter had a deep concern for the preservation and scientific growth of the mining engineering profession. He was committed to seeing the discipline diversified, improving educational standards among the various mining engineering departments, and developing strategic partnerships within the global mining academic community. Holding the office of the Rector of the Montanuniversität Leoben, Austria, 1968 to 1970, Günter further solidified his views and aspirations to create a thriving global community of mining engineering academics who could reverse declining enrollment trends and at the same time improve the stature of the discipline within their institutions and nationally.

This quest led to his convening a meeting of some 20 professors of mining, mainly from Europe, at his home Institution, the Montanuniversität in Leoben, Austria, on October 21, 1990. Günter proposed that a new society should be formed to advance the mining engineering discipline and profession and that should be called the Society of Mining Professors (SOMP) in English, but should also retain its original German name, Societät der Berbaukunde. This is in recognition of the history and contributions of the original Societät, formed in 1762 in Schemnitz (Banska Stiavnica), in what was then the Austro-Hungarian Empire (now in Slovakia). The Societät der Berbaukunde included as members some of the most noted scientists of that period.

The attendees of the 1990 meeting enthusiastically received the recommendation and Prof. Fettweis was elected as the first President of the newly formed Society. I must also recognize the pivotal role, leadership and contributions of two other colleagues, Professor Tim Shaw-First Secretary General of SOMP, and Professor Ludwig Wilke.

As reported in our latest newsletter, our Society now lists more than 320 members, from more than 45 different countries, representing more than 140 different institutions, across all continents. In addition, the membership is more diverse in age and gender and the Society is heavily engaged in capacity building for the sector.

Günter retired in 1993 but continued to participate and advise SOMP and its members, always with great enthusiasm and insight.

The 23rd Annual General Meeting of the Society in 2012, held in Wroclaw University of Technology, Poland, was particularly memorable for Günter and his SOMP friends. It was the last meeting he was able to attend. Although his health had deteriorated, he was excited and eager to present the first Günter Fettweis Award at that Annual Meeting. This major society award was named after him in recognition of his role to reconstitute the historic Society of Mining Professors, for serving as the first President and for being an inspired leader of our Society and the academic mining community. Appropriately, the Günter Fettweis Award recognizes active SOMP Members for accomplishments and excellence in education, research and professional service to advance the discipline of mining engineering and for significant contributions to the Society. A list of colleagues that have been honored to receive this award can be found on the SOMP website, https://miningprofs.org/guenter-fettweis-award

Inaugural SOMP Meeting, Leoben, Austria, 1990

2nd SOMP Annual Meeting, Luleå, Sweden, 1991 (In front row, to the left of the Second SOMP President, Professor Almgren)
With the death of Prof. Günter Fettweis, SOMP and the global mining community have lost a loyal friend, an inspired colleague, a dedicated mentor and someone who carried the title of Mining Professor with a unique dignity and pride. As Professor Horst Wagner mentioned in his eulogy, “...generations of students and graduates can look back with pride and gratitude on having Prof. Günter Fettweis as a teacher.” As we mourn Günter’s passing, we also send sincere condolences to his wife of more than seventy years, Alice, and to the entire Fettweis family.
It is indeed an honor and privilege to serve as the SOMP Secretary-General. I would like to thank very much our previous Secretary-General, Bruce Hebblewhite of the University of New South Wales, for his commitment, hard work and vision in leading SOMP to the thriving and vibrant Society it is today. Much of what we have today is a direct result of his leadership, and we owe him a tremendous debt of gratitude.  
Over the last decade, and under Bruce’s leadership, the SOMP has substantially grown internationally, but more importantly, we have seen membership representation from virtually every major mining and mining-educator country in the world. We have seen an increase in participation of junior members, growth in regional meetings being held all over the world and greatly contributing to improvements in mining education in many countries, the increased level of activities by our various SOMP committees on a range of projects, and development and implementation of our SOMP Strategic Plan, which is actively guiding so many of our initiatives. Congratulations to Bruce for a great job he has done and for cementing an incredible legacy with SOMP that will serve many generations to come. He has been an outstanding leader, there is little doubt that he will be truly missed as the Secretary-General, but his legacy will live on for decades to come.

If there is one word to describe the state of SOMP, then it is the growth. We are growing in terms of number of activities, number of SOMP members, and number of opportunities for our members. Since its inception in 1990, during a special inaugural meeting of 20 professors, hosted by the Montanuniversität in Leoben, Austria, the Society functioned primarily as a European entity of senior academics in the mining engineering discipline. The Society is considered the natural successor of the historic Societät der Bergbaukunde, formed in the early 18th century and recognized as the world’s first international scientific society. By the end of November 2018, after almost 28 years of operation, Society membership has increased to 328 members representing 145 mining schools in 49 countries. What an outstanding achievement!

I am very pleased to report that in the last five months, to the end of November 2018, we have welcomed a further 15 new members from 10 different countries. Congratulations and welcome to all of our new members! We look forward to meeting with you in the future and to your active participation in the Society. Thanks also to those members who encouraged and supported you through nomination.

Regarding new membership, all members are once again reminded that membership is not restricted just to those of us who are full professors. Under the constitution of the Society, any person who is directly involved or affiliated with mining engineering education is eligible to join SOMP. We strongly encourage younger mining academics or faculty members who are just setting out on a mining academic career to consider joining SOMP to benefit from the ever-increasing international network of fellow mining academics. So please encourage your younger colleagues and friends to consider membership. This includes current PhD students or post-docs who may be considering an academic career in the future – you can apply to join SOMP as a junior member, and gain access to all that the Society is doing and immediately share in the international network of mining academics, and also gain from our recent but very active international mentoring program. Prospective new members should contact Zach Agioutantis with any queries regarding the online membership application process (or any other website inquiries). His email address is: zach.agioutantis@uky.edu.

New Members: June - November, 2018

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<th>NAME</th>
<th>INSTITUTION</th>
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<td>Qingqing Huang</td>
<td>West Virginia University</td>
<td>USA</td>
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<td>Wael Abdellah</td>
<td>Assiut University</td>
<td>Egypt</td>
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<td>Rauno Toppila</td>
<td>Lapland University of Applied Sciences</td>
<td>Finland</td>
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<td>Shuren Wang</td>
<td>Henan Polytechnic University</td>
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<td>Ralph Baltes</td>
<td>RWTH Aachen University</td>
<td>Germany</td>
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<td>Haleh Rasekh</td>
<td>University of New South Wales</td>
<td>Australia</td>
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<td>Mahmut Kuyumcu</td>
<td>TU Bergakademie Freiberg</td>
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<td>Thomas Bartnitzki</td>
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<td>Scott Rosenthal</td>
<td>Montana Tech</td>
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<td>Natalya Kulenoiva</td>
<td>East Kazakhstan State Technical University</td>
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<td>Zhanar Onalbayeva</td>
<td>East Kazakhstan State Technical University</td>
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<td>Javier Leonardo Salazar Muñoz</td>
<td>National University of Moquegua</td>
<td>Peru</td>
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<td>Kridtaya Sakamornsnguan</td>
<td>Department of Primary Industries &amp; Mines</td>
<td>Thailand</td>
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<td>Ashim Khaumdas</td>
<td>Council of Mining Professional Association</td>
<td>Mongolia</td>
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<td>Huamin Li</td>
<td>Henan Polytechnic University</td>
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There have been a number of exciting SOMP activities through the Education Committee; Research, Development and Industry Committee; Members Development Committee; Capacity Building Committee; and at our general annual and regional meetings. I invite you to get actively involved with one of our committees, our meetings, and contribute to our SOMP vision and mission. Networking opportunities and development of long term professional relationships at our meetings are unparalleled. Many of our joint research and educational projects and other collaborative efforts among our members are initiated at these meetings. Some achievements to date include: assisting with capacity building in many developing countries, assistance with curriculum development and teaching by multiple SOMP universities, sharing innovative teaching technologies, collaborative international research projects such as Mines of the Future, joint peer-reviewed journal and conference papers and presentations, collaborative teaching models, innovative teaching and learning/assessment tools, staff/faculty and students exchanges and visits, staff/faculty referencing for promotion, international benchmarking of curricula and of staff/faculty profiles, etc. The SOMP annual and regional meetings have been tremendously beneficial for the junior members who have been able to land academic jobs.

