



# Newsletter



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## President's Message

The last three months have flown by and we have had some interesting technical presentations but also once again seen the troubles of the extractive industries in the headlines. There has been the sudden announcement of the closure of all but one of the opencast coal mines operated by Hargreaves in Scotland. The closure of Longannet power station on 24 March has brought to an end the use of coal to generate electricity in Scotland. The oil price has remained low and a steady stream of reports of downsizing in the oil and gas sector persist.

With the current problems it would be all too easy to see no future in mining. Indeed coal has joined the long list of other minerals that were once world leading operations in the UK and fed the industrial revolution but now have all but disappeared from our industrial landscape. This is partly due to our own success in taking our mining skills around the globe in the days of the Empire. Mining operations continue on a small to medium scale for specific minerals but to provide the skills for the development of these and new deposits in the future UK educated engineers and geologists are likely to need to gain their experience overseas. This is a pattern that is likely to become more common in oil and gas as well.

For the extractive industry, mining will need to be just one string in the bow of contractors and suppliers. The purchase of C A Blackwell, one of our largest civil engineering earthmoving contractors, by Hargreaves, has brought to the fore the fact that they also provide the excavation and haulage operation at Glensanda Quarry and the new Hemerdon tungsten mine in Devon.

In January, we had a well attended presentation by Alistair Hope of Shell on the Brent Decommissioning Project. There were satellite groups on AV links at BP offices in Sunbury and Angola. There was some fascinating cutting edge technology shown but also the recognition that in decommissioning, as with mine reclamation before it, often simple or old tried and tested techniques will prevail in many parts of the work because there are seldom opportunities to invest capital to make money later.

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## Jim Wishart IEng FIMMM

In 1968, James Wishart joined the Association of Mining Electrical and Mechanical Engineers (AMEME), which subsequently became the Institute of Mining Electrical and Mining Mechanical Engineers (IMEMME) in 1983. He became the Honorary Secretary/Treasurer and Benevolent Fund Organiser of the Fife Branch in 1974. As a member of the Steering Committee, he oversaw the merger of the four Scottish Branches. After the merger, he became a Council member, continued the Benevolent Fund work and was elected Scottish Branch President in 1992/93.

Following the merger of the Institution of Mining Engineers (IMinE) and IMEMME in 1985 he was elected to the Branch Council and continued responsibility for Benevolent Fund work. Jim remained on Council through the merger with the Institution of Mining & Metallurgy (IMM) in 1998 and the merger with the Institution of Materials in 2002 to form the Institute of Materials, Minerals & Mining (IOM3). Again, he continued in his role of Benevolent Fund Organiser and he continues in this role today.

Jim devotes much of his free time visiting, on behalf of IOM3, former and retired members, and their immediate family members. Without such dedication it would not be possible for IOM3 to deliver the benevolence that is so much gratefully received. In recognition of Jim's contribution to the Institute he has been awarded an Outstanding Service Award.



Jim (right) receives his certificate from Past President, Mark Friel

## YPLC 2016

The Scottish heat of the YPLC 2016 was held on 17 February at the University of St Andrews. The following entries (in alphabetical order) were submitted:

Chukuemeka Anyiam-Osigwe, University of St Andrews - *Precious coral in a cultural context: the role of scientific knowledge in ensuring the sustainability of culture*

Edris Joonaki, Heriot-Watt University - *Everything is connected in science: a novel multi-disciplinary approach for solving asphaltene associated flow assurance problems inspired by cholesterol deposition in blood vessels*

Ruissein Mahon, Robert Gordon University – *Unlocking the future global wealth of the world: energy*

James Mansfield, University of Glasgow – *The suitability of apatite as a radioactive waste store*

Craig Martin, University of St Andrews – *The lithospheric mantle below southern-west Greenland: a geothermobarometric approach to diamond potential and mantle stratigraphy*

Neha Porwal, Robert Gordon University – *Importance of bentonite in hydrocarbon industry and its impact*

Romain Ricchi, University of Glasgow – *Hydrogen, a possible fuel of the future: uses, sources and storage*

Voke Salubi, Robert Gordon University – *Multiphase solids: transport in HP-HT/heavy oil environment*

Lawrence Bomá Wilcox Jr, Robert Gordon University – *HP-HT well integrity and cement failure.*

Due to the number of entries received, competitors for the local heat were short-listed on their abstract to reach the maximum of 6 finalists. On the day, support came from an audience of around twenty, consisting of members, retired members, students and lecturers providing the competition with a real live atmosphere.

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## Oil and Gas Division

Through the start of 2016 oil and gas prices have remained depressed with the knock on impacts being felt across the Energy sector and the wider economy. The general industry consensus is that prices will remain depressed in the short term. Costs in the North Sea have risen substantially over recent years while production is well below the peak. Oil and Gas UK are coordinating a task force to sustainably reduce the cost of a central North Sea well by 50% without compromising safety – work that aligns with the founding objectives of The Mining Institute of Scotland to 'improve productivity and safety'. The new Oil and Gas Authority, established by the UK Government to support the objective of maximising economic recovery of UK oil and gas resources, has been fully engaged in this work and is very supportive. Job losses in the UK oil and gas industry have been significant and are continuing, with the major impact being seen in the North east of Scotland. As current projects come to an end there are few, if any, new projects and further job losses can be anticipated. The Division has a key role to play in providing education and supporting members to enhance their professional competence.

