



# Newsletter



Volume 1, Issue 4

December 2010

## President's Message

I am delighted to be writing to you in my capacity as President of The Mining Institute of Scotland (MIS). It is a great honour to hold this badge of office, which can be traced back in an unbroken succession to the founding of the West of Scotland Mining Institute in January 1878.

I would like to begin by thanking my predecessor, Margaret Copland, for all her hard work during 2009/10. She has carried out her duties with quiet efficiency and introduced several innovations during her term, such as joint meetings with the Institution of Mechanical Engineers (IMechE) and a listing in the Professional Engineering Technology (PET) booklet.

I joined the oil industry in 1987 after completing an MSc at the Mining and Petroleum Engineering Department of Strathclyde University. Prior to that I studied Civil Engineering at Bristol University, and I am often drawn to the parallels between the civil, mining & petroleum engineering disciplines. Many Petroleum Engineering societies around the world evolved as sub-committees of Mining Institutes, as did our own Petroleum & Drilling Engineering division of the former Institute of Mining & Metallurgy.

One area where the oil industry differs from mining is the lack of professionally registered engineers. As undergraduate Civil Engineers, it was drummed in to us how important this was, and yet in the oil industry we are in the minority. One reason was the lack of an obvious professional Institute to represent us, but that is no longer the case with a strong and expanding P&DE Division within the IoM<sup>3</sup>. But all UK Engineering Institutes compete for membership and funding, particularly as Government spending is cut, and the IoM<sup>3</sup> is no exception. So, even if you live too far away to attend meetings and events, if nothing else I would ask that you encourage at least one person to join the Institute of Materials, Minerals & Mining this year, and mentor them to become a professional engineer.

Very best regards

Craig Durham [craigdurham@btinternet.com](mailto:craigdurham@btinternet.com)

## Petroleum and Drilling Engineering (P&DE) Division Update

As we come to the end of 2010 the Division Board has just issued the 2010 Annual report. This report and all other material relating to the Division will be posted on the Institute of Materials, Minerals & Mining website ([www.iom3.org](http://www.iom3.org)) under the Division microsite (which is accessed via the 'Technical Communities' tab at the top right hand corner of the IoM<sup>3</sup> home page). The Board set two priorities for 2010, namely:

1. Sustain established successful Division activities.
2. Respond to member needs identified from the 2009 member survey.

Individual Board members took accountability for specific deliverables aligned to the above priorities. I am pleased to report that these deliverables have been achieved, as detailed in previous editions of this newsletter and articles in *Materials World*.

When the Division Board was established in 2007 we set a target of growing the Division membership by 20%, from 436 members, by 2011. I am very pleased to advise you that the Division membership currently stands at 988. I have seen a significant increase in the number of Division members applying for Chartered Engineer status. At the last IoM<sup>3</sup> membership committee meeting 20% of the candidates for Fellowship and Chartered Engineer were from P&DE, yet the Division only represents 5% of the IoM<sup>3</sup> membership. Over the last month the Board has developed a five-year plan and an aligned action plan for 2011. Over the next five years we aim to increase the Division membership to over 2,000 with over 10,000 people attending events where the Division is represented. For 2011 the Board priorities are:

1. Sustain and build upon established successful Division activities.
2. Accreditation of company initial development programmes and academic programmes.
3. IoM<sup>3</sup> presence at Offshore Europe 2011.

[Cont'd on page 4](#)

**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 2010/11 ARE:

- 18 JANUARY 2011\* - 5.30PM AT MARCLIFFE HOTEL, ABERDEEN  
*Buzzard Field Development: 4 years on*  
SPEAKER: GEOFF LEECH, NEXEN PETROLEUM
- 9 FEBRUARY 2011 – 5.30PM  
Young Persons Lecture Competition
- 9 MARCH 2011 – 5.30PM  
*Underground Coal Gasification - the acceptable face of coal mining?*  
SPEAKER: PETER DRYBURGH, WARDELL ARMSTRONG LLP
- 6 APRIL 2011\* - 6.00 PM AT GARVOCK HOUSE HOTEL, DUNFERMLINE  
*Mining between Ceres and St Andrews*  
SPEAKER: JOHN MCMANUS, ST ANDREWS UNIVERSITY
- 13 APRIL 2011 - 7.00 PM AT BGS, MURCHISON HOUSE, EDINBURGH  
*Gold in Scotland! - Scotgolds Grampian Gold Project*  
SPEAKER: CHRIS SANGSTER, EDINBURGH GEOLOGICAL SOCIETY
- 27 APRIL 2011\* - 6.00 PM AT LOCHSIDE HOTEL, NEW CUMNOCK  
*New Waste Disposal Directive*  
SPEAKER: WARDELL ARMSTRONG LLP

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 Byfield ([Lisa.Byfield@uk.bp.com](mailto:Lisa.Byfield@uk.bp.com)).