The Mining Technology Journal is the official SOMP journal. All members of the Society with their membership fee receive electronic online access to Mining Technology, as well as discounted print subscription rates. Mining Technology is devoted to all aspects of underground, surface, and offshore mining operations. SOMP members also have access to all presentations and electronic material that were generated during past general annual and regional meetings. I invite you to browse our SOMP website and learn more about the SOMP and its mission, programs, governance, structure and global focus.

You are all aware that our Society has solely been supported by the membership fees, and SOMP pays for many activities and services used by SOMP members. These include: subscription to the Mining Technology journal, IT maintenance including web hosting fees and web site maintenance, the project like online payment system, audit reviews, professional accountant, support for regional and AGM meetings (1000 or 1500 euros), gifts for emeritus members, award medals, etc. The SOMP Council appreciates and thanks all those who have been paying their membership fees. However, after reviewing our financial books and during the SOMP Council meeting in China, it was determined that there are some members who have not paid their membership fees for several years. This impacts the financial bottom line of the Society and services that SOMP provides to its members. The Council has proposed and membership at the Annual General Meeting in Beijing has approved that we only solicit membership fees for years back to 2015 (where applicable), and including year 2018. Therefore, SOMP Council and I respectfully request that all these dues be paid to our Society by the end of this calendar year. If you need more time to make this payment, please don’t hesitate to contact directly the 2018 and I would like to thank you very much for your contribution and active involvement in our activities, and I do hope you will continue to support our Society. From a personal experience, the SOMP has brought a tremendous positive impact to my career development and a long-term friendship with many SOMP members. The SOMP has been my family since 2006, and it has brought a huge positive impact on both my professional and personal life, and I have been fortunate that I have had a chance to be a part of this wonderful family.

Please don’t hesitate to let the President and/or I know how SOMP can support your continued professional development. I look forward to serving you all and continuing to build our Society.

Reports from past SOMP Meetings

The 29th Annual General Meeting, Beijing, China, July 3-6, 2018

The 2018 SOMP Annual General Meeting has marked the history. For the first time, the SOMP has moved to China, the largest mining region in the world, and also one of the largest mining education sectors in the world. Under the leadership of Zhongxue Li, the 29th SOMP Annual General Meeting was held in Beijing from July 3rd through July 6th, 2018 and it was hosted by the University of Science & Technology Beijing (USTB), China, assisted also by the China University of Mining & Technology (Beijing) and the North China Institute of Science & Technology. A total of 66 international and 26 Chinese delegates attended the meeting, plus 17 accompanying persons. The post-conference tour was attended by 16 persons.

Technical program included some introductory presentations on both coal and hard rock mining research and education opportunities and challenges with China’s Belt and Road Initiative and Double First-Class Initiative, while SOMP Committees organized interesting presentations and panel discussions on teaching innovations for the young generation of mining engineers; mine safety and health, community and sustainability; members development and capacity building. Peer-reviewed full paper proceedings have formally been published online with Open Access at https://ojs.library.dal.ca/IJGE/issue/view/789.
Again, it should be noted that this meeting was what SOMP is all about – not just another international conference of multiple technical paper presentations, but rather the selected number of presentations, integrated with informative and practical discussion forums and panels – covering our major interest areas of future education needs, collaborative research opportunities, members development, and capacity building for new mining programs in developing parts of the world.

During the meeting and at the Awards Dinner, several awards were presented. Firstly, the third annual presentation of the Tim Shaw Award for Innovation in Teaching and Learning was made to Simit Raval from University of New South Wales, Australia. He delivered his presentation on changing landscape of learning and teaching.
As the recognition for organization and contributions to 2018 SOMP Annual General Meeting and overall service to SOMP, special memorable medals were awarded to 2017-2018 SOMP President Zhongxue Li and Secretary-General Bruce Hebblewhite, and incoming 2018-2019 SOMP President Jürgen Kretschmann and Secretary-General Vladislav Kecojevic. At the end of the meeting, an oral and video tribute to the out-going Secretary-General Bruce Hebblewhite was presented by incoming Secretary-General Vladislav Kecojevic and warmly moved all the audience.

The meeting was enriched by unique visits to Chinese cultural and historical gems including the Temple of Heaven, the Forbidden City with Palace Museum, the Tian An Men Square, the National Museum of China, and the Great Wall of China. Another unforgettable attraction was the Beijing Olympic Park. The technical tours included visits to both an underground coal mine with top coal caving longwall in Datong and the Anjialing open pit (a successor of the Antaibao coal mine) in Shuozhou, and Museum of China Coal Pingshuo Coal Company. Visits to mines and Museum deeply impressed the participants on the post-conference technical tour.

The meeting was a great success in every way – from the planning and organization, to the venue, the level of attendance, all activities, and a program. A big thank you must go to Zhongxue Li and all of his team members for the effort they placed in, and the great achievement of delivering a highly successful meeting. Congratulations Zhongxue and your team for this wonderful meeting and unique lifetime experience.

For those who have not yet looked at them, there is a very comprehensive collection of high quality photographs on the SOMP website, recording every aspect of the Beijing meeting. Simply go to the website, click on News & Activities; Annual Meetings; 2018 Meeting – Pictures: [https://miningprofs.org/annual-meetings](https://miningprofs.org/annual-meetings)

Thanks to our social media master, Domingo Javier Carvajal Gomez of University of Huelva, Spain, many photos are posted on our Society’s Facebook page: [https://www.facebook.com/mineprofs/](https://www.facebook.com/mineprofs/)
The 8th SOMP Regional Meeting, Bandung, Indonesia, July 26-27, 2018

The 8th Regional SOMP Meeting was held in Bandung, Indonesia, July 26-27, 2018 under the leadership of Rudy Sayoga Gautama and Aryo Prawoto Wibowo of Bandung Institute of Technology. Nineteen international delegates from Australia, Spain, Germany, Japan, China, Namibia, South Africa, and Vietnam, and 73 delegates from Indonesia participated in this meeting. It should be noted that almost 60 Heads of mining engineering study programs in Indonesia, representing universities of higher education with mining engineering in Indonesia, attended this conference.

Welcome speech by Rudy Sayoga Gautama, Chairperson of the 8th SOMP Regional Meeting

Opening speech by Jürgen Kretschmann, 2018-2019 SOMP President

Discussion during the SOMP meeting

Participants at the SOMP regional meeting in Indonesia

Visit to an underground gold mine
The major areas for discussion centered on mining development in Asia: challenges and opportunities for Asian mining education.

Welcome speech was given by Rudy Sayoga Gautama (Chairperson of the 8th SOMP Regional Meeting), followed by the opening speech by Jurgen Kretschmann (2018-2019 SOMP President).

Session on Capacity Building included presentations on effective capacity building by empowerment teaching by Jurgen Kretschmann; an innovative education approach by Carsten Drebenstedt; current status of mining engineering schools in Indonesia by Ganda Marihot Simangunsong; and industry engagement as facet in enhancing sustainability of mineral education by Harmony Musiyarira.

Second session on International Collaboration included presentations on international cooperation at Hanoi University of Mining and Geology by Nga Nguyen; mines of the future by Serkan Saydam; international field practice 2017 - cooperative program for resources engineering between Kyushu University & Hokkaido University in Japan by Hideki Shimada; and international collaboration in education in mining engineering of ITB by Syafrizal Lillah.

Session on Innovation in Teaching and Learning included presentations on new mining curriculum at the School of Mining Engineering at the University of the Witwatersrand by Rudrajit Mitra; curriculum of mining engineering in ITB by Rudy Sayoga Gautama; the education of economic geology in the world today by Antonio Arribas; going beyond flexibility: maximising student personalisation through flexible learning spaces and styles by Paul Hagan, and mining museums and education by Domingo Javier Carjaval Gomez.

A technical visit was also made to ANTAM UBPE Pongkor, an underground gold mine. There was a total of 19 international participants, and a number of students and academics participant from ITB at this mine tour.

