



# Newsletter



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## President's Message

In my inaugural address in October 2011, I indicated that the biggest threat to Energy Security and Sustainability is the limited competent/skilled manpower and ageing work force available to explore and manage new frontiers. We laid the marker then to facilitate the aggressive recruitment of young professionals supported by attractive technical programmes. We have now held two flagship young professionals events in February 2012, namely: the Young Persons' Lecture Competition (YPLC) held on 8 February 2012 for the first time in the University of St Andrews and the BP Annual University Seminar held at the Robert Gordon University (RGU), Aberdeen on 16 February 2012. We will be following up to recruit the young participants for membership!

I would like to congratulate all the YPLC participants at St Andrews for the outstanding quality of their presentations and especially the 2012 winner, Abbas Delavar of BP, Aberdeen.

The St Andrews Showcase was my first Presidential "Away Day". I had surely a great time sharing ideas with staff and exciting Geology Students from the University of St Andrews. The success of the YPLC event was largely due to the passion and commitment of Allan Thomson and of course the panel of judges. Thank you all.

To quote Beran Talinir, our Younger Members' Representative, "The Annual BP/MIS Seminar in RGU went extremely well. All of our speakers did an excellent job, and kept all the participants engaged throughout their presentations and also during the networking event". My thanks again to Beran, the BP speakers, Allan, Abbas and Scott, and also to my colleagues at RGU - Ibiye Iyalla and Jonathan Edet for their contributions.

The New Year started with a presentation entitled *Well, Reservoir & Facilities Management – What's new?* by Michael Gunningham of Maersk Oil Qatar. This joint Mining Institute of Scotland/Energy Institute event was held at The Marcliffe Hotel & Spa, Aberdeen on 7 February 2012 and was preceded by a Council Meeting at Palm Court Hotel, Aberdeen.

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## YPLC 2012

For the first time the Department of Earth Sciences, University of St Andrews hosted the Scottish Heat of the Young Persons' Lecture Competition (YPLC) this year and what a baptism of fire it proved to be with such high quality of competition, any one of the five competitors would be worthy of going forward to the National finals. With support from the students of St Andrews it turned the event into a 'University Challenge Type Atmosphere' with a total audience of about fifty.

Five entry forms were submitted by the deadline of 30 January. With this number it was not necessary to hold a pre-presentation event.

### Candidates and their Titles in alphabetical Order:

Rosemary Anthony. Reservoir Engineer (Graduate), BP Exploration Company Ltd  
*Understanding the pressure in a hydrocarbon reservoir: how hard can it be?*

Sarah Beth Helen De Boer, BP Exploration Company Ltd.  
*Magnus – Life of Field Wells Review*

Abbas Delavar. Petroleum Engineer, ETAP  
*Liquid Loading & Gas Well Deliquification*

Sarah Goldthorpe. University of St Andrews  
*Characterising Geotectonic Settings from Minerals*

Stacy Phillips. University of St Andrews  
*The mineralogical effects of meteorite impacts*

All of them put up a great display of presentation and in depth knowledge of their chosen subject, giving the judges a very difficult job, but in the end Abbas Delavar came first and will represent Scotland at the National Finals, where we all wish him the best. Second and Third were Stacy Phillips and Sarah Goldthorpe respectively.

The winner will receive £250, second place will receive £150 and third place will receive £100. The final two competitors will receive £25 each and all competitors will receive certificates. Prizes are made available through the generosity of The Mining Institute of Scotland Trust, who sponsor the event.

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## President's Message cont'd

The next presentation was held on 29 February with another joint Mining Institute of Scotland/Edinburgh Geological Society event when Nick Watson, Technical Director, Wardell Armstrong LLP presented his talk entitled *Geotechnical challenges in mining*.

The success of our events is only possible because of the effort and commitment put in by our Council members to organise them, and of course the large turn out by our Institute members!

Thank you all and let's keep up the good work!

Remain Blessed

Professor Babs Oyenevin

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

Division activities for 2012 kicked off with the inaugural issue of an electronic newsletter to P&DE members in response to feedback from the 2011 member survey asking for more electronic communication. The next newsletter will be issued around May 2012. Thanks go to Craig Durham for producing the newsletter. If you have any comments or queries on the newsletter please contact Craig.