The UK has extensive shale gas and oil resources. Development of these resources could provide substantial benefits, including: reducing dependence on increasing foreign imports, increased security of supply, economic benefit and industrial activity in some of the most deprived areas of the UK. Environmental groups and the media have widely publicised issues from the US leading to a perception and concern that the development of onshore UK shale resources would be unsafe. Attention in 2015 focused on well integrity. The Institute of Mechanical Engineers (IMechE) and the IOM3 agreed to set up a joint working group to provide the public with an informed view on the integrity of UK onshore wells. The Institutes engaged representatives from academia, industry and the UK Regulators. Available reports, UK Regulations, Industry Standards and Guidelines were reviewed. The reports included an analysis of the integrity of 2,152 onshore oil and gas wells drilled in the UK from 1902 to 2013. The workgroup surveyed UK onshore operators, including Scottish licence holders, consulted widely and held a workshop. The review confirmed the findings from previous Royal Society and House of Commons led reviews that had concluded that the UK has the most robust regulatory regime available backed up by the most comprehensive Industry Guidelines for onshore well integrity. The workgroup concluded that there was no justification to preclude shale development on the basis of concerns over well integrity. The workgroup documented their work in a paper that was presented at a one-day summit hosted by the IMechE in London on 23 February with a follow-up briefing to members of the House of Commons and the House of Lords. A more comprehensive article has been submitted for publication in *Materials World*.

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## Oil and Gas Division **cont'd**

A big thank you to everyone who responded to the electronic survey on potential events for the new Institute office. The feedback was extremely useful and is being used to format an event. The Division fully recognises that members of The Mining Institute of Scotland will likely not travel to London and intends to continue holding events across Scotland. If you have ideas for local events please get in contact.

On behalf of the Division Board, I wish you all had a very happy Easter and, as always I commend the website [www.iom3.org](http://www.iom3.org) to you. I and all the Board members are always pleased to hear from Division members, so please get in touch – especially if you would like to get involved in the Division activities.

Steve Bedford, Oil & Gas Division Chairman

## President's Message **cont'd**

It is with extreme pleasure that I can announce that The Mining Institute of Scotland has been awarded the accolade of Local Society of the Year. It is the second time that your local society has been awarded this prize and a feat that has not been achieved by any other local society. Accordingly, my thanks go to all members and especially those who have supported our technical programme.

I hope we can maintain the current level of support for future presentations and wish you all the best for the challenges of the next few months.

Jon Latimer [jwrlatimer@btinternet.com](mailto:jwrlatimer@btinternet.com)

**AN INSTITUTE EVENT IS THE PLACE TO MEET FRIENDS AND COLLEAGUES BOTH OLD AND NEW, WHY NOT JOIN WITH US?**

### CALENDAR OF EVENTS

#### TECHNICAL MEETINGS

THE DATES FOR YOUR DIARY IN 2016 ARE:

12 APRIL 2016 – R W THOMSON LECTURE

7.00PM AT ROOM 201, JOHN MCINTYRE BUILDING, UNIVERSITY OF GLASGOW, G12 8QQ (BOOKING ARRANGEMENTS ARE ON WEBSITE IF YOU PLAN TO ATTEND)

*Inspiring Youngsters in Science, Technology, Engineering and Maths (STEM)*

SPEAKER: DR PETER HUGHES, FORMER CHIEF EXECUTIVE OF SCOTTISH ENGINEERING

Video-conferencing links will **NOT** be available for this event

#### SOCIAL EVENT

4 MAY 2016 – 12.00NOON AT LOCHSIDE HOTEL, NEW CUMNOCK  
Retired Members' Lunch (Ayrshire)

## YPLC 2016 **cont'd**

The competition proved to be interesting and enlightening with a very high standard of presentation material. All of the finalists put up a great display and demonstrated in-depth knowledge of their chosen subject, giving the judges a very difficult job. Any one of the six finalists would have been worthy of going forward to the National finals but in the end James Mansfield came first and so will represent Scotland at the National Final in London on Wednesday, 20 April, where we wish him every success.

The winner received £250, second place (Lawrence Bomá Wilcox Jr) received £150 and third place (Ruissein Mahon) received £100. The other three finalists (Edris Joonaki, Craig Martin, Voke Salubi) received £25 each and every entrant will receive a certificate. The winner collects his certificate at the National Final.

This year, the winner of the National Final will then represent the UK at the World Final, which is being held in Brazil.

Our thanks to the competitors for their presentations. Also thanks to Graham Smith, Ed Wade and Jim Wishart as judges this year and to the Department of Earth Sciences, University of St Andrews for hosting the event.

Allan J A Thomson



The finalists (left to right): Ruissein Mahon, James Mansfield, Craig Martin, Edris Joonaki, Voke Salubi, Lawrence Bomá Wilcox Jr.

### SECRETARY'S ADDRESS

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Members can receive all correspondence by email. Please contact the Secretary if you wish to receive correspondence electronically but currently don't.