The 9th Regional SOMP Meeting and Conference, Bochum, Germany, October 17-20, 2018

The Society of Mining Professors 9th Regional Meeting and Conference was held in Bochum, Germany in October 2018. This Meeting and Conference was hosted by the TH Georg Agricola, under the leadership of 2018-2019 SOMP President Jürgen Kretschmann. The theme of this Regional Conference was “Technological Footprints of German Hard Coal Mining”, and included nine presentations on topics related to ground control at great depth, extraction technology, mine ventilation and mine climate, health and safety, water management, and logistical functions. A total of 105 delegates, including 37 SOMP members from 10 countries, and from four continents (Asia, Australia, Europe and North America) participated in this event. It was encouraging to see the presence of almost 30 students from TH Georg Agricola, and six journalists from various German news outlets.
The delegates have had an opportunity to visit RAG’s Prosper-Haniel coal mine, the mining museum in Bochum, the Zollverein UNESCO World Heritage Site, the Gasometer Oberhausen - Europe’s tallest exhibition hall, and enjoy an amazing Miner’s Night event.

A lot of thanks to our 2018-2019 SOMP President Jürgen Kretschmann for a great organization of this wonderful meeting, and also to his tireless staff Diana Lezcano Zapata and Benedikt Graefingholt. A special appreciation and recognition are extended to RAG who provided accommodation and support for this SOMP Regional Meeting and Conference.

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The 4th International Conference on Economic Management in Mineral Activities (EMMA), November 19-20, 2018

The 4th International Conference on Economic Management in Mineral Activities (EMMA) was held on November 19-20, 2018 in Hanoi, Vietnam under the leadership of Nguyen Thi Hoai Nga, SOMP Council Member from Asia. The conference was organized by Hanoi University of Mining and Geology of Vietnam and Technische Hochschule Georg Agricola of Germany. This conference is a direct result of initiative and effective collaborative work among the members of the SOMP Capacity Building Committee.
The major topics of EMMA conference were sustainable development in the mining industry, policies of mineral activities, capacity building and human resources management in the mining industry, production and cost management in mining companies, and financial management in the mining industry. The conference was attended by participants from four continents and almost one hundred Vietnamese participants, coming from mining universities, research institutes, the extractive industry, authorities and media. The conference EMMA 2018 is sponsored by Viet Nam National Coal – Mineral Industries Holding Corporation Limited (Viacomin), PetroVietNam Exploration Production Corporation (PVEP), Nui Phao Mining, German Academic Exchange Service (DAAD) and Consultant Investment Construction for Mining Metallurgy Industry Company Limited (CIC).

Future SOMP Meetings

The 30th SOMP Annual General Meeting – 2019

The 2019 Annual General Meeting of the Society of Mining Professors is going to be held in Bochum, Germany – hosted by TH Georg Agricola, under the leadership of 2018-2019 SOMP President Jürgen Kretschmann. The meeting will take place between June 29th and July 5th, 2019 – the program including arrival and registration on the 29th; and the meeting held between June 30th and July 3rd. An optional mine tours will include surface lignite mine and underground salt mine. Program details, registration information, and accommodation booking advice will be sent to SOMP members in December 2018.

We would again like to challenge all SOMP members planning to attend to consider bringing along one of up-and-coming PhD students or post-docs, who might be aspiring to a future academic career. It would be great to have a large representation of these younger people participating in our meeting, so please give this serious thought.

The 31st, 32nd and 33rd SOMP Annual General Meetings - 2020, 2021 and 2022, respectively

At the SOMP Council meetings in Torino, Italy in 2017 and Beijing, China in 2018, the decision was made for the future leadership of the Society through to 2022, and hence the annual meeting venues for 2020, 2021 and 2022.

Oscar Jaime Restrepo Baena of the Universidad Nacional de Colombia, was appointed to be the 2019-2020 SOMP President and he and his university will host the 31st Annual General Meeting in Medellin, Colombia, in June 2020.

Harmony Musiyarira, from the Namibia University of Science and Technology was elected as the 2020-2021 SOMP President and this will be for the second time that SOMP Annual General Meeting will be held in Africa.

The SOMP Council and membership confirmed the 2021-2022 Presidency of Oliver Langefeld, from TU Clausthal, and 2022 SOMP Annual General Meeting will be held in Germany under his leadership.

Proposals to host either annual or regional meetings should be made to the Council of the Society, and submitted through the Secretary-General. The next Council meeting is scheduled for June 2019, so any proposals wishing to be considered in 2019 should be received by the Secretary-General no later than May 31st, 2019.
The report from the SOMP Strategic Planning Committee meeting in Bochum

The SOMP Strategic Planning Committee met on October 16th and 17th, 2018 at Technische Hochschule Georg Agricola (THGA), Bochum, Germany. The Committee members in attendance were 2018-2019 SOMP President Jürgen Kretschmann, Secretary-General Vladislav Kecojevic, Deputy Secretary-General Treasurer Ludger Rattmann, Director of IT & Membership Zach Agioutantis and SOMP members Bruce Hebblewhite, Michael Karmis, and Elisabeth Clausen. Other SOMP members also contributed to discussions during two-day meeting including Pinyo Meechumna, Nguyen Nga, Domingo Javier Carvajal Gomez, Paul Hagan and Michael Hitch.

The Committee reviewed major SOMP documents: SOMP Constitution, SOMP Statues, SOMP Rules and Procedures, and SOMP Executive and Committee Structure and Roles. The Committee also discussed implementation of decisions by the SOMP Council from the 2018 meeting in China, 2018 SOMP Survey results, Potential future SOMP annual and regional meeting venues, and Agreements/MOUs with various professional mining societies and organizations.

The Committee suggested some updates to major SOMP documents which basically reflect changes in SOMP over the last decade, except SOMP Statute which is a legal document and would need a significant involvement of legal representation. The proposed changes will be reviewed by the SOMP Council during the Annual General Meeting (AGM) in Bochum in 2019 and then presented to SOMP membership.

It was proposed that SOMP be more diverse and inclusive related to SOMP Officers and Committees. Although we have representation on SOMP Council and SOMP Committees from every single continent, we are moving to even more diversify our Society. Ludger Rattmann, after serving almost a decade as the SOMP Deputy Secretary-General Treasurer, decided to step down from this position. After a long and persistent efforts in searching for his replacement, we are delighted to report that Elizabeth Clausen of Aachen University accepted to serve as the new SOMP Deputy-Secretary General Treasurer effective after the AGM in June next year in Bochum. This will need to be approved by the SOMP Council at the AGM meeting in Bochum. We thank and appreciate very much Ludger’s service and dedication to SOMP. The Committee proposed to hire a professional accountant who understands tax laws to assist Elizabeth related to financial issues.

Pinyo Meechumna served this Society as the Council Member from Asia for eight years, and we thank him very much for his service. Since his term has expired, it is our pleasure to welcome Nguyen Nga from Vietnam as the new Council Member from Asia.

The Committee proposed to update some management responsibilities and roles for SOMP Officers and IT and Communication Committee. Specifically, this Committee needs to make a strategy and implementation for the social media such as Facebook, and to look at the privacy policy issues. Currently, this Committee includes Zach Agioutantis, Domingo Javier Carvajal Gomez and Steven Schafrik. The Committee proposed to expand its membership and include Angela Binder, Michael Hitch and Jorge Soto. This Committee needs to report to SOMP Council and membership at the next AGM in Bochum in 2019.

There was a discussion on potential and future SOMP meeting venues, both annual and regional. The SOMP Council and membership already approved 2020 AGM in Colombia under the leadership of Oscar Jaime Restrepo Baena; 2021 AGM in Namibia under leadership of Harmony Musiyarira; and 2022 AGM in Clausthal, Germany under the leadership of Oliver Langefeld. Potential venues after these meetings include Australia, Spain, South Africa, Japan, Vietnam, Canada and Peru. Planned regional meetings were proposed for Finland in 2019, Vietnam in 2020, and potentially Mongolia and Kazakhstan in the future.

After reviewing our financial books and during the SOMP Council meeting in China, it was determined that there are some members who have not paid their membership fees for several years. This impacts the financial bottom line of the Society and services that SOMP provides to its members. Our Society has solely been supported by the membership fees, and SOMP pays for many activities and services used by SOMP members. Therefore, the Secretary-General will request by an email to SOMP members that all these dues be paid to our Society by the end of 2018 calendar year. Those who don’t pay by the end of the year will be receiving a final note for payment from the SOMP President and Secretary-General, and if the payments are not received by the end of January 2019, their membership will be canceled.
In 2019, the membership fee will be the same, 70 euros, and 35 euros (50% of the full payment) for junior members. Emeritus members will not be charged but we encourage them to make a donation to SOMP.