\* Video-conferencing links will not be available for this event

### **COURSES**

THE DATES FOR YOUR DIARY IN 2010/11 ARE:

- 1-2 MARCH 2011 – 08.45AM TO 5.00PM AT ABERDEEN PETROLEUM CLUB, MILLTIMBER, ABERDEEN  
*Downhole Metallurgy – selection for oilfield production & injection wells*

### **SOCIAL EVENTS**

THE DATES FOR YOUR DIARY IN 2010/11 ARE:

- 11 MAY 2011 – 12 NOON AT LOCHSIDE HOTEL, NEW CUMNOCK  
*Retired Members' Lunch (Ayrshire)*

## **Back in Black**

Take a plastic fizzy drinks bottle, tubing, a bucket of sand, coloured water and a bicycle pump and you have what passes for a very good model of how oil flows from reservoir to surface. That is if you are aged between 5 and 13 years old and took the time to visit the MIS stand at Aberdeen's Techfest Activity Weekend on 18/19<sup>th</sup> September. Over 2,800 visitors did just that, many of whom dropped by the Black Stuff stand to see Craig Durham, Beran Tanilir and Alison Shepherd of the Scottish Mining Museum demonstrating the 'reservoir simulator' and talking about the importance of oil not just for fuel but as petrochemical feedstock for everything from PVC water pipes, polyethylene gas pipes to polyester clothing, packaging, soaps and detergents. The Black Stuff at Techfest is now a regular date on the MIS calendar and with support from the IoM<sup>3</sup> is hopefully encouraging many to choose a future in science and engineering.



Above: Beran Tanilir & Craig Durham suitably attired.

## **Downhole Metallurgy Course: 1-2 March 2011**

The MIS is pleased to be repeating this popular two-day course presented by Ed Wade at MetalEcosse, which provides a structured approach to the selection of casing, tubing and downhole equipment in different well environments. Key material properties and corrosion issues will be considered together with Industry Standards such as NACE and API 5CT. This course is a must for Drilling, Completion and Petroleum Engineers. IoM<sup>3</sup> PD Endorsement pending.

Further details at [www.iom3.org/events/downhole-metallurgy-selection-oilfield-production-injection-wells-0](http://www.iom3.org/events/downhole-metallurgy-selection-oilfield-production-injection-wells-0) and to book your place email: [MX-service@btconnect.com](mailto:MX-service@btconnect.com) or call Ed Wade on 01224 861031.

## **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**

**VARIOUS ROLES OF INDIVIDUAL COUNCIL MEMBERS ARE GIVEN IN BRACKETS**

### **SECRETARY'S ADDRESS**

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**[www.mining-scotland.org](http://www.mining-scotland.org)**

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

## **In the media ....**

Two mining incidents sent reverberations around the world in the past few months. The first incident at the San Jose Mine, Chile had a successful outcome but the second incident at the Pike River Mine, New Zealand became a disaster. Both incidents demonstrate that no mine is free from safety risks. Advanced technology reduces the risk of employee fatalities but technology alone is insufficient to solve all the problems. Management, organisational structure, employee participation, training, and regulatory and enforcement systems are all essential components of an effective risk management process. Knowledge and understanding of the basic principles of underground mining are fundamental to design effective controls and systems. Ultimately, all accidents are a manifestation of failure to effectively implement safe practices and procedures.

The Mining Institute of Scotland played its part in the ongoing media coverage of both incidents. The Secretary was interviewed for BBC TV and radio on 11 and 12 October 2010 about the rescue at San Jose Mine. Interviewers were interested in the rescue process and in the state of the miners trapped underground. It was pleasing to note the successful conclusion to the rescue. Unfortunately, the same could not be said about the explosion at the Pike River coal mine. Again the Secretary was interviewed by the BBC and also provided comment for local radio and national newspapers. In this instance interviewers were interested in the dangers associated with a rescue attempt and comparison with the Chilean mine incident.

On hearing the Secretary's BBC radio interview of 22 November 2010 regarding the mining incident in New Zealand, the Scottish Government got in touch with the New Zealand government. The International Division of the Scottish Government then asked the Secretary if he had any contacts here in Scotland who would be able to offer some technical assistance to New Zealand to help with the situation over there. Unfortunately, due to the distance and the time involved it was agreed to leave technical assistance to Australian colleagues.

