Midland Institute of Mining Engineers

19th Safety Seminar

"Challenges and Solutions for Mining Safely"

Crowne Plaza
Victoria Station Road
Sheffield, S4 7YE
Friday 17th April 2026

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Registered Charity No 1177100. Affiliated to the Institute of Materials, Minerals and Mining (IOM³)

The event is supported by HSE Health & Safety Executive

Contents

Speakers

Welcome Message

On behalf of the Midland Institute of Mining Engineers, I would like to welcome you to our 19th Annual Safety Seminar.

Midland Institute of Mining Engineers (MIMinE) is a Charitable Incorporated Organisation, registered Charity No 1177100 and is affiliated to the Institute of Materials, Minerals and Mining (IOM3).

Mining has a chequered past when it comes to safety, and it was this past from which our institute was incepted. Our Institute was originally formed as the South Yorkshire Viewers' Association in 1857 following a spate of gas explosions in the Barnsley & Silkstone seams which resulted in many people unfortunately being severely injured or losing their lives. When we look back 'Change' was likely a major contributing factor of these firedamp explosions, the miners were reaching greater depths to access the coal seams & the greater demand for coal drove higher production levels & ultimately greater gas emissions from the coal seams.

Our founding members realised back in 1857 that they needed to act, and their objectives were “the more general diffusion of Practical and Scientific Knowledge on the Working and Ventilation of Coal Mines” and this action undoubtedly prevented many incidents as ventilation went on to become one of the core subjects for all UK mining engineers during their training & education.

'Change' is something which cannot be underestimated in safety and is often difficult to control as it is often unexpected & the consequences of change are not always apparent. Hence the title of our event today is “Challenges and Solutions for Mining Safely”. Hopefully this message and what you see and learn at our annual safety seminar makes everyone stop, think, and assess the impact of change and what needs to be done to manage 'Change' safely.

Our aim whilst compiling today's programme, was to provide a range of topical and relevant subjects which will benefit everyone regardless of your age, qualifications, role, or industry as safety is critical to everyone. I hope that everyone here today will take something away with them that they have heard, seen, or learnt and realise that events like this are so important to share safety knowledge.

The day is split into two sessions, each session with a variety of presentations. Time has been allotted at the end of each presentation for questions, and I would encourage you all to take advantage of this opportunity, we also have a break which is a great opportunity to network with the speakers, other attendees, and the exhibitors.

As one of the founding objectives of the South Yorkshire Viewers' Association was the spreading of best practice, especially in relation to mine safety, I feel that events like this continue to meet this objective which is just as relevant today as it was over 160 years ago. Although the mining industry has changed so much over the last 160 years with the mechanisation, automation & advancements in technology the need to share our safety knowledge is still as important as ever.

Your presence here today shows the determination to consider the safety aspects and implications of necessary changes and shows continued determination to succeed in a constantly changing and challenging environment we all face.

The Midland Institute of Mining Engineers encourages membership of The Institute of Materials, Minerals and Mining (IOM3) to enhance professional status within the mining and minerals industry.

Many events, including this held today, count towards an individual's Continual Professional Development (CPD) as well as giving an excellent opportunity for networking amongst colleagues within similar spheres of activity. And I would encourage you to visit the Midland Institute of Mining Engineers, Institute of Materials, Minerals and Mining and other trade stands during the break periods to find out more.

I would like to thank our sponsors & supporters for their continued involvement in this important event. As President, I would also like to thank the speakers for the presentations you will see today, members of the organising committee for their contributions and of course, you the audience for making this Safety Seminar a success year after year.

John Hind 2025/2026

A Warm Welcome to the Midland Institute of Mining Engineers

A brief history, our objectives, aims and our membership benefits :

Our history:

We were founded a long, long time ago . . . 1857 as the South Yorkshire Viewers Association and merged to become the Midland Institute of Mining Engineers in 1869.

Our prime objectives are:

The advancement in the public interest of the engineering, science and practice of the extraction and processing of natural resources, and the education of those involved in such activities and of the general public.

Our aims are:

- To promote science and mineral extraction engineering
- To encourage and foster skills in mineral extractive engineering
- To provide a forum for discussion of mineral extraction and related issues
- To arrange publication of papers and disseminate information
- To promote safe working practices within mineral extraction industries
- To enhance members' appreciation of new practices, technologies and techniques used in mineral extraction
- To provide assistance to members in advancing their professional development

Membership Benefits

Trust Funds

The Midland Institute of Mining Engineers, (MIMinE), has three Trust Funds, who's funds are aimed at proving support to our members.

Two of these funds are primarily aimed at younger members which include students as well as apprentices in developing their knowledge, skills, and experience in the mineral extractive industry, the funds are :

- **The Peake Fund** – A similar Travelling Scholarship no age limit to applicants
- **The Webster Fund** – A Travelling Scholarship aimed at applicants up to the age of 35 years
- **The AMCO Bursary** – aimed at short term work-based learning for students and engineers

These Trust Funds can from time to time be used to make additional awards for activities such as field trips, attending seminars and conferences.

The MIMinE also encourages and pays the student membership fees of the IOM3 for those students who join the MIMinE for a three to four years course dependent on the course length and the subject being studied.

Please refer to the Annual Yearbook or online at www.themime.org.uk for more information and the rules that apply.

Our Regular Meetings

Between the months of October and May, the MIMinE holds monthly General Meetings where an invited presenter gives a paper on a mining or minerals related subject.

The date is usually the second Thursday in the month at 4.00pm, the meetings last 45 - 60 minutes.