SOMP conducted a survey of its members in September 2018. The purpose of the Survey was to receive the members’ views on the future and role of the Society, and what we as the Society can do to enhance our activities. Almost one third of members responded to this survey.

Those who responded to the SOMP Survey indicated that the valuable outcome from their membership in SOMP include: networking, making friends from all around the world, learning about open positions at various universities, learning about curricula at other universities, professional development, international project collaboration on education and research, opportunity for exchange of students and professors, participating at MS and PhD committees at other universities, opportunities for mentoring, visiting other universities and countries, and opportunity for exchange of ideas in teaching and research. There were 30 collaborative projects among SOMP members from different universities as the direct results of networking through SOMP. It appears that there is a need to expand the coverage in our Newsletters with some specific topics such as news/reports on exchange of students among SOMP schools, short profile of new members, case studies on collaborative projects among SOMP universities, inclusion of interviews with SOMP members related to successful collaborative projects on education and research, and report on major awards of SOMP members.

The SOMP membership was asked to indicate what they would like to see strengthened or added to the SOMP activity agenda in the future, and to comment if any current SOMP activities should be reduced or eliminated altogether. The overwhelming majority of the members is happy with what we do so far. Some additional comments include suggestions to make an effort to lower registration fee for the AGM so more people can attend particularly from developing countries, to have more discussions, workshops and panels during annual meetings with topics of interest to all SOMP members attending the meetings, and also have one day of technical presentations for selected papers so more people can justify attending AGM, organize AGM so it provides more visits to universities, and establish an award for a collaborative education and research projects among SOMP members.

The SOMP Strategic Committee proposed to develop an Agreements/MOU with Society for Mining, Metallurgy and Exploration (SME), a professional organization with almost 15,000 members worldwide. This collaboration would include: (i) developing a database of mining professors including name, institution, rank, teaching and research expertise. The database would be published in annual SME Mineral School Guide or have online access; (ii) publishing SOMP/SME student numbers per institution with the number of students and the number of graduates. The list would be published in annual SME Mineral School Guide or have online access; (iii) Common activities to foster new SME members on SME ABET committee; and SME Educational and Research Committees, as well as Publication Committee; and (vi) having a short overview of SOMP Annual Meetings to be published ones per year at one of the issues of SME Mining Engineering Magazine. The SOMP President and Secretary-General should formalize and sign this MOU during the annual SME Meeting in Denver, Colorado in February 2019.

**Education Committee**

The committee met in person at the 29th SOMP Annual General Meeting in Beijing on July 3rd, 2018. We welcomed our new members, which included Ismet Canbulat (UNSW Sydney), Michael Nelson (University of Utah) and Nicole Smith (Colorado School of Mines), who was unable to attend this meeting. The committee also thanked the assistance provided by Andrea Brickey (South Dakota School of Mines) who recently was invited to the Members Development Committee. Simit Raval (UNSW Sydney) was the winner for the 2018 Tim Shaw Award. It was agreed at the Committee meeting that a rubric will be developed for judging future applicants for the Tim Shaw Award. This is currently in the development stage and will be sent along with the call for applications for next year.

Ronny Webber-Youngman (University of Pretoria) provided an update from the sub-committee on “Mining education of the future”. The goal of this sub-committee is to work on developing of a guideline for the mining engineering education. Rudrajit Mitra (Wits) will present the findings of this at the 2019 SME Annual Conference and Expo. Michael Hitch (Tallinn University of Technology) provided an update on the sub-committee on “Strategies for teaching sustainability to Mining Engineers”. It was agreed that stakeholder concepts and mining in circular economy should be considered in the curriculum. Angela Binder gave an update on the SOMP educational annual survey which will be available on the SOMP website. This is one of the initiatives of this Committee to develop an international comprehensive database of the various Mining Engineering programs including number of students, staff and graduates.
The Research, Development and Industry Committee (RDI) organized two sessions and one panel discussion during the 2018 SOMP Annual General Meeting in Beijing. Technical presentations included variety of topics such as stochastic optimization of mining complexes, safety, social dimensions for successful development of mining projects, potential of scientific and industrial collaborations in the field of rare earth elements, smart sensing, and grand challenges in mining. Two special topics covered presentations on making industry-university research collaboration successful, and fostering innovation through collaborative research. Following these presentation, the RDI Committee Chair Serkan Saydam moderated panel discussion on industry-university collaboration, and collaboration with emerging economies.

This Committee, Secretary-General and President plan to host a special panel on research funding during the 2019 SOMP Meeting in Bochum, Germany with four distinguished researchers including Michael Karmis (Virginia Tech, USA), Roussos Dimitrakopoulos (McGill University, Canada), Peter Dowd (University of Adelaide, Australia) and Carsten Drebenstedt (Technische Universität Bergakademie Freiberg, Germany). These SOMP members will share their thoughts and recommendations on attracting significant research funding from industry, government and other research foundations, and moving the research results to peer-reviewed journal and conference publications.

The Members Development Committee (MDC) hosted a session at the 2018 Annual SOMP Meeting in Beijing. The session was centered on diversity and kicked off with a presentation by Andrea Brickey on support of women in mining engineering curricula. During a panel discussion, Andrea, Jiajie Li and Simit Raval also offered remarks on diversity from various perspectives, including practices and priorities in industry versus academia, and across global regions. The session ended with an open discussion facilitated by Simit and Elisabeth Clausen to gather observations on best practice at institutions represented by the SOMP members in attendance.

For the current year, the MDC is working on three main activities. First, the Mentoring Program, which was established in 2016, will be continued for the fourth year. Second, the MDC is looking to launch an online repository of materials to be used in various outreach activities by SOMP members (e.g., K-12 and public educational programs). All members will be welcome to contribute and use hosted materials. Third, the MDC is working to organize another interactive session at the 2019 Annual SOMP Meeting, to be held in Bochum in October. The session will focus on comparing and contrasting academic systems in different regions, including an emphasis on typical professional trajectories and promotion review processes.

Look for an invitation from Emily Sarver to participate in January 2019! Additionally, we will be reaching out to participants from prior years to get feedback on the Program.

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Capacity Building Committee

Harmony Musiyarira, Chair

The 8th and 9th Regional Conferences of the Society of Mining Professors were held in Bandung, Indonesia and Bochum, Germany, respectively. These were the last two regional conferences planned for the year since the 6th and 7th Regional Conferences were held in the first half of the year in South Africa and Chile, respectively. All the four regional meetings were a success and members of the Capacity Building Committee managed to attend the meetings. This was a record for regional meetings but not to be repeated in any given year since it is very exhaustive and also makes it difficult for members to attend all four conferences. The Committee reviewed the advantages and disadvantages for holding four regional meetings in one year. In the planning meeting held in Bochum, the Capacity Building Committee highlighted the need for spacing out the regional conferences and in order to ensure that they serve their purpose and are effective. The discussions also centered on how best to organize the future regional meetings in light of the escalating costs of hosting and traveling to these conferences. The Committee floated the ideas of securing funding in terms of accommodation and reduced conference fees and promoting the process of peer-reviewed the papers to be presented as means of increasing local and regional participation in these meetings. The Committee also made reference to utilizing the template that Paul Hagan has made in order to prepare a guideline for publications and for the book of proceedings. It was also suggested that in future we could have regional meetings around key mining events provided that these events will not overshadow the regional meetings. The committee agreed to limit the number to two regional conferences per year unless there are exceptional circumstances that would warrant more than two conferences.

In 2019, there are plans to hold two regional conferences in Europe (Finland) and in Africa (Zimbabwe) at the end of October 2019 and September 2019, respectively. In 2020, there are plans to have 3 regional conferences in Asia, South America and Australasia. The South American regional conference will be held a few days before the annual SOMP meeting and conference in Medellin, Colombia.

