



Newsletter



Volume 2, Issue 3

September 2011

President's Message

Hard to believe that it is September already and my final month as your President. Three events this month illustrate the breadth of activity we do in the MIS and neatly sum up our Past, Present & Future. It was a pleasure to attend the Retired Members' Lunch at the National Mining Museum Scotland and hear some of the experiences from the past. Although the Museum has a fantastic collection of photos, storyboards and artefacts from the Scottish coal industry, nothing beats hearing accounts first hand. So it was an entirely fitting occasion to launch a major new project to compile and eventually publish the History of The Mining Institute of Scotland.

Moving on to the present, the IoM³ sent a delegation to the Offshore Europe 2011 Conference & Exhibition held in Aberdeen. This was a first for IoM³ and an opportunity to show them the scale and vibrancy of Scotland's biggest industry. Several MIS members helped lead the IoM³ delegation, which included Chief Executive Bernie Rickinson, around the show. A more detailed conference report is in this *Newsletter*.

But longer term the future lies with the new materials and technologies that we will increasingly rely on as the world moves on from a carbon based economy, and with the young people today that will become the scientists and engineers of tomorrow. So I was very pleased to welcome the IoM³'s Dr Diane Aston to give this year's RW Thomson Lecture at Techfest. Her talk *Materials in Action* was inspiring and educational in equal measure, and it was encouraging to see a wider audience age profile than most MIS meetings!

Whilst it has been a very successful year I do have one regret that we were not able to push through some reforms of how we structure the Council that runs the affairs of the MIS, a structure that is largely unchanged since many of our retired members were involved. It is my view that we need a smaller, less bureaucratic, council structure that encourages our younger members to get involved. I know that our President-elect, Babs Oyeneyin, shares these views and I wish him well. In particular, we need the next generation to step up and help take the MIS forward. If not, then who else will be writing Volume II of our history in years to come?

Craig Durham

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Premier Awards 2011

The Mining Institute of Scotland has enjoyed some notable successes in 2011. As announced in the previous edition of the *Newsletter*, your local society was awarded the accolade of Local Society of the Year 2011 (Large). This prestigious award is decided on three criteria - Membership, Communication and Events with the emphasis on year-on-year improvement. There are two classes, based on the average attendance at meetings, <30 and 30 and above. The competition is open to societies who submitted a valid application form and 2010/2011 programme. The award, which takes the form of a trophy and a cheque for £1,000 was presented to the Secretary at the Premier Awards Dinner held on 12 July 2011 at IoM³, Carlton House Terrace, London.

Also at the Dinner, Dr Graham Smith, Past President was presented with an Outstanding Contribution Award. This award is new to IoM³ and is for members who have made a prolonged and major contribution to IoM³'s core activity. Such contribution does not relate to local society activity and the awards are made to members not previously recognised by IoM³.



Pictured: David Seath holding the trophy and Graham Smith holding his certificate.

The History Boys

The history of The Mining Institute of Scotland is inextricably linked with the history of the Scottish coal industry, but whilst there have been numerous articles and several books on the latter, to date there has been no substantial history of the MIS published. Not for much longer we hope.

As winners of the IOM³ Local Society of the Year Award, we have received a £1,000 cheque and Council would like to put this towards the cost of publishing the definitive history of the MIS. There is a wealth of archive material held by the National Mining Museum Scotland, as well as the aural accounts of members past & present. Our website (www.mining-scotland.org/history.htm) also contains some detail of major events in the history of MIS and Members may have old photographs that they would be prepared to make available for publication.

If you would like to be involved in the research, writing, collation, editing or proof reading of our story then please contact the Secretary. Any contribution large or small will be welcome, but we are particularly interested in a volunteer to co-ordinate the project.

YPLC 2011

Houra Mozaffar received her certificate for being the winner of the Scottish heat of the Young Persons Lecture Competition 2011 at a ceremony at Heriot-Watt University. Following her success in Scotland Houra went on to the UK final in London where she put up a creditable performance.