Participation can be in person or made remotely via our Video Conferencing platform.
If you wish to attend in person, the meetings are held at the at the MRS Training & Rescue Centres at:

Knottingley, W Yorks WF11 0BU
Or
Mansfield, Notts NG19 9AQ.

Young Persons Lecture Competition (YPLC)

The Midland Institute of Mining Engineers hold a round of IOM3 YPLC in mid-February, alongside its own J F Tunnicliffe/C S Littlewood paper competition. Further details can be obtained from the MIMinE office at office@themime.org.uk

Safety Seminar

Our Annual Safety Seminar takes place each year in April and is usually held at the Crowne Plaza Hotel in Sheffield, S4 7YE.

Annual General Meeting

Our AGM and Dinner takes place each year in October which incorporates the Presidential Address.

Our General Contact Details are

Email - office@themime.org.uk
Web - www.themime.org.uk
Social Media – https://www.linkedin.com/groups/12740674/
Tel - 07305 255606

Professional Recognition

The Midland Institute of Mining Engineers is an affiliated local society of the Institute of Materials, Minerals and Mining (IOM3)
We can provide mentoring to all MIMinE members who apply through IOM3 for the professional qualifications listed below.

1. Engineering Technician (EngTech)
2. Incorporated Engineer (IEng)
3. Chartered Engineer (CEng)

Anyone wishing to join the MIMinE can also, as well as receiving the above benefits, have their names published in the annual yearbook, and become part of our wider network of members and volunteers who can assist others in developing their careers and professional standing.

Membership conditions

Applicants must fully complete the Application form (available from the web site www.themime.org.uk)
The membership year runs from 1st of January to the 31st of December.

Annual Subscription Fees are:

Voting Members. (Fellow and Member) £40.00

Non-Voting Member, (Associate) £10.00

Programme of Events

TIME	TITLE	NAME	ORGANISATION
8.15 am	Registration and Coffee		
Morning	Session Chairman	Stuart Walker	Immediate Past President of MIMinE
9.00am	Welcome Introduction	John Hind	President of MIMinE
9.15am	Smartflow - The Software Platform for Process Digitalisation in Mining	Jonas Maximilian Becker	Becker Mining Europe
9.35am	England's Last Colliery & the Journey to Net Zero	Dr John Tanner	NCM
9.55am	Beyond Self Certification: The Critical Role of Independent Verification in Mine Safety	Dom Barraclough	Finch Consulting
10.15am	SIL++: Adding Availability to Hoisting Safely	Gareth Price	Siemag Tecberg
10.45am	Coffee Break		
11.10am	The Development of a Domestic Lithium Supply Industry for UK Resilience	Jeremy Wrathall	Cornish Lithium Ltd
11.30am	Centre for Mineral Products: Supporting Recruitment with Competence	Nigel Barrett	Derby University
11.50am	Inspiring the Next Generation of Extractives Professionals	Diane Aston	IOM3
12.05pm	STEM Update	Sharon Strugnell/ Hannah Higley	MIMinE / Minerals Matters
12.20pm	IOM3 Routes to Registration	Jim Shields	BAM Ground Engineering/IOM3
12.40pm	Awards & Presentations	John Hind	President MIMinE `
12.50pm	Lunch		
Afternoon	Session Chairman	Vince Fowler	Chair of Organising Committee
2.00pm	The Evolution of Mines & Quarries Regulations for Excavations & Tips	Colin Comberbach & Thomas Clifford	IOM3 Mining Technology Group & GEARS
2.20pm	Ground Control and Steel Supports	Richard Severn	ICL Boulby
2.40pm	Modern Mine Surveying Techniques used to control Inrush Hazards	Louis Robson	ICL Boulby
3.00pm	Challenges Associated with Steep Seam Mining at Birkshead Mine	Dan Lynch & Jonathan Taylor	British Gypsum
3.20pm	Closing remarks	John Hind	President MI MinE

Aims & Objectives

The Midland Institute of Mining Engineers (MIMinE) was formed toward the end of 1868 and amalgamated with the South Yorkshire Viewers Association (1857) during 1869. The inaugural address of the President, Mr T W Embleton of Methley, was reported to have dealt almost entirely with the problems of safety in the Yorkshire Coalfield and he was quoted as saying:

"We must try to decide calmly and deliberately under what conditions will it be possible to work the Barnsley coal – the great staple of this district, and on which the prosperity of the neighbourhood mainly depends – with safety and comfort of the men."

In this simple phrase Embleton identifies two issues, namely, the economic advantages of working the Barnsley coal, together with the need to consider the health and safety of the workforce whilst doing so. He appears not to view these as two separate issues, but to regard them as being mutually desirable objectives for long term commercial viability.

Organisations and individuals may or may not recognise a connection between business efficiency and health and safety, but there appears to be difficulty in integrating these issues in a meaningful and constructive manner. Health and safety issues appear to be reliant on annual initiatives, do not generally appear to be self-sustaining, and focus on outcomes not procedures (i.e.: what is done not how it is done).

The purpose of this Safety Seminar is to consider the synergy between health and safety management and business efficiency. Root cause investigation of health and safety incidents invariably highlight deficiencies which are impacting, usually more frequently, upon an organisation's ability to deliver its outputs in a predictable manner. It is therefore the intention of this seminar to consider those matters that link health and safety management and the challenge of changes that are necessary to maintain business efficiency.

The opinions, conclusions and other information expressed in this publication are those of the individual presenters and may not necessarily be those held by the Midland Institute of Mining Engineers.