In a bid to build the membership during the regional conferences, it was agreed that the Capacity Building committee needs to find ways of forwarding the contacts of potential members to the Membership Committee and Serkan Saydam would be required to assist with this issue. Another idea raised for discussion was on how to attract new members by means of having a discounted first-year subscription for members who join SOMP after a regional meeting. All the suggestions raised during the regional meetings will be finalized during the next annual meeting in Bochum and will still need to be taken through the Council for consideration.
Dear Junior SOMP Members:

The sustainability and growth of our Society depends on the nurturing and development of our junior members. Due to long travel distances and limited budgets, we rarely have the opportunity to meet these bright scholars at either the regional or annual meetings. We have a large crop of young scholars in various PhD programs and perhaps a relatively low-cost way of bringing their work to the fore is possible. This will not only give the senior members a chance to ‘scout out’ emerging minds and up and coming talent, but will also give these young people a chance to hone their presentation skills and integrate them into our community.

Following several discussions starting in Beijing and again in Bochum this year, a new initiative is emerging whereby young PhD scholars can begin their journey to becoming new (junior) SOMP members. One way to approach this is to facilitate SOMP sanctioned and branded Young Talent Colloquiums independent of both the Regional and Annual SOMP meetings.

These could be held in major areas so the travel costs (funded by the supervisor) will be lower; for instance, a European, an African, a Northern American (Canada and US), a South American, and one in Asian and Oceania. At these gatherings, PhD scholars could present their research, network with other scholars from regional institutions and establish relationships that will carry on for the rest of their careers. At each meeting, a top paper will be determined, and the author will be invited to attend the Annual Meeting (registration fees waived?). If there were five such scholars, a separate session at the Annual Meeting could be established solely to showcase our best and brightest rising stars.

Alternatively, a permanent session could be established at each Annual Meeting devoted only to PhD students. For example, a 1.5 hour session where a number of PhD students would have 10 minutes each to present their research. The papers submitted by these students could also be included in the proceedings as all other contributions from the actual SOMP members. By devoting a session and by limiting the time for each PhD student we will give the chance for several students to participate, while we will not limit the spots for actual SOMP members in the program. In addition, a dedicated session will attract the interest of more professors than having scattered presentations given by students during the ongoing program.

Giving a presentation and submitting a paper will also enhance the chances of these students to get funding from their universities. Especially when their funding applications include support letters from their professors or even from the SOMP President/Chairman of the Annual Meeting. Funding is a serious issue but if we are able to scout and find possible funding sources around the world this could also solve the issue of funding for professors and potential SOMP members from developing countries as well. This is another important issue that has been discussed a lot during the Capacity Building Committee meetings in Beijing and in Bochum.

If the number of students is not enough (probably during the first meetings that such a plan will be implemented) we could include keynote speeches from professors or junior members on topics related to the development of the society (how new members could be attracted) or by mentoring the students.

Bringing young scholars into our family is the way we are going to grow and sustain the Society. It is not enough just to have a table with a list of who has graduated, but rather, go back a couple of steps before that; get to know those PhD students that are developing, engage them to the Society and give them feedback and further motivation to proceed. This also would be an opportunity for established members to offer their time and knowledge if the student’s project warranted a helping hand. Not to mention that such actions will endorse collaboration between SOMP members and eventually brings us together just that little bit more.

Educating the future mining engineers: an insight from mining industry experts

The SOMP Secretary-General has recently solicited several industrial experts from South Africa, United States, Peru, Australia and Germany to provide a brief statement on expectations from tomorrow’s mining engineering graduates. These experts were asked following questions: (i) What should mining engineering schools do to enhance quality of undergraduate education and prepare graduates for tomorrow’s jobs in mining industry?; (ii) What particular skills are they expected to have?; and (iii) What do you envision as a mining engineer of the future?

Gys Landman, CEO DetNet South Africa (Pty) Ltd, South Africa

The most obvious changes in the today’s world are the mega trends, such as the digital revolution, a more connected world, a more automated world and greater environmental and social awareness.

From an engineering point of view, mining engineers are facing structural trends that influence mining business models and require new thinking for tomorrow. The engineer of tomorrow will need an expanded skill set, a different way of thinking and a strong innovative flair. Some of the technical/physical changes; 1. Mines are generally getting deeper 2. Underground mining as a category might increase in importance in future 3. Deeper mines will imply more difficult ground conditions, lowering grades to content with and more complex mineralogy. As a result, mines are becoming more capital intensive and mining cost rise in the face of a long term trend of lowering of commodity prices. In addition, the social licence to operate is becoming much more complex, an aspect which will accelerate in future. This involves political and cultural aspects and an environmental orientation in a world that is increasingly transparent (and inter-dependable).

To apply this to how the mining engineer must be prepared to face these future uncertainties is not easy. Most difficult is what to do less off when other subjects are added. In the first instance, I think we must prepare mining engineers to be a lot more comfortable in the digital world. For holistic optimisation, the mine to mill process will be managed by increased involvement of digital tools and artificial intelligence.
Handling of information (sensors, imaging etc), big data analysis and how these can be reported and exploited on an ongoing basis for optimization will require a more than superficial understanding from the mining engineer. Industrial engineering skills would replace the more mechanical orientation with more emphasis on seeing the mine as part of a total network. The new ecosystem opposite supply will be less transactional and allow more for exchange of ideas and much more space for business incorporation. Integration of the on-mine sub-processes will make mining more flexible, thus the downline effect of mining methods and practices will add greatly to the complexity of the daily decision making.

Secondly, I think mining engineers need also have a much deeper understanding of sociology and how people view economies in different social structures around the globe. What we leave out of the curriculum to make space for a bit more humanities are not easy. However, I am certain that some time needs to be dedicated to this dimension of the mining engineers education and preparation.

John Schroder, CEO of United Coal Company, United States

In my opinion, mining engineers typically go two routes in their career—through the engineering department or the operations department. Obviously, experience in both is best, but the first question I ask a young engineer is do they want to be VP of Engineering or VP of Operations when they grow up? Many have done both, but most have a desire for managing one or the other.

These are some key skills I expect a mining engineer to possess or eventually obtain to be successful in our industry:

• **Understanding that safety and the environment always come first.** It’s not only about teaching our future mining engineers the importance of safety and the environment, but engraining these two areas into their DNA. In our company, we do not do anything without first considering the safety and compliance of our workforce.

• **The fundamentals of building a company.** Basically, how do you develop a mining company from the ground-up? Of course this deals not only with the engineering principles that constructs the mine model, but it also includes safety, operations, HR, sales, maintenance, accounting, and purchasing practices that are all needed to run the business.

• **Basic skills in project management.** This is huge for our company, as we want our new mine projects and new investments to be on schedule and within the cost budget. Knowing how to construct a project schedule within Microsoft Project and other scheduling tools is a valuable skill for young engineers. In addition to project scheduling, the ability to work with multiple groups on the project schedule in the field to accomplish the end goal is a great skill for a leader in our industry.

• **Understanding of finance and accounting principles.** Does the young engineer know the fundamentals of mine costs and cost management? This is huge for Appalachian coal companies that mine in thinner seams and must always be aware of the bottom line.

• **Operations experience.** I was very impressed with the number of your students who have already gained valuable work experience. I did a Co-op program when I was in school where I completed four work semesters before I graduated and feel that this work experience gave me an advantage when I started in the industry. In fact, I was already a black hat when I started working at my first coal mine and didn’t have to learn the mining basics on the first day. I am sure your team already pushes the students to get work experience, but it is listed here because of its huge importance. Key point here is that mining students interested in being in operations cannot expect that operations experience in school alone will land them a higher level position when they graduate. The best managers in our industry understand that it takes time to work through the management ranks and absorb work experience at every level.

• **Process improvement concepts.** For an engineer to be a good engineering or operations manager, they need to value continuous improvement and understand concepts associated with lean management. I know this might be reaching a little out of the mining engineering realm, but running an efficient business takes a process improvement mindset and never being satisfied with current results.

• **Leadership skills.** We want our young engineers to grasp their position, take charge, and have initiative to make things better. Nothing wrong with “outside of the box” thinking either, as this also promotes continuous improvement. Whether one leads a group of engineers or a group of coal miners, we need our young engineers to want to lead, guide, and direct the company towards successful results.

Carlos Santa Cruz, former Vice President of Newmont for South America and presently CEO of Buenaventura Ingenieros, Peru

The following is expected from the mining engineer: effectiveness, efficiency, competiveness, adaptability (cultural, geographical, etc.), flexibility, analytical capacity, technological knowledge, and innovation. It is also expected to have a strategic vision of the mining industry, management capacity (cost/sustainability balance), and social responsibility.