Pictured: Council member Dr Jim Somerville presents Houra with her certificate

Arkwright Scholarships

In July 2011, David McKinney was awarded an Arkwright Scholarship sponsored by The Mining Institute of Scotland. David who resides in Dunblane already has Duke of Edinburgh Awards at Bronze and Silver level and starts on his Gold Award in September. His hobbies include mountain climbing, football, rugby, basketball, badminton and cross-country running. As well as playing the flute and guitar he has sang with the Dunblane Choir and Scottish Opera. In 2010, David cycled around the Isle of Man and in doing so raised £3,600 for Strathcarron Hospice. After university, David intends to pursue a career in engineering. The Mining Institute of Scotland aims to help David obtain an introduction to industry in consultation with the SPRA.

Benevolent Funds

There are two funds available to assist members, ex-members and their dependants who are in need. These are The Institution of Materials, Minerals and Mining Members Benevolent Trust and The Mining Institute of Scotland Trust Benevolent Fund. Anyone requiring assistance (or just as importantly who knows someone in need of assistance) is invited to contact Jim Wishart (Tel. 01592 750552) for an informal discussion. In the event of Jim being unavailable please contact the Secretary. IoM³ members renewing their subscription are requested to include a donation to the Members Benevolent Trust to allow the Trust to be able to continue with its work.

President Elect: M B Oyenehin CEng MIMMM

Babs Oyenehin is a Professor of Petroleum Engineering at Robert Gordon University, Aberdeen, UK [RGU] and Managing Director of Intelligent Flow Solutions Limited. He started off as a Mechanical Engineer with a BEng Honours in Mechanical Engineering from University of Benin [1975], MSc and PhD [1983] in Petroleum Engineering from Heriot-Watt University in Edinburgh. With integrated professional experience spanning industry, consultancy, research and development, and professional training in the oil industry, he has worked as a field engineer and on professional attachment with major oil and gas service companies and in academia.

He is a specialist in the field of Oil/Gas Well Engineering and production optimisation, integrated sand management and multiphase fluid dynamics

His passions are his children, football and engineering practice.

Institute of Materials, Minerals & Mining at Offshore Europe 2011

Offshore Europe 2011, an Oil and Gas Conference and Exhibition held in Aberdeen from 6-8 September, was judged to be the biggest in the event's 30-year history and reflects a new found optimism in the UK's oil and gas industry. So it was fitting that it was also the first time the IOM³ has been involved, facilitated by the Institute's rapidly growing Petroleum & Drilling Engineering Division (P&DE).

A delegation of IOM³ staff including Dan Thorpe, Account Manager, David Arthur, Head of Registration and Dr Bernie Rickinson, Chief Executive spent time at the Exhibition accompanied by P&DE board members based in Aberdeen. They visited the numerous suppliers small and large to promote 'what the IOM³ can do for you' and made several useful contacts. It was particularly informative talking to the Operators about accreditation of their Graduate training programmes.

The visit culminated with a seminar organised by IOM³ on the question of how to independently verify the competence of professional engineers and technicians, with thoughtful contributions from Shell, BP and Lloyds Register.

Craig Durham, P&DE Board member and President of The Mining Institute of Scotland said after the event "I was delighted to welcome the IOM³ delegation to Offshore Europe 2011 and I think we got a very powerful message across at our 'Verifying a Professional Workforce' seminar. I would like to thank the IOM³ for their support and especially David Arthur who worked tirelessly to bring it all together".



Pictured: Craig Durham, President MIS (left) accompanying Bernie Rickinson around the show.

Petroleum and Drilling Engineering (P&DE) Division Update

The Division achieved a significant milestone at the end of August welcoming Tahir Tahirov as the 1,000th member of the Division. Tahir, who is from Azerbaijan, graduated from the Azerbaijan State Oil Academy in 1993 as a Petroleum Engineer and completed his Candidate of Technical Science Degree (Master of Science equivalent) in the Development and Production of Oil and Gas Fields in 1997. While completing his postgraduate degree Tahir worked for the Azerbaijan State Oil Company in one of the Research Divisions. Tahir joined BP in 1998 and worked initially in Baku as a Completions Engineer before undertaking assignments in Houston and Sunbury. After working as a Completion Operations Team leader in Baku Tahir joined British Gas and supported global operations from Reading prior to rejoining BP to take up his current post as a Senior Completions Engineer based in Aberdeen. Tahir is a good example of the Engineers that are joining the Institute. Tahir received an award from Bernie Rickinson, Chief Executive of IOM³, at the Offshore Europe conference and exhibition.