Organising Committee

Vince Fowler (Chairman)	HSE
John Hind	President, MIMinE
Stuart Walker	Immediate Past President, MIMinE
Peter Hetherington	Honorary Treasurer, MIMinE
Steve Straw	Honorary Secretary, MIMinE
Wyn Griffith	MIMinE
Neil Jackson	Anglo American
Kevin Sabin	MIMinE
Paul Bradley	HSE
Neil Battison	HSE
Andrew Fulton	Mining Association of the UK (MAUK)
Richard Ogle	British Gypsum
Nick Hardie	Hard Rock Mining
Richard Severn	ICL Boulby
Claire Stapleton	Administrator, MIMinE

Biographies of President, Honorary Secretary and Chair of the Organising Committee

John Hind - President

John started his career with British Coal as an apprentice surveyor. He worked at several mines and progressed to Unit Surveyor at Welbeck Colliery before becoming Company Surveyor and Minerals Manager for UK Coal. John holds an MBA, is a Chartered Surveyor and a Chartered Engineer and is a Fellow of IOM3. After over three decades in the mining industry John joined Harworth Group as Associate Director and then as Head of Risk and Compliance. This role included responsibility for Health & Safety along with other risk assurance roles, the Harworth portfolio is diverse and Health and Safety issues across different site types must be managed. The portfolio also includes legacy mining and brownfield sites undergoing transformation as they are regenerated and John was heavily involved in their remediation and management before retiring in 2025.

Steve Straw – Honorary Secretary

Stephen is a Fellow of IOM3 and the Midland Institute of Mining Engineers.
Stephen started his career with the National Coal Board as a Mechanical apprentice in 1977, going on to have a career as a Mechanical Engineer holding senior managerial positions at numerous mines gaining extensive experience of d installing, commissioning and maintaining of fully integrated mining systems.

Stephen then joined the Woodsmith Mine Project in August 2023 as a Mechanical Training & Competency Facilitator, he oversees the mechanical staff on site who are employed by Redpath Mining.

Stephen has been a member of the Midlands Institute of Mining Engineers since 1990, becoming Honorary Secretary in 2017 a position he still holds. Stephen is fully committed to the advancement of engineering, science and the practice of the extraction and processing of natural resources, along with the education, training, and competence assurance of all involved in those activities.

Stephen is the Secretary of the Mining Technology Group and the Secretary of the BACM section of the Prospect Trade union.

Vince Fowler - Chair of the Organising Committee

Vince is a Chartered Engineer, and a Fellow of IOM3. He started his career with the NCB as an electrical apprentice in 1980, progressing to holding senior managerial positions at several large mines in the Midlands.

He joined the Health and Safety Executive in 2008, as a HM Principal Inspector in Mines. The Mines Inspectorate regulates a range of major hazard sectors.

Vince is fully committed to the advancement of engineering, science, education, training, and competence of those involved in the sectors he regulates.

He remains passionate about developing engineers of the future, many of the apprentices he mentored now hold senior engineering posts. He also introduced the first women electrical apprentice into deep coal mining.

He is committed to sharing best practice and equipping engineers to deal with challenges, having chaired stakeholder committees, including the Engineering Liaison, NTLC SMIM and the MIMinE Annual Safety Seminar.

About Midlands Institute of Mining Engineers

With a history dating back to 1857, this association of engineers in the extractive energy industry was prompted by a desire to disseminate information and to encourage the development of young persons in engineering. These two primary aims, in tandem with others, are still very much the focus of the MIMinE activities today.

Historically MIMinE has been part of a federation of other mining societies and was then federated to and a branch of the Institute of Mining Engineers with various changes of title over the years. On the formation of the Institute of Materials Minerals and Mining (IOM3) in 2002, the MIMinE became affiliated to IOM3 as a local society mainly operating in the regions of Nottinghamshire, North Derbyshire, and Yorkshire.

The title of Local Society does not fully express the importance of MIMinE, and other similar bodies, because it is through their efforts that members are able to maintain and develop their professional competence. MIMinE assists in the provision of Continual Professional Development (CPD) necessary, in most professions, for the retention of professional accreditation. With specific regard to the MIMinE this is achieved through a programme of lectures, papers, and this annual seminar, all of which lead to peer group discussion.

Professional accreditation

MIMinE members face many challenges in their employment and from time to time their competences may be questioned. MIMinE has encouraged members to be able to demonstrate their competence and as previously stated is affiliated to IOM3, who hold the licence from the Engineering Council for the awards of professional accreditation such as EngTec, IEng and CEng.

Members of MIMinE are from a broad engineering background and some are regularly co-opted to mentor individuals undertaking professional reviews for awarding Engineering Council accreditation.

Dissemination of information

Although articles and journals are available through IOM3, an important facet of maintaining knowledge and skill is via peer group discussion. To this end MIMinE engages in the following activities:

MIMinE hosts, monthly from October to May, a programme of speakers who present information on current industrial/engineering activities.

The Presidential address, by the incoming President, is normally held during October and is timed to coincide with the Annual General Meeting.

Annually organises a one-day seminar “Challenges and Solutions for Mining Safely” with attendance from a broad spectrum of industry, historically ranging from students/apprentices through to CEOs and Owners.

The J F Tunnicliffe and C S Littlewood paper competitions are held annually and are open to younger members of MIMinE.

MIMinE supports the IOM3 “Young Persons Paper Competition”, which has an international perspective, and has provided a member to participate on the judging panel of the national final.