Sarah Webster, Northparkes Mines, Australia

Mining engineering schools should include many practical examples from mining industry to explain the theories being taught and give students real data to work with. Site visits and vacation work to various operations allow students to visit the towns and mine locations and experience the set-up of a mine site.

Graduates are expected to have skills across the range of core mining roles such as drill and blast, ventilation, scheduling, design, costings and be exposed to various mining methods. Skills of communication and teamwork are also essential when working with people ranging in experience and backgrounds across the business.

Future engineers are likely to use more skills in automation and coding yet still need to understand the core requirements of mining.
Educating the future mining engineers: an insight from mining industry experts (continued)

Dan Payne, BHP Coal, Australia

Industry ponders a variation of this question every day when discussing the mine of the future, technological developments, and automation; in response to employees feeling threatened or insecure about their roles. The answer is always, “there will not be a reduction in jobs, but the jobs will change to meet the evolving requirements”. In addition, increased environmental restrictions and expectations on license to operate will require mining engineers to be more integrated with these requirements. Therefore the questions posed here is very relevant to mining engineering schools.

Mining engineers will need to be more aware of, and able to design, manage and plan for environmental and water restrictions, closure requirements and license to operate. Courses that keep up to date with the changing legislation and provoke thought on innovative methods to incorporate license to operate issues into mine planning in cost effective ways would put students in the right frame entering a mining company.

They will need more systems engineering knowledge to be able to move from a batch set of processes to working in a fully integrated system where all relevant data is monitored in real time and stored on one platform, from the exploration geology, through mining to sale of the exact product to the customer and all these processes use data collected at all stages of the mining process to optimize decisions at all stages. A basic understanding of autonomy, how it can/should be used in mining, as well as the risks and change management involved in autonomous systems. These autonomous systems are being brought into mining not just for productivity but for risk management, by removing operators from the line of fire.

I also believe that recent mining engineering graduates seem to want to have a cookbook process to deliver their work. Not be responsible and follow a procedure to deliver a stock standard outcome. Mining engineers need to step up into the recognition that they are engineers. They need the ability to use their judgement, to constantly improve and innovate and not accept the status quo, not be held back by current processes or equipment, and exceed license to operate requirements by challenging themselves.

The mining engineer of the future operates in a field that has strict government and community expectations, is highly technological, making use of GIS, scanning, monitoring, big data and is highly automated in order to compete, and therefore needs some fundamental knowledge in these areas in order to visualize the processes and improvements and manage and develop the new generation of skills mining will require.

Martin Junker, RAG, Germany

Mining engineers of the future need to have good basic engineering competences. They must be able to understand and manage complexity. They should know to work well in teams and/or lead teams, and to be ready for lifelong learning, continuous changes and innovations.

The understanding of vision, strategy, goals and measures in an enterprise is necessary. Mining engineers have to be familiar with all kinds of management systems such as environment, health, safety, continuous improvement, energy, quality, etc. Finance, internal and external communication, public acceptance and sustainability have to be kept in mind as well as digitalization and interdisciplinary work. They have to acknowledge that and, at the end, the decisive factor is the human one.
SOMP Members Awards and Recognitions

Zach Agioutantis, University of Kentucky, USA, is the 2018 recipient of the Syd. S. and Felicia F. Peng Ground Control in Mining Award. The award recognizes individuals who have demonstrated technical and scientific excellence in advancing the understanding of ground control technologies or approaches by publication or direct applications in the mining industry. Agioutantis will be honored, "For his ability, integrity, passion, and perseverance toward the integration of software and ground control methodologies, especially SDPS, a subsidence prediction-engineering tool, and software for NIOSH-developed ground stability design analyses." The award will be presented at the SME Annual Conference & Expo in Denver, Colorado, February 24-27, 2019.

Carsten Drebenstedt, Technische Universität Bergakademie Freiberg, Germany, was recognized as the Honour Professor from Technical University North - Caucasian Mining and Metallurgical Institute, Russia, in July 2018. He was also appointed as the Visiting Professor at Technical University Kosice, Slovakia, and University of Belgrade, Serbia.

Serkan Sydam, University of New South Wales, Australia, was appointed as the new SOMP Deputy Secretary-General at the 29th Annual General Meeting in Beijing, China. Serkan will be assisting Secretary-General in ensuring the implementation of decisions taken at all meetings, communication outside of the Society, ensuring the continuity of Society activities, recommendations regarding Committee memberships, and helping with SOMP Newsletter.

Bruce Hebblewhite, University of New South Wales, Australia was recognized with the Rock Mechanics Award from Society for Mining, Metallurgy & Exploration. This award acknowledging Bruce for his significant contribution as an educator, researcher and consultant in mine rock mechanics and ground control. The award was presented at the 2018 SME Meeting in Minneapolis, USA.

PhD Completions and Advertisements for Mining Engineering Academic Positions

In order to improve communication across the membership, the SOMP Newsletter is being used to regularly report on PhD students who successfully graduate under the supervision of a SOMP member. These idea have been adopted by the Society, and will continue in the future, subject to membership participation. You will find a table at the next page that provide this interesting and useful information. The information included is based entirely on what has been provided, and the next period of reporting will fall due at the end of May, 2019, for inclusion in the June 2019. Therefore, please send me relevant details for inclusion.

This Newsletter also include advertisement for academic positions at various universities and they are give at the end of this issue (pages 22-27).

SOMP Website and SOMP Facebook Page

Members are encouraged to regularly visit the Society website for up to date information about our activities and to seek out information concerning other members. SOMP Web Site: https://miningprofs.org/ SOMP Facebook Page: https://www.facebook.com/mineprofs/

Members Details

Please check that your personal details on the website are correct. Where possible, you should make corrections yourself, but if not, then please advise our IT & Communications Director, Zach Agioutantis, and request corrections or updates to be made. His email address is: zach.agioutantis@uky.edu.

All members are also strongly urged and encouraged to take 10 minutes to insert their teaching and research interests into the member database. It is simple to do – we are only seeking keywords to describe your three priority teaching areas and three priority research interest areas.

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web: http://vladislavkecojevic.faculty.wvu.edu

Zach Agioutantis

Carsten Drebenstedt

Serkan Sydam

Bruce Hebblewhite receiving the award from Ms Jami Girard-Dwyer, Chair of the SME Mining & Exploration Division

Vladislav Kecojevic
SOMP Secretary-General

Bruce Hebblewhite

Web sites:

http://vladislavkecojevic.faculty.wvu.edu

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Table of PhD completions by students under SOMP member supervision
(Period: June 1, 2018 – November 30, 2018)
(Please note: The information contained in the following Table has been provided by SOMP members.
SOMP is not responsible for any errors or omissions in this Table)