In conclusion, it is reassuring to note that The Mining Institute of Scotland is capable of providing expert comment on an international stage.

## **Arkwright Scholarship**

MIS sponsored Arkwright Scholar Neil Mitchell started his second year of sponsorship with a one-week work placement at BP's North Sea Headquarters in Dyce Aberdeen. He spent time with completion, intervention and subsea engineers, culminating in a visit to a subsea intervention vessel whilst it was in harbour. Thanks go to Steve Bedford and his team at BP for arranging the week.

## P&DE Division Update *cont'd*

Board members have taken accountability to deliver the following in 2011:

- At least one downhole metallurgy course.
- Professional seminars for students at Salford, Heriot Watt and Robert Gordon Universities.
- Accreditation of the BP and Shell early development programmes.
- A member survey to identify needs, wants and views.
- IoM<sup>3</sup> engagement and presence at Offshore Europe 2011.
- Recruitment of 200 new members.
- Engagement in the development of well life cycle integrity guidelines in response to the Macondo well blowout.

As the year progresses updates and opportunities to get involved will be posted on the website and in articles in *Materials World* and this newsletter. Meantime if your organisation is interested in having your development or academic programmes accredited by the IoM<sup>3</sup>; or you would like to be considered to become a subject matter expert to support accreditation please contact Craig Durham. If you have material that you think other members would be interested in please forward this to Margaret Copland. If you would like to get involved in the Division programme please contact any of the Division Board members. Finally may I take this opportunity to wish you and yours a very Happy Christmas and a good 2011.

Steve Bedford [steve.bedford@uk.bp.com](mailto:steve.bedford@uk.bp.com)

## The Road to San Paulo: YPLC 2011

It's almost that time of year once again to get your application in for the Scottish Heats of the IoM<sup>3</sup> Young Persons' Lecture Competition, at least if you are under 28 on 1 June 2011. If you don't qualify, then why not encourage a younger colleague to enter with a chance to win £250, and represent Scotland in the UK final at the Armourers Hall, London. In addition to the winner's prize, 2<sup>nd</sup> will receive £150, 3<sup>rd</sup> will receive £100 and all others will receive £25. As an added incentive, the UK winner will go on to The Young Persons' World Lecture Competition to be held in San Paulo, Brazil.

Our local heat will be held on 9 February 2011 with competitors in Aberdeen and Edinburgh. Entry Forms and further details are available from [b.oyeneyin@rgu.ac.uk](mailto:b.oyeneyin@rgu.ac.uk) (Aberdeen) or [jim.somerville@pet.hw.ac.uk](mailto:jim.somerville@pet.hw.ac.uk) (Edinburgh).

## Presidential Address

### Chartered Engineer - Why Bother?

by

**Craig J Durham CEng MIMMM**

To answer this question you must first understand why the term 'engineer' is not legally recognised since it would require the particular functions being controlled by statute to be defined. Given the huge range of engineering disciplines, it is simply not possible to isolate all the functions that engineers undertake, except in narrow sectors such as mining.

In fact, even 'doctor' and 'lawyer' are not legally protected terms. Medical procedures may be undertaken by anyone who obtains the consent of their patient and legal advice is freely available from unregistered practitioners.

But the comparison with other professions is an interesting one, and the number of Chartered Engineers registered with the UK Engineering Council is second only to the number of doctors licensed to practice by the General Medical Council. So whilst anyone may call themselves an engineer, the professional title 'CEng' may only be used by someone with current Engineering Council registration. This is a legally protected term under the UK Engineering Council's Royal Charter.

Unlike Mining Engineers, Drilling & Petroleum Engineers are not required to be Chartered, in the UK at least. Historically, competence has been checked by word of mouth and reliance on a CV, although it is increasingly common to have company specific competency assessment schemes in place. Whilst these are welcome developments, only Chartered Engineer indicates that your competence has been assessed by other engineering professionals and is comparable with internationally recognised Standards.

So why bother, particularly as like me I am sure that you have worked with many good engineers who were not Chartered, and being Chartered doesn't guarantee competence and ability. But it does demonstrate a desire to take responsibility for one's professional development, of going the extra mile, of taking pride in one's professional achievements. Faced with a choice between similar candidates, one Chartered, one not, which one would you choose?

So if you are already Chartered, make it a personal goal to mentor someone through the process. If you are not then make it an objective for 2011. Joining the IoM<sup>3</sup>/MIS is a great place to start.

*Presented at the AGM of The Mining Institute of Scotland held on 13 October 2010.*