Development of individuals and scholarship funding

Fundamental to the ethos of MIMinE has been the development of young persons and we are fortunate to have at our disposal three charitable trusts which are governed by the trustees. Access to this funding is restricted to members of MIMinE and funds are made available in accordance with the trust deeds.

These funds are intended to provide some additional financial support allowing individual members to gain a broader knowledge and understanding of their field of activity.

Amco Bursary Fund

This fund provides enhancement of education in the science and practice of mining, work-related training for students who may have difficulties in obtaining practical instruction and workplace participation.

Peake Travelling Scholarship

The Peake fund is open to members who have attained the age of 21 years and is aimed at assisting in meeting the cost of travelling and subsistence, either in the UK or internationally, where the aim is to enhance the value of a suggested field of study related to their overall education, training and experience in the science and practice of mining engineering.

Noel Webster Travelling Scholarship

The Webster travelling prize is open to members under 35 years of age and is also aimed at assisting in meeting the cost of ravelling and subsistence, either UK or internationally, where the aim is to enhance the value of a suggested field of study related to their overall education, training and experience in the science and practice of mining engineering.

MIMinE also assists with financial assistance to become student members of IOM3 with the proviso that they also become student members of MIMinE. MIMinE has a Younger Member/Student Section which benefits from limited direct funding thus inviting young members to become active.

Join the Midland Institute of Mining Engineers

An individual can become a member of MIMinE in one of two ways:

1. Directly become a member of MIMinE, or
2. A member of IOM3 can identify MIMinE as their preferred Local Society. This route provides for access to both MIMinE benefits and to professional accreditation.

Further details can be obtained by visiting the stand at one of the breaks or by contacting the Honorary Secretary, Stephen Straw or by visiting the web site www.themime.org.uk

Jonas Maximilian Becker
CEO
Becker Mining Europe

Jonas Maximilian Becker graduated from the Kaiserlautern University of Technology in Germany with a Master of Science in Mechanical Engineering degree. He started his working career with Worley in South Africa, before joining the family business at Becker Mining Systems in 2019, where he has worked in different technical roles from product development, to project management and technical sales before becoming managing director of the European business unit based out of Germany.

Maximilian combines a deep understanding of underground mining operations in a large variety of commodities and geographical areas and a solid background in technology. As part of a global team at Becker, he is also responsible for the group's technical innovations.

Synopsis

The mining industry is increasingly under pressure to boost efficiency, reduce costs, and comply with stricter safety and environmental regulations. In this context, the presentation “Smartflow – The Software Platform for Process Digitalization in Mining” introduces an innovative solution designed to optimize industrial operations in both underground and open pit mines. Smartflow is a modular, cloud-based platform that integrates data from multiple sources – machines, sensors, location tracking systems, and production databases—in real time. This creates transparency across previously isolated processes, enabling precise monitoring, control, and analysis. The presentation highlights practical examples of how Smartflow supports digital transformation in mining: from automated shift planning and real-time monitoring of material flows to predictive maintenance of equipment. Special emphasis is placed on the platform's intuitive user interface, which remains easy to operate even under demanding field conditions, as well as its seamless integration with existing ERP and IoT systems.

In addition, the presentation outlines the positive impact on safety and sustainability. Data driven decision-making enables earlier risk detection, reduced energy consumption, and minimized downtime. A dedicated use case will demonstrate how Smartflow has been successfully implemented in a real mining operation, illustrating measurable improvements in process efficiency and operational transparency. Smartflow thus exemplifies how Industry 4.0 technologies can be tailored to the specific needs of mining operations. The presentation is aimed at decision-makers, engineers, and digitalization experts seeking to understand how modern software solutions can pave the way toward a more efficient, safer, and more sustainable mine of the future.

Dr John Tanner

Head of Masterplan & Capital Programme
NCM

Dr John Tanner is the Head of Masterplan for the National Coal Mining Museum for England, with responsibility for taking forward the development of the museum, its surrounding 50-acre post-industrial landscape, and how, working with partners across the coalfields, the stories and history of England's coal industry are shared into the future.

The focus of the museum is Caphouse Colliery, now the last surviving deep colliery workings in England, with a variety of other collieries, pits and industrial archaeology in the wider landscape, and an extensive collection of coal mining machinery brought together from across the country.

Over the last two years, John has also led a development programme to explore how the Museum can engage visitors with the legacy of fossil fuels, including drawing on the inspirational scientific, engineering and technological achievements of the coal industry to connect communities with cutting-edge low-carbon technologies in the present day.

John has been at the National Coal Mining Museum since 2024, following 20 years working in museums and the heritage sector, much related to coal mining, including leading the creation of the first Museum of Barnsley and its surrounding villages, and the restoration of a 1795 Newcomen Engine, the oldest steam engine in the world still where it was originally installed, at the New Colliery in Elsecar, for Earl Fitzwilliam of Wentworth Woodhouse.

Synopsis

The National Coal Mining Museum for England is a site of major historical importance because it preserves one of the last remaining deep coal mines accessible to the public in England. Located at the former Caphouse Colliery, which operated for around 200 years, the museum allows visitors to descend approximately 140 metres underground and experience the realities of mining life.

Its significance lies in the rapid decline of the British coal industry during the late twentieth century. Following widespread closures after the 1980s, deep coal mines largely disappeared, with Kellingley Colliery closing in 2015 as the final deep mine in Britain. The museum therefore acts as a rare physical link to an industry that once powered the nation and shaped communities across regions like Yorkshire. By maintaining original shafts, winding gear and underground roadways, it ensures that the skills, dangers and culture of mining are not forgotten.