<table>
<thead>
<tr>
<th>Student Family Name</th>
<th>Student First Name</th>
<th>Principal Supervisor</th>
<th>Department/School</th>
<th>University</th>
<th>Country</th>
<th>PhD Thesis Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIRMANSyah</td>
<td>Ferdy</td>
<td>Carsten Drebenstedt</td>
<td>Institute of Mining and Special Civil Engineering</td>
<td>Technical University Bergakademie Freiberg</td>
<td>Germany</td>
<td>Optimizing Bauxite Beneficiation in Indonesia and West Kalimantan</td>
</tr>
<tr>
<td>ALEKseenko</td>
<td>Alexey</td>
<td>Carsten Drebenstedt</td>
<td>Institute of Mining and Special Civil Engineering</td>
<td>Technical University Bergakademie Freiberg</td>
<td>Germany</td>
<td>Assessment and Abatement of Environmental Hazard of Mine Dumps in the Novorossiysk Industrial Agglomeration</td>
</tr>
<tr>
<td>Chavarriaga Miranda</td>
<td>Edgar Andrés</td>
<td>Oscar Jaime Restrepo Baena</td>
<td>Materiales y Minerales</td>
<td>School of Mines-Universidad Nacional de Colombia</td>
<td>Colombia</td>
<td>Estudio del efecto de la microestructura en el color de pigmentos inorgánicos MgTi4(PO4)6 obtenidos por combustión en solución y dopados parcialmente con CO2+ y Cu2+</td>
</tr>
<tr>
<td>Rispoli</td>
<td>Andrea</td>
<td>Marilena Cardu</td>
<td>Department of Environment, Land and Infrastructure</td>
<td>Politecnico di Torino</td>
<td>Italy</td>
<td>Hard rock TBM excavation: performance analysis and prediction</td>
</tr>
<tr>
<td>Wu</td>
<td>Saisai Serkan Saydam</td>
<td>Department of Minerals and Energy resources Engineering</td>
<td>School of Mines and Energy resources Engineering</td>
<td>UNSW Sydney</td>
<td>Australia</td>
<td>Laboratory Based Investigation of Stress Corrosion Cracking of Cable Bolts</td>
</tr>
<tr>
<td>Jiang</td>
<td>Peng Serkan Saydam</td>
<td>Department of Minerals and Energy resources Engineering</td>
<td>School of Mines and Energy resources Engineering</td>
<td>UNSW Sydney</td>
<td>Australia</td>
<td>Machine learning methods for corrosion and stress corrosion cracking risk analysis of engineered systems</td>
</tr>
<tr>
<td>Tapia Correz</td>
<td>Carlos</td>
<td>Serkan Saydam</td>
<td>Department of Minerals and Energy resources Engineering</td>
<td>School of Mines and Energy resources Engineering</td>
<td>UNSW Sydney</td>
<td>Australia</td>
</tr>
</tbody>
</table>

A new book on “Technical Developments in Coal Winning” by SOMP member Martin Junker and RAG experts

“German coal mining has witnessed a number of significant technical developments that are still considered as state-of-the-art technology in the international mining world. This book describes the technical developments in coal winning technology that have taken place over the course of the last five decades. Over the years “coal winning” technology played an essential role in the efforts that were made to raise occupational health and safety standards. RAG’s achievements in this area occupy a pre-eminent place right to the present day, not only among international mining companies but also within German industry as a whole.”

https://www.vulkan-shop.de/ebooks/technical-developments-in-coal-winning
The Department of Mining Engineering at the University of Kentucky invites nominations and applications for a tenure-track faculty position at the rank of assistant professor. Candidates for the position must hold a Ph.D. degree in mining engineering, or a closely related field, by August 16, 2019 and must be committed to excellence in the areas of teaching, research, and service. In addition to these qualities, preference will be given to candidates who have experience in mine ventilation and have obtained professional licensure.

The University of Kentucky is located in the heart of Kentucky's scenic Bluegrass region and is home to more than 30,000 students and 14,000 employees. As a land-grant university for the commonwealth, the mission of the University of Kentucky is to provide excellent education, conduct outstanding research, and perform service in an academic environment in a manner that ensures the professional success of our students, meets the needs of our constituents, and responds to the technological challenges of the commonwealth.

The Department of Mining Engineering is one of the larger mineral-related programs in North America. The department consists of eight faculty members who have diverse specialties that cover a wide range of the mining engineering discipline.

Responsibilities of the successful applicant will include teaching and student advising at both the undergraduate and graduate levels. The selected candidate will also be expected to develop a sustainable research program that attracts external research funding and addresses the needs of the mining industry. Although preference will be given to candidates with a mine ventilation background, the position is open to all the specialty areas of mining.

To apply, please visit the UK Jobs site at [http://ukjobs.uky.edu/postings/201641](http://ukjobs.uky.edu/postings/201641). Please include a CV, cover letter, and the names and contact information for at least three references when prompted in the application. References may be used to solicit recommendation letters.

The application deadline is January 31, 2019. The University of Kentucky is an Equal Opportunity Employer and encourages applications from veterans, individuals with disabilities, women, African Americans, and all minorities.
The Department of Mining and Nuclear Engineering at the Missouri University of Science and Technology (Missouri S&T) in Rolla, Missouri is seeking outstanding applicants for a tenure track faculty position in Mining Engineering with appointment at assistant or associate professor level to start August 2019. Preference will be given to applicants with expertise in the areas of mine ventilation and atmospheric control and who have industrial experience. Rank and salary will be commensurate with qualifications and experience.

Successful candidates will be expected to have strong commitments to (a) contributing to the departmental and college research efforts, (b) high-quality teaching both at the undergraduate and graduate levels and distance and extension courses as appropriate, (c) service in the applicant’s department, professional community and our institution, and (d) increasing the diversity of both the student body and faculty. Applicants should have demonstrated excellence in research and evidence of potential for excellence in external funding, high-quality teaching, service, and increasing diversity. Additionally, senior candidates should have demonstrated excellence in external funding and high-quality teaching. Applicants must hold a Ph.D. in Mining Engineering or a closely related field. Eligibility for professional engineering registration is considered an asset.

This position will reside in Missouri S&T’s Department of Mining and Nuclear Engineering, home of one of the nation’s largest Mining Engineering programs. The department has 17 full-time faculty, including 16 tenured or tenure-track professors and 1 full-time teaching faculty member. The Mining Engineering program is recognized as a leader in education and research in Mining Engineering. The department has over 350 undergraduate and graduate students in its Mining, Nuclear, and Explosives Engineering disciplines on campus and in our expanding distance programs. The department operates a 19-acre experimental mine located 1.5 miles from campus for research and teaching activities. Other facilities associated with the department include the Rock Mechanics and Explosives Research Center with an associated Energetics Research Laboratory. Further details on the Mining Engineering program at Missouri S&T may be found at https://mining.mst.edu/.

Missouri S&T’s Department of Mining and Nuclear Engineering, the campus, and the greater University of Missouri System are deeply committed to inclusion and valuing diversity. S&T has undertaken a number of initiatives to improve campus life and the work life balance of its faculty and staff (see http://hr.mst.edu). Missouri S&T particularly encourages applications from dual-career couples and will strive to accommodate their specific needs.

Interested candidates should electronically submit their application consisting of: 1) a cover letter, 2) a current curriculum vitae or résumé, 3) a statement of research interests and goals, 4) a statement of teaching philosophy, and 5) complete contact information for at least four references to Missouri S&T’s Human Resources Office at: http://hr.mst.edu/careers/academic/ using Reference Number 00035381. Acceptable electronic formats are PDF and MS Word. Applications will be reviewed as they are received and the review of applications will continue until the position is filled. For full consideration, applicants must apply by December 31, 2018. For more information prior to submitting an application, please contact the Search Committee Chair, Dr. Lana Alaghah, at: alaghah@mst.edu.

Missouri S&T is one of the nation’s leading research universities with 98 degree programs in 39 disciplines. Founded in 1870 as one of the first technological institutions west of the Mississippi, Located about 100 miles west of St. Louis in the multicultural community of Rolla, Missouri S&T is an accessible, safe and friendly campus surrounded by Ozarks scenery. Missouri S&T offers degrees in engineering, the sciences, liberal arts, humanities and business, with master’s and Ph.D. programs available in many of the science and engineering programs and master’s degrees in biological sciences, business administration and technical communication. With nearly 9,000 students enrolled on campus and online, Missouri S&T is big enough to accommodate a diverse population, yet small enough for individuals to build high visibility, impactful careers!

Missouri S&T is an AA/EOE employer and does not discriminate on the basis of race, color, religion, national origin, sex, sexual orientation, gender identity, gender expression, age, disability or status as a protected veteran. Females, minorities, and persons with disabilities are encouraged to apply. Missouri S&T seeks to meet the needs of dual-career couples. The university participates in E-Verify. For more information on E-Verify, please contact DHS at: 1-888-464-4218.
Faculty Position
Minerals Processing & Extractive Metallurgy
Virginia Tech Department of Mining and Minerals Engineering

The Department of Mining & Minerals Engineering at Virginia Polytechnic Institute and State University (Virginia Tech) invites nominations and applications for a tenure-track faculty position in Minerals Processing and Extractive Metallurgy. The position is at the level of Assistant Professor or Associate Professor, with rank to be determined by applicant qualifications. Successful applicants will be expected to sustain a high level of scholarly research and publication; teach and advise undergraduate and graduate students; and contribute quality service and outreach to the department, college, university and profession.