In February the Division ran three seminars at the Robert Gordon University (RGU), namely: Drilling and Completion (Allan Wilson), Subsea Challenges (Scott Higgins) and Gas Well Deliquification (Abbas Delavar). Forty-seven students attended the seminars with very positive feedback. Our thanks go to the presenters, the University staff who made this event possible and the organisers, namely Beran Tanilir (P&DE) and Ibiye Iyalla and Jonathan Edet from RGU.

Professional review interview panels are held in Aberdeen on a quarterly basis to align with the meetings of the Institute Membership Committee. At the panel on 24 February, three candidates for Chartered Engineer were interviewed. Another three candidates have already come forward for the next interview panel on 1 June. The increase in candidates for professional qualifications is very encouraging.

Anyone who has visited the Institute website [www.iom3.org](http://www.iom3.org) will have noticed some changes to the home page to try and make it easier to navigate to information on the Divisions (Technical Communities) and Professional Qualifications. These changes have been made in response to lobbying based on the P&DE member survey feedback.

The Institute is keen to see more articles related to oil and gas in *Materials World*. If you would like to contribute an article please get in touch with any of the Board members or contact the *Materials World* team direct. We are also always looking for new articles, information and links for the Division website, please forward any material to Margaret Copland or any Board member. If you have any comments on this article or feedback for the Division please get in touch with me.

Steve Bedford  
P&DE Division Chairman

## Arkwright Scholarships

David McKinney, our current Arkwright scholar, has written with an update on his progress since his industrial experience at INEOS. The following is an extract from his report to Dr Richard Crockett:

"Just writing to give you an update about what I've done since we last talked. I had my higher prelims last month and got four 'A's in maths, chemistry, technological studies and physics, and a 'B' in PE, which I was very pleased with. I have continued to do my Duke of Edinburgh gold award and have my final four-day qualifying hike planned for the end of summer in Knoydart, I am also in the process of completing my 'Queens Badge' through the Boys Brigade and I have the completion course booked.

I have applied for the INEOS *Engineers of the Future* programme and have spent the money that The Mining Institute of Scotland kindly sponsored me with on a laptop. It will be very beneficial for my studies as I am dyslexic. I hope you approve!"

Richard Crockett has responded to David and also offered to come to Dunblane, perhaps with a colleague, later this year to talk about career opportunities to any who are following the same path.

## BP Annual University Seminar

This year's Seminar was held on 16 February and three presentations were made to the students. Allan Wilson spoke about Drilling and Completion, Scott Higgins spoke on Subsea Challenges and Abbas Delavar spoke on Gas Well Deliquification.

Forty-seven students participated and it is anticipated that some of these will wish to become members of IoM<sup>3</sup>.



A group photo taken at the BP Annual University Seminar

## The Mining Institute of Scotland Trust

The Trust is a separate body from The Mining Institute of Scotland and provides benevolence, educational and other support to members and former members of the Institute. There are also funds available to non-members and the trustees are mindful of their obligation to apply funding to matters covered by the terms of the Trust deed.

Each year the trustees approve applications for benevolence but although there are considerable funds available there are very few opportunities to disperse the money. Recently, the Trust deed was amended to allow funds to be made available to a wider group of applicants and also allow greater discretion on areas that qualify for support.

The Sam Mavor Travelling Scholarship has not drawn any interest over recent years albeit the award can be made for a variety of visits. However, there has been more success with support from the Educational Fund for university, college and school students. The National Mining Museum Scotland receives funding for part of its education programme.

Further details of the work of the Trust as well as the contact details for the Secretary/Treasurer can be found on the website. You may be able to benefit?

**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:

22 MARCH 2012 – 6.00PM AT GARVOCK HOUSE HOTEL,  
DUNFERMLINE

*Mines Rescue in the 21<sup>st</sup> Century*

SPEAKER: ANDREW WATSON, MINES RESCUE SERVICE

26 APRIL 2012 – 6.00PM AT LOCHSIDE HOTEL, NEW CUMNOCK

*Alternative Energy*

SPEAKER: GEORGE JEFFREY, VATTENFALL WIND POWER LTD

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

#### SOCIAL EVENT

9 MAY 2012 – 12.00NOON AT LOCHSIDE HOTEL, NEW CUMNOCK

Retired Members' Lunch (Ayrshire)