In addition to preserving history, the museum also represents innovation in post-industrial sustainability. Large volumes of water continuously collect in the old mine workings, and this water is naturally warmed by geothermal heat deep underground. Studies have shown that this mine water can be used in heat exchange systems to generate low-carbon energy for buildings. The process involves extracting the warm water, transferring its heat via pumps, and distributing it for heating before reuse or discharge.

This approach highlights how former industrial sites can be repurposed for modern environmental needs. At Wakefield, the combination of heritage and renewable energy demonstrates a transition from fossil fuel extraction to sustainable energy use, making the museum not only a record of the past but also a model for the future.

Dom Barraclough

Managing Director
Finch Consulting

Dom Barraclough is a European Registered Chartered Engineer with extensive experience in mechanical, electrical and control systems, he is a Fellow of four engineering institutions and an associate of the Women in Engineering Society. He has an MSc in Mechatronics (project work in SCADA) and has recently completed his MBA on which he researched motivation.

Starting as a fitter, then onto the factory shopfloor, he has spent nearly four decades rising through positions in various sectors while gaining extensive engineering, management and leadership experience. Dom now leads a world class team across a group of three interrelated businesses covering engineering safety - test, inspection, certification, consulting and forensics services. He has been instructed as an expert witness in over two hundred civil personal injury and technical disputes, police and HSE prosecutions and has given evidence in arbitrations, inquests and the High Court, London.

Over the past 16 years, Dom has been privileged to learn from many highly experienced mining professionals on a range of projects, including winder testing and process hazard assessments. Sincerely humbled by the depth of expertise within the industry, he feels fortunate to contribute in his role as Chair of the National Safe Man Riding in Mines (SMIM), where he supports efforts to modernise, rebuild and strengthen mining capability in the UK and learn from elsewhere (but it's not easy!)

Synopsis

As more sophisticated automation, digital control, and remote operations reshape the mining sector, questions of assurance and accountability in equipment safety are more critical than ever.

This presentation explores the growing pressures on self-certification and the essential role that independent verification plays in maintaining safe and compliant operations.

Drawing on extensive experience across safety-critical systems in several sectors including mining, Dom Barraclough examines how impartial technical review strengthens confidence in design integrity, supports regulatory compliance, and enhances operational resilience.

This session will highlight where self-certification can fall short, how independent assessment adds value beyond compliance, and why embedding verification throughout the equipment lifecycle is becoming central to both safe performance and stakeholder trust — within the UK and internationally."

Gareth Price
Functional Safety Manager
Siemag Tecberg

Gareth Price is a qualified Functional Safety Expert with over 25 years of experience developing safety-critical systems. Currently serving as the Functional Safety Manager for Siemag-Tecberg, Gareth specializes in aligning complex systems with the latest standards and regulations. As an active ISO committee member for both mining and automotive standards, he brings deep regulatory insight to his work. His background spans a diverse range of high-integrity domains, including automotive, avionics, banking, green energy and now mining. Gareth has successfully partnered with organizations ranging from agile startups to multinational corporations, optimizing their designs and processes to ensure efficient, timely, and compliant product delivery.

Synopsis

Modern hoisting systems are moving unprecedented volumes of material at ever-increasing speeds, making them no longer peripheral utilities but critical elements of a mine's core control architecture. As operational demands rise, so do requirements for higher safety integrity. Yet greater integrity often brings reduced system availability, driven by added complexity and conservative operating limits. Current industry standards and regulations focus almost exclusively on safety and provide limited guidance on achieving the availability levels essential for profitable mineral processing.

This paper presents Siemag-Tecberg's integrated methodology for designing, manufacturing, commissioning, and maintaining hoisting systems that meet stringent safety expectations while delivering superior availability. The approach spans complete hoisting solutions as well as key subsystems—including motor controllers, braking systems, speed-limiting controllers, and shaft-signalling equipment—demonstrating how a holistic engineering philosophy can simultaneously elevate safety performance and maximize operational uptime.

Jeremy Wrathall
Founder & Executive Chairman
Cornish Lithium Ltd

Jeremy graduated from the Camborne School of Mines in 1985 with a BSc (Hons) in Mining Engineering and is a Fellow of the Institute of Materials, Minerals and Mining. He began his career in the South African gold mining industry before moving into investment banking, where he enjoyed significant success. In 2016, Jeremy founded Cornish Lithium, taking on a full-time leadership role the following year. Since securing its first external investment in 2017, the company has grown rapidly and now employs around 100 people, the majority of whom are based in Cornwall.

Cornish Lithium is an innovative mineral exploration and development company focused on the responsible and sustainable extraction of lithium from both geothermal waters and hard rock. Its mission is to establish a secure domestic supply of lithium essential to delivering the UK's industrial strategy and the transition to a Net Zero economy.

Nigel Barrett
Senior Lecturer in Mineral Products Technology
University of Derby

I graduated from Leeds University in 1988 with a BEng(Hons) in Minerals Engineering, staying on to complete a PhD in 'Mathematical Modelling of Crusher Circuits' in 1992.

I then worked in the Coal industry designing and installing modular dense medium coal washing plant until 1998 when I joined Omya UK as a process engineer. At the same time, I completed my Open University MBA.

With Omya I moved from a succession of roles from Process Engineer, through Plant Manager and Engineering Manager to Head of Operations UK, finally becoming Head of Sustainability for West Europe until 2022 when I left to join the Centre for Mineral Products as a Senior Lecturer in Mineral products Technology.