As Offshore Europe and Tahir demonstrate the Oil and Gas Industry is very much a global enterprise with an internationally mobile workforce. The future for the Industry, both globally and locally, continues to look very promising. Demand for oil and gas is forecast to continue increasing year on year with global investment forecast at \$33 trillion over the next twenty five years. It is anticipated that another 25 billion barrels of oil and gas equivalent remain to be produced from the UK Continental Shelf which will sustain continued high quality employment opportunities for the 200,000 people in Scotland working in the Industry. Beyond the local opportunities the technical expertise of Scottish companies and personnel have led to significant export opportunities. A good example of this is the subsea sector. Global subsea expenditure in 2010 was £18.9 billion, of this the UK earned £5.9 billion making the UK the world leader in this sector: over half the UK income went to Scottish based Companies. In conclusion the Division has already achieved significant growth (from 436 members in 2007 to 1,003 members today, making Petroleum and Drilling the fastest growing Division in IOM³) and the opportunity exists to continue this trend. If you would like to get involved with the Division please contact any of the Division Board members.

Steve Bedford.
P&DE Division Chairman
steve.bedford@uk.bp.com

COUNCIL 2010/11

PRESIDENT: CRAIG DURHAM*

SENIOR VICE PRESIDENT: BABS OYENEYIN *

JUNIOR VICE PRESIDENT: IAN PURDIE *

SECRETARY: DAVID SEATH

TREASURER: IAN PURDIE

BENEVOLENT FUND: JIM WISHART

YOUNGER MEMBER REPRESENTATIVE: ALEX CROSSLAND

YOUNGER MEMBER REPRESENTATIVE: BERAN TANILIR

STEVE BEDFORD (P&DE DIVISION BOARD)

GORDON BEETHAM (MIS TRUSTEE)

SIMON BRASSEY

MARGARET COPLAND* (P&DE DIVISION BOARD)

MARTIN COX* (P&DE DIVISION BOARD)

RICHARD CROCKETT (ARKWRIGHT SCHOLARSHIPS)

RICHARD DEVÉRIA*

RAMSAY DOW MBE (MIS TRUSTEE)

MARTIN DOWNING (INDUSTRY LIAISON)

JOE HEFFERNAN (UNIVERSITY LIAISON)

STEVE JEWELL (P&DE DIVISION BOARD)

JON LATIMER

KEN MACKIE MBE (MIS TRUSTEE)

COL ROBERTS (UNIVERSITY LIAISON)

GRAHAM SMITH (CONFERENCE ORGANISER)

JIM SOMERVILLE (UNIVERSITY LIAISON)

ALLAN THOMSON (MIS TRUSTEE)

*** DIRECTOR OF THE MINING INSTITUTE OF SCOTLAND**

SPECIFIC ROLES OF INDIVIDUAL COUNCIL MEMBERS ARE GIVEN IN BRACKETS.

Election to Council

The Council hereby invites nominations for election to the Council from Corporate Members, Associate Members and Technician Members. At the date of each Annual General Meeting places on the Council, equivalent to one third of the total of the places available, are vacated for election at the AGM (i.e. 4 vacancies). Council would like to attract new members to continue its work. The future success of your society depends upon Members willing to serve on Council. Any Members willing to offer their services are asked to contact the Secretary or any member of Council either before the AGM or afterwards to be co-opted to serve on Council.

Add this to your worry list

Quarrying by the Rugby Portland Cement Company was a near neighbour when I lived in a village outside Cambridge. This, and other similar operations along the Chilterns scarp, took advantage of the juxtaposition of two materials, Chalk Marl above and Gault Clay beneath, the mixing of which provided the ideal feedstock for the production of high-grade cement. Curiously, however, quarrying in this location did not get its start from growing demands of industry and construction elsewhere, but from the modest needs of local farmers. For it so happened that roughly coincident with the geological boundary between the Gault and Chalk there was to be found a thin band of phosphatic nodules. The origin of these so-called 'coprolites' was controversial among geologists but perhaps the most (or least, depending on your point of view) attractive idea was that they were fossilised dinosaur dung. For a time in the 19th Century, rural Cambridgeshire was the unlikely home of a modest minerals boom that supplied raw material from which superphosphate could be manufactured and on the back of which process James Fison of Thetford founded the famous fertiliser company. In a sort of agricultural Faustian bargain following the Enclosure Acts and the consequent decline of ancient methods of maintaining soil fertility through crop rotation, chemical fertilisers, including those with a phosphate base, became more and more necessary to sustain crop yields – especially on the cereal-growing farms of eastern England.