The successful applicant is expected to develop internationally recognized and externally funded research programs in primary and secondary materials processing within the general fields of mineral processing, extractive metallurgy, or materials recycling. Applicants should have demonstrated expertise in one or more of the following areas: ore characterization and mineralogy; comminution and liberation; physical and chemical separations; hydrometallurgy; surface and colloid chemistry; waste management and handling; or process modeling, simulation and control. The successful applicant may also be asked to contribute to university initiatives in computational modeling, data analytics, automation, sustainability and lifecycle analysis. The successful applicant is expected to collaborate with external organizations including other universities, research institutes, government agencies and private companies. Occasional travel to attend conferences/meetings is required. A Ph.D. in mining, metallurgical or a closely related engineering field is required by date of appointment, and a specialty in minerals processing or extractive metallurgy is preferred. All candidates are encouraged to have, or seek upon employment, professional engineering registration.

Virginia Tech’s Mining and Minerals Engineering Department is one of the largest mining engineering programs in North America. The Department currently enjoys a strong international reputation for its academic, research and outreach programs. The Department has an enrollment of 119 undergraduate and graduate students. Research expenditures in the Department exceed $5 million per year. External funding for ongoing research includes support from state, federal and industry sources. The Department is housed within a nationally ranked College of Engineering at Virginia Tech. Virginia Tech, the land-grant University of the Commonwealth of Virginia, is located in Blacksburg, Virginia, adjacent to the scenic Blue Ridge Mountains. The university has a total enrollment of 32,304, with 10,777 students enrolled within the College of Engineering.

Candidates who wish to be considered for these positions should apply online at www.jobs.vt.edu to posting number TR0180105. Please submit online a vita, transmittal letter, statement regarding research/teaching interests, and names/addresses of three references (including contact phone numbers and email addresses). A criminal conviction check is required. The review of applications will begin on January 1, 2019, with the intent to have the position filled by August 10, 2019. Questions regarding the search may be directed to Dr. Aaron Noble (Aaron.Noble@vt.edu) who serves as chair of the departmental search committee.

Virginia Tech is committed to the principle of diversity and, in that spirit, seeks a broad spectrum of candidates including women, minorities and people with disabilities. Virginia Tech is a recipient of a National Science Foundation ADVANCE Institutional Transformation Award to increase the participation of women in academic science and engineering careers.
Assistant Professor

Intelligent Mining Systems / Institute for Disruptive Technologies

The Robert M. Buchan Department of Mining
Queen’s University at Kingston

The Robert M. Buchan Department of Mining, Faculty of Engineering and Applied Science at Queen’s University, invites applications for a tenure-track faculty position at the rank of Assistant Professor, in the area of Intelligent Mining Systems affiliated with the Institute for Disruptive Technologies. The preferred starting date of the appointment is July 1, 2019.

The field of Intelligent Mining Systems encompasses machines, processes, systems, software, and related technologies that leverage, enhance, augment, and/or optimize the capabilities of existing elements, both human and machine, within the mining project life cycle — with the aim of enabling more sustainable raw materials extraction that is safer and more effective, and which further mitigates negative social, environmental, and economic impacts. Hence candidates for this position will be expected to conduct research which is relevant to one or more of: modelling, simulation, prediction, planning, process control, or optimization of processes / machines / systems within the overall mining project life cycle.

The Institute for Disruptive Technologies at Queen’s University is a major new interdisciplinary engineering research initiative focused on the design and use of intelligent systems and robotic machines to enhance human productivity, creativity, safety, performance, and quality of life, for the benefit of society as a whole. Thanks to a major philanthropic gift and the generous support of Queen’s alumni, as well as government, the Institute occupies over 1100 m² of world-class collaborative research space within the new Mitchell Hall building. Spanning technical competencies ranging from Artificial Intelligence and Machine Learning, Intelligent Sensors and Actuators, Human-Machine Systems, to Robotics, Mechatronics, and Autonomous Systems, the Institute aims to leverage relevant industry connections in order to deliver world class applied research.

The primary academic appointment for this position will be in the Robert M. Buchan Department of Mining (Queen’s Mining), with membership in the Institute. Cross-appointment to other relevant academic departments will be encouraged, depending on the area of expertise and research focus of the appointee. We are looking for outstanding candidates who have either already engaged in research in Intelligent Mining Systems, or are eager to apply their relevant leading edge research
expertise in other engineering disciplines (e.g. Computer Engineering, Chemical Engineering, Electrical Engineering, Mechanical Engineering, etc.) to this exciting field.

Celebrating its 125th anniversary, *Queen’s Mining* consistently ranks among the world’s top Mining Engineering departments, with outstanding laboratory facilities and an unparalleled reputation for the quality of our graduates. In alignment with emerging societal and industry priorities, the department embraces an integrated systems approach to the mining project life cycle. Several established faculty members have active research programs on a variety of themes related to *Intelligent Mining Systems*, and are members of the *Institute for Disruptive Technologies*.

The successful candidate must hold at least one degree in Engineering and will have a PhD in a relevant discipline completed at the start date of the appointment. Registration as a Professional Engineer in Ontario, or eligibility to acquire registration in Canada, is a requirement. Relevant industrial experience is an asset.

The main criteria for selection are academic and teaching excellence. The successful candidate will provide evidence of high quality scholarly output that demonstrates potential for independent research leading to peer assessed publications and the securing of external research funding, as well as strong potential for outstanding teaching contributions at both the undergraduate and graduate levels within the Mining department, as well as elsewhere in the Faculty of Engineering and Applied Science, and an ongoing commitment to academic and pedagogical excellence in support of the department’s programs. Candidates must also provide evidence of an ability to work in an interdisciplinary, collaborative environment. The successful candidate will be expected to make substantive contributions through service to the department, the Faculty, the University, and/or the broader community. Salary is commensurate with qualifications and experience.

Queen’s University is a campus with a global reputation in the heart of the vibrant Kingston community, on the shores of Lake Ontario in the core of the Thousand Islands region of southeastern Ontario. Kingston is conveniently located just a couple of hours away from Toronto, Ottawa, and Montreal by rail or road. Additional information about Queen’s University, which may be of interest to prospective faculty members, can be found at [http://www.queensu.ca/facultyrecruitment/](http://www.queensu.ca/facultyrecruitment/).

The University invites applications from all qualified individuals. Queen’s is committed to employment equity and diversity in the workplace and welcomes applications from women, visible minorities, Aboriginal peoples, persons with disabilities, and LGBTQ persons. All qualified candidates are encouraged to apply; however, in accordance with Canadian Immigration requirements, Canadian citizens and Permanent Residents of Canada will be given priority.

To comply with Federal laws, the University is obliged to gather statistical information about how many applicants for each job vacancy are Canadian citizens / permanent residents of Canada. Applicants need not identify their country of origin or citizenship, however, all applications must include one of the following statements: “I am a Canadian citizen / permanent resident of Canada”; OR, “I am not a Canadian citizen / permanent resident of Canada”. Applications that do not include this information will be deemed incomplete.
A complete application consists of:
- a cover letter (including one of the two statements regarding Canadian citizenship / permanent resident status specified in the previous paragraph);
- a current Curriculum Vitae (including a list of publications);
- a statement of research interests;
- a statement of teaching interests and experience (including teaching outlines and evaluations if available); and,
- the names and contact information of three referees.

Applicants are encouraged to send their application package electronically (either as PDFs or MS Word files) to wanda.badger@queensu.ca with the subject line “Application for the Intelligent Mining Systems Faculty Position”, although hard copy applications may be submitted to:

Dr. Takis Katsabanis,
Associate Professor and Head
The Robert M. Buchan Department of Mining
Queen's University
Goodwin Hall, Room 354
Kingston, ON, Canada K7L 3N6
Phone: (613) 533-2230

Review of applications will begin on December 14, 2018, and applications will continue to be accepted until the position is filled.

The University will provide support in its recruitment processes to applicants with disabilities, including accommodation that takes into account an applicant’s accessibility needs. If you require accommodation during the interview process, please contact Wanda Badger in The Robert M. Buchan Department of Mining at wanda.badger@queensu.ca.

Academic staff at Queen’s University are governed by a Collective Agreement between the Queen’s University Faculty Association (QUFA) and the University, which is posted at http://www.queensu.ca/facultyrelations/faculty-librarians-and-archivists/collective-agreement and at http://www.qufa.ca.