Synopsis

At a time when the extractive industries are experiencing aging workforces and challenges in inspiring young people into the industry, the Centre for Mineral Products (C4MP) as the main provider in the UK of industry specific higher-level professional education for people already employed within the mineral products sector, has a key role to play in supporting the development of the necessary skills of those new to the industry.

The C4MP approaches this challenge through their teaching provision and qualifications enabling those employed in the sector, both nationally and internationally, to enhance their career, life-long learning opportunities and to drive the sector forwards.

In particular, the balanced approach between developing students' knowledge, skills and experience develops the necessary competence to these future leaders in our industry to support improved operational and health and safety performance.

Diane Aston

Head of Education & Professional Development
IOM3

As Head of Education & Professional Development at the Institute of Materials, Minerals & Mining (IOM3), Diane manages a number of business areas including the Institute's work to support 5-19 learning.

After studying materials engineering and completing a PhD in ferrous metallurgy at the University of Birmingham, Diane has dedicated her career to materials cycle outreach, joining the Institute of Materials in 2001. She has created resources to support the teaching of the materials, minerals and mining topics for every age group, developed and run many CPD courses for teachers and given curriculum-linked presentations on the importance of materials, minerals and mining to over 100,000 young people and their teachers.

Di is thrilled to be able to attend the MIME Safety Seminar to ask for your help in supporting the next generation of extractives professionals.

Synopsis

We are delighted to be working with Cornish Lithium on the first Mining Masterclass, a free, two-day residential CPD course for secondary school STEM teachers.
If we are to influence the next generation of scientists and engineers, it is vital to give their teachers the best possible opportunities to experience these subjects in real life. Sadly, the extractives industry, which is critical to our future development, is not always presented in the most positive way. The Mining Masterclass allows us to redress this balance and present a more positive view of the mining industry whilst addressing the key issues around its impact on the environment.

Providing practicing and trainee teachers with high quality training is hugely important. During the two days of a Mining Masterclass teachers will cover all the minerals and mining related concepts in the secondary school curriculum. We will boost their subject knowledge, provide engaging activities for their students, highlight career pathways and give an insight in to the mining industry in practice to increase their confidence, knowledge, and enthusiasm for teaching these topics and therefore raise aspiration and attainment amongst the young people they teach.

The courses cost around £650 per delegate to run but they must be free of charge to the teachers, as in times of decreasing school budgets and increased pressure on teachers' time it would simply be impossible for staff to be released from school and pay such a high fee. We are delighted that the course in June is fully booked.
Could you become a Mining Masterclass sponsor and help us to support the next generation of mining professionals?

Sharon Strugnell

MIMinE

Sharon Strugnell is a chartered engineer and professional project manager who has a background in both civil and mining projects, globally. She is an active STEM ambassador where she regularly visits local schools and colleges to promote Civil Engineering and Mining

Synopsis

The mining industry is evolving rapidly and so is the need to inspire the next generation of STEM talent. This presentation explores how a mining-themed STEM booklet has been used to spark curiosity, improve science literacy and build stronger connections between industry and education.

In this session, we will share insights into how teachers, students and community partners have responded to the booklet and the lessons learned from its rollout. We will also give an update on our latest project...exciting times!

By “digging into” both the successes and the challenges, this presentation highlights how well-designed educational outreach can support both community engagement and the future skills pipeline for mining and STEM industries.

Hannah Higley

Future Careers Manager
Minerals Matter

I am the Future Careers Manager for Minerals Matter, driving forwards the careers agenda across the sector to ensure that the industry and range of careers within it is understood by young people.

My career started after university at the University of Derby in Administration and Marketing roles for both University of Derby Corporate and the Leap Ahead Lifelong Learning Network.
I then moved into a CSR role at East Midlands Airport and was responsible for developing the onsite education centre, as well as projects and initiatives involving the local community and airport employers through a volunteering scheme.

More recently I have worked as an Enterprise Coordinator in the Derbyshire and Nottinghamshire Careers Hub, supporting schools and colleges in North Derbyshire with careers education and connecting education to local businesses and industry.

I am passionate about inspiring young people and opening their eyes to the huge range of careers available and am excited to join the panel to share more about the work we are doing to ensure that young people get the opportunity to explore the Minerals industry and all it has to offer.

Synopsis

Minerals Matter brings together the minerals products, quarrying and mining sector to work collaboratively and tackle issues shared by the industry around recruiting and retaining a diverse mix of people. We do this by raising awareness of the variety of rewarding careers in the sector to young people while they are still in education. This will help them understand how important minerals are to everyday life, and how they can be part of the workforce.

Jim Shields

Operations Manager
BAM Ground Engineering
Chair of Membership Committee IOM3

After completing a BSc in Geology at the University of Glasgow in 1984, Jim completed his MSc in Geomaterials at the University of London in 1985. He returned to Scotland and joined Fugro as a junior geologist on various ground investigations throughout the UK. He joined BAM Ground Engineering (then Ritchies Equipment Ltd) in 1986 as a contracts engineer on rock anchoring / stabilisation projects as well as assisting in the development of the newly created Ground Investigation Department. During his career, Jim has also undertaken numerous field visits overseas to advise on rock sources for armour and aggregates primarily for group company BAM International which include St. Vincent and the Grenadines, Chile, Ethiopia, Ghana, Uganda, Turkey, Libya, Tunisia, Ecuador, Sierra Leone and India.