I had another indirect contact with problems posed by the rapidly escalating demand for phosphate raw materials; this time from a worldwide fertiliser industry growing exponentially through the 20th Century and into our own time. Now the question related not to the removal of a few centimetres of soil from an English rural backwater but to landscape devastation following the removal of millions of tonnes of rock phosphate from the heart of various small Pacific islands. After the First World War, when the victorious powers were dividing up the former German colonial possessions, some of these islands came under the control of the curiously named British Phosphate Commissioners (BPC). At one point the BPC found itself under legal pressure from the aggrieved inhabitants of Ocean Island – now a part of the Republic of Kiribati. A case was brought in the High Court in London seeking redress for the destruction of much of their island home. At the time I was working in the old Geological Survey HQ in South Kensington and I shared an office with an Aberdonian colleague, the late Arthur Notholt. Every so often Arthur, as an expert advisor, would disappear off to the South Pacific along with various court officials – not, I imagine, wearing wigs – to sit around under coconut palms and hear more evidence.

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RW Thomson Lecture 2011

The Mining Institute of Scotland, on behalf of the Scottish local societies, was delighted to welcome Diane Aston to Aberdeen on 13 September to give the RW Thomson Lecture at Techfest. Diane, the IOM³ Training & Education Executive, has travelled widely to give her *Materials in Action* lecture but this was the first time in Aberdeen. To an audience made up of the general public and ranging in age from 12 to over 60, she delivered a fascinating one-hour talk that covered the properties and use of the four basic material groups of metals, polymers, ceramics and composites. Accompanied by samples of turbo fan blades, artificial human eyes, sports protection equipment and much more she made us all think a lot more about essential 21st century technology that simply would not be possible without the advances in materials science over the last 20 years. In a fitting nod to the inventors of the more distant past and in particular Robert Thomson himself, it was delightful to have members of the RW Thomson Memorial Fellowship attending.



Pictured: Diane Aston (centre) with members of the RW Thomson Memorial Fellowship

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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.

Add this to your worry list

[cont'd from page 4](#)

In the end, I believe the islanders won their case but were awarded nugatory damages and nobody really gained except perhaps m'learned friends.

To bring the whole issue of the supply of phosphate right up to date the September 2011 issue of *Geoscientist* features an article about the massive apatite reserves to be found in the Kola Peninsula which might lead to another item on the list of minerals for which the rest of the world depends upon Russian suppliers. In his preceding Editorial, Dr Ted Nield reminds us that phosphate supplies are now a key need for farmers all over the world and, one assumes, are essential if the green revolution is to feed ever-expanding populations. Demand for phosphate is set to grow by 3% per annum. Statistical data that relate to the size of the resource that must underpin this demand are notoriously unreliable and vary from the severely pessimistic view of the US Geological Survey that supplies would start running out in a quarter of a century to a more chirpy view from industrial sources that we can relax for another 300 to 400 years. Is there a Scottish angle to this? – well, maybe. When lifting your next dram – spare a thought to what originally went into the soil at the beginning of its production.

Richard Crockett

Obituary: James Robertson Cowan CBE CEng HonFIMMM

Jimmy Cowan was born in Lanarkshire and educated at Dalziel High School, Motherwell then at the Royal Technical College, Glasgow (now Strathclyde University). He subsequently gained a first class honours degree in mining engineering at Glasgow University. In 1945 he became Colliery Manager at Castlehill followed by Manager at Hamilton Palace, Auchengeich and Cardowan collieries. From 1953 to 1958 he was Deputy Area Production Manager, Central West Area, becoming Production Manager the next year. In 1961 he moved to become Deputy Production Director of the Scottish Division and, after a spell of two years from 1965 as General Manager of the Lothians Area, became Deputy Director (Mining), Scottish South Area. In 1971 he was appointed that Area's Director, and in 1972 took up the post of Director of the Scottish Area. He was a part-time member of the National Coal Board from 1977, became a full-time member in 1980 and Deputy Chairman from 1982 to 1985. Throughout his career he was a staunch supporter of The Mining Institute of Scotland and President in 1970-72. Awarded CBE in 1983. Sadly, Jimmy Cowan died at his Gullane home on 10 July 2011 aged 91 years.