#### TRAINING COURSE

28 & 29 MARCH 2012 – 8.45AM AT ABERDEEN PETROLEUM  
CLUB, MILLTIMBER

DOWNHOLE METALLURGY – SELECTION FOR OILFIELD  
PRODUCTION AND INJECTION WELLS

DETAILS ON WEBSITE AT:

[www.mining-scotland.org/pdfs/downhole\\_metallurgy\\_course.pdf](http://www.mining-scotland.org/pdfs/downhole_metallurgy_course.pdf)

## YPLC 2012 cont'd

Our thanks to the competitors for their efforts and preparation, to Graham Smith, Jim Wishart and Ed Wade as judges, and to the Department of Earth Sciences, University of St Andrews in hosting the event, an exercise they would be willing to repeat next year.

Allan J A Thomson



Back row (left to right): Rosemary Anthony, Ed Wade (judge), Graham Smith (judge), Jim Wishart (judge), Sarah De Boer

Front row (left to right): Stacy Phillips, Abbas Delavar, Sarah Goldthorpe

## COUNCIL 2011/12

**PRESIDENT: BABS OYENEYIN \***

**SENIOR VICE PRESIDENT: IAN PURDIE \***

**JUNIOR VICE PRESIDENT: ALEX CROSSLAND\***

**SECRETARY: DAVID SEATH**

**TREASURER: IAN PURDIE**

**BENEVOLENT FUND: JIM WISHART**

**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**

**MARTIN DOWNING (INDUSTRY LIAISON)**

**CRAIG DURHAM\* (P&DE DIVISION BOARD)**

**MARK FRIEL (INDUSTRY LIAISON)**

**JOE HEFFERNAN (UNIVERSITY LIAISON)**

**STEVE JEWELL (P&DE DIVISION BOARD)**

**JON LATIMER**

**KEN MACKIE MBE (MIS TRUSTEE)**

**GRAHAM SMITH (CONFERENCE ORGANISER)**

**JIM SOMERVILLE (UNIVERSITY LIAISON)**

**ALLAN THOMSON (MIS TRUSTEE)**

**VACANCY**

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

**SPECIFIC ROLES OF INDIVIDUAL COUNCIL MEMBERS ARE GIVEN IN BRACKETS.**

### 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.

## Technical Presentations

*The application of WRFM – what's new?* by Mike Gunningham, WRFM Advisor, Maersk Oil. Mike looked at how Maersk Oil is applying Well, Reservoir & Facility Management (WRFM) improvements to realise its objectives. Maersk Oil is already doing WRFM, so what's new? A step change in performance was needed, as assets are ageing and Maersk Oil is moving from a successful Drilling and Development company to a mature field operator. This ties in with Maersk Oil's new vision of being the partner of first choice. To achieve this goal, Maersk Oil has reviewed its WRFM Value Loop and embarked on an aggressive campaign to improve its efficiency and effectiveness.

*Geotechnical challenges in mining* by Nick Watson, Technical Director, Wardell Armstrong LLP.

The rising demand for commodities in recent years has fuelled a significant expansion in mining activities. During the life of a mine, major surface and underground openings are created, facilities constructed and de-commissioned, and large quantities of waste generated and stored. Geotechnical engineering factors will be evaluated and designs prepared to deal with the above aspects of a mining operation. Geotechnical design work often goes hand in hand with ground and surface water as well as environmental considerations.

Construction activities can be a significant proportion of the mine capital and operational costings, and are often phased to spread costs over the life of mine. As part of stock exchange reporting procedures, mine reserves have to be assessed and declared routinely to demonstrate current and future economic viability, and construction costs will be taken into account as part of this process. All in all, construction geotechnical engineering is an important part of a mining operation.

This presentation took a broad look at the range of geotechnical challenges faced by mines during the mine life cycle. The geotechnical projects include slope engineering, underground support, foundations, embankments, earthworks, dams and retaining walls. Designs have to take into account a full range of loading situations and remain serviceable during the construction and operational life of structures on a mine, and be adaptable to future closure requirements upon cessation of mining activities. The controlling factors can be extremely varied - mass properties, environmental factors all play their part in the change brought about by the engineering activities. The challenge to find acceptable engineering solutions can be demanding, as the design options are commonly very limited and real information hard to come by.