Jim is presently Operations Manager with responsibility for all BAM (Ground Engineering), Laboratory, Drill & Blast and Engineering activities.

In addition, Jim has taken on the responsibility to provide support and direction for the training and development of all BAM Ground Engineering employees towards professional registration. He is a chartered engineer, chartered scientist, chartered geologist and a UK Registered Ground Engineering Adviser.

He is Chair of the IOM3 Membership Committee, is a board member and trustee of the Engineering Council and the Chair of the Register of Ground Engineering Professionals Panel.

Synopsis

Professional recognition and registration is becoming even more important in this age of legislation, regulation, and litigation. It is independent proof of your “competence” as a professional. Professional recognition is personal and it is an international benchmark of professional competence which cannot be disputed or devalued.

At the MIMinE Annual Safety Conference, Jim will focus on current routes to registration and the benefits that provides for both employers and individuals. Jim will discuss the routes open to those without 'recognised' academic qualifications and how the IOM3 can help to support.

Jim will also remind attendees on the importance of Continuing Professional Development (CPD) and why there is a requirement for audits, the need for ongoing development, particularly in the light of the Grenfell disaster.

Colin Comberbach

Chair of IOM3 Mining Technology Group (MTG)
IOM3

Colin Comberbach (CEng, CEnv, CGeol) has spent more than 40 years in mining and quarrying. His earlier roles with operating divisions of ECC plc (now Imerys), Redland plc and Lafarge SA included planning, exploration, design, extraction and optimisation of quarry/mine projects, mainly in the UK and occasionally Europe. After 17 years in industry, he entered consultancy with Wardell Armstrong (now SLR) as a Technical Director for quarry and mine site projects, including brownfield. In 2012 Colin was appointed Technical Services Manager at global mining software company Maptek, to lead a team of geologists and mining engineers on training and consulting services for mining companies in Europe, Middle East and West Africa. He then returned to industry with Holcim, until 2021.

Colin has practised in geotechnical design and regulatory compliance of excavations and tips, and acted on mineral planning applications, appeals and public inquiries. He has also undertaken corporate due diligence in industrial mineral acquisitions or divestments, and managed multisite portfolios of mineral reserves and resources. Since 2022 Colin has focused on supporting IOM3, which he joined in 1981, and its members as Chair of the IOM3 Mining Technology Group (MTG). He also sits on the IOM3 Technology Communities Board, Advisory Council and PERC Advisory Group, and is a MIMinE member.

Thomas Clifford
Technical Director
Ground Engineering Applied Research Services (GEARS)

Thomas Clifford is a Chartered Engineer and Chartered Geologist with over 20 years of experience in geology, quarry design, geotechnical engineering, and blast design. He began his career as a Geologist and later became a Geotechnical Specialist at Holcim, the world's largest quarrying company.

Thomas then joined Atkins, one of the leading global engineering consultancies, where he ultimately led the UK Extractive Industries team. During his time at Atkins, he delivered geotechnical designs, advised on mineral planning, provided expert witness services, and consulted for local authorities.

In 2021, Thomas became Technical Director at Ground Engineering Applied Research Services (GEARS), where he focuses on advancing best practices in geotechnical and blast design through research, development, and collaboration with mineral operators and regulatory bodies.

Synopsis

More than a quarter of a century has passed since the inception of the Quarries Regulations 1999 (QR99), and over a decade since the introduction of the Mines Regulations 2014 (MR14). Therefore, it is relevant to reflect upon the evolution of those regulations where they govern excavations and tips. Influenced by new design standards such as Eurocode 7, significant advancements have reshaped ground-related risk assessment and management at mines and quarries in the UK.

The foundations of geotechnical control in QR99 and MR14 lie in the cornerstone of defining appraisal and assessment. However, as modern asset management techniques continue to evolve, these regulations may appear less adaptable to contemporary practices such as those defined in the Eurocode and the Construction (Design and Management) Regulations 2015 (CDM15). By examining practices in sectors such as construction earthworks, reservoir design and infrastructure management valuable lessons emerge regarding competency, inspection procedures, and asset management systems aimed at controlling ground-related risks.

This paper delves into a comparative analysis of QR99, MR14, and other regulatory approaches in an attempt to shed light on emerging practices and safety management systems for excavation and tips. It is supplemented with insights from innovative design procedures, cross-industry best practices, and regulatory benchmarks. Furthermore, the integration of modern technologies holds promise in augmenting safety performance indicators.
As we navigate through the realm of evolving regulations and technological advancements, the pursuit of continuous improvement remains paramount in ensuring excavations and tips at mines and quarries are safe and secure.

Richard Severn
Head of Mining
Boulby Mine

Richard is Head of Mining at ICL Boulby, bringing over 30 years of experience in underground mining operations and project leadership. He has played a central role in transforming Boulby's productivity and strategic direction, leading initiatives that have delivered sustained performance improvements through lean methodology, digital innovation, and data-driven decision-making.
Richard's career spans technical services, production management, and major infrastructure projects, including the oversight of the new underground Dark Matter Laboratory in collaboration with STFC — a milestone that has positioned Boulby as a global hub for underground science.

His leadership has also driven advancements in ventilation, mineral transportation, and cloud-based data systems, all contributing to the mine's long-term resilience and success.

A graduate of the Camborne School of Mines with an MSc in Mining Engineering, Richard is known for his emotionally intelligent leadership, strategic thinking, and commitment to safety and continuous improvement.