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 2011/12 ARE:

29 SEPTEMBER 2011* - 6.00PM AT LOCHSIDE HOTEL, NEW CUMNOCK

Drilling & Blasting on the Ty Nant A5 Project in North Wales
SPEAKER: ROB FARNFIELD, EPC-UK

5 OCTOBER 2011 – 5.30PM

AGM & Presidential Address
SPEAKER: BABS OYENEYIN, ROBERT GORDON UNIVERSITY

9 NOVEMBER 2010 – 5.30PM

Sustainability: Energy, Economics & Evolution
SPEAKER: ALAN OWEN, ROBERT GORDON UNIVERSITY

7 DECEMBER 2010* - 6.00PM AT RGU, ABERDEEN

Extended Reach Drilling
SPEAKER: TBC, MERLIN ERD LTD

7 FEBRUARY 2012* - 5.30PM AT MARCLIFFE HOTEL, ABERDEEN

Sakhalin Development
SPEAKER: MIKE GUNNINGHAM, MAERSK OIL

8 FEBRUARY 2012 – 5.30PM

Young Persons Lecture Competition

29 FEBRUARY 2012 – 7.00PM

Mining in Columbia
SPEAKER: MARTIN DOWNING, WARDELL ARMSTRONG

Video-conference links usually enable Technical Meetings to be attended at Heriot-Watt University, Edinburgh; BP, Aberdeen; or University of West of Scotland, Paisley. Anyone wishing to attend at BP must make contact beforehand with Lisa Bayfield (Lisa.Byfield@uk.bp.com).

* Video-conferencing links will not be available for these events

In addition to the above events, The Mining Institute of Scotland Trust will be sponsoring talks in Ayrshire and Fife. Dates have still to be agreed for these events but details will appear on the website (www.mining-scotland.org) and in future issues of the *Newsletter*.

The annual Retired Members' Lunch (Ayrshire) will be organised at the Lochside Hotel, New Cumnock in Spring 2012.

Retired Members' Lunch

This annual event sponsored by The Mining Institute of Scotland Trust was held on Friday, 16 September 2011 at the National Mining Museum Scotland, Newtongrange, Midlothian. The President, Craig Durham, presented a Technical Update to the forty members, friends and colleagues who attended the event. Several past presidents and some members of the 50 Club were in attendance.

Scottish Engineering Hall of Fame

Representatives of several engineering societies have been meeting over the past months to establish a Scottish Engineering Hall of Fame. The selection committee consisted of Dr Nina Baker, Prof William Banks, Prof Dugald Cameron, Prof. Stuart Cameron, Kevin Frew, Andrew Gilchrist, Alex Hayward, Dr Peter Hughes OBE, Prof John Hume OBE, Prof Iain MacLeod, Dr Gordon Masterton OBE, James P McCafferty, Prof Roland Paxton MBE, Philip Preston, Dr Robert McWilliam, Dr Ian Ritchie CBE, David Seath, and Kristofer Wilson.

Initial considerations for the Selection Committee were the definitions of 'Scottish', 'Engineering' and 'Fame'. Once these terms were defined a long list of potential candidates was prepared. This list was then shortened to a manageable list whereby individual citations were written. The Selection Committee then considered these citations in order to determine the final names going forward to be inducted into the Scottish Engineering Hall of Fame.

The Chairman of the Selection Committee, Gordon Masterton will announce the inaugural inductees at the James Watt Dinner to be held in Glasgow on 30 September. Although there is an embargo on the names until then it can be revealed that the inductees come from a varied cross-section of engineering disciplines and that one of them has a definite link to the disciplines covered by The Mining Institute of Scotland. The full list will be published in a future issue of this Newsletter.

Sam Mavor Travelling Scholarship

The scholarship can be awarded to members of The Mining Institute of Scotland who are student members or, *to other students of mining generally*, and will enable them to visit places, works and mines or any such place of special interest to them, all as may be determined by the Trustees. The Trustees' policy is to encourage applicants to gain wider knowledge of new technology and modern methods of work as could be applied to mining in the UK. Mining in this context includes the extraction of oil and gas. Further information / applications available from Keith Donaldson, Honorary Secretary/Treasurer, The Mining Institute of Scotland Trust, 2 Ashfield Gardens, Kelty, Fife KY4 0JY.

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