Outside of work, Richard volunteers with the SVP society, supporting individuals in need within his community. He also sings in two choirs, reflecting his passion for music and the value he places on collaboration and harmony both in and out of the workplace.

Louis Robson
Assistant Surveyor
ICL Boulby

Louis Robson is a dedicated and technically skilled Mine Surveyor with over four years of underground experience across a range of UK mining operations. Currently serving as an Assistant Surveyor at ICL Boulby. Louis combines academic insight with practical field expertise, specialising in advanced survey technologies including LiDAR scanners, total stations, and drone-based mapping systems.

His professional journey spans diverse geological environments—from deep polyhalite mining at Boulby to silica quartz sand and anthracite operations at Lochaline and Aberpergwm Collieries. Louis has played a key role in legal plan updates, inflow risk assessments, and the integration of 3D scanning into mine layout optimisation. His hands-on experience with RTC systems and underground recorrelation surveys has made him a valuable contributor to safety and efficiency improvements across sites.

Louis holds dual HNC qualifications in Operations Engineering and Civil Site Engineering and is currently advancing his knowledge in water management in mining. A Lean Six Sigma Yellow Belt and a confident communicator, he is passionate about applying modern survey methods to reduce inrush risk and enhance resource recovery.

At this year's conference, Louis will share insights into the evolving role of surveyors in inrush management, the lessons learned from historic colliery disasters, and the transformative impact of drone-based LiDAR on underground safety.

Synopsis

The paper focuses on exploring and analysing advanced surveying methods tailored for polyhalite mining operations. It aims to highlight the integration of cutting-edge technologies, such as modern theodolites, drones, and laser scanning, to enhance precision, efficiency, and safety in mining activities.

Additionally, the paper discusses the challenges of managing inrush hazards specific to polyhalite mining and propose innovative solutions to address them, ensuring sustainable and optimised resource extraction.

Dan Lynch

Geotechnical Engineer
British Gypsum

Dan Lynch is a Senior Geotechnical Engineer at British Gypsum working across its five UK underground mining operations.

He began his career in 2006 with URS (now AECOM) in New Zealand, where he worked on contaminated land and civil engineering projects. In 2008, Dan relocated to Australia and spent the next 12 years in underground coal mining operations in the Bowen Basin, working for Xstrata, Vale and BHP. In 2020 he moved to the UK, joining the Coal Authority in the Mining Information Department before taking up his current role at British Gypsum in 2024.

Dan holds a master's degree in mining engineering (Geomechanics) from the University of New South Wales. He is a Chartered Engineer with the Australasian Institute of Mining and Metallurgy (AusIMM) and Registered Professional Engineer of Queensland (RPEQ).

Jonathan Taylor

Mine Planning Engineer
British Gypsum

Jonathan Taylor is a Mine Planning Engineer for British Gypsum's Geological & Mining Services and is currently working on Medium/Long term planning and operational mining engineering across British Gypsums five underground mines.

Throughout his five years at British Gypsum, he has worked on technical engineering projects including optimisation of Burn-Cut blast designs, introduction of 3D mine design and scheduling, implementation of explosive track and trace technology, validation & optimisation of ventilation circuits and quality & reconciliation of mine output.

In this time, he has also been closely involved with mine operations working as part of production crews (Shotfiring, LHD Loading, Scaling, Mark-up), Infrastructure crews (Roof-bolting, Conveyor repairs/maintenance) and is a part time Mines Rescue Brigadesman. He has held supervisory positions including the role of Shift Manager at Brightling Mine and has recently completed a Level 5 Apprenticeship on Operational Management.
He holds an MSc in Mining Engineering from Camborne Schol of Mines and is an Associate of IOM3.

Synopsis

Located in Cumbria, British Gypsum's Birkshead Mine has been in continuous operation since 1937. The mine is currently extracting gypsum from a steeply dipping portion of the deposit, with gradients of up to 1 in 3.

Extraction within this area, combined with the introduction of new mining methods, has presented a range of geotechnical and operational challenges for both the mine and the Geological and Mining Services Department.

This presentation will examine the key challenges encountered, including panel layout design, horizon control, pillar design, mining profiles, roof stability, plant–pedestrian interaction, and the application of emerging technologies. It will also highlight the lessons learned and the improvements implemented in subsequent panels operating within this steeply dipping mining environment.

Future Events

MIMinE AGM & Dinner Friday 9 October 2026

Mount Pleasant Hotel, Great North Road, Rossington, Doncaster DN11 0HW. Please book accommodation directly with hotel.

5.45pm	AGM & Presidential Address (All welcome)
6.30pm	Bar Opens
7.30pm	Dinner
12.00pm	Bar closes

As this is a social event, partners and/or friends of guests are more than welcome to attend.

There will be a lady's raffle and a general raffle. The general raffle is cash only and proceeds will go to the President's nominated charity.

Dress code: Smart casual

To register please email office@themime.org.uk

General Meetings

Date	Time	Speakers	Title
14 May 2026	4.00pm	Alexander Garcia-Gonzales & Marc Brown ICL Boulby	The Appliance of "Raspberry Shake" Seismometers in Ground Control Monitoring

Unless otherwise stated, the speaker will be at either of the two MRS Training & Rescue addresses:

Leeming Lane South, Mansfield Woodhouse, Mansfield, Nottinghamshire NG19 9AQ

Rescue House, A1 Business Park, Knottingley Road, Knottingley, West Yorkshire WF11 0BU

Other venues may join the video conference.

If you wish to join the meetings, please contact Claire at office@themime.org